EXHIBIT 1

DEALS

Boeing Held Takeover Talks With Brazilian Aircraft Maker Embraer

Boeing and Embraer have discussed deal that would value Embraer at a big premium to its market value Thursday morning of some $3.7 billion

Boeing and Embraer have been discussing a deal that would involve a relatively large premium for Embraer. Shown, the new Embraer Phenom 300E corporate jet in an undated photo released Oct. 9. PHOTO: HANDOUT/REUTERS

By Dana Mattioli, Dana Cimilluca and Liz Hoffman
Updated Dec. 21, 2017 1:44 p.m. ET

Boeing Co. has been in takeover talks with Brazilian aircraft maker Embraer SA, a move that would give Boeing a presence in the regional jet market and help it counter a recent move by Airbus SE to strike a similar deal with Canada's Bombardier Inc..

Boeing and Embraer have been discussing a deal that would involve a relatively large premium for the Brazilian company, which had a market value of about $3.7 billion Thursday morning, according to people familiar with the matter. The talks are on hold as the parties await word from the Brazilian government on whether it would sign off on the combination. The government has a so-called golden share in Embraer that gives it veto power over such a transaction. It would be the latest in a string of blockbuster aerospace deals that could remake the landscape for plane production around the globe.

Embraer is a crown-jewel of Brazilian industry, and it's far from guaranteed the government would sign off; therefore there's an even higher probability than in a typical merger negotiation that there won't be any deal. Indeed, some of the people cautioned it is unlikely the talks will be revived.

In order to help entice the government, Boeing is willing to take steps to protect Embraer's brand, management and jobs, one of the people said. It's also willing to structure a deal in a way that would protect the government's interest in Embraer's defense business.

Embraer's U.S. shares soared after The Wall Street Journal reported news of the possible deal, at one point on Thursday rising by some 30%. Boeing was little changed.

Embraer, based in the city of São José dos Campos in the state of São Paulo, is the world's third-largest commercial-jet manufacturer, according to its website, and has around 18,000 employees. The company is best known for making regional jets in the 70- to 100-seat range, which are heavily used on routes where demand doesn't warrant operating larger Boeing or Airbus planes. Boeing's smallest jet is around 130 seats, and the company hadn't previously indicated interest in smaller planes.

Embraer's defense offerings include the A-29 Super Tucano light-attack and advanced trainer aircraft and the multi-mission KC-390 military cargo plane. The company also makes integrated systems for border monitoring and surveillance.

Airbus recently announced plans to take a majority stake in a joint venture with Bombardier that builds the single-aisle CSeries, a struggling program that the European company thinks could have big potential.

That proposed deal, which would represent a major shake-up of the commercial-jetliner business, comes amid a trade dispute between the U.S. and Canada over alleged state subsidies to Bombardier and would intensify competition between Airbus and Boeing.

Boeing opposed the Airbus move, calling it "a questionable deal between two heavily state-subsidized competitors to skirt the recent findings of the U.S. government." The Commerce Department has proposed slapping Bombardier with a tariff that would quadruple the price of a CSeries aircraft in the U.S. after Boeing complained of predatory pricing. A final decision is expected next year.

Brazil has also challenged Canada's support for Bombardier before the World Trade Organization.

Embraer was founded in 1969 with help from the Brazilian government. When the government privatized the company in 1994, Embraer was unprofitable and saddled with over $200 million in debt. Earlier that decade, it had poured copious efforts into the CBA 123, an innovative 19-seat propeller aircraft, but buyers balked at the steep price and it didn't sell a single one.

Boeing, founded in 1916 and based in Chicago, is the largest aerospace company in the world. It makes commercial jetliners and defense, space and security systems. Besides commercial planes, the company, which has a market value of about $177 billion, makes military aircraft, weapons, satellites and launch systems.

Boeing and Embraer have been cooperating for years, notably on the KC-390 military cargo plane, which is being built by the Brazilian company. Buying Embraer would also bring Boeing exposure to the market for business jets, which has been under pressure.

Under Chief Executive Dennis Muilenburg, Boeing has been cutting costs, insourcing more manufacturing and reducing pension liabilities.

Its shares have soared this year as it has boosted cash generation and pledged to return $18 billion to stockholders over the next two years via buybacks.

Boeing is expected to be one of the largest beneficiaries of tax reform, with analysts forecasting that its effective tax rate will drop 10 percentage points to the upper teens. Some deal makers have speculated that companies that benefit from tax reform could earmark the proceeds for mergers and acquisitions.

This has been a busy year for deals in the aerospace sector. In September, United Technologies Corp. agreed to buy airplane-parts maker Rockwell Collins Inc. for $23 billion, in the biggest aerospace deal in history. Earlier this year, Rockwell closed on a deal to buy B/E Aerospace. In

September, Northrop Grumman Corp. agreed to buy rival defense contractor Orbital ATK Inc. for $7.8 billion in cash.

—Ben Dummett, Doug Cameron and Robert Wall contributed to this article.

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EXHIBIT 2

Forbes / Logistics & Transportation / #BigBusiness

DEC 22, 2017 @ 06:05 AM

A Boeing-Embraer Tie-Up Is Hardly A Surprise, But It Sure Would Make Things Interesting

Dan Reed, CONTRIBUTOR

I write about airlines, the travel biz, and related industries **FULL BIO**

Opinions expressed by Forbes Contributors are their own.

(ERIC PIERMONT/AFP/GettyImages)

Boeing, the world's largest plane maker, is talking with Brazil's Embraer about some sort of deal – a joint venture, the purchase of a big chunk of Embraer, or even a full acquisition.

And in other, similarly shocking news, Britain's Prince Harry is engaged to American actress Meghan Markle.

Indeed, the biggest question for Boeing and Embraer on Thursday after their public confirmation of reports of their discussions was the same as the

question asked of Prince Harry after announcing a few weeks ago that he'd "popped the question:" "What took you so long?"

The Boeing-Embraer courtship has seemed inevitable since mid-October, when Airbus, Boeing's close and fierce rival in the $250 billion-a-year market for big commercial jets, said it was buying a majority stake in the C Series mid-size jet program from Canada's financially challenged Bombardier. Bombardier is Embraer's direct rival in the shallow end of the airliner-making pool.

A truck pulls an Embraer E195-E2 towards the runway at the tarmac at the International Paris Air Show on [+]

Embraer and Boeing already cooperate extensively on the KC-130, a new mid-size military cargo plane that Embraer is developing as a replacement for and competitor to the venerable Lockheed C-130 military cargo plane. They also have cooperated on a number of other projects, including the design of a new 150-to 175-seat commercial jet that, in theory could compete against or even replace larger versions of the Boeing 737 in the future marketplace. Those plans were shelved long before they were complete. But they could be revived to create a stronger competitor to the Airbus A320neo, which recently has racked up impressive sales victories over the newest versions of the 737, the 737 MAX series. The 737 series of planes is the largest contributor of profits to Boeing's commercial airplane business, just as the A320 series is to Airbus' airliner unit.

Early Exuberance Over Bombardier-Airbus Deal Overlooks Many Significant Ch...

Embraer Rolls Out New EJet Amid Major Strategy Shift By U.S. Airlines To Smaller...

Boeing Gives United A Smoking Deal On 737s To Block Bombardier From Gaining...

Boeing officials have made it clear that they're willing to pay a substantial premium for whatever product line, expertise, production capacity or other assets they end up buying from – or investing in – Embraer. Thursday morning Embraer's market value was around $3.7 billion, but rose during the day to more than $4.7 billion as investors quickly pushed Embraer's shares toward what they expect to be their value in any deal with Boeing.

Any such deal promises to be complicated. That's because Brazil's government, which launched Embraer in 1969 as an effort to establish a national aerospace manufacturing industry almost from scratch, retained a so-called "Golden Share" when it privatized the company in 1994. So Brazil's government can block any sale of the entire company, as current President Michel Temer already has said he almost certainly will do in this case.

But such complexity is not likely to be any more of a deterrent to a Boeing-Embraer deal of some sort than it was to Airbus' circuitous rescue of Bombardier's flailing C Series from potential collapse. Prior to the Airbus deal, Boeing had filed a formal complaint against Bombardier claiming that the C Series received significant funding from the Provincial government of Quebec, supposedly a market-distorting no-no under international competition rules. That, along with Bombardier's own faltering financial position, had made most airlines unwilling to order C Series jets for fear that they would become impossible-to-support "orphan jets" after Bombardier's potential bankruptcy and shut down.

EXHIBIT 3

Forbes / Logistics & Transportation
MAR 8, 2016 @ 12:11 PM 30,424

Boeing Gives United A Smoking Deal On 737s To Block Bombardier From Gaining Traction

Scott Hamilton, CONTRIBUTOR
I call it like I see it about commercial aviation. FULL BIO

Opinions expressed by Forbes Contributors are their own.

United Airlines today confirmed what had been widely reported weeks ago: it placed a follow-on order with Boeing BA -0.45% for 25 737-700s, adding to the 40 placed in January.

Both orders were seen as blows to Bombardier and Embraer . Bombardier competed aggressively for the order to place its C Series into the airline and build on the order announced in February from Air Canada for up to 75 CS300s. Embraer, an incumbent at United with a large fleet of E-175 E1 jets serving regional routes, had been confident of landing an order for the new E2 next generation airplane.

Boeing smoked both competitors.

Why would United buy 65 end-of-production 737-700s instead of the more modern C Series and EJet E2?

SEATTLE, WA - United Airlines received a smoking deal from Boeing for 65 current generation 737-700s (the larger [+]

There are several reasons, but fundamentally it comes down to price. Boeing offered the -700, an airplane from a fully amortized production line, for a price reported in the market to be about $22 million. This is well below what either Bombardier or Embraer could offer for their airplanes.

But that's not all.

Concessions for United

According to my market intelligence, Boeing also stepped up to offer some additional concessions on previous transactions. And, although not particularly well noticed, UAL swapped some 787-8 orders for the 777-300ER and the 787-9.

Boeing hoped to gain 10-13 more -300ER orders from United to help fill the bridge between the 777 Classic and its successor, the 777X, which enters service in 2020. UAL only bit for four -300ERs. Boeing, after years of denying it would do so, finally announced in January a production rate reduction in 2017 from 8.3 777s per month to seven. Many believe Boeing will have to further cut the 777s rate.

The ability of Boeing to offer United 65 737-700s for delivery between 2017 and 2019, when the current 737 model is slated to end production in favor of the 737 MAX, suggests the bridge between the 737NG and the 737 MAX is not as solid as Boeing has been claiming.

According to Wells Fargo WFC -2.75%, United in the fourth quarter wrote a check to Boeing for $345 million in accelerated "advances" or deposits for aircraft as part of Boeing's cash flow to fund shareholder dividends and stock buy backs. This was also a factor in the -700 deals, according to market information.

Neither Boeing nor United discuss commercial terms for their deals.

Blocking and tackling

A big motivation for Boeing to do the 737-700 deal with all the concessions was to block Bombardier from getting its C Series into United. The EJet was less of a concern, and Embraer officials think they were collateral damage.

Bombardier's CS100, a 110 seat airplane, is slightly smaller than the 737-700 at 118-126 passengers in UAL's configuration. But the CS300 is smack up against the -700

in size. Except for 35 Airbus A350-1000s, United is exclusively a Boeing customer in its mainline operations. (Legacy United management ordered a large number of Airbus A320s, but United's current Continental Airlines-dominated management has remained loyal to Boeing.) Bombardier's C Series challenged this exclusivity and Boeing decided to block and tackle any Bombardier entry into United.

With today's low fuel prices, coupled with a very low capital cost for the -700, Bombardier's advantages for the more fuel efficient C Series wasn't enough to carry the day in a straight-up competition between the airplanes. Add in the larger deals for the 777, concessions by Boeing on other existing orders with United and the accelerated cash advances, Bombardier didn't have a chance. (Neither did Embraer.)

Scott Hamilton is editor of Leeham News. He does not own stock in any of the companies mentioned in this article.

EXHIBIT 4

Boeing & Aerospace

Price war, plane transitions put Boeing in financial crunch

Originally published April 1, 2016 at 4:45 pm *Updated April 1, 2016 at 6:38 pm*

1 of 2 A new Boeing 737 MAX taxis outside the Renton factory. Boeing's transition to the MAX is one of several factors putting financial pressure on the jetmaker, which is cutting thousands of local jobs. (Mike Siegel/The Seattle Times)

Boeing has begun a major cost-cutting drive, citing stiff price competition from Airbus. Yet the financial stresses come not just from its European archrival, and some of them are self-inflicted, analysts say.

By Dominic Gates

Seattle Times aerospace reporter

When Boeing Commercial Airplanes chief Ray Conner in February warned employees that jobs would be cut this year — anywhere from 4,000 to 8,000, as it turns out — he cited intense pricing pressure from Airbus.

Yet the financial stresses come not just from the European archrival, and some of them are self-inflicted, analysts say.

Boeing has "a lot of challenges on a lot of fronts," said Bank of America aerospace-industry analyst Ron Epstein.

Boeing could see lower profit margins over the next few years as income declines from its longtime moneymakers, the 737 and 777 jet programs, with little prospect that the 787 Dreamliner can fill the gap.

Featured Video

1955 barrel roll in a Boeing 707 *(1:08)*

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While the 737 and 777 programs transition to new models between now and the end of the decade, they'll generate significantly less cash.

Production of the 777 in Everett is set to drop next year from 100 jets per year to about 80, which "is a big deal, because it's so profitable," Epstein said.

And as Boeing in Renton moves from the current model 737 to the new 737 MAX, the process is likely to hit some glitches and slow production, he said.

Though the 787 Dreamliner program is ramping up, it won't come close to making up the cash shortfall. Boeing lost about $6 million on every Dreamliner it delivered in the last three months of 2015.

Epstein said Boeing would need to make an average profit of about $30 million per airplane on the next 900 Dreamliner deliveries just to pay off the production costs it has deferred into the future.

"Is that doable? There's a prevailing view it's not," Epstein said. At some stage, he said, Boeing is likely to take a write-off on the 787, hitting its profits.

Aviation analyst Richard Aboulafia of the Teal Group points out that the 787's lack of profitability, due to past production glitches, is "absolutely nothing to do with Airbus."

"That's a little gift the previous CEO (Jim McNerney) left behind," he said. Aboulafia agreed with Epstein that new CEO Dennis Muilenburg may have to bite the bullet and declare a loss on the 787.

The imminent change in Boeing's delivery mix from more profitable to less profitable airplanes will put the company "under serious pressure," Aboulafia said.

Added up, the shifts mean "the next several years are going to be quite lean and tough for Boeing," said Issaquah-based aviation analyst Scott Hamilton of Leeham.net.

At a time when Muilenburg has told Wall Street he intends to increase profit margins, Aboulafia said, profits could well fall unless drastic action is taken.

Hence the new urgency to slash costs.

Company spokesman Doug Alder said Boeing must take these steps to "position us to win future sales campaigns and allow us to keep investing in new products."

He reiterated Conner's assertion that layoffs would be "a last resort," and said the impact on the jet programs in the Puget Sound region will vary.

Lower production rates ahead on the 747 and 777 mean those programs will be hit by the job cuts, Alder said. However, "the 737, 767 and 787 programs are going up in rate and will continue to be staffed accordingly."

Airbus pressure

Other issues notwithstanding, the pricing pressure on Boeing is real.

In the February employee address announcing the cost-cutting drive, Conner gave an unusually candid account of specific sales campaigns when Boeing was forced to lower its prices.

He recounted how the chairman of EVA Airways of Taiwan told him last year that Airbus was offering EVA its A350-900 at a price "significantly lower" than Boeing's 787-10.

"The chairman told me, 'Look, this is too big a price gap,'" Conner said, according to an official transcript of his address to employees, "and they started to go down that path of actually going to buy the A350-900."

To head off the prospect of losing a loyal all-Boeing customer, Conner lowered the price to win the order.

And it's not just Airbus putting on the pressure.

Conner also told employees that Boeing had lowered its price dramatically to win an order in January from United for 40 current-generation 737s against "aggressive" competition from the new Bombardier CSeries jet.

Conner said Boeing did so specifically to block Bombardier's new plane.

He recalled how Boeing had lost similar sales battles in the 1990s to the Airbus A320, allowing that jet to gain traction against the 737.

If Bombardier, which has had trouble securing customers for the CSeries, had won the United order, "that would've been a validation of this CSeries in the marketplace, I think. So very important for us to win that."

Industry insiders believe United got its 737-700s, which have a list price of $80 million, for between $22 million and $24 million each.

"Ultimately we won, but I'm going to tell you, we got pushed to the wall," Conner told his employees.

In the March issue of Boeing's in-house magazine Frontiers, Conner acknowledged that Airbus has improved the performance of its airplanes relative to Boeing's.

"Airlines once paid a premium for the value of Boeing airplanes," Conner wrote. "That dynamic has changed ... Purchase decisions increasingly hinge on price. Sales campaigns are tougher. Airbus has narrowed the value gap."

David Strauss, aerospace analyst with UBS Investment Research, said one external factor that's shifted is the strength of the dollar against the euro, which boosts Airbus' profits and leaves it room for more aggressive pricing.

Boeing's new reality is that the A320neo is firmly established as the preferred single-aisle jet family, with sales outpacing those of the 737 MAX by more than 1,400 airplanes. And on the widebody side, Airbus now for the first time offers real competition for the 777 with its new A350.

"Boeing had all the tail winds at its back over the last 10 or so years. Now it would appear Airbus does," said Strauss. "It's going to be tougher for Boeing to sell airplanes with the same level of profitability they've had."

"That, combined with Dennis (Muilenburg)'s targeting higher margins at Commercial Airplanes, that's what's driving this," he added.

Teal Group's Aboulafia said he's baffled by the divergence in tone between Conner's internal speech to employees and the confidence in its market position that Boeing proclaims in public.

To the outside world, executives have insisted that demand is robust, that they have no concern about the single-aisle market because the 737 MAX is a surefire winner, and that the 787 will be profitable.

But company spokesman Alder insisted the cost-cutting is not because Boeing is in trouble but to ensure it remains competitive for the future.

"Our backlog, production rates and product lineup put us in a strong position, but we can't stand still," said Alder.

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EXHIBIT 5

PUBLIC VERSION

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EXHIBIT 6

LEEHAM
NEWS AND COMMENT

History undermines Boeing claim of C Series impact: analysis

Analysis

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Dec. 22, 2017, © Leeham Co.: Boeing blames a subsidized, price-dumped Bombardier C Series for the poor sales of the smallest member of the 737 family, the -700 and the 7 MAX, but history doesn't support the claim.

The US Department of Commerce clearly ignored sales evidence that the 737-700 has been "done" for many years and the 737-7 MAX was an unattractive design

Boeing 737-7 MAX. Rendering via Google images.

that hasn't been fixed with a redesign; airlines simply don't want the airplane. Commerce levied tariffs amounting to 292% on C Series imported into the United States in the future.

The US International Trade Commission is currently awaiting post-hearing briefs from Dec. 18 testimony from Boeing, Bombardier, Delta Air Lines and other parties to determine whether Boeing suffered "harm" by the C Series deal with Delta and a near-miss with United Airlines.

If the ITC concludes Boeing suffered harm, the DOC tariffs stand. If not, the DOC action is moot. The loser at ITC is expected to appeal.

Commercial momentum

Boeing, which did not respond to questions for this article, advanced the theory of "commercial momentum" in its filings at the DOC and ITC. Officials argued that the Bombardier-Delta deal provided commercial momentum for the C Series.

However, in the nearly a year between Delta's deal and the filing of the complaint, Bombardier failed to record any new sale in the US—or anywhere else in the world.

Talks do not make commercial momentum; sales do, and there simply wasn't any commercial momentum generated by the Delta transaction for the period in question.

Commercial momentum 2

On the other hand, commercial momentum was clear for Boeing—away from the 737-700 and 7 MAX to its own product line in the larger 737-8.

There are plenty of news articles discussing the up-gauging of the 737-700 to the 737-800, but this one nicely suffices, from the Motley Fool in May 2015: Southwest Airlines dropped its remaining backlog for the -700 and chose the -800. Southwest at the time had Boeing's largest backlog for the 737-700. It swapped 31 orders for the larger -800, and paid more money to do so. Why? The -800 had 32 more seats in WN's configuration and operating costs were about the same.

No demand for the 737-7

The same issue exists with the 737-7.

At first, the 737-7 was merely a reengined 737-700. The airplane was the same size. Ditto for the MAX 8.

Southwest, which in 2011 (as it does today) has the world's largest fleet of 737-700s, more than 500, ordered only 30

MAX 7s because it needs the small airplane for difficult airports with short runways or hot/high issues (the latter was discussed by Delta and Boeing at the DOC and ITC).

It left the need for more than 500 replacements for the -700 on the table. Southwest instead opted to order 170 of the larger 737-8 MAXes. It's also ordered more than 200 737800s, none of which will need replacement for at least 15-20 years. Clearly the MAX 7 won't be replacing the larger MAX 8.

Southwest's trend is up.

Other than an order for five 7 MAXes from a start-up airline, the only other identified customer is Canada's WestJet, which ordered 25. Two of these orders were swapped for the larger MAX 8.

It's believed there are about 70 orders in total for the 7 MAX.

Doubts about the MAX 7

Market interest was so poor for the MAX 7 that in 2014, observers, including *LNC* doubted whether the 7 MAX would ever be built. Boeing itself called the 100-150 seat sector a Bermuda Triangle, where airplanes in this sector simply disappeared.

An analysis by *LNC* indicated the airplanes "disappeared" because for the most part they were derivatives, typically "shrinks," whose economics were questionable.

Boeing itself began efforts to prompt Southwest and WestJet to up-gauge to the MAX 8, sources told *LNC.* But by February 2016, Boeing switched strategies and decided to support the MAX 7 after all.

Redesigning the MAX 7

Boeing announced at the 2016 Farnborough Air Show it was redesigning the 7 MAX. It added two rows (12 seats) and made it a straight-forward shrink of the MAX 8, rather than a more individual design.

Flight International reported something that, today, has relevancy to the Boeing trade complaint.

> "Boeing does not expect the addition of up to 12 more seats in a typical two-class seating configuration to significantly drive new demand into the low end of the single-aisle sector. The move appears to be driven by Boeing's attempt to satisfy new requirements imposed by the 737-7's two largest customers: Southwest and WestJet," *Flight* wrote.
>
> "We have now assessed the market. The customers have said that a bigger airplane is something we would like with that range," says Keith Leverkuhn, vice-president and general manager for the 737, the magazine wrote.
>
> "The redesign also happens to answer Boeing Business Jets' long-term search in the VIP market for

> an answer to the 7,500nm (13,900km) capability of the Gulfstream G650ER, which dwarfs the 6,100nm range of the 737-700-derived BBJ1. The launch of the BBJ Max 7 at the Farnborough air show fills that need," the magazine wrote.

By Boeing's own admission, the 737-7 MAX redesign is driven by niche requirements of its two principal customers and it won't stimulate demand.

No sales from 2013

Boeing told the DOC and the ITC that it had no sales of the 7 MAX from 2013 through 2016, when Bombardier sold its airplane to Delta. Since then a Chinese airline announced a LOI for 10 and lessor Air Lease Corp. ordered a handful. The LOI apparently hasn't been converted to a firm order, or at least identified as such. Officials blamed the existence of the C Series.

This is disingenuous.

The original 7 MAX design, as noted, was merely a reengine of the 737-700. In the same *Flight International* article cited above, Boeing officials noted.

> "In some ways, the stretched 737-7 restores a balance lost with the arrival of the 737NG series in 1998. At that time, Boeing lengthened the 737-800 by two rows compared to the 737-400, but left the 737-700 identical in length to the 737-300, says Randy Tinseth, Boeing's vice-president of marketing," *Flight* wrote. "As much as airlines have prized fuel

> efficiency in new models, extra seats rank as a close runner up."

More to the point, there were just 87 C Series firm worldwide and none in the US during the same period. Twenty of these were to Russia's Ilyushin Finance Corp., five to Iraqi Airways and 17 to start-up carrier SaudiGulf. None of these is an "A" list customer. Forty of the remaining sales were to Australia's Macquarie Airfinance, a lessor.

Boeing hasn't sold a MAX 7 since 2013. Bombardier hadn't sold a C Series in the US from 2008 to 2016. If the MAX 7 was such an attractive airplane, why weren't there any sales absent any C Series sales during this period?

Boeing didn't answer this question.

737-700 operators take a pass

The original MAX 7 design had a two-class capacity of 126 and economics that were analyzed by many to be significantly worse than the CS300. Irrespective, the trend was for up-gauging to the 737-800 from the -700 and to the MAX 8 instead of the MAX 7.

Alaska Airlines, Aviation Capital Group, ILFC/AerCap, Air Lease Corp, and non-US customers bypassed the 737-700 and the MAX 7 (and the C Series) for the larger airplanes. American Airlines selected the A319ceo/neo instead of the 700/MAX 7 when it launched the MAX program in July 2011.

As noted, United ordered 65 737-700s in early 2016, but within months swapped these to the larger 737-800 and MAX 8.

The lack of interest by these customers in Boeing's small airplane speaks to the lack of interest/market demand.

Boeing didn't comment about this, either.

No interest, unattractive design

Other questions Boeing didn't answer:

- Southwest had a significant backlog of 737-700s, but up-gauged them to 737-800s (largely at Boeing's urging). It had a large fleet of 737-700s when the MAX program was launched in 2011, but chose to order only 30 MAX 7s. It has not ordered more MAX 7s to this day, including the "dry spell" in which Bombardier didn't sell a single C Series in the US. How can Boeing argue there wasn't an issue with the market demand for the MAX 7?
- Boeing redesigned the MAX 7 to be a "shrink" of the MAX 8. It is a well-known axiom in the industry that shrinks are generally not attractive airplanes. Might this be a factor in poor sales?
- Boeing is spending between $6bn and $7bn in stock buybacks. Two years of redirecting this commitment would enable Boeing to develop an entirely new airplane (or a two-member family) in the 100-150 seat sector. Or, spread over a normal 6-7 year launch-to-EIS period, in which $36bn-$49bn in cash devoted to share buybacks at the present rate, this commitment could be reduced by

somewhat more than $1bn/yr to develop a two-member airplane family, still leaving plenty of shareholder return while developing a new aircraft. How can Boeing claim it cannot afford to develop new, clean-sheet airplanes that would in fact be direct, head-to-head competitors with C Series?

Conclusion

Boeing was maneuvered into launching the MAX program when Airbus was on the verge of capturing a huge order from American Airlines for the A320neo family. The 7 MAX and 9 MAX were ill-suited cheap (by R&D standards) derivatives, neither of which were well received in the market. (Nor was Airbus A319neo, competitor to the 7 MAX.)

To address the clear weakness of the 7 MAX and 9 MAX, Boeing by April 2016 was studying the stretch of both airplanes to make them more attractive.

Boeing's problem was not the C Series: it was an outdated product strategy and reliance on derivatives of a fundamental 1960s aircraft design. Bombardier passed the small 737 with a clean-sheet design in a sector Boeing had long-since abandoned when it dropped the 737-600 and when the market moved beyond the 737-700. The 7 MAX simply was a plane whose time had passed.

The MAX 9 was no more competitive with the Airbus A321neo than the 737-900ER had been with A321ceo. Hence, the development of the 737-10.

Faced with an out-dated 737 product strategy and unwilling to invest in a new single-aisle airplane, Boeing resorts to trade complaints to block competitors with more advanced designs.

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EXHIBIT 7

Bombardier's CSeries program 'off to a slow start', says Boeing exec

Randy Tinseth, Boeing Co. vice-president of marketing, says he doesn't expect a small delay for Bombardier Inc.'s CSeries will have much impact on the overall program, but he warned the bigger hurdle will be for the Montreal manufacturer to meet the delivery needs of potential customers

SCOTT DEVEAU

October 25, 2012
8:04 PM EDT

Filed under
Investing

Randy Tinseth, Boeing Co. vice-president of marketing, says he doesn't expect a small delay for Bombardier Inc.'s CSeries will have much impact on the overall program.

But he warned the bigger hurdle will be for the Montreal manufacturer to meet the delivery needs of potential customers.

He characterized the program as being "off to a slow start" during a meeting with reporters Thursday in Toronto.

"There is demand in the marketplace right now, and part of the reason we're increasing our production rates is to meet that demand," Mr. Tinseth said.

[np-related]

"Time to market is important. A month or two on a 20-year investment is not a big deal. But making sure they have them available when [the customer] needs them is."

Bombardier said last week the assembly schedule for its first CSeries test flight vehicle was "compressed," spurring speculation that first flight would slip into early 2013. Bombardier maintains the plane is on track to be in the air by yearend, and for its entry into service in late 2013.

Still, Bombardier has only 138 firm orders on the books for the CSeries since its launch in 2008. Boeing, by contrast, has 858 firm orders of its re-engined single-aisle plane, the 737MAX, while Airbus has 1,554 firm orders for its new A320neo. The Boeing 737MAX aims to hit the market in 2017 and the A320neo in 2015.

While the CSeries is smaller than both the 737MAX and A320neo, it is Bombardier's largest plane to date and has pit it directly against its larger rivals for the first time.

There's a lot at stake. Boeing estimates there will be 23,240 single-aisle aircraft delivered globally over the next two decades for a combined value of more than US$2-trillion.

Boeing estimates roughly 70% of those deliveries will be for replacement aircraft from carriers, such as Air Canada, looking to update their fleets.

Bombardier aims to capture roughly half of the 6,900 deliveries it expects in the smaller portion of that segment — 100-to-149 seats — with the CSeries.

Mr. Tinseth said the bulk of the single-aisle orders will be in the 150 to 160-seat category. He characterized the lower end of the market as the "Bermuda Triangle" for sales.

But not everyone has come to the same conclusion.

AirInsight, an airline consulting firm, argued in a recent study the conventional wisdom about the smaller end of the segment is dead and said the reason for the failure of others, including Boeing, in the 100 to 149 segment was due to the inefficient derivative products

they were competing with.

The CSeries, by contrast, is optimized to the segment, harnesses advanced technologies, and is the first clean-sheet design in the category since the 1960s, AirInsight said.

But even if the CSeries program is successful, Mr. Tinseth said Bombardier needed to be mindful of meeting customer demands as the program ramps up.

Bombardier has been cautious about not taking large orders that would push delivery dates out too far, opting for several small orders from a variety of customers.

It aims to build 100 aircraft a year in the CSeries' initial phases. Boeing, by contrast, recently announced plans to increase its production rates for the 737 to 42 a month in 2014.

Mr. Tinseth said he knows first hand the perils of not having a plane ready when the customer wants it after the messy launch of the 787 Dreamliner.

"Our experience is that it's difficult to go through a process where you disappoint your customers," he said. "We've been there. There's nothing worse."

EXHIBIT 8

Slide 2: Competitive Aircraft Operating Cost Estimates

	Block Hour COC (Trip Cost)
CS100	Benchmark
CS300	+ 7.1%
737-700	+ 18.6%
737 MAX 7	+ 19.6%

COC: Cash Operating Cost (Fuel, Maintenance, Crew Costs, Landing Fees, Navigation Charges)

EXHIBIT 9

EXHIBIT HAS BEEN REDACTED
IN ITS ENTIRETY

EXHIBIT 10

Bombardier Intros Atmosphère Cabin & New Q400 Seating Configuration at Aero Perspectives Event

12 September, 2017 in Industry Written by Howard Slutsken

Bombadier's C Series plant in Mirabel, Quebec. Image via Bombardier

APEX Insight: Bombardier's Atmosphère cabin interior, which will launch on the CRJ series in 2018, was introduced at the airframer's Aero Perspective media event in Mirabel, Quebec, today. Other announcements included a new 82-seat configuration for the Q400 turboprop and updates on C Series operations.

Bombardier Commercial Aircraft held its Aero Perspectives media event at Mirabel Airport in Montreal today. The event took place just four days short of the fourth anniversary of the first flight of the airframer's newest passenger plane, the C Series.

The CRJ series will see the introduction of “Atmosphère,” featuring an updated interior for the long-established regional jet, in the second half of 2018. The passenger-centric design includes innovative finishes, mood lighting, a PRM (persons with reduced mobility) compliant lavatory and more carry-on luggage space. Bombardier recognizes that connectivity is a passenger necessity, so Atmosphère CRJs will feature a “connected cabin.”

The Atmosphère by Bombardier cabin features innovative finishes, mood lighting, a PRM (persons with reduced mobility) compliant lavatory and more carry-on luggage space. Image via Bombardier

The Q400 turboprop will switch to a new 82-seat configuration. The plane’s entryway has been opened up with the removal of the starboard side forward baggage hold. This gives the plane a brighter interior with the addition of three windows, and reduces the plane’s weight and maintenance costs.

The C Series has had a smooth entry into service, according to Bombardier’s Istifan Ghanem, director, C Series program manager. “We invested a lot in the product development phase to make sure the aircraft is reliable. In the first month of operation with SWISS, the C Series got a lot higher utilization compared to other new aircraft. It went as smoothly as SWISS’ new Boeing 777, a mature aircraft.”

Ghanem shared some statistics of the utilization of the current small fleet of C Series. “We’re getting an average of 17 flight hours per day, 74-minute flight times, and up to 10 legs a day with 35-minute turnarounds. The plane is designed for 20-minute turnarounds.”

The single-aisle, 125-seat CS100 entered service with SWISS International Air Lines in July 2016, and the carrier now has 11 C Series in its fleet, with 19 more planes to come. SWISS flies 10 CS100s, and the balance of its C Series will be made up of the larger 135-seat CS300. “The bulk of these have been replacing the Avro RJ100s,” said Sven Thaler, captain, director, deputy fleet chief Bombardier C Series, SWISS. “The other C Series aircraft will partly be used to replace other existing aircraft and partly permit moderate further growth. We plan to phase in all C Series by the end of 2018.”

Sven Thaler, captain, director, deputy fleet chief Bombardier C Series, SWISS, at Bombardier's Aero Perspectives media event. Image: Howard Slutsken

Beginning in December 2016, Riga-based airBaltic was the first airline to fly the CS300, and has received seven of its 20 aircraft order. "The new CS300 aircraft, with 145 seats, offers an excellent flying experience with benefits for passengers such as wider seats, larger windows, more hand luggage space in the cabin and improved lavatories," said Pauls Calitis, SVP Flight Operations, airBaltic, in an email. "It is also much quieter – with four times smaller noise footprint."

Both airlines have received positive comments from passengers about the C Series' onboard experience, in addition to the plane being a favorite with cabin and flight crews. "Our customers ask for more CS300 in airBaltic's network spanning Europe, the CIS and the Middle East. They also claim themselves as feeling privileged to have flown on the most modern narrow-body jet on the planet," said Calitis.

> "Our customers ask for more CS300 in airBaltic's network." – Pauls Calitis, airBaltic

SWISS has received similar comments from its C Series passengers, according to Thaler. "The feedback from our customers is very positive. They appreciate the state-of-the-art short- and mid-haul aircraft that offers a bright and welcoming cabin, large windows, lots of carry-on space as well as comfortable seats and adequate legroom."

Last month, SWISS introduced the CS100 on flights to London City, an operationally challenging airport with a short runway and steep approach. "We're not just the largest aircraft at London City, we're also the

quietest," said Thaler.

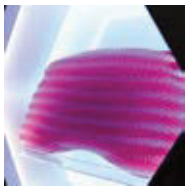
AirBaltic is taking advantage of the CS300's range with a new route from Riga to Abu Dhabi. Airlines including Air Canada, Delta Air Lines, Korean Air, and Gulf Air have ordered a total of 360 C Series jets.

Howard Slutsken

Howard has been passionate about aviation since he was a little kid, and is a pilot who loves to fly gliders and just about anything else with wings. He's a frequent contributor to aviation magazines and blogs.

Twitter LinkedIn

Related content



Seat as Honey: Nature-Inspired Comfort Solutions Are All the Buzz

EgyptAir Signs LOI for Up to 24 Bombardier CS300s

SWISS Delivers Digital Press to Lounges at Geneva and Zurich Airports

APEX Media Spotlight: Airbus Takes a Majority Stake in Bombardier's C Series

Crystal Cabin Award-Winning Lightweight Seat Takes Off

7.4 September/October Issue

EXHIBIT 11

Boeing 737 family: “One airplane, four sizes”

Source: Boeing Presentation at 18th Annual Aviation Industry Suppliers Conference in Toulouse (Sept. 18-20, 2017)

BOMBARDIER
the evolution of mobility

EXHIBIT 12

737 MAX Global Customers Taking Delivery in 2017

The 737 MAX family is designed to offer the greatest flexibility, reliability and efficiency in the single-aisle market. Every airplane will feature the new Boeing Sky Interior, highlighted by modern sculpted sidewalls and window reveals, LED lighting that enhances the sense of spaciousness and larger pivoting overhead stowage bins.

The 737 MAX is the fastest-selling airplane in Boeing's history. To date, it has received more than 4,000 orders from 92 customers.

VIEW ALL

Technical Specs

	737 MAX 7	737 MAX 8	737 MAX 9	737 MAX 10
Seats (2-class)	138 – 153	162 – 178	178 – 193	188 – 204
Maximum seats	172	200	220	230
Range nm (km)	3,825 (7,080)	3,515 (6,510)	3,515 (6,510)*	3,215 (5,960)*
Length	35.56 m (116 ft 8 in)	39.52 m (129 ft 8 in)	42.16 m (138 ft 4 in)	43.8 m (143 ft 8 in)
Wingspan	35.9 m (117 ft 10 in)	35.9 m (117 ft 10 in)	35.9 m (117 ft 10 in)	35.9 m (117 ft 10 in)
Engine	LEAP-1B from CFM International	LEAP-1B from CFM International	LEAP-1B from CFM International	LEAP-1B from CFM International
		200 seats: 737-8-200	*one auxiliary tank	*one auxiliary tank

EXHIBIT 13

CS100 RANGE OUT OF WASHINGTON DC

CS100 – 109 PAX

2,550 NM

Notes:-Still air range figures ,Pax + Bag at 235 lbs, 85% annual en route winds, airfield temperature ISA+15C, En route temperature at ISA, 120 nm diversion, 45 min hold at 15,000 Ft,25 min taxi in and out, 100% LF

BOMBARDIER
the evolution of mobility

CS100 RANGE OUT OF ATLANTA

CS100 – 109 PAX

2,560 NM

Notes:-Still air range figures ,Pax + Bag at 235 lbs, 85% annual en route winds, airfield temperature ISA+15C, En route temperature at ISA, 120 nm diversion, 45 min hold at 15,000 Ft,25 min taxi in and out, 100% LF

BOMBARDIER
the evolution of mobility

EXHIBIT 14

High performance capacity and range

The first member of the E-Jet E2 family, the E190-E2 is designed to deliver the best performance, opening new markets wh le del ver ng comfort and susta nable prof tab l ty

E190-E2 in detail

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FleetSmart economics performance cabin environment range

FleetSmart

Outperform your rivals and sustain profitability

The E2 s the world s best perform ng FleetSmart solut on

Bu lt on E-Jets her tage and des gned by people w th a pass on for nnovat on and attent on to deta l every oppo performance that contr bute to a super or level of comfort and space for passengers and for operators the ab l prof tab l ty

Paris
Brasilia
Bejing
Bangkok
Dallas
Nairobi

E175-E2
E195-E2
E190-E2

E190-E2 Specifications

Weights & Payload

Max mum akeoff We ght	56 400 kg / 124 341 lb
Max mum Lad ng We ght	49 050 kg / 108 137 lb
Max mum Payload	13 080 kg / 28 836 lb
Max mum Usable uel*	13 300 kg / 29 321 lb

Typical seat capacity

hree classes	97 seats 9 @ 36" 20 @ 34" 68 @ 31 p tch
S ngle class	106 seats 106 @ 31" p tch
S ngle class	114 seats 114 @ 29 p tch

Performance

Max Cru se Speed	Mach 0 82
akeoff eld Length*	1 620 m / 5 315 ft
akeoff eld Length**	1 190 m / 3 904 ft
Land ng eld Length***	1 286 m / 4 219 ft
Serv ce Ce l ng	41 000 ft
Range****	2 850 nm / 5 278 km

* uel Dens ty = 0 803 kg/l
*M OW SA SL – standard eng ne ** OW for 500nm full PAX* SA SL standard eng ne ***MLW SA SL
**** ull PAX* LRC yp cal Reserves 100 nm alternate
*S ngle class seat ng PAX we ght = 100 kg = 220 lb

> E190-E2 Spec f cat ons (https //www embraercommerc alav at on com/wp-content/uploads/2017/06/Embraer Spec E190-E2 pdf)

EXHIBIT 15

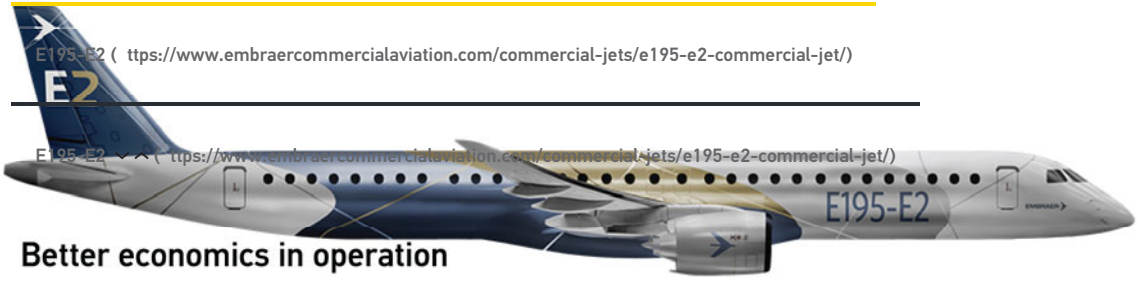
E195-E2

E175-E2 (ttps://www.embraercommercialaviation.com/commercial-jets/e175-e2-commercial-jet/)

E190-E2 (ttps://www.embraercommercialaviation.com/commercial-jets/e190-e2-commercial-jet/)

E195-E2 (ttps://www.embraercommercialaviation.com/commercial-jets/e195-e2-commercial-jet/)

E195-E2 ⌄⌃ (ttps://www.embraercommercialaviation.com/commercial-jets/e195-e2-commercial-jet/)



Better economics in operation

The largest aircraft in the E-Jet E2 family, the E195-E2 has been designed to maximize returns and efficiency on high-density routes. With its high-aspect ratio wings and swept tips, combined with other aerodynamic improvements, the E195-E2 achieves double digit lower fuel consumption compared to current-generation E-Jets.

E195-E2 in detail

S are t is aircraft

(ttps://www.linkedin.com/s areArticle?mini=true&url= ttps://www.embraercommercialaviation.com/commercial-jets/e195-e2-commercial-jet/&title=E195-E2)

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FleetSmart economics performance cabin environment range

FleetSmart ⌃⌄

Outperform your r vals and susta n prof tab l ty

The E2 is he world's bes per orming Flee Smar solu ion.

Buil on E Je s heri age and designed by people wi h a passion or innova ion and a en ion o de ail, every oppor uni y has been considered or e iciencies and per ormance ha con ribu e o a superior level o com or and space or passengers, and or opera ors, he abili y o exploi new oppor uni ies and sus ain pro i

Paris
Brasilia
Bejing
Bangkok
Dallas
Nairobi

E175-E2
E195-E2
E190-E2

E195-E2 Specifications

We ghts & Payload

Maximum Takeo Weigh	61,500 kg / 135,584 lb
Maximum Lading Weigh	54,000 kg / 119,050 lb
Maximum Payload	16,150 kg / 35,605 lb
Maximum Usable Fuel^	13,300 kg / 29,321 lb

Typ cal seat capac ty

Three classes	120 sea s | 12 @ 36" | 28 @ 34" | 80 @ 31" pi ch
Single class	132 sea s | 132 @ 31" pi ch
Single class	146 sea s | 146 @ 28" pi ch

Performance

Max Cruise Speed	Mach 0.82
Takeo Field Leng h*	1,970 m / 6,463
Takeo Field Leng h**	1,490 m / 4,888
Landing Field Leng h***	1,412 m / 4,633
Service Ceiling	41,000
Range****	2,600 nm / 4,815 km

*Fuel Densi y 0.803 kg/l
*MTOW, ISA, SL – s andard engine **TOW or 500nm, ull PAX*, ISA, SL, s andard engine ***MLW, ISA, SL
****Full PAX*, LRC, Typical Reserves, 100 nm al erna e
*Single class sea ing, PAX weigh 100 kg 220 lb

› E195-E2 Speci ica ions (h ps://www.embraercommercialavia ion.com/wp-con en /uploads/2017/06/Embraer_Spec_E195-E2.pd)

EXHIBIT 16

Premium #253 – Making Boeing Great Again

www.airinsight.com/prem um-253-mak ng-boe ng-great/

Ernest S. Arva November 30, 2017

Making Boeing Great Again should not be the goal of US trade policy. The trade action by Boeing against Bombardier appears, superficially, to fit well with President Trump's campaign theme to Make America Great Again. President Trump campaigned against unfair trade practices that are harming U.S. workers and U.S. manufacturers. Boeing alleged that Bombardier is unfairly subsidized by Canada, which has permitted it to sell CSeries aircraft below cost in the United States, undercutting Boeing and the U.S. jobs from Boeing's most successful aircraft, the 737.

Upon closer inspection, however, it is clear that Boeing's actions, if successful, could harm more U.S. workers in the broader aerospace and airline industries than would potentially benefit from import tariffs designed to protect Boeing.

Moreover, because Boeing stretched the bounds of appropriate use of the trade enforcement remedies and deployed a host of arguments that are hypocritical or baseless such as complaining about sales lost to a plane smaller than anything Boeing makes Boeing risks igniting a trade war or other realignment in the aerospace sector, to the detriment of the US aerospace industry. If Boeing succeeds in its trade case, the only beneficiary will be Boeing itself while everyone else loses. This strategy is not Make American Great Again at best, it is Make Boeing Competitive Again.

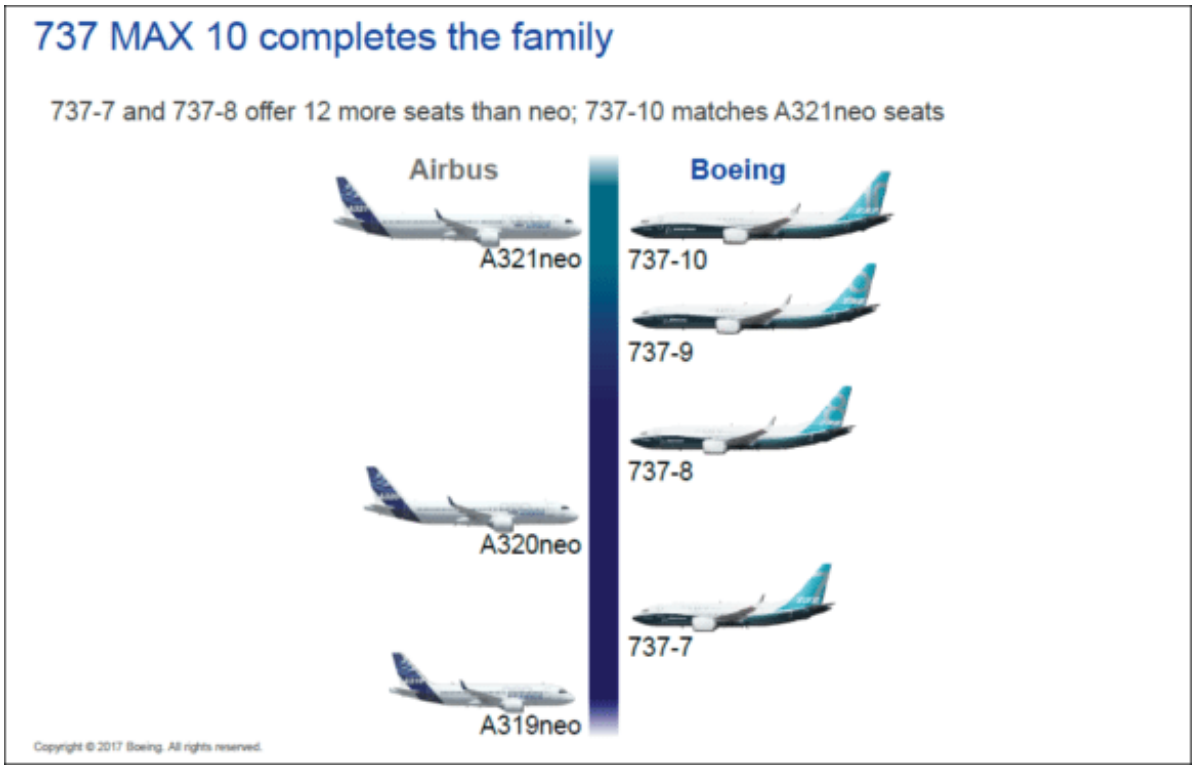
Perhaps more than any other U.S. manufacturer, Boeing depends on international trade and the U.S. government's enforcement of fair trade rules abroad. But its trade case against Bombardier now undermines Boeing's ability to fight unfounded protectionist actions instituted in countries around the world. China, for example, could easily levy massive import duties on Boeing's planes using the same arguments advanced in Boeing's trade action against Bombardier. That would be a disaster for Boeing and the U.S. workers who manufacture its planes. Rather than pick on a competitor one-tenth its size, with arguments that are full of inconsistencies and contradictions, detailed below, Boeing should abandon its misguided use of the trade laws and focus on being competitive at the marketplace.

Boeing Contradicts Itself about the Relevant Market

In the trade case, Boeing claims that there is a separate and distinct market for aircraft containing 100 to 150 seats that are capable of flying 2,900 nautical miles. Unfortunately, Boeing has convinced U.S. regulators of this spurious proposition, despite widespread industry understanding that the aircraft market is a continuum, ranging from the smallest regional jets to the largest wide bodies. Airlines choose a platform of the right size for a given route to optimize their operating economics and right-sizing aircraft to avoid flying planes with empty seats.

Outside of the trade case, Boeing characterizes the market differently. In its Current Market Outlook, Boeing describes a market composed of regional aircraft, single-aisle aircraft, small to medium twin-aisle aircraft, and large twin-aisle aircraft. Reviewing Boeing's annual forecasts in our archives back to 2005, we find that Boeing's forecasts consistently reference the single-aisle market, not a market for aircraft with 100 to 150 seats. Indeed, it would be irrational for Boeing to describe the market that way, as its flagship 737 has grown from under 100 to about 200 seats with some models of the 737 MAX, the newest 737 variants.

On September 18, at the 18th Annual Aviation Industry Suppliers Conference (SpeedNews) in Toulouse, Drew Magill, Boeing's Managing Director, Marketing Europe offered this slide. Boeing describes the competitive situation, when speaking to the people who know the industry, and does not include the Bombardier C Series (or the Embraer E2). Were Boeing to list the Bombardier or Embraer products, they would be laughed out of the room. Nobody from the US Department of Commerce or ITC was in the audience obviously. Boeing has two messages; one for those who know the industry and another for those who don't.



Over the years, Boeing increased the size of its 737 to provide additional capacity and improved seat-mile economics for its airline customers. The original 737 design, which dates to 1967, had fewer than 100 seats. The 737 MAX line has been optimized around the 162-seat 737 MAX 8. The smallest model, the 737 MAX 7, had 126 seats. This model did not sell well, and last year Boeing redesigned the aircraft to add 12 additional seats taking it to 138 seats in an effort to make the aircraft's economics more competitive.

Seat-mile economics are challenging for the 737 MAX 7 because it is simply too heavy for its seat capacity. The wing and fuselage were designed to accommodate the needs of the MAX 7's larger brethren. As a result, the 737 MAX 7 is less efficient than more modern designs such as the C Series that are optimized around a smaller size and use the latest composite technology that is not used in the 50-year-old design of the 737. Not surprisingly with these economics, the 737 MAX 7 has not sold well. Although Boeing has 3,954 orders for 737 MAXs, only 70 are for the 737 MAX 7.

Although Boeing's Market Outlook considers the single-aisle market to be a continuum of sizes, it has conveniently based the trade case solely around the least efficient and most unpopular model in its 737 fleet, ignoring the other 3,884 aircraft in its backlog.

Boeing Complains About a Lost Sale but Doesn't Make a Competing Product

The trade case centers on Bombardier's sale of CS100 that has a typical configuration of just over 100 seats. Delta is the largest operator of aircraft in this class, operating 91 of the last aircraft Boeing produced of comparable size, the 717-200, which is a rebranded version of the MD-95. Boeing last produced the 717-200 in 2006, and today offers no aircraft in the 100-seat category. As a result, Boeing did not participate in the Delta competition that led to the C Series order.

What does Boeing think Delta should do to serve routes that require 100 to 110 seats? Should Delta have been required to fly an aircraft that is too large to be profitable, simply so that it can fly Boeing? Should Delta charge consumers a higher ticket price to pay for the empty seats on these segments? Other than the C Series, only Embraer makes an aircraft the E195 that can serve a 110-seat route. If Delta could not buy the C Series, they would almost certainly have chosen Embraer, further highlighting that Boeing's alleged harm from a lost sale is entirely fictitious.

Boeing's Claims of Economic Loss is Baseless

Boeing's claim that it is suffering an economic harm from the sale of 75 C Series aircraft to Delta is dubious, at best. As noted above, Boeing's backlog of orders for the 737 is about 4,000 aircraft deep, and it stretches years into the future. Even if Delta decided to fly less efficient 737s with dozens of empty seats on 100-seat routes, Delta would not be able to receive delivery of these aircraft without a lenghtly wait, long after Bombardier could deliver the C Series.

On a recent call with investors, Boeing CEO Dennis Muilenburg was asked whether the company would consider entering the 100-seat market with a new aircraft or joint venture with another manufacturer. Muilenburg dismissed the idea and said, "with 4,400 aircraft in backlog, we're very confident in the position we have and the fact that we're oversold on our production line capacity." Muilenburg concedes that Boeing has sold more aircraft than it can possibly produce and deliver, yet it has the gall to go before the U.S. government and claim that it is experiencing economic harm from a 75-aircraft order from Bombardier.

Boeing Practices the Same Pricing Strategy that it Denegrates

Creating an entirely new aircraft design takes a tremendous amount of upfront investment, and that investment is recouped over decades, as the aircraft is produced and sold. The first plane produced in a program, therefore, is sold dramatically below the cost of producing it. Moreover, production costs drop quickly, as the manufacturer moves down the learning curve associated with repeated production of the aircraft.

Even beyond these economic realities, new aircraft programs face additional barriers. Airlines are hesitant to be the “guinea pig” to help debug early faults. New aircraft platforms also bring greater costs to the airlines in terms of flight crew training, new ground handling equipment and procedures, the distribution of maintenance supplies throughout the airline’s network, training of technicians, and uncertainty about the long-term availability of affordable parts.

These additional costs and uncertainties for airlines limit demand for new aircraft platforms, and the reduced demand causes aircraft manufacturers to offer significant discounts to the first airlines to purchase a new platform. This practice, which is deployed by every aircraft manufacturer, is so common and well established that it is named: launch customer pricing.

Boeing’s launch of the 787 is a perfect example of this practice. The first several hundred 787s sold by Boeing were reportedly sold below the cost to make them. Analysts wonder whether Boeing will ever break even on the 787 program on a cash flow basis, and recoup its $30 billion investment.

Bombardier only recently started delivering its first C Series planes, and it is far from moving down the learning curve to a mature cost position for the aircraft. Ironically, Bombardier could not even respond to the U.S. government’s questions about the cost of producing the C Series aircraft for Delta. It has not yet built enough aircraft to know what its final cost will be. How can a manufacturer be dumping product into the United States below cost when the manufacture does not yet know the final cost of production?

Boeing Ironically Complains about Government Subsidies

Boeing states that it does not receive government subsidies. But its military division develops new technologies at government expense, and then shares those technologies with its commercial operations. Boeing also receives tax breaks and aid from the states in which it operates, and it has requested even more aid from the State of Washington to keep manufacturing jobs near Puget Sound.

Given the massive costs associated with developing new aircraft programs and the long time horizon for recouping any investment, it is impossible today for any company to develop a new aircraft program without some government support. The governments of all major aircraft manufacturers recognize this and all of them provide some form of support. Indeed, international law recognizes this reality. International trade rules do not outlaw all

government subsidies just those that are unfair. Boeing acts as if the Quebec and Canadian investments in Bombardier are *de facto* a violation of international law, but that is just not the case.

What Really Scares Boeing and Motivated the Trade Action

Boeing's filings do not mention it, but we believe that Boeing's greatest fear is that Bombardier might stretch the C Series into a larger aircraft that really does compete with Boeing's bread and butter 737 MAX 8. Given its more modern design and advanced composite components, a stretched CSeries might actually compete against the 737 MAX 8 and take market share from Boeing's massive backlog. In other words, the trade case is a preemptive action designed to kill the C Series program in its infancy before it has a chance to mature.

Boeing already has two aircraft under development, the 777X and 797, and it cannot afford to launch a clean-sheet design of a new aircraft in the 737's size category. It could perhaps undertake such an initiative in the 2025 to 2030 timeframe. In that regard, Boeing may be perfectly happy with any outcome in the trade action, provided that it distracts Bombardier, discourages near-term customers to buy the C Series because of its future uncertainty, and pushes C Series deliveries a few more years into the future.

Boeing may have had a greater fear that Bombardier would join with an aerospace manufacturer in China that could use the C Series technology as a platform to build a competitor to the 737. A significant portion of Boeing's projected revenue growth comes from sales to China. A competitor to the 737, manufactured in China, would be a significant threat to the company. That process, however, would have taken a number of years to unfold, and in trying to forestall it, Boeing miscalculated miserably. In attempting to block a long-term threat from China, Boeing drove Bombardier to a formidable competitor with the ability to unleash the C Series threat immediately.

Airbus' decision to join with Bombardier provided the C Series a massive boost in credibility and eliminated any doubt about the programs continuing viability. The Airbus partnership came with an added benefit Bombardier and Airbus can manufacture the C Series in Alabama, putting the C Series beyond the reach of the import tariffs that Boeing sought in the trade action.

Boeing's Statements about Airbus's Alabama Assembly Facility Boomerang

The Airbus-Bombardier deal on the C Series, which will close around mid-2018, effectively eliminates the effect of any import tariffs that Boeing manages to convince the U.S. government to impose on the C Series. C Series planes built in Mobile, Alabama, are U.S. products and thus not subject to import duties.

Rather than accepting that the trade laws worked as intended and promoted U.S. manufacturing and U.S. jobs the threat to which was the premise of Boeing's original complaint Boeing is now suggesting that import tariffs should be applied to planes that are

made in the United States.

The only problem is that Boeing has already argued the opposite and the company again faces a contradiction of its own making. In its initial complaint in the trade action, Boeing stated that Airbus aircraft built in Mobile qualify as domestic manufacturing. Discussing the Airbus A319, the only Airbus aircraft that fits in Boeing's artificial 100- to 150-seat market category, Boeing said, "the Airbus A319 would also be included in the domestic [production category] if Airbus were to produce it at its facility in Alabama." If building an A319 in Mobile is domestic manufacturing, it's hard to understand why a C Series built there would not be.

The Bottom Line

Somebody in Boeing's Chicago office apparently determined that the complaint against Bombardier would be effective in thwarting a competitor. Instead, it has backfired, resulting in Boeing being roundly criticized around the world, and creating a black eye for the United States with respect to free trade. It's not too late for Boeing to acknowledge the complaint was ill founded and seek to regain its reputation for fair play. If it does not, AirInsight hopes that the ITC will see through Boeing's hypocritical, contradictory, and absurd claims when it renders a final decision.

EXHIBIT 17

EXHIBIT HAS BEEN REDACTED
IN ITS ENTIRETY

EXHIBIT 18

100- to 150-Seat Large Civil Aircraft from Canada
Inv. No. 701-TA-578 and 731-TA-1368 (Final)
Hearing, December 18, 2017

Seat Cost Not Including Purchase Price

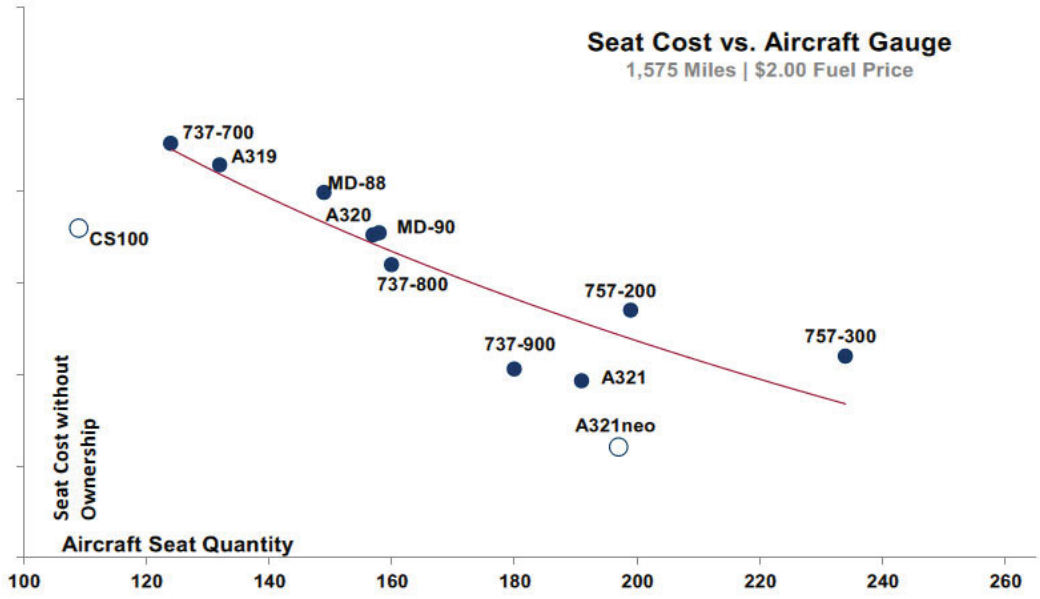


Chart 1: Route map of the 426 Delta routes on which Delta operated a 100-150 Seat LCA (i.e., a 737-700 or A319) during 2016

DELTA

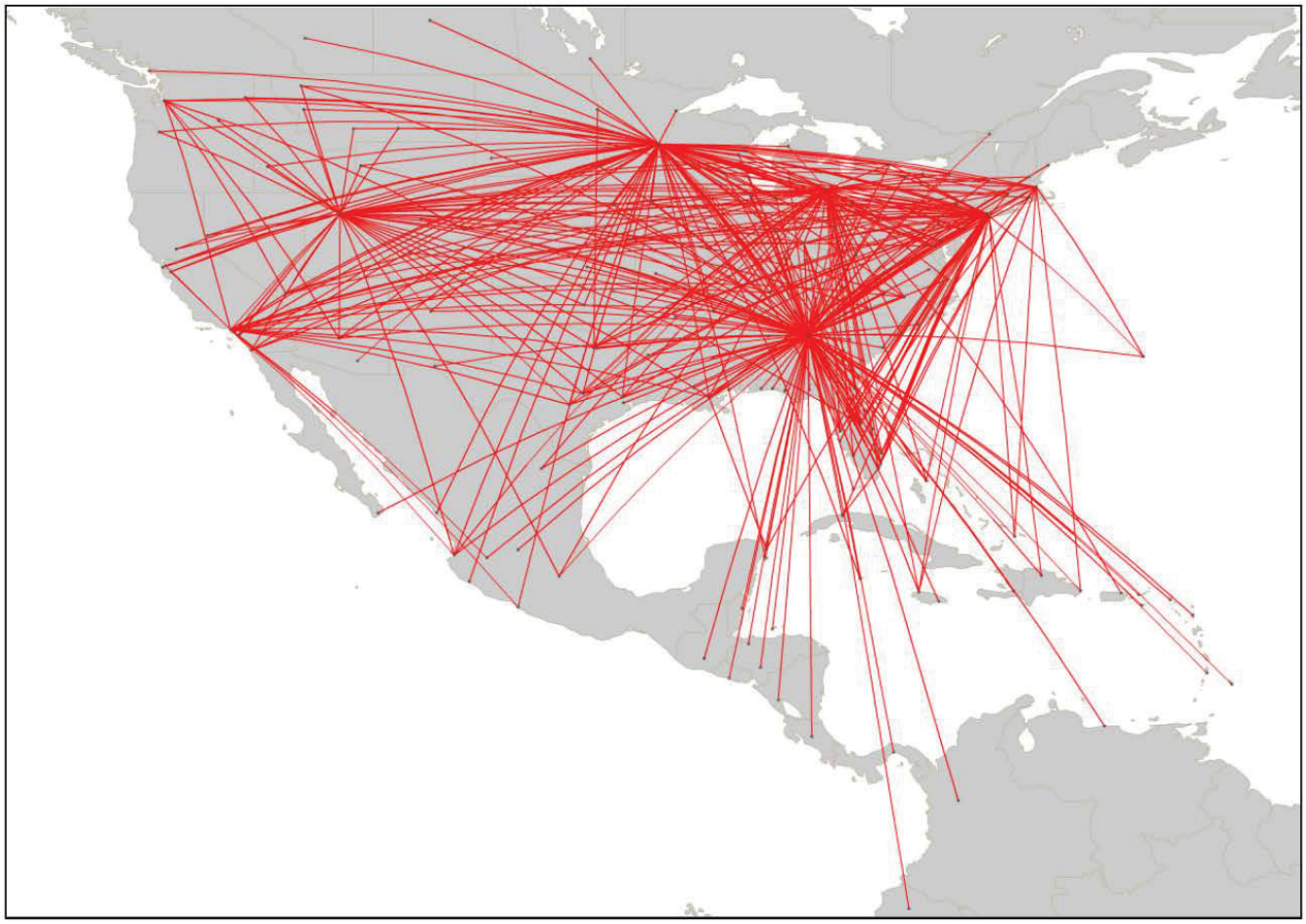


Chart 2: Route map of the 281 of those routes (66%) on which Delta also operated smaller aircraft

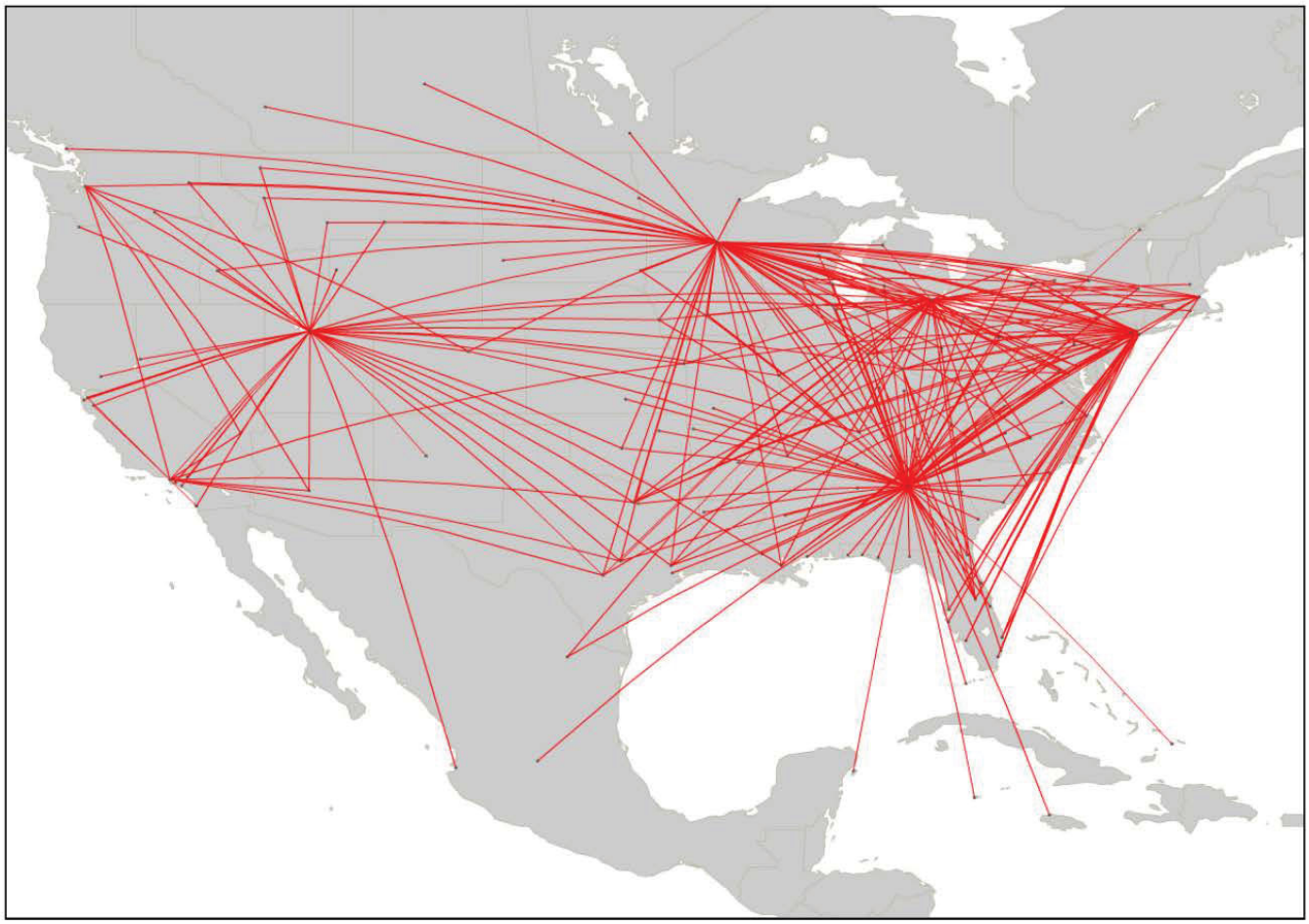


Chart 3: **Route map of the 292 of those routes (68.5%) on which Delta also operated other 100-150 seat aircraft which do not qualify as "100- to 150-seat LCA" (717 or MD88)**

Chart 4: Route map of the 384 of those routes (90%) on which Delta also operated larger aircraft

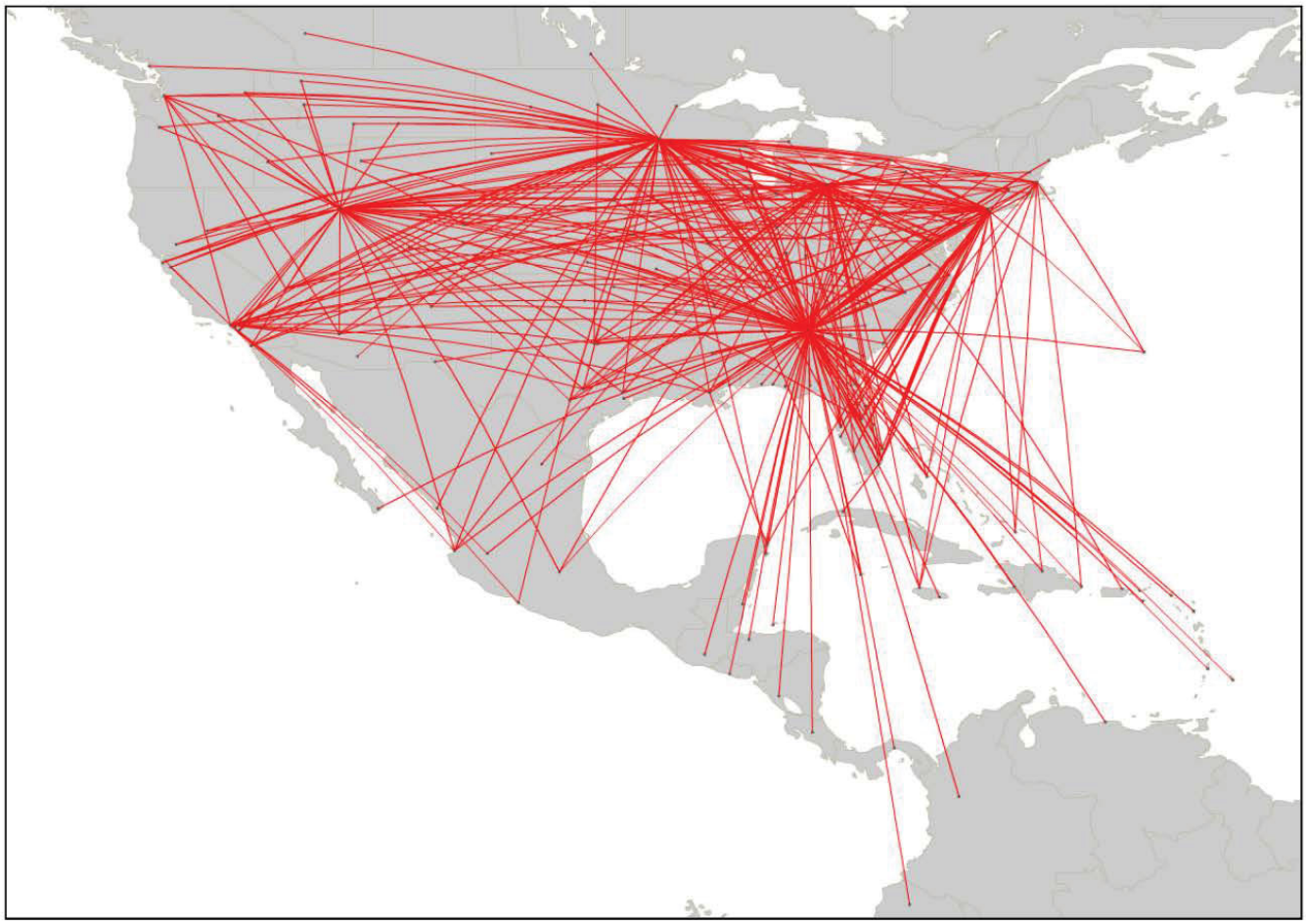


Chart 5: **Route map showing the 245 routes on which Delta operated a 100- to 150-seat LCA (i.e., 737-700 or A319) and also operated both aircraft that have fewer than 100 seats, and aircraft that have more than 150 seats**

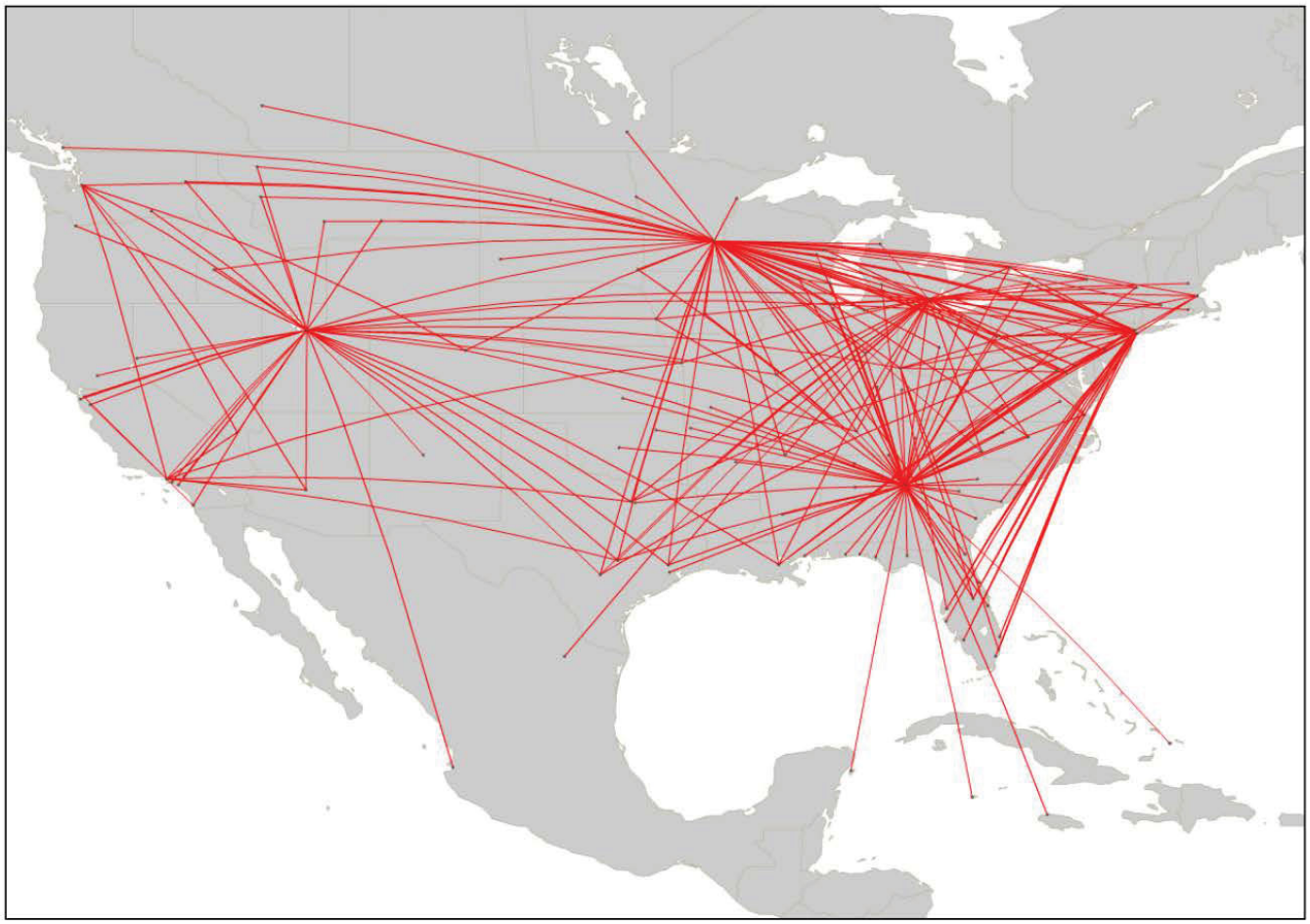


Chart 6: Route map of the 6 routes on which Delta only used 100-150 seat LCA (i.e., no aircraft other than 737-700 or A319)

EXHIBIT 19

November 13, 2017

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Case Nos. A-122-859, C-122-860
Total Number of Pages: 14
Investigations
(AD POI: 04/01/16-03/31/17)
(CVD POI: 01/01/16-12/31/16)
E&C AD/CVD Offices II, IV

PUBLIC DOCUMENT

VIA ACCESS

The Honorable Wilbur L. Ross, Jr.
Secretary of Commerce
Attention: Enforcement and Compliance
APO/Dockets Unit, Room 18022
U.S. Department of Commerce
14th Street and Constitution Avenue, NW.
Washington, DC 20230

Re: ***100- To 150-Seat Large Civil Aircraft from Canada*: Brief on the Announced Airbus-Bombardier C Series Partnership**

Dear Secretary Ross:

On behalf of Petitioner The Boeing Company ("Boeing"), we hereby timely submit this brief on the announced "C Series partnership" between Airbus SE ("Airbus") and Bombardier Inc. ("Bombardier").[1]

[1] *See* Department Memorandum, "Antidumping and Countervailing Duty Investigations of 100- to 150-Seat Large Civil Aircraft from Canada: Opportunity to Comment on Proposed Transaction" (Nov. 1, 2017) ("Department 11/1/17 Memorandum").

The proposed deal between Bombardier and Airbus has no bearing whatsoever on the Department's current investigations. Quite simply, there is no deal to evaluate at this time—only materials outlining a transaction which, according to Bombardier's and Airbus' own optimistic estimates, will not close until well into next year.[2] Even then, we will not know the nature or extent of the work, if any, that the C Series Aircraft Limited Partnership ("CSALP") and its partners might decide to perform in Mobile. It would take additional time—likely, years—to implement that decision. In other words, it would be many months to years from now before any C Series work could possibly be done in Mobile at all.[3] The proposed joint venture and any theoretical plans for Alabama are simply irrelevant to these investigations.

As discussed below, Bombardier and Airbus are extremely unlikely ever to actually establish a C Series assembly line in Alabama. Such plans would make no economic sense. Bombardier and the C Series Aircraft Limited Partnership ("CSALP") do not have enough orders for the C Series to sustain full production at the existing C Series assembly line in Mirabel, Québec for any appreciable period of time.[4] The only reason to conduct any C Series assembly

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[2] Department 11/1/17 Memorandum at Attachment I ("Completion of the transaction is currently expected for the second half of 2018.").

[3] *See, e.g.*, Boeing Letter, "*100- To 150-Seat Large Civil Aircraft from Canada*: Rebuttal Factual Information on the Announced Airbus-Bombardier C Series Partnership" (Nov. 6, 2017) ("Boeing 11/6/17 Factual Submission") at Exhibit 20 ("Airbus and Bombardier don't expect to complete their planned deal until the second half of next year, and people involved in the talks said it could take more than a year to construct facilities to assemble CSeries jets in Mobile.").

[4] *See* Boeing 11/6/17 Factual Submission at Exhibit 1; *id.*, Exhibit 3, p. 29 ("Bombardier has the ability to accept large orders for subject imports in the imminent future, given future projected excess capacity.").

activities in the United States would be to attempt to circumvent the antidumping and countervailing duties that result from these investigations.

But even as a circumvention scheme, this will fail. Under any scenario, Bombardier would be importing either fully or partially assembled C Series into the United States, both of which fall within the existing scope of the investigations and, therefore, of any resulting order.[5] No matter what ultimately happens with this announced Airbus deal, duties will—and should—apply to C Series airplanes, regardless of whether a second C Series assembly line is located in the United States.

I. Background on the Announced Airbus-Bombardier Partnership

On October 16, 2017, Airbus and Bombardier announced an agreement for Airbus to acquire a 50.01% interest in CSALP.[6] Under the agreement, Bombardier and *Investissement Québec* would own approximately 31% and 19% of CSALP, respectively.[7] In exchange for a majority stake in what was supposed to be Bombardier's flagship product, Airbus agreed to pay only a single U.S. dollar.[8] What's more, the agreement does not require Airbus to assume any

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[5] *See 100- to 150-Seat Large Civil Aircraft from Canada: Preliminary Affirmative Determination of Sales at Less Than Fair Value*, 82 Fed. Reg. 47,697, 47,700 (Dep't Commerce Oct. 13, 2017); *100- to 150-Seat Large Civil Aircraft From Canada: Preliminary Affirmative Countervailing Duty Determination and Alignment of Final Determination With Final Antidumping Duty Determination*, 82 Fed. Reg. 45,807, 45,808 (Dep't Commerce Oct. 2, 2017).

[6] Department 11/1/17 Memorandum at Attachment I.

[7] Department 11/1/17 Memorandum at Attachment I.

[8] *See* Bombardier Letter, "Antidumping and Countervailing Investigations of *100- to 150-Seat Large Civil Aircraft from Canada:* Evidence on the Proposed Transaction" (Nov. 6, 2017) ("Bombardier 11/6/17 Factual Submission") at Exhibit B, Section 2.5; *see also, e.g.*, Boeing 11/6/17 Factual Submission at Exhibit 19, slide 7 (stating that Airbus would acquire "operational control without any cash contribution at closing"). m

financial debt to acquire this majority stake.[9] Indeed, the agreement would require Bombardier to cover USD 700 million of any overruns over the first three years of the venture, with no corresponding contribution from Airbus.[10] Receiving so much in exchange for so little, Airbus' CEO gushed that the deal was a "win-win for everybody!"[11]

There is no guarantee when the joint venture itself, or any potential work in Mobile, will occur. Far from it. Airbus' CEO has stated that the deal "could take six to 12 months 'or even longer' to be completed, providing 'plenty of time to figure out what we want to do.'"[12] Indeed, Airbus has stated that the transaction is not expected to close until "the second half of 2018."[13]

In addition, the Canadian Economic Development Minister stated that the Canadian government would require "long-term promises from Airbus before signing off on the deal."[14] This would include "keeping 100 per cent of those employed at Bombardier's main CSeries assembly plant in Mirabel{.}"[15]

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[9] Boeing 11/6/17 Factual Submission at Exhibit 19, slide 7.

[10] *See* Bombardier 11/6/17 Factual Submission at Exhibit A, p. 2 ("The Investment Agreement also contemplates that Bombardier will continue with its current funding plan of CSALP and will fund, if required, the cash shortfalls of CSALP during the first year following the closing up to a maximum of US$350 million, and during the second and third years following the closing up to a maximum aggregate amount of US$350 million over both years, in consideration for non-voting participating units of CSALP with cumulative annual dividends of 2%, with any excess shortfall during such periods to be shared proportionately amongst Bombardier, Airbus and IQ, but in the latter case, at its discretion.").

[11] Department 11/1/17 Memorandum at Attachment I.

[12] Boeing 11/6/17 Factual Submission at Exhibit 22.

[13] Department 11/1/17 Memorandum at Attachment I.

[14] Boeing 11/6/17 Factual Submission at Exhibit 18.

[15] Boeing 11/6/17 Factual Submission at Exhibit 18. In addition, Québec's Deputy Prime Minister stated that the partnership would "'ensure the maintenance and creation of jobs in this strategic sector of the Québec economy.'" Department 11/1/17 Memorandum at Attachment I.

Notwithstanding these uncertainties, Airbus and Bombardier also claim that they will establish a "second Final Assembly Line in Mobile, Alabama, serving U.S. customers."[16] Bombardier estimates that constructing the facilities in Alabama would cost "over $300 million."[17] According to press materials, this second final assembly line would be located "at Airbus' {existing A320 and A321} manufacturing site in Alabama, U.S."[18] However, Airbus and Bombardier provided no additional details on what such a final assembly line would entail, except to state that "CSALP's headquarters and primary assembly line and related functions will remain in Québec."[19] These words are the extent of public information regarding this "second Final Assembly Line." There is no legal document—at least that has been provided to the Department—that requires any work to be performed in Mobile or elsewhere in the United States. The October 16, 2017 Investment Agreement between Airbus and Bombardier (and other parties), as well as Bombardier's disclosure to securities regulators regarding the partnership with Airbus, do not discuss possible production of the C Series in the United States.[20]

But we do know one thing for certain. To the extent any C Series is ever assembled in the United States, it would be motivated by a desire to circumvent duties imposed by the

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[16] Department 11/1/17 Memorandum at Attachment I.

[17] Bombardier 11/6/17 Factual Submission at Exhibit D, para. 10.

[18] Department 11/1/17 Memorandum at Attachment I.

[19] Department 11/1/17 Memorandum at Attachment I.

[20] *See* Bombardier 11/6/17 Factual Submission at Exhibit A; *id.*, Exhibit B. A Bombardier affidavit regarding the deal with Airbus also does not assert that C Series aircraft will be assembled in the United States if the deal closes. *See id.*, Exhibit D.

Department. Indeed, executives from Airbus, Bombardier, and Delta Airlines ("Delta") have said just that. For example:

- Airbus' COO stated: "I think a lot of reports that that {*i.e.*, the potential for 300% tariffs imposed by the U.S. Government} forced them into our hands are probably true."[21]
- A Bombardier investor presentation announcing the Airbus partnership describes it as a "SOLUTION to address the trade case."[22]
- Delta has said it will take delivery from the Alabama facilities to attempt to avoid paying import duties from these investigations—even if that requires delaying delivery by two years.[23]
- In a call with investors and financial analysts, Bombardier's CEO boasted: "Aircraft produced at this facility {*i.e.*, Mobile} will not be subject to duties under the pending U.S. investigation."[24]
- In a call with investors and financial analysts, Bombardier's CFO stated that the partnership with Airbus "removes uncertainties related to the U.S. market access."[25]

II. The C Series Will Never Be Produced in the United States, Absent Antidumping and Countervailing Duty Orders

The ambiguity around Bombardier's plans for Mobile should be no surprise. Assembly of the C Series in the United States would be commercially irrational, except as an attempt to circumvent any antidumping duties that may be imposed as a result of these investigations.

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[21] Boeing 11/6/17 Factual Submission at Exhibit 21.

[22] Boeing 11/6/17 Factual Submission at Exhibit 2, slide 6. Tellingly, Bombardier did not submit this presentation with its factual submission, instead submitting an Airbus presentation on the partnership. *See* Bombardier 11/6/17 Factual Submission at Exhibit E.

[23] Boeing 11/6/17 Factual Submission at Exhibit 20 ("Delta is prepared to wait as long as two years for the jets to ensure they are assembled in Mobile and don't attract tariffs, according to people involved in the negotiations.").

[24] Boeing 11/6/17 Factual Submission at Exhibit 23.

[25] Boeing 11/6/17 Factual Submission at Exhibit 23.

Accordingly, in the absence of any duties, the announced plans to assemble the C Series in the United States will never materialize.

> As a Boeing affidavit explains:
>
> > The C Series program does not need any additional production facilities or a second final assembly line. Other than as an attempt to avoid U.S. trade remedy duties, a C Series production facility in Mobile, Alabama is unnecessary and brings no added value to the program. It splits the production ramp up between two facilities, which increases overhead and startup costs of the program. It makes no economic sense to establish new facilities for the C Series in Alabama.
> >
> > . . . Existing C Series orders are insufficient to sustain production in Mirabel at {planned production rates} for any appreciable period of time, much less a second line in Alabama.
> >
> > Bombardier has strong incentives to find new customers for the C Series program's excess capacity. Indeed, this is the C Series program's main challenge—and it explains why Bombardier is behaving so aggressively in the marketplace. Establishing additional C Series facilities in Alabama does nothing to address this challenge. A C Series facility in Alabama would also take years to complete and incur additional costs, including for facilities and logistics. It would be fraught with risk.
> >
> > Airbus and Bombardier have stated that they expect their joint venture to boost C Series sales. The economically rational thing to do with additional C Series orders would be to feed them into the existing production facilities in Mirabel, which lacks sufficient orders to sustain planned production rates—not to add another facility in Alabama.[26]

Thus, there is no commercial incentive—other than the incentive created by future antidumping and countervailing duty orders—to assemble the C Series in the United States.

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[26] Boeing 11/6/17 Factual Submission at Exhibit 1, p. 1.

As noted above, neither the October 16, 2017, Investment Agreement establishing the partnership with Airbus, nor Bombardier's disclosure to Canadian securities regulators, contains any binding commitment related to U.S. assembly of the C Series. According to Bombardier itself, U.S. assembly of the C Series would cost "over $300 million."[27] Furthermore, Airbus and Bombardier will be unable to shift any production activities from Mirabel to Mobile, because the Government of Canada will require them to maintain "100 per cent" of C Series jobs in Mirabel.[28] And Airbus and Delta officials have equivocated on the timing of the assembly of the C Series in the United States.[29] Simply put, absent antidumping and countervailing duty orders, the purported plan to assemble the C Series in the United States will never materialize.

In its November 6, 2017 factual submission, Bombardier submitted various estimates of the number of U.S. jobs and investment that would result from the proposed transaction with Airbus.[30] These estimates are pure fiction. They are based on a scenario which, again, will never materialize in the absence of antidumping and countervailing duty orders.

III. The Proposed Transaction Would Fail As a Circumvention Scheme

Airbus, Bombardier, and Delta have stated that the purported C Series assembly line in Mobile will allow them—and future U.S.-based purchasers of the C Series—to circumvent any antidumping and countervailing duties that the Department may order as a result of these

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[27] Bombardier 11/6/17 Factual Submission at Exhibit D, para. 10.

[28] Boeing 11/6/17 Factual Submission at Exhibit 18.

[29] *See* Boeing 11/6/17 Factual Submission at Exhibits 20, 22.

[30] Bombardier 11/6/17 Factual Submission at 3; *id.*, Exhibit D.

investigations. But that is plainly wrong. To be clear, this is not an issue that the Department needs to address in these investigations, given that there are currently no C Series assembly activities nor any C Series production facilities in the United States, nor will there be any until long after the investigations are finished, if ever. Nonetheless, it is worth pointing out that such a circumvention scheme would fail.

Any antidumping and countervailing duty orders resulting from these investigations would cover articles imported to the United States to assemble the C Series in the United States. The scope language for these investigations states:

> The merchandise covered by this investigation is aircraft, regardless of seating configuration, that have a standard 100- to 150-seat two-class seating capacity and a minimum 2,900 nautical mile range, as these terms are defined {in the scope language}.
>
> {. . .}
>
> The scope includes all aircraft covered by the description above, **regardless of whether they enter the United States fully or partially assembled**, and regardless of whether, at the time of entry into the United States, they are approved for use by the FAA.[31]

Thus, if a particular article of merchandise would be in-scope if imported fully assembled, then it would also be in-scope if imported partially assembled.

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[31] *100- to 150-Seat Large Civil Aircraft from Canada: Preliminary Affirmative Determination of Sales at Less Than Fair Value*, 82 Fed. Reg. 47,697, 47,700 (Dep't Commerce Oct. 13, 2017) (emphasis added); *100- to 150-Seat Large Civil Aircraft From Canada: Preliminary Affirmative Countervailing Duty Determination and Alignment of Final Determination With Final Antidumping Duty*, 82 Fed. Reg. 45,807, 45,808 (Dep't Commerce Oct. 2, 2017) (emphasis added).

In past cases involving large capital goods, the Department has used the phrase "partially assembled" to refer to articles imported in the form of multiple large components or parts.[32] In *Large Newspaper Printing Presses from Germany and Japan*, the Department used the phrase "partially assembled" to refer to a large newspaper printing press shipped to the customer in five press system components, with assembly completed in the United States.[33] Similarly, in *Engineered Process Gas Turbo-Compressor Systems from Japan*, the Department used the phrase "partially assembled" to refer to parts of an engineered process gas turbo-compressor system ("EPGTS") imported to the United States, with assembly of the EPGTS completed in the United States.[34] In all of these cases, the partially assembled article was subject to the orders.

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[32] *See Notice of Final Determination of Sales at Less Than Fair Value: Large Newspaper Printing Presses and Components Thereof, Whether Assembled or Unassembled, From Germany*, 61 Fed. Reg. 38,166, 38,167-70 (Dep't Commerce July 23, 1996); *Notice of Final Determination of Sales at Less Than Fair Value: Large Newspaper Printing Presses and Components Thereof, Whether Assembled or Unassembled, From Japan*, 61 Fed. Reg. 38,139, 38,139-40 (Dep't Commerce July 23, 1996); *Notice of Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination: Engineered Process Gas Turbo-Compressor Systems, Whether Assembled or Unassembled, and Whether Complete or Incomplete From Japan*, 61 Fed. Reg. 65,013, 65,015-16 (Dep't Commerce Dec. 10, 1996); *Notice of Final Determination of Sales at Less Than Fair Value: Engineered Process Gas Turbo-Compressor Systems, Whether Assembled or Unassembled, and Whether Complete or Incomplete, from Japan*, 62 Fed. Reg. 24,394, 24,396-24,400 (Dep't Commerce May 5, 1997).

[33] *See Notice of Final Determination of Sales at Less Than Fair Value: Large Newspaper Printing Presses and Components Thereof, Whether Assembled or Unassembled, From Japan*, 61 Fed. Reg. at 38,140 ("Because of their size, large newspaper printing press systems, press additions, and press components are typically shipped either *partially assembled* or unassembled . . . . Any of the five components, or collection of components, the use of which is to fulfill a contract for large newspaper printing press systems, press additions, or press components, regardless of degree of assembly and/or degree of combination with non-subject elements before or after importation, is included in the scope of this investigation.") (emphasis added); *Notice of Final Determination of Sales at Less Than Fair Value: Large Newspaper Printing Presses and Components Thereof, Whether Assembled or Unassembled, From Germany*, 61 Fed. Reg. at 38,168 ("Because of their large size, LNPPs are typically imported into the United States in either *partially assembled* or disassembled form, in multiple shipments over an extended period of time, and may require the addition and integration of non-subject elements prior to or during the installation process in the United States.") (emphasis added).

[34] *See, e.g., Notice of Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination: Engineered Process Gas Turbo-Compressor Systems, Whether Assembled or Unassembled, and*

Likewise, in this case, "partially assembled" would encompass, at the very least, sections of 100- to 150-seat aircraft imported for assembly in the United States.[35] For example, Airbus imports partially assembled A320s and A321s to undergo what it describes as "final assembly" at its existing assembly facility in Alabama (and also in Toulouse, France and Tianjin, China), including (among other things) a tail, two wings, and two fuselage segments.[36] It is possible that a similar pattern could be followed for the C Series. It is possible that partially assembled C Series could be imported to the United States, to perform production activities in Mobile similar to those currently performed in Mirabel.[37] Or it is possible that partially assembled C Series could be imported to the United States to perform production activities that are different from those currently performed in Mirabel. In any of these scenarios, the imported articles would be

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Whether Complete or Incomplete From Japan, 61 Fed. Reg. at 65,016 ("Because of their large physical size, EPGTS are typically imported into the United States in either *partially assembled* or disassembled form, perhaps in multiple shipments over an extended period of time, and may require the addition and integration of non-subject parts prior to, or during, the installation process in the United States.") (emphasis added); *Notice of Final Determination of Sales at Less Than Fair Value: Engineered Process Gas Turbo-Compressor Systems, Whether Assembled or Unassembled, and Whether Complete or Incomplete, from Japan*, 62 Fed. Reg. at 24,398-99 ("because of their large physical size, EPGTS are typically imported into the United states in either *partially assembled* or disassembled form, perhaps in multiple shipments over an extended period of time, and may require the addition and integration of non-subject parts prior to, or during, the installation process in the United States.") (emphasis added).

[35] The import of partially assembled aircraft could involve importation of subassemblies at varying levels of completeness—*e.g.*, with systems pre-installed and some painting having been done, as is the case with the Airbus A320 and A321 assembled in Alabama, or with none of this work done in advance, as is the case with the materials and subassemblies that enter the production process for the Boeing 737. *See, e.g.*, Boeing 11/6/17 Factual Submission at Exhibits 5, 8, 13, 16, 17.

[36] *See* Boeing 11/6/17 Factual Submission at Exhibits 5, 7, 8, 9, 16, 17. The five A320/A321 subassemblies are manufactured outside the United States and shipped to the United States as shipsets. *Id.*, Exhibits 8, 9.

[37] *Cf.* Boeing 11/6/17 Factual Submission at Exhibit 15 (providing information on Bombardier's existing production activities in Mirabel); *id.*, Exhibit 6; Petition Exhibit 22, para. 25 (explaining that the C Series wing is produced in Belfast, Northern Ireland, United Kingdom; the fuselage and cockpit are produced at a Bombardier facility in Saint Laurent, Montreal; and the center fuselage is produced by the Shenyang Aircraft Corporation in China).

"partially assembled" aircraft at the time of importation, within the scope of any antidumping and countervailing duty orders that result from these investigations.

Accordingly—even though the Department need not make a determination on this issue now—as a circumvention scheme, the Airbus-Bombardier purported plans to assemble C Series aircraft in the United States would fail. This is yet another reason that the plans will never materialize, absent antidumping and countervailing duty orders.

* * * * *

This submission is being served in accordance with the attached certificate of service. Please contact us if you have any questions.

Sincerely,

Robert T. Novick
Patrick J. McLain
Stephanie E. Hartmann
William Desmond

Counsel to The Boeing Company

PUBLIC CERTIFICATE OF SERVICE

A-122-859
100- To 150-Seat Large Civil Aircraft from Canada
Investigation

I, Patrick J. McLain of Wilmer Cutler Pickering Hale and Dorr LLP, hereby certify that a copy of this submission was served via messenger this 13th day of November 2017:

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Patrick J. McLain

PUBLIC CERTIFICATE OF SERVICE

C-122-860
100- To 150-Seat Large Civil Aircraft from Canada
Investigation

I, Patrick J. McLain Wilmer Cutler Pickering Hale and Dorr LLP, hereby certify that a copy of this submission was served via messenger this 13th day of November 2017:

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EXHIBIT 20

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November 17, 2017

Case Nos. A-122-859
C-122-860
Total Pages: 26
Investigations
AD/CVD Offices II and IV

PUBLIC DOCUMENT

VIA ACCESS

The Honorable Wilbur L. Ross, Jr.
U.S. Department of Commerce
International Trade Administration
Enforcement & Compliance
Central Records Unit, Room 18022
APO/Dockets Unit, Room 1870
1401 Constitution Ave., N.W.
Washington, D.C. 20230

Re: Antidumping and Countervailing Investigations of *100- to 150-Seat Large Civil Aircraft from Canada*: Rebuttal Brief on the Proposed Transaction

Dear Mr. Secretary:

On behalf of Bombardier Inc., the designated mandatory respondent, and C Series Aircraft Limited Partnership ("CSALP"), the manufacturer of the aircraft that are the subject of the above-referenced antidumping and countervailing duty investigations, we hereby submit our rebuttal brief on our proposed transaction with Airbus SE, pursuant to the Department of

Commerce's (the "Department") November 1, 2017 memorandum.[1] This brief is timely filed within the deadline prescribed thereunder.[2]

In accordance with the Department's regulations, we are filing this submission electronically via the Department Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System ("ACCESS") at http://access.trade.gov, and we are serving copies today on parties indicated on the attached certificate of service.[3] If the Department has any questions regarding this submission or requires any additional information, please do not hesitate to contact the undersigned.

Respectfully submitted,

/s/ William R. Isasi

Peter Lichtenbaum
William R. Isasi

Counsel to Bombardier Inc. and
C Series Limited Partnership

[1] Memorandum From Howard Smith, Program Manager, AD/CVD Operations, Office IV, Enforcement and Compliance, Through Abdelali Elouaradia, Director, AD/CVD Operations, Office IV, Enforcement and Compliance, To All Interested Parties; *Antidumping and Countervailing Duty Investigations of 100-to 150-Seat Large Civil Aircraft from Canada: Opportunity to Comment on Proposed Transaction* (November 1, 2017).
[2] *Id.*
[3] Consistent with the preamble to the Department's regulation for the certification of factual information, Bombardier is not including a factual certification with this submission. *See Certification of Factual Information To Import Administration During Antidumping and Countervailing Duty Proceedings*, 78 Fed. Reg. 42,678, 42,690 (July 17, 2013) (indicating that factual certifications are not required when, as here, submissions are limited to citing to factual information already accompanied by the appropriate certifications).

CERTIFICATE OF SERVICE

100- to 150-Seat Large Civil Aircraft from Canada
Public Service List: A-122-859

I, Doron Hindin, hereby certify that on the 17th day of November 2017, copies of the foregoing document were served on the following parties by first class mail:

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/s/ Doron Hindin
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CERTIFICATE OF SERVICE

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/s/ Doron Hindin
Doron Hindin

Case Nos. A-122-859
C-122-860
Total Pages: 26
Investigations
AD/CVD Offices II and IV

PUBLIC DOCUMENT

ANTIDUMPING AND COUNTERVAILING DUTY INVESTIGATIONS OF

100- To 150- SEAT LARGE CIVIL AIRCRAFT FROM CANADA

REBUTTAL BRIEF ON THE PROPOSED TRANSACTION

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C Series Aircraft Limited Partnership

November 17, 2017

I. Summary of Argument

The scope of the above-captioned investigations covers large civil aircraft ("LCA") from Canada. In its latest submission to the Department of Commerce (the "Department" or "Commerce"), however, the Petitioner has attempted to obfuscate the plain language of the scope by mischaracterizing it as covering aircraft "articles" (*e.g.*, components or parts) from Canada. Expanding the scope in this manner would be unlawful and would violate established Department practice, as discussed in detail below. Moreover, Bombardier's intention of establishing a final assembly line ("FAL") for manufacture of C Series aircraft in the United States does not constitute a form of circumvention of any antidumping ("AD") or countervailing duty ("CVD") orders that may result from this investigation. Rather, such a U.S. FAL is motivated by significant business opportunities that would create thousands of new U.S. jobs and generate hundreds of millions of dollars in foreign investment in the United States. Now that the Petitioner has fabricated a question regarding whether the scope of these investigations cover articles, components or parts from Canada, proper administration of the AD/CVD laws requires the Department to answer it and expressly state that articles, components, and parts are not within the scope of these investigations. In doing so, the Department will not only ensure an AD/CVD scope that it can reasonably administer, the Department will be supporting the creation of a U.S. FAL that would strengthen the U.S. aircraft industry and contribute to the local economy.

Finally, Bombardier supports the November 13, 2017 comments of Delta Air Lines, Inc. ("Delta"), which explain that the proposed Airbus transaction is further evidence that Boeing filed its petition prematurely before any sales of LCAs had occurred in the United States.

II. There is Broad Agreement That The Proposed Transaction Should Not Impact The Instant Investigations

In Petitioner's affirmative brief on November 13, 2017 ("*Petitioner's 11/13 Brief*"), the Petitioner asserted that the proposed transaction between Bombardier Inc., C Series Aircraft Limited Partnership (collectively, "Bombardier") and Airbus SE ("Airbus") should not have bearing on the instant investigations.[1] The Government of Canada submitted a brief on that day similarly disclaiming the relevance of the transaction to the current investigations.[2] For the reasons in *Bombardier's Brief on the Proposed Transaction*, we agree that the Department should not base decisions on events, such as the proposed transaction with Airbus, that develop after the periods of investigation of AD and CVD proceedings.[3]

III. Petitioner's Attempt To Mischaracterize The Scope Of The Investigations As Covering Aircraft "Articles" Is Inconsistent With The Plain Meaning Of The Scope And It Would Be Unlawful And Violate Department Practice

Petitioner's 11/13 Brief incorrectly asserts that, because the scope includes partially assembled aircraft: "{a}ny antidumping and countervailing duty orders resulting from these investigations would cover articles imported to the United States to assemble the C Series in the

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[1] Letter To The Honorable Wilbur L. Ross, Jr. U.S. Secretary Of Commerce, From Patrick J. McLain, Counsel To The Petitioner; *100- To 150-Seat Large Civil Aircraft From Canada: Brief on the Announced Airbus-Bombardier C Series Partnership* (November 13, 2017) (hereinafter "*Petitioner's 11/13 Brief*") at 2.

[2] Letter To The Honorable Wilbur L. Ross, Jr. U.S. Secretary Of Commerce, From Matthew P. McCullough, Counsel To The Government of Canada; *Government of Canada's Comments on Proposed Bombardier Transaction: 100- to 150-Seat Large Civil Aircraft from Canada* (November 13, 2017).

[3] Letter To The Honorable Wilbur L. Ross, Jr. U.S. Secretary Of Commerce, From William R. Isasi, Counsel To Bombardier; *Antidumping and Countervailing Duty Investigation of 100- To 150-Seat Large Civil Aircraft From Canada: Brief on the Proposed Transaction* (November 13, 2017) (hereinafter *"Bombardier's Brief on the Proposed Transaction"*).

United States."[4] As discussed below, the Petitioner's arguments are contrary to the plain language of the scope of these investigations, and expanding the scope to include articles, components or parts from Canada would violate the law and Department practice. In this regard, the Petitioner mischaracterizes the two cases to which it cites for authority. In fact, these cases demonstrate that absent scope language that includes explicit references to components or parts, there is no basis for the Department to include these items within an order.

A. The Scope Language Does Not Encompass Articles, Components or Parts from Canada.

The products subject to this investigation are determined by the scope language, which does not include the term "article" or the phrase "article imported to the United States to assemble…" Rather, the scope language proposed by Petitioner and adopted by the Department provides that:

> The product covered by this investigation is aircraft from Canada.
>
> …
>
> The merchandise covered by this investigation is aircraft . . . . the scope includes all aircraft . . . regardless of whether they enter the United States fully or partially assembled, and regardless of whether, at the time of entry into the United States, they are approved for use by the {Federal Aviation Administration}. [5]

[4] *Petitioner's 11/13 Brief* at 9.

[5] *Notice of Initiation of Less-Than-Fair-Value Investigation: 100- To 150-Seat Large Civil Aircraft from Canada*, 82 Fed. Reg. 24,296, 24,297 & 24,300 (May 17, 2017) (hereinafter *"AD Initiation Notice"*); *100- to 150-Seat Large Civil Aircraft from Canada: Preliminary Affirmative Determination of Sales at Less Than Fair Value,* 82 Fed. Reg. 47,697, 47,698-99 (October 13, 2017); *Notice of Initiation of Countervailing Duty Investigate Aircraft From Canada*, 82 Fed. Reg. 24,292, 24,293 & 24,296 (May 17, 2017) (hereinafter *"CVD Initiation Notice"*); *100- to 150-Seat Large Civil Aircraft from Canada: Preliminary Affirmative Countervailing Duty Determination and Alignment of Final Determination With Final Antidumping Duty Determination*, 82 Fed. Reg. 45,807, 45,808 (October 2, 2017).

The scope language makes clear the merchandise under investigation is "aircraft from Canada" and that "partially assembled" refers to aircraft, not "articles."[6] In other words, a "partially assembled" aircraft must still be an "aircraft", rather than any "article" that could be used to build an aircraft. Thus, the text of the scope language does not support Petitioner's argument that "articles" or "articles imported to the United States to assemble the C Series in the United States" are included within the scope of these investigations.

The Petitioner identified subheadings of the Harmonized Tariff Schedule of the United States ("HTSUS") in the Petition under which subject merchandise is imported into the United States.[7] The identified subheadings apply to functional aircraft,[8] not parts, which are covered by separate HTSUS subheadings not identified by the Petitioner.[9] Further, in describing the domestic like product, Petitioner never discussed "articles"; instead, the Petition discussed two

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[6] LCA that are "partially assembled" may reasonably refer to aircraft that, although operational, are not yet certified for flight and lack certain finishes (*e.g.* seating, steering trimmings, *etc.*). *See, e.g., Improved Flammability Standards for Thermal/Acoustic Insulation Materials Used in Transport Category Airplanes,* 68 Fed. Reg. 45,046, 45,055 (July 31, 2003) (Final Rule) (explaining that although an aircraft may be capable of safe flight, that is "not necessarily the date on which the airplane is in conformity with the approved type design, or the date on which a certificate of airworthiness is issued, since some items not relevant to safe flight, such as passenger seats, may not be installed at that time").

[7] *Petitions For The Imposition Of Antidumping And Countervailing Duties On 100- To 150-Seat Large Civil Aircraft From Canada* (hereinafter "*Petition*") at 32 (identifying HTSUS subheading 8802.40.00.40); Letter To The Honorable Wilbur L. Ross, Jr. U.S. Secretary Of Commerce, From Robert T. Novick, Counsel To Petitioner; *100- To 150-Seat Large Civil Aircraft From Canada - Proposed Scope Clarification* (May 9, 2017) at 2 (supplementing the HTSUS subheading identified in the Petition designation with the additional subheading 8802.40.00.90.).

[8] HTSUS subheading 8802.40.00.40 covers "Airplanes and other aircraft, of an unladen weight exceeding 15,000 kg; New; Other; Passenger transports" and subheading 8802.40.00.90 covers "Airplanes and other aircraft, of an unladen weight exceeding 15,000 kg; Used or Rebuilt; Other aircraft."

[9] For parts of goods under heading 8802, including "{o}ther parts of airplanes" that are "{f}or use in civil aircraft" by non-military entities, the appropriate tariff subheadings are, for instance, 8803.30.00.30 and 8803.90.90.30. *See* HTSUS, at 88-4.

Boeing aircraft models.[10] Furthermore, when identifying U.S. importers in the Petition, the Petitioner never discussed importers of "articles" but rather a single importer of aircraft.[11] Thus, the Petition demonstrates that the scope of these investigations covers only aircraft and does not include "articles."

"Articles" is a defined regulatory term under U.S. aviation law that means "a material, part, component, process, or appliance" of an aircraft.[12] The scope of AD and CVD investigations and orders routinely include such components or parts when a petitioner includes them in the proposed scope language in a petition.[13] Accordingly, if the Petitioner had intended this investigation to cover components or parts it could have easily ensured such coverage by including "components" or "parts" in the proposed scope language, but the Petitioner chose not to do so. Thus, the Petitioner's argument is nothing more than an improper, last-minute attempt to have Canadian aircraft components or parts added to the scope of these investigations, approximately one month before the final determinations in these investigations, all to block the establishment of a major U.S. manufacturing facility, and the attendant economic contributions, for the benefit only of its own shareholders. Such an expansion of the scope would violate both AD/CVD law and the Department's practice.

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[10] *See, e.g., Petition* at 36.
[11] *Id.* at 27-28.
[12] *FAA Certification Procedures For Products and Articles*, 14 C.F.R. § 21.1.
[13] *See*, *e.g.*, *Notice of Final Determination of Sales at Less Than Fair Value: Large Newspaper Printing Presses and Components Thereof, Whether Assembled or Unassembled, From Japan,* 61 Fed. Reg. 38,139 (July 23, 1996) (discussed in detail in this brief *infra*); *Antidumping Duty Order of Sales at Less Than Fair Value; Industrial Belts and Components and Parts Thereof, Whether Cured or Uncured, From Singapore,* 54 Fed. Reg. 25,315 (June 4, 1989); *Final Results of Antidumping Duty Administrative Reviews; Tapered Roller Bearings and Parts Thereof, Finished and Unfinished, From Japan and Tapered Roller Bearings, Four Inches or Less in Outside Diameter, and Components Thereof, From Japan,* 58 Fed. Reg. 64,720 (December 9, 1993).

B. Including Canadian Aircraft Articles, Components or Parts in the Scope of these Investigations Would Be Contrary To Law and Department Practice.

It would be unlawful for the Department to expand the scope to cover articles, components or parts from Canada. The Tariff Act of 1930, as amended (hereinafter the "Act") permits the Department to initiate an AD or CVD investigation only if the AD or CVD petition is supported by a large enough segment of the domestic industry producing the domestic like product.[14] The Petitioner described the domestic like product as two aircraft models and explained that it was the sole producer of such aircraft.[15] The Department made its affirmative industry support determination on that basis, and never considered whether producers of aircraft articles, components, or parts supported these investigations.[16] Accordingly, expanding the scope of these investigations now to cover articles, components, or parts would mean that the Department no longer has an evidentiary basis to conclude that a sufficient segment of the domestic industry producing the domestic like product supports these investigations. Put simply, expanding the scope to cover aircraft articles, components, or parts from Canada would invalidate the Department's industry support determination.

A holistic reading of the Act confirms that the Department is precluded from expanding the scope of the investigation in a manner that would substantially undermine or invalidate its industry support determination.[17] Sections 702 and 732 of the Act contain provisions that

[14] Sections 702(b)(1), 702(c)(4), 732(b)(1) & 732(c)(4) of the Act.
[15] *Petition* at 44-45.
[16] *AD Initiation Notice* at 24,298; *CVD Initiation Notice* at 24,294.
[17] *See, e.g., Goodman Mfg., L.P. v. United States,* 69 F.3d 505, 510 (Fed. Cir. 1995) ("Statutory interpretation is a holistic endeavor. A provision that may seem ambiguous in isolation is often clarified by the remainder of the statutory scheme."(internal citation omitted)).

preclude the Department from reconsidering industry support after initiation.[18] Because the Department cannot revisit industry support, this means that the industry support analysis conducted at the initiation must be sufficient to support the investigation up to and until any order is issued. Thus, when Sections 702 and 732 are read alongside the industry support requirements of the Act, it demonstrates that the Department may not take actions after initiation of an investigation, such as significantly expanding the scope of an investigation as the Petitioner here requests, that would substantially undermine or invalidate its industry support analysis at a later stage.

Similarly, the International Trade Commission ("ITC") has not included aircraft articles, components or parts within the domestic like product for purposes of its injury analysis and it is far too late for the ITC to do so now.[19] In particular, the ITC has already entered the final phase of its injury investigation, and its October 27, 2017 *Notice of Scheduling* describes the scope as including only fully or partially assembled aircraft, not articles or components.[20] Questionnaire responses regarding aircraft production have already been submitted because the ITC's prehearing staff report is due no later than December 6, 2017.[21] Accordingly, expanding the

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[18] Sections 702(c)(4)(E) & 732(c)(4)(E) of the Act state that, "{a}fter the administering authority makes a determination with respect to initiating an investigation, the determination regarding industry support shall not be reconsidered."

[19] *See, e.g., 100- to 150-Seat Large Civil Aircraft From Canada; Scheduling of the Final Phase of Countervailing Duty and Antidumping Duty Investigations*, 82 Fed. Reg. 49,850 (October 27, 2017); Honorable Wilbur L. Ross, Jr. U.S. Secretary Of Commerce, From Robert T. Novick, Counsel To The Petitioner; *100- To 150-Seat Large Civil Aircraft From Canada: Petitioner's Rebuttal Comments on Scope* (November 13, 2017), Exhibit 1, *"100- to 150-Seat large Civil Aircraft from Canada, Inv. Nos. 701-TA-578 and 731-TA-1368 (Prelim.)* (U.S. ITC June 2017) at 1-8 (providing a description of the domestic like product reviewed by the U.S. ITC).

[20] *100- to 150-Seat Large Civil Aircraft From Canada; Scheduling of the Final Phase of Countervailing Duty and Antidumping Duty Investigations*, 82 Fed. Reg. 49,850 (October 27, 2017).

[21] *Id.* at 49,850.

scope at this late stage in the investigations would cause any ITC injury determination to be invalid, as it would not be based on the correct domestic industry (*i.e.*, domestic aircraft producers as well as domestic producers of articles, components and parts).

Furthermore, such an unreasonable expansion of the scope would violate Department practice affirmed by the Court of International Trade ("CIT"). For example, in *Smith Corona Corp. v. United States*, an AD investigation was initiated and a preliminary determination was made covering personal word processors ("PWPs") from Japan.[22] Forty-five days prior to the due date for the final determination, the petitioner asserted that the respondent intended to establish U.S. PWP assembly facilities in Tennessee, prompting the petitioner, for the first time in the investigation, to request that the scope language be expanded to cover PWP parts.[23] The CIT upheld the Department's decision refusing to expand the scope at such a late stage:

> Commerce {} must exercise caution in redefining scope in midstream to include items which were clearly known about and excluded at the time of initiation of the investigation, and, indeed in this case, at the time of the preliminary determination. Various procedural safeguards such as opportunities to respond and to be heard are built into the unfair trade laws. To change the scope definition at late stages of the proceedings deprives the parties of the full benefits of those procedures. Furthermore, the {ITC} must make its determination of like product and its determination of injury in relation to Commerce's definition of the class or kind of imported merchandise being investigated. Late changes in scope definitions can cause problems with this process and can even lead to unintended divergences from commitments pursuant to international obligations.[24]

Furthermore, revisiting the scope at such a late stage makes it likely that the Department will have insufficient evidence on the record to determine exactly what components or parts

[22] *Smith Corona Corp. v. United States,* 796 F. Supp. 1532 (Ct. Int'l Trade 1992).
[23] *Id*. at 1534.
[24] *Id.* at 1535.

should be included within the scope of any eventual order. In *Forklift Trucks From Japan*, the Department rejected the petitioner's late request to clarify the scope of investigation to include component parts, explaining that there is "insufficient evidence on the record to . . . identify the components to which this determination and any eventual antidumping duty order would apply."[25] Here, where there has been no record developed pertaining to parts, the Department has no evidentiary basis whatsoever to determine what article, components, or parts to include within the scope of these investigations.

Having initiated investigations based on a petition that did not include articles, components or parts from Canada, the Department cannot expand the scope to include them now. Doing so would violate the Act as well as established Department practice.

C. Boeing Mischaracterizes the Department Practice's in *LNPPs* and *EPGTS*.

The Petitioner argues that in two AD investigations involving large capital goods, the Department included "articles" imported to produce the large capital good within the scope of the investigations based on scope language that included the phrase "partially assembled."[26] Boeing's arguments completely mischaracterize the facts in those investigations. In both, the Department initiated investigations based on petitions that proposed scope language that included "parts" or "components" and it was on that basis that the Department included parts or

[25] *Final Determination of Sales at Less Than Fair Value; Certain Internal-Combustion, Industrial Forklift Trucks From Japan*, 53 Fed. Reg. 12,552, 12,566-67 (April 15, 1988) ("{C}ertain individual component parts, when sold separately, can be used in the manufacture of products other than internal combustion forklifts. For example, some components might be destined for large forklifts outside the scope of this investigation, electric forklifts, or other non-forklift products not subject to investigation. We have insufficient evidence on the record to instruct properly U.S. Customs how to identify the components to which this determination and any eventual antidumping duty order would apply.").

[26] *Petitioner's 11/13 Brief* at 10-11.

components in the eventual AD orders. Thus, these cases in no way support the Petitioner's assertion that the scope of the instant investigations should include articles, components, or parts simply because the scope refers to partially assembled aircraft.

As its title suggests, the *Initiation of {AD} Duty Investigations: Large Newspaper Printing Presses and Components Thereof, Whether Assembled or Unassembled, From Germany and Japan* ("LNPP") was undertaken to investigate complete LNPPs as well as LNPP components.[27] Throughout those investigations, parties submitted briefs and rebuttal briefs concerning precisely which LNPP parts and components were included, but from the inception of the investigations, the scope language included explicit reference to components:

> The products covered by these investigations are {LNPPs}, including press systems, press additions and press components, whether assembled or unassembled, that are capable of printing or otherwise manipulating a roll of paper more than two pages across…In addition to complete systems, the scope of these investigations includes the five press system components. They are: {list of five defined components}
>
> …
>
> A press addition is comprised of a union of one or more of the press components defined above and the equipment necessary to integrate such components into an existing press system.
>
> Because of their size, {LNPP} systems, press additions, and press components are typically shipped either partially assembled or unassembled. Any of the five components, or collection of components, the use of which is to fulfill a contract for {LNPP} systems, press additions, or press components, regardless of degree of disassembly and/or degree of combination with non-subject elements before or after importation, is included in the scope of this investigation. This scope does not cover spare or replacement parts.[28]

[27] *Initiation of Antidumping Duty Investigations: {LNPP} and Components Thereof, Whether Assembled or Unassembled, From Germany and Japan,* 60 Fed. Reg. 38,546 (July 27, 1995) (hereinafter "*LNPP Initiation*").
[28] *See id.* at 38,547.

Similarly, the scope of investigation into Engineered Process Gas Turbo-Compressor Systems ("EPGTS") from Japan always expressly included parts. In the notice of initiation of that AD investigation, the Department provided that:

> The products covered by this investigation are turbo-compressor systems… {and} constituent parts of turbo-compressor systems…[29]

Thus, the Petitioner is simply incorrect that *LNPP* and *EPGTS* support expanding the scope in these investigations to cover articles, components and parts from Canada because in the instant investigation, unlike *LNPP* and *EPGTS*, articles, components and parts were never included in the scope language proposed by the Petitioner and adopted by the Department.[30]

IV. A U.S. FAL To Manufacture C Series Aircraft Would Not Represent Circumvention Of Any Eventual AD or CVD Orders

The Petitioner, without evidence and based solely on innuendos, argues that Bombardier's plan to produce C Series at a U.S. FAL is motivated by a desire to circumvent any potential AD or CVD orders resulting from these investigations.[31] As discussed below, the

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[29] *Notice of Final Determination of Sales at Less Than Fair Value: Engineered Process Gas Turbo-Compressor Systems, Whether Assembled or Unassembled, and Whether Complete or Incomplete, from Japan*, 62 Fed. Reg. 24,394, 24,394-96 (May 5, 1997).

[30] A further distinction is that both LNPP and EPGTS involved large, immobile equipment shipped in unassembled form, due to size, for installation at customer premises. This bears no resemblance to LCA production at a FAL and subsequent delivery to airline or aircraft leasing customers. In addition, in these two cases, the Department's industry support analysis affirmatively encompassed parts. *See, e.g., LNPP Initiation at* 38,547 (recounting the briefs and rebuttal briefs submitted in response to respondents "alleging that petitioner lacks standing because it does not produce all components (e.g., folders), subcomponents and parts (e.g., reel stands, paper guides, screws, etc.) of the subject merchandise."); *see also Initiation of Antidumping Duty Investigation: Engineered Process Gas Turbo-Compressor Systems, Whether Assembled or Unassembled, and Whether Complete or Incomplete, From Japan*, 61 Fed. Reg. 28,164, 28,164 (June 4, 1996).

[31] *Petitioner's 11/13 Brief* at 5-6.

Petitioner's accusations lack any grounding in law, fact or reason. The Bombardier-Airbus partnership and U.S. FAL are based on legitimate business decisions that would bring thousands of jobs, and millions of dollars of direct investment to the United States. The creation of such important and meaningful economic activity in the United States does not constitute circumvention in any way, shape or form.

A. The Proposed Airbus Transaction and a U.S. FAL Does Not Constitute Circumvention Under The AD or CVD Law.

The Act describes exactly what circumvention constitutes for purposes of AD/CVD law and creating a production facility for aircraft in the United States does not meet the statutory definition of circumvention. The Act described four kinds of merchandise that can circumvent an AD or CVD order. While Petitioner never explains which category of circumvention aircraft produced at U.S. FAL would allegedly fall under, only one category refers directly to production activity in the United States, Section 781(a) of the Act.

This provision applies to merchandise assembled or completed in the United States. Importantly, Section 781(a) provides that merchandise assembled or completed in the United States would circumvent an AD or CVD order if the process of assembly or completion is minor or insignificant. This provision was intended to prevent foreign producers from creating "screwdriver operations" to get around AD/CVD orders whereby merchandise would be imported into the United States in parts and with very minimal production processes be converted into a finished good.[32] There can be no question that a facility to produce LCA does not constitute a screwdriver operation. Instead, the process of assembling LCA at a FAL

[32] *Antidumping Duties; Countervailing Duties*, 62 Fed. Reg. at 27,296, 27,329 (May 19, 1997).

involves an intensive production process requiring thousands of workers and costing hundreds of millions of dollars to establish and maintain.[33]

Lest there be any doubt whether the economic activity required to manufacture an aircraft is minor or insignificant, the Petitioner has clarified that completion or assembly of aircraft at a FAL most certainly is not.[34] The Petitioner states in the Petition that, if Airbus produced a certain aircraft model at its Alabama FAL -- the same FAL that has been discussed as a locale for C Series production in the United States -- Airbus would qualify as a domestic producer.[35] This process of LCA manufacturing and production is similar to the one employed to create Boeing's U.S.-made aircraft, which, as the Petition explains, are "produce{d}…at final assembly facilities in Renton, Washington,"[36] "from parts sourced worldwide."[37] This demonstrates conclusively that Petitioner does not believe that manufacturing of an aircraft at a FAL is in any way minor or

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[33] *See, e.g., Petition* at Exhibit 67 ("Airbus' game-changing A320 Family jetliner final assembly line in Mobile, Alabama . . . {is a} $600 million, 53-acre facility."); Letter To The Honorable Wilbur L. Ross, Jr. U.S. Secretary Of Commerce, From Robert T. Novick; *100- To 150-Seat Large Civil Aircraft from Canada: Rebuttal Factual Information on the Announced Airbus-Bombardier C Series Partnership* (November 6, 2017) (hereinafter "*Petitioner's 11/06 Evidentiary Submission"*) at Exhibit 15 ("The Final Assembly Line {for C Series in Mirabel} is currently working five days a week with three 8-hour shifts. Bombardier employes {sic} 1,200 people on the site, dedicated exclusively to the production of the C Series. The FAL, which went into full production last January, accommodates nine aircraft"); Letter To The Honorable Wilbur L. Ross, Jr. U.S. Secretary Of Commerce, From William R. Isasi, Counsel To Bombardier; *Antidumping and Countervailing Investigations of 100- to 150-Seat Large Civil Aircraft from Canada: Evidence on the Proposed Transaction* (November 6, 2017) (hereinafter *"Bombardier's 11/06 Evidentiary Submission"*) at Exhibit D, "Affidavit of Bombardier Official (explaining that a U.S. C Series FAL would support thousands of U.S. jobs and require hundreds of millions of dollars of investment).

[34] *Petition* at 26 ("Boeing . . . *produces* Aircraft at final assembly facilities in Renton, Washington) (emphasis added); *see also id.* at 41 ("Final assembly of all 737 LCA occurs at Boeing's *production* facility in Renton, Washington.") (emphasis added).

[35] *Id.* at n. 109 & n. 89.

[36] *Id.* at 26.

[37] *Id.* at Exhibit 58.

insignificant. The double standard that Petitioner is seeking for the Department to adopt in these investigations -- that only Petitioner's U.S. FAL manufacturing activity is legitimate -- is unwarranted and prejudicial.

B. The Partnership With Airbus and a U.S. FAL for C Series Aircraft Are Legitimate Business Decisions That Would Represent a Significant Investment in the U.S. Economy and Create Thousands of US Jobs.

Petitioner argues, without the support of any evidence and based solely on innuendos, that Bombardier's partnership with Airbus and a U.S. FAL for the C Series have no legitimate commercial incentive and are motivated by a desire to evade U.S. AD or CVD duties.[38] As explained below, Petitioner is flatly wrong. The Airbus and Bombardier partnership and the U.S. FAL for C Series aircraft are based on legitimate business interests that provide both companies with excellent business opportunities.

As an initial matter, the record demonstrates that Airbus and Bombardier were interested in a potential C Series partnership in 2015, well before the initiations of these AD and CVD proceedings.[39] In any event, the partnership with Airbus will benefit Bombardier substantially, for a number of reasons. For example, it provides Bombardier with access to Airbus' global supply chain; exposes the C Series to Airbus customers worldwide; leverages Airbus' expertise; and demonstrates long term confidence in the product. While the Petitioner attempts to describe the announced deal as an illegitimate circumvention scheme, the reality is that consolidation in the LCA industry is not uncommon and can add considerable value to LCA producers.[40]

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[38] *Petitioner's 11/13 Brief* at 2-3.
[39] *Petition* at Exhibit 27 (recounting public confirmation in 2015 by both Bombardier and Airbus of their discussions towards joint C Series business opportunities).
[40] *Petition* at Exhibit 46, "The Boeing/McDonnell Douglas merger: the economics, antitrust law and politics of the aerospace industry" (describing, for example, that consolidation provides airline customers with confidence in the long-term viability of aircraft they purchase); *Petition* at

A U.S. FAL for C Series has likewise been driven by legitimate business needs. In particular, it provides a U.S. location for U.S.-based airlines to evaluate and take delivery of C Series aircraft. Moreover, the Petitioner is wrong in its allegation that the current C Series FAL in Mirabel is under-utilized and that there is no basis, other than circumvention, for a second FAL.[41] Such an approach is artificially short sighted, ignoring long-term supply and demand trends. In fact, Boeing's own market forecast estimates that demand for single aisle LCA, which encompasses C Series,[42] will call for 28,140 aircraft over the next two decades, meaning over 1,400 aircraft per year.[43] The only competitors in these segments are CSALP, Airbus, Embraer and Boeing,[44] and nothing on the record suggests that these companies are capable of meeting demand. Airbus market predictions foresee similarly tremendous growth in demand for single aisle LCA.[45] With respect to Mirabel, the Petitioner has explained that: "Bombardier has put in place production facilities in Mirabel, Quebec that enable it to ramp up from a production rate of 15-20 Aircraft per year in 2016 to 120 Aircraft per year by 2020."[46] In contrast, in partnership

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Exhibit 27 (quoting a statement from Bombardier that "as previously mentioned, Bombardier will continue to explore initiatives such as a potential participation in industry consolidation").

[41] *Petitioners 11/13 Brief* at 2-3.

[42] Letter To The Honorable Wilbur L. Ross, Jr., U.S. Secretary Of Commerce, From William R. Isasi, Counsel To Bombardier; *Countervailing Duty Investigation of 100- To 150-Seat Large Civil Aircraft From Canada: Submission of New Scope Information* (October 18, 2017) (hereinafter "*CVD NSI*") & Letter To The Honorable Wilbur L. Ross, Jr., U.S. Secretary Of Commerce, From Mr. William R. Isasi, Counsel to Bombardier; *Submission of New Scope Information* (October 18, 2017) (hereinafter *"AD NSI"*) at Exhibit 2B, "Current Market Outlook, 2016-2035, The Boeing Company" at 52.

[43] *Id.* at 5, 7.

[44] *Id.* at 52.

[45] *CVD NSI & AD NSI,* exhibits 2C, "Airbus Global Market Forecast," at 120 (predicting 24,807 new single-aisle deliveries between 2017 and 2035).

[46] *Petition* at 65.

with Airbus, Bombardier hopes to produce and deliver significantly more C Series aircraft from its existing Mirabel FAL and a future U.S. FAL.

Finally, if the Department were to respond to the Petitioner's unfounded allegations and somehow expand the scope language to cover LCA parts, the Department would be directly undermining the objectives that U.S. AD and CVD law seeks to achieve -- protecting U.S. jobs and the domestic industrial base. Indeed, even prior to the partnership with Airbus, Bombardier estimated that at full production capacity, its C Series, which is sourced from over 50% U.S. suppliers, would support over 22,700 jobs in the United States and drive more than $30 billion in business with U.S. suppliers.[47] The addition of the U.S. FAL would add thousands of new jobs to the U.S. economy and bring in hundreds of millions of dollars in additional foreign direct investment into the United States.[48] Improperly expanding the scope of these investigations to include Canadian articles, components or parts would not support this substantial economic activity. To the contrary, the Department would be standing in the way of job creation and more than a quarter of a billion dollars in direct investment in the United States economy.

V. The Department Should Clarify That The Scope Of These Investigations Do Not Cover Canadian Articles, Components or Parts

The Petitioner has now, for the first time in this investigation, raised a question as to whether any orders that may result from these investigations would cover articles, components or

[47] *See Bombardier's 11/*06 *Evidentiary Submission* at Exhibit C, "Letter To The Honorable Wilbur Ross, U.S. Department Of Commerce, The Honorable Rhonda K. Schmidtlein, U.S. International Trade Commission, The Honorable Gary Cohn, National Economic Council, and The Honorable Robert E. Lighthizer, From Mr. Jim Justice, Governor of West Virginia (August 24, 2017)"; *Id.* at Exhibit D, "Affidavit of Bombardier Official."
[48] *Id.* at Exhibit D.

parts from Canada. Proper administration of the AD and CVD law requires the Department to resolve this issue now.

It is a bedrock principle of AD/CVD law that the scope of an AD or CVD order is determined during the investigation.[49] While that scope may be clarified during the life of the AD or CVD order, the scope cannot be amended or expanded after the AD or CVD order is issued.[50] It is the Department, and the Department alone, that determines what the final scope will be,[51] and it is the Department that will have to resolve any scope issues throughout the life of the AD or CVD order.[52] Failing to resolve the issue presented will cause significant uncertainty for the integrated U.S.-Canada aerospace industry and a myriad of scope issues for the Department to resolve under any resulting AD or CVD orders. Accordingly, now that the Petitioner has raised a question concerning the products covered by the scope of these investigations, it is incumbent upon the Department to resolve these questions now, before any orders might be established.

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[49] *Mitsubishi Elec. Corp. v. United States,* 898 F.2d 1577, 1582-83 (Fed. Cir. 1990) (explaining that the Department has the "responsibility to determine the proper scope of the investigation and of the antidumping order . . . ."); *Duferco Steel, Inc. v. United States,* 296 F.3d 1087, 1089 (Fed. Cir. 2002) ("Commerce has inherent power to establish the parameters of the investigation, so that it would not be tied to an initial scope definition that . . . may not make sense in light of the information available to {Commerce} or subsequently obtained in the investigation.") (internal citations and quotations omitted).

[50] *Royal Bus. Machs., Inc. v. United States*, 507 F. Supp. 1007, 1014 (Ct. Int'l Trade 1980) ("Each stage of the statutory {AD/CVD} proceeding maintains the scope passed on from the previous stage. Thus, the class or kind of merchandise described in the petition, which becomes the subject of the investigation . . . is the subject of the preliminary injury determination . . . , the suspension of liquidation . . . and the final determinations."); *Allegheny Bradford Corp. v. United States,* 342 F. Supp. 2d 1172, 1183 (Ct. Int'l Trade 2004) ("a scope determination is not in accordance with the law if it changes the scope of an order or interprets an order in a manner contrary to the order's terms.") (citing *Duferco* 296 F.3d at 1094-95).

[51] *Diversified Prods. Corp. v. United States,* 572 F. Supp. 883, 887 ("It is the {Department's} exclusive responsibility to clarify the scope of dumping findings.").

[52] *See, e.g.,* 19 C.F.R. § 351.225(k) (describing how the Department conducts scope rulings to resolve questions that arise under the scope of an AD or CVD order).

As discussed above, it would be contrary to the plain language of the scope proposed by Petitioners and adopted by the Department at the initiation of these investigations and in their preliminary determinations to include articles, components, or parts from Canada within the scope of these investigations. Expanding the scope would violate the Act which requires that the Department not take actions now that would seriously undermine or invalidate its industry support analysis. Similarly, the Department should not expand the scope in a way that would ensure that the ITC injury determination would not relate to the correct domestic industry. Furthermore, the Department's practice establishes that the Department will not expand scope to include components or parts where a petitioner has failed to list components or parts in the proposed scope language in the petition. Accordingly, it is crucial that the Department make clear now that these investigations and any resulting orders would not apply to articles, components, or parts from Canada.

Finally, as discussed above, making clear now that articles, components, and parts from Canada are not within the scope of the order would support the important initiative to build a new U.S. FAL and create thousands of new U.S. jobs. It would eliminate any doubt regarding potential duty liabilities that might attach to the articles, parts, or components that would be imported from Canada to produce C Series aircraft in the United States. Thus, rather than standing in the way of the U.S. FAL, the Department would be supporting the creation of thousands of U.S. jobs and over a quarter billion dollars in direct investment in the U.S. economy. In short, the Department would be supporting the important goals of the AD/CVD law by strengthening the U.S. aircraft manufacturing industry.

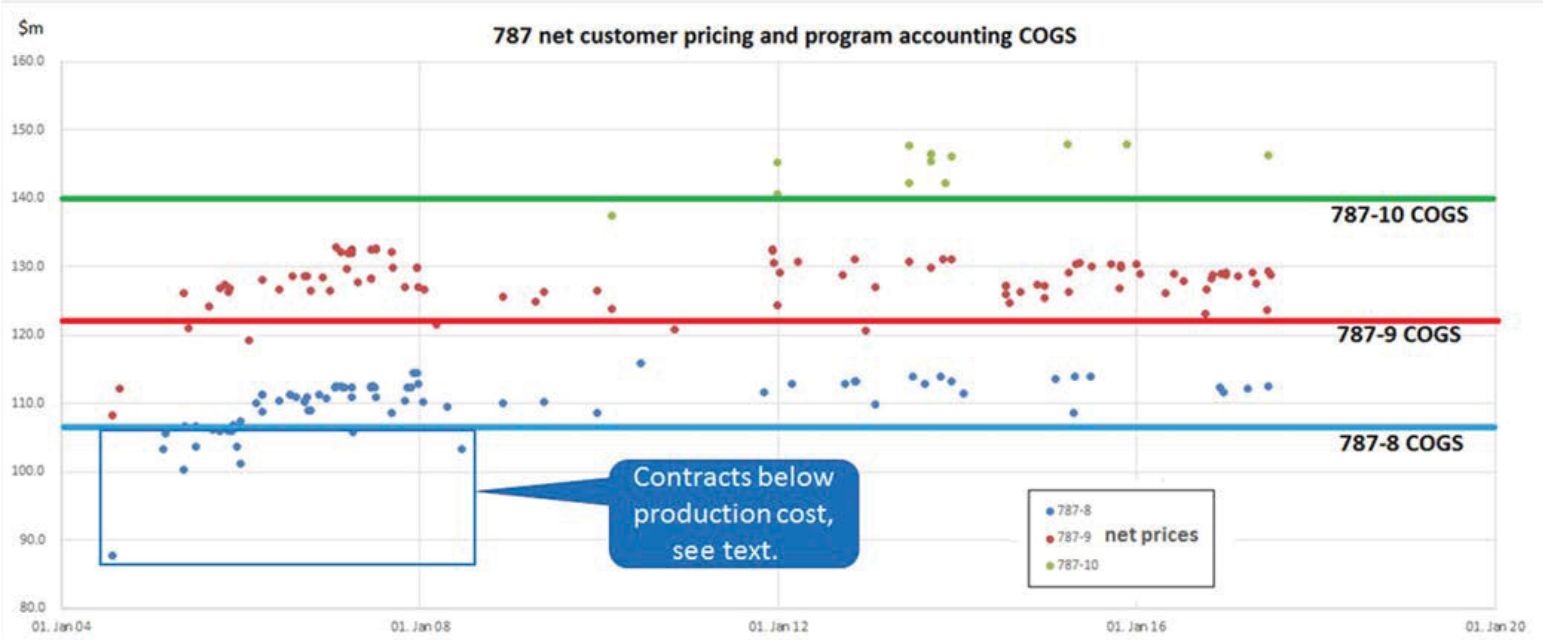
VI. The Announced Airbus Transaction Is Yet Another Reflection Of Boeing Prematurely Initiating An Investigation Before C Series Aircraft Are Sold Or Imported Into The United States

A deficiency that has plagued the Department's investigation into LCA from Canada since its inception has been that no subject merchandise has been sold by Bombardier for importation into the United States.[53] Indeed, no record evidence suggests that C Series aircraft have been produced or delivered for sale in the United States, and ample evidence has been placed on the record demonstrating that the purchase agreement between Delta and Bombardier signed in 2016 does not constitute a sale.[54] In its affirmative brief of November 13, 2017, Delta has correctly pointed out that the announced transaction with Airbus "is final and dispositive proof that Boeing's petition was improvidently brought before the subject merchandise was produced, let alone delivered."[55] Bombardier agrees.

[53] *See, e.g., 100- to 150-Seat Large Civil Aircraft from Canada: Preliminary Affirmative Determination of Sales at Less Than Fair Value,* 82 Fed. Reg. 47,697 and accompanying preliminary decision memorandum at 6, (October 13, 2017).
[54] *CVD NSI* at Exhibit 4A & Letter To The Honorable Wilbur L. Ross, Jr., U.S. Secretary Of Commerce, From Mr. William R. Isasi, Counsel to Bombardier; *Antidumping Investigation of 100- To 150-Seat Large Civil Aircraft From Canada: Response to August 16 Supplemental Questionnaire* (August 23, 2017) at Exhibit 1A.
[55] Letter To The Honorable Wilbur L. Ross, U.S. Secretary Of Commerce, From Yohai Baisburd; *100- to 150- Seat Large Civil Aircraft from Canada: Opportunity to Comment on Proposed Transaction* (November 13, 2017) at 4.

EXHIBIT 21

Boeing 787 family prices rose as risks decreased



Source: Bjorn Fehrm, *How Boeing pays back the 787 debts*, Leeham News and Comment (July 27, 2017), https://leehamnews.com/2017/07/27/boeing-pays-back-787-debts/. (Bombardier pre-hearing brief Exhibit 35)

BOMBARDIER
the evolution of mobility

EXHIBIT 22

Bombardier CS100 gets EASA, FAA certification

June 17, 2016 | Montreal
Written by Bombardier

Bombardier Commercial Aircraft has announced that its CS100 aircraft has been awarded Type Validation by the European Aviation Safety Agency (EASA) and the Federal Aviation Administration (FAA) following a comprehensive testing program. The EASA and FAA validations follow the CS100 aircraft Type Certification awarded by Transport Canada in December 2015.

EASA's validation paves the way for the delivery of the first CS100 aircraft to launch operator Swiss International Air Lines (SWISS) at the end of June and the aircraft's entry-into-service in July 2016. The FAA validation is a required precursor to operation of the aircraft in the U.S.

"In the same week that our C Series aircraft surpassed 5,000 flight hours and the first SWISS aircraft readies for its first flight, we are celebrating another very proud moment with the receipt of the CS100 aircraft EASA and FAA Type Validations. I congratulate our teams for all their hard work in delivering these latest significant accomplishments," said Robert Dewar, Vice President, C Series Program, Bombardier Commercial Aircraft. "As we move quickly towards the delivery of the first CS100 aircraft to SWISS, we are gratified that several aviation leaders are confirming what we have been saying all along -- the C Series aircraft will open up new opportunities fo operators, while delivering unrivalled economic advantages, performance, and environmental credentials."

"Obtaining the CS100 aircraft Type Validations from EASA and the FAA marks one of the final chapters in our very successful test program," said François Caza, Vice President, Product Development and Chief Engineer and Head o Bombardier's Design Approval Organization. "Achieving these latest milestones is a direct result of the quality of the work by our highly skilled employees who were involved in the program as well as from the solid collaboration we established with our suppliers."

EXHIBIT 23

AviationBrief.com
Your Daily Aviation Intelligence Brief

Air Transport World

FAA validates Bombardier CS300

(No Ratings Yet)

By AviationBrief

Published: December 14, 2016

Related

- Bombardier CS300 Gets FAA Type Validation
- AirBaltic takes delivery of first Bombardier CS300
- Bombardier Delivers First CS300
- Bombardier delivers first CS300 to Air Baltic
- Bombardier to deliver first

The Bombardier CS300 has gained type validation by FAA, meaning both variants of the CSeries have now been certified by Transport Canada, the European Aviation Safety Agency (EASA) and FAA.

Just as Transport Canada and EASA did, FAA has also granted the CS100 and the CS300 the Same Type Rating (STR), a designation that allows pilots to transfer between the two variants with minimal training, providing cost savings for airlines that operate both.

"These airworthiness validations by international authorities recognize the exhaustive process and excellent work done by Bombardier, in conjunction with Transport Canada, who awarded the CSeries aircraft their original aircraft type approvals," Bombardier VP-product development and chief engineer François Caza said in a statement.

FAA's approval of the CS300 came on the same day Latvian carrier airBaltic placed the first CS300 into revenue service on the Riga-Amsterdam route.

Aaron Karp aaron.karp@penton.com

News

Tagged with: Bombardier, CS300, validates

EXHIBIT 24

THE VERGE

REPORT

208

Is the 787 Dreamliner a lemon?

A string of incidents casts Boeing's $32b gamble in a harsh light

by Chris Ziegler | Jan 17, 2013, 1:15pm EST

787

Yesterday's decision by the Federal Aviation Administration to ground all US-based Boeing 787s — the crown jewel in Boeing's commercial aviation product portfolio — is unquestionably an alarming one: it halts the most advanced airliner ever designed from carrying passengers until Boeing can get to the bottom of lithium ion battery fires that have disrupted one flight and left another aircraft smoking at the gate. United, which owns all six of the US 787s currently in service, will be forced to cancel a number of international routes or backfill them with other aircraft until the situation is resolved — and in all likelihood, aviation authorities in other countries around the world will follow suit.

CAN THE DREAMLINER ULTIMATELY BE A SAFE WAY TO FLY?

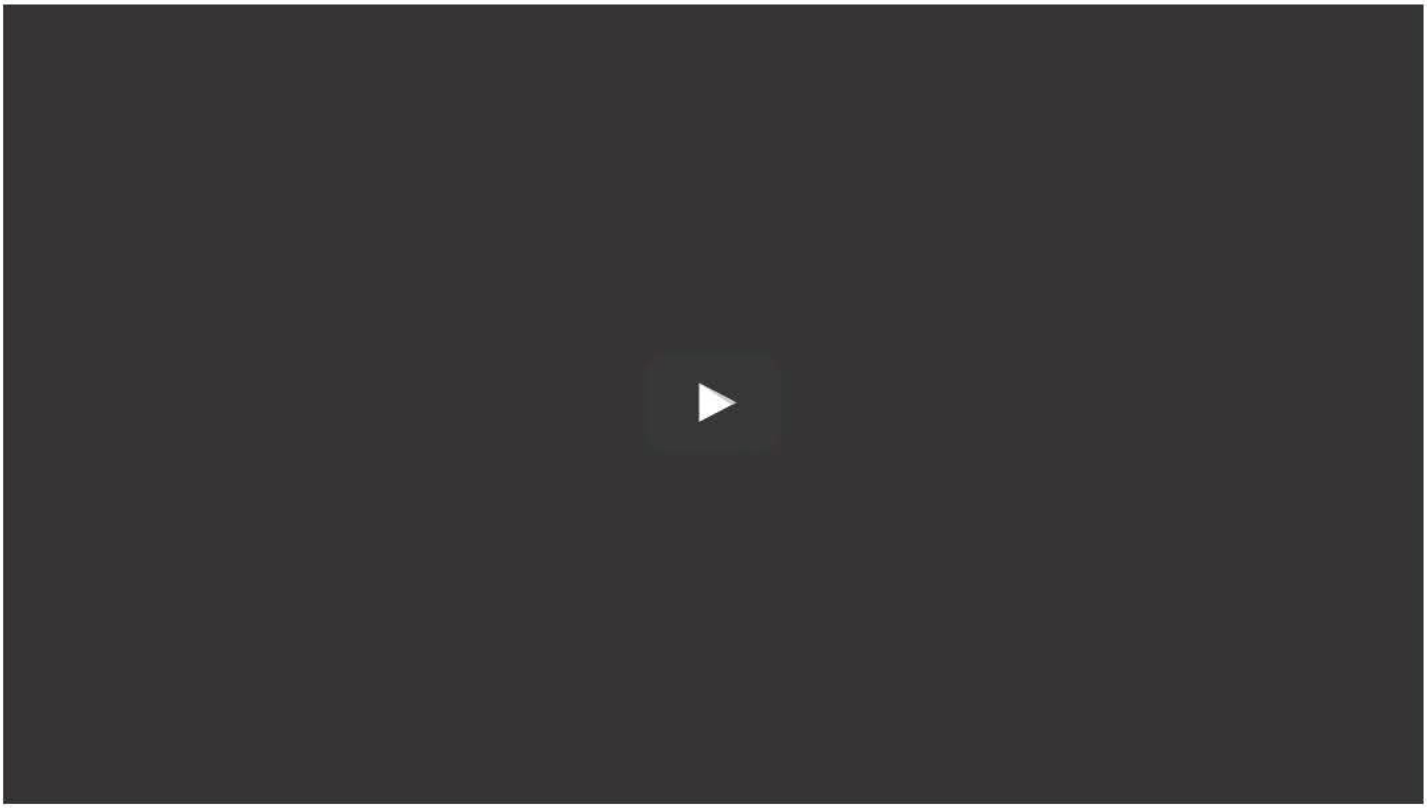
By all appearances, it's a troubled start for one of the most ambitious airliners since the dawn of the jet age, beleaguered by cost overruns, delays, and a list of incidents that seems to be growing by the day. Will Boeing need to write down the $30-plus billion in research and development that it took to get to this point? Can the Dreamliner ultimately be a safe way to fly?

To answer those questions, it helps to look back at the most popular jet airliner ever made, Boeing's workhorse 737. If you've ever flown on a commercial flight, odds are quite good you've flown on a 737; it's as close to ubiquitous as a 500 mile-per-hour machine has ever become.

In 1991, a 737 operated by United fell out of the sky on final approach into Colorado Springs, Colorado, killing all aboard. Three years later, a USAir (now US Airways) 737 suffered a similar fate in the skies over Pittsburgh. In both cases, the flight recorders revealed that the pilots had experienced an unexplained and sudden loss of control. Eventually, investigators found a common link: the aircraft's rudder control module was prone to seizing and even *reversing* — meaning left became right, right became left — when it grew very cold and mixed with hot hydraulic fluid. Understandably, pilots grew confused by the reversal and had inadvertently flown their aircraft out of control.

Once the problem was discovered and verified, the FAA ordered operators to replace the rudder control units. Today, the 737 is an active member of an unprecedented era of safety in aviation that saw just one fatal accident per 2.5 million flights last year.

Meanwhile, a highly-publicized crash landing of a 777 at London Heathrow in 2008 — Boeing's next-youngest airliner after the 787 — exposed problems with ice buildup in fuel lines that led to a redesign and retrofit.



BOEING ISN'T THE ONLY CULPRIT

And Boeing isn't the only culprit: Airbus's 737 competitor, the A320 series, suffers from an issue that can cause portions or all of the instrument panel to go blank. Regulators both in Europe and the US have identified the issue and are requiring a fix. The A320's bigger cousin, the widebody A330, was required to upgrade pitot tubes — components critical in gauging airspeed — after a defective design is believed to have contributed to a 2009 crash of an Air France flight in the Atlantic. And the enormous double-decker A380 has been cited for engine problems and cracking wings in its brief existence; both of those issues are actively being corrected.

Indeed, a quick glance of the first few pages of airline incident tracker *The* Aviation Herald reveals an important reality: that problems with commercial aircraft of all types are a daily occurrence. Government regulators, manufacturers like Boeing, Airbus, and Embraer, airlines, and pilots operate out of an abundance of caution because the stakes are so high with every flight that leaves the ground, and you'd be hard pressed to find a single model of airliner that hasn't been beset with numerous upgrades and retroactive fixes designed to make them safer.

With each new airliner comes new technology researched and refined since the introduction of the previous one, and the Dreamliner is a particularly deep example — it's the first constructed primarily of composite materials and to replace a number of hydraulic systems with electric ones in order to save weight. Even the best engineers and a decade of testing couldn't suss out every issue that the 787 would face in the real world.

PROBLEMS WITH COMMERCIAL AIRCRAFT OF ALL TYPES ARE A DAILY OCCURRENCE

And if they're commonplace in the industry, why is the 787 getting so much press for these issues? Part of the blame falls on Boeing, United, and its other carrier partners for attracting so much media attention on the Dreamliner throughout its development and launch — and for emphasizing just how "new" and "different" this aircraft really is from its predecessors. And the FAA's decision to ground the fleet is admittedly unusual — as The *Wall Street Journal* points out, it hasn't happened to an entire model since the McDonnell Douglas DC-10 in 1979.

But the DC-10 went on to be an extraordinarily successful (and safe) aircraft for over two decades after that grounding, and it's still in use with cargo operators even today. Every precedent from a century in aviation innovation suggests that the 787 will do the same.

IN THIS STORYSTREAM

Boeing 787 Dreamliner hits problems after launch

- FAA and Boeing held responsible for last year's Dreamliner battery mishap

EXHIBIT 25

Federal Aviation Administration

Press Release – FAA Approves Boeing 787 Battery System Design Changes

For Immediate Release

April 19, 2013
Contact: Laura Brown
Phone: (202) 267-3883

WASHINGTON, D.C. – The Federal Aviation Administration (FAA) today took the next step in returning the Boeing 787 to flight by approving Boeing's design for modifications to the 787 battery system. The changes are designed to address risks at the battery cell level, the battery level and the aircraft level.

Next week, the FAA will issue instructions to operators for making changes to the aircraft and will publish in the Federal Register the final directive that will allow the 787 to return to service with the battery system modifications. The directive will take effect upon publication. The FAA will require airlines that operate the 787 to install containment and venting systems for the main and auxiliary system batteries, and to replace the batteries and their chargers with modified components.

“Safety of the traveling public is our number one priority. These changes to the 787 battery will ensure the safety of the aircraft and its passengers,” said Transportation Secretary Ray LaHood.

“A team of FAA certification specialists observed rigorous tests we required Boeing to perform and devoted weeks to reviewing detailed analysis of the design changes to reach this decision,” said FAA Administrator Michael Huerta.

To assure proper installation of the new design, the FAA will closely monitor modifications of the aircraft in the U.S. fleet. The FAA will stage teams of inspectors at the modification locations. Any return to service of the modified 787 will only take place after the FAA accepts the work.

As the certifying authority, the FAA will continue to support other authorities around the world as they finalize their own acceptance procedures.

EXHIBIT 26

C Series: European flights redefined

The Bombardier C Series sets new standards in sustainability, efficiency and comfort. Fly to one of our attractive destinations in Europe, and enjoy a new travel experience.

Innovation for you and the environment

SWISS is the first airline in the world to order a total of 30 Bombardier type C Series 100 and C Series 300 aircraft . Thanks to the latest technology in engines, systems and materials, the C series is currently considered the most innovative aeroplane. It is used on European routes, and is to replace the Avro RJ100.

Flight experience and comfort

1/5

Light cabin and better views

Large windows positioned closely together allow plenty of daylight into the cabin, which provides a new sense of space. Lean against your window and enjoy the views.

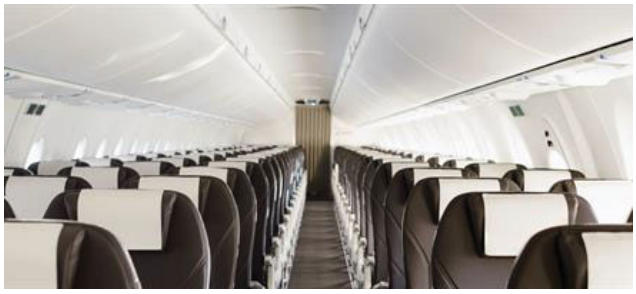
More screens

What is also new is that there are screens above every row of seats that show films and display the flight information during your flight.

Easy to store your hand baggage

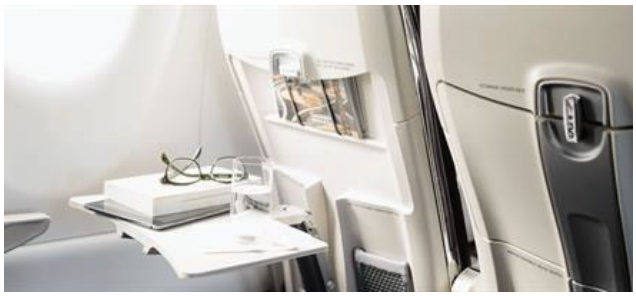
There is plenty of space in the new overhead compartments for your hand baggage. It only takes moments to put it away. The new design has greatly increased the feeling of spaciousness in the cabin.

Better ventilation



The air conditioning is automatically controlled according to the number of passengers. This guarantees the best possible ventilation and a pleasant temperature for every seat.

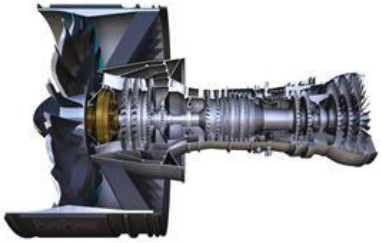
Relax and enjoy



Whether dining or working, the table support is now positioned in the middle, which means there is always plenty of room for your knees even with the table folded down.

Innovation and the environment

Low CO2 emissions



The fuel consumption has been reduced by 20 percent, and with it the CO2 emissions as well. This is thanks to the newly developed engines, optimised aerodynamics and lightweight construction.

Quietest commercial aircraft

The noise level that is perceived by the human ear has been halved. The new C series is an important contribution by SWISS to the quality of life of the people who live near the airport.

Optimum aerodynamics

The combination of the specially shaped wings and winglets and the optimum engine size reduces the fuel consumption.

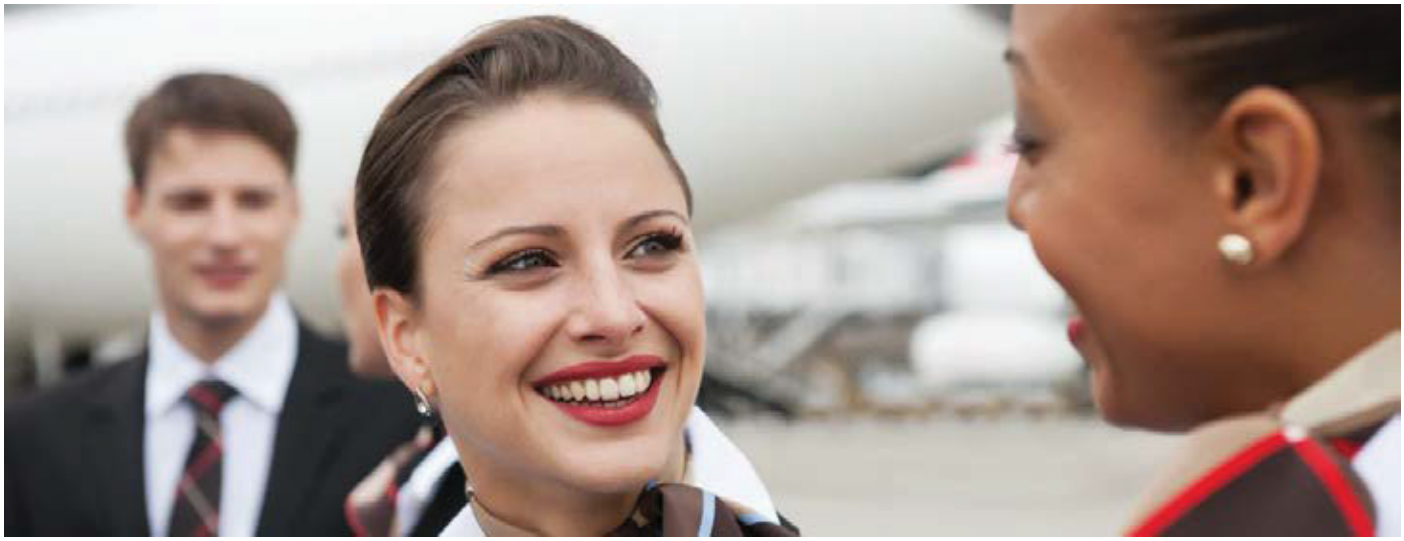
Fly light

The weight of the aircraft has been reduced by a tonne, thanks in no small part to the new kind of aluminium and selected composites.

Innovative braking system

The C series is the first aircraft to use an electric braking system. This increases efficiency and reduces wear. It also provides a softer landing for passengers.

Working above the clouds



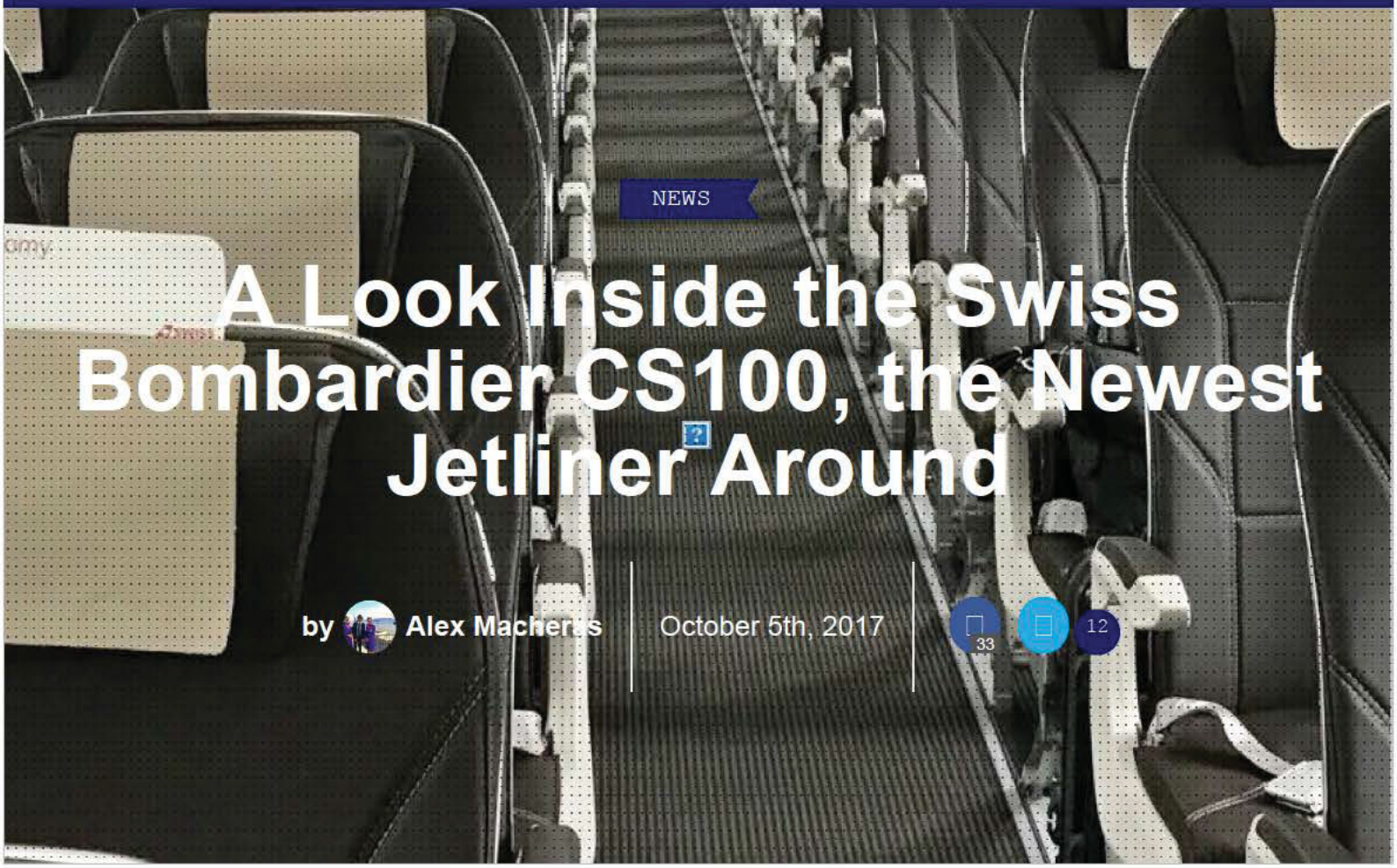
Better outlook

The cockpit was developed specifically to fulfil our pilots' requirements. Now, for instance, all the relevant information can be projected to them at eye level.

Pleasant service

The on-board kitchen, the galley, has also been redesigned. The functional and ergonomic design supports our cabin crew with their work.

EXHIBIT 27



NEWS

A Look Inside the Swiss Bombardier CS100, the Newest Jetliner Around

by Alex Macheras | October 5th, 2017 | 33 | 12

Swiss Air Lines is the biggest operator of the newest jetliner in service in the world, the Bombardier C-Series, with eight CS100 and three of the larger CS300. It was also the first airline to put the CS in service, in July of last year. Swiss will soon cede the title of biggest operator of the CS to Delta, which has 75 CS100s on order plus options and plans to introduce the new plane next year on flights from New York.

The C-Series aircraft, a single-aisle twinjet which seats up to 150 people, has been in the headlines recently when the US Department of Commerce issued a preliminary ruling, last week, that would levy a 219.63% tariff on every C-Series airliner imported into the US. The ruling stemmed from a complaint by Boeing that the Canada-based Bombardier had engaged in dumping, or artificially keeping prices low to win orders, thanks to government subsidies. According to Boeing, its Canadian rival was able to offer Delta the CS100 at substantially lower prices than the 737 thanks to those subsidies. Bombardier disputes this, and the tariff ruling is not yet final. (Delta CEO Ed Bastian called the ruling "absurd", and expressed confidence that his airline will get its new jet at the price it had agreed upon.)

In the meantime, if you want to experience the C-Series, you can go for either Swiss, which flies it all over Europe, including to London (LCY), Madrid (MAD) and Oslo (OSL), or AirBaltic, a Latvian airline that's betting heavily on the CS300, with 7 in service and 13 on order.

Swiss has a total of 30 C-Series on order and says the entry into service was "perfect," with the jet becoming an instant hit with passengers, mainly due to its spacious cabin.

The Points Guy's Zach Honig had a look at the CS100 at the Farnborough air show last year, and found it to be "a huge step up from just about any regional jet." A tour of the aircraft earlier this year at the Zurich airport (ZRH) and a special flight over the Alps confirmed that impression.

The engines are visibly larger than the turbofans installed on most jets in this class — they are Pratt & Whitney 1500G geared fans, which according to their maker save 20% fuel compared to previous similar engines.

FullSizeRender 168-2

A close look reveals the curved fan blades often seen on the latest generation of jet engines. Swiss says that compared to the Avro RJ100 it replaces, the Cs100 reduces CO_2 output by 90,000 tons a year.

FullSizeRender 161-2

Swiss CS100s have a total of 125 seats — 20 in Business Class and 105 in Economy Class. C-Series aircraft are 5-abreast, in a 2-3 configuration. As a result, the cabin feels more spacious than a regular 3-3 short-haul aircraft. The interior is very elegant, with brown and beige tones similar to other interiors in the airline's fleet.

FullSizeRender 163

The C-Series has one of the widest aisles, adding to the feeling of space. All seats throughout the aircraft in both Business & Economy have a pitch of 30 inches and are 18.5 inches wide — not an outstanding pitch, but wider than most. Still, 30 inches is more than some legacy airlines in Europe; Swiss parent company Lufthansa has 28-inch pitch on its new A320 NEO.

FullSizeRender 167-2

There isn't any form of divider between Business Class and Economy, simply a plastic card stating "Economy Class behind this row." This gives Swiss the opportunity to extend or reduce the size of the Business Class cabin, according to demand. In Business Class, only three seats per row are sold: C and E seats are blocked. Only the seats in yellow on the diagram below are available. On its single-aisle Airbuses, Swiss does the same by blocking the middle seats in each row of six.

Business class passengers get the Swiss Euro Biz class service, which includes a full dining service — one meal served on crockery, starter, dessert also on tray — pre-take off drinks and refresh towel.

FullSizeRender 171-2

The CS100 features large windows positioned much closer together compared with other single aisle aircraft, allowing plenty of daylight into the cabin.

This is what 30 inches of legroom looks like:

Large drop-down overhead bins are the same size as those you'd expect on a new widebody aircraft, with plenty of room for cabin baggage.

Perhaps one of the coolest features of the CS100 are the mini overhead screens. The screens are used prior to departure so show the safety video, and then throughout the flight to show videos about Switzerland and Swiss (without audio).

During flight, you can appreciate how bright the cabin is. In the photo below, the minimum light setting option was on, letting natural daylight illuminate the cabin.

Here's the rear galley.

Including the view from the rear emergency exit.

FullSizeRender 162-2

The C Series features a fully digital flight deck, including large LCD displays, and a heads up display (HUD) for both pilots.

FullSizeRender 173-2

The cockpit design reduces the number of monitor displays by integrating flight systems to be displayed on two main screens per pilot.

IMG_2227-2

Other perks of this aircraft include larger bathrooms compared with other single aisle airplanes. They contribute to make the Swiss CS100 a very comfortable aircraft, with a sophisticated interior. It feels more like a widebody than a narrowbody thanks to the 2-3 configuration, wide 20-inch aisle and spacious seat width. And the very quiet engines add to the serene atmosphere onboard.

Have you flown Swiss' C Series aircraft?

EXHIBIT 28

Swiss debuts Bombardier CS100 into London City Airport

News

8 Aug 2017 by Tom Otley

Swiss has started flights with the Bombardier CS100 aircraft into London City. The aircraft which seats 125 passengers in a two-class configuration of economy and business, is the largest aircraft using London City and received clearance for the “steep approach” 5.5 degrees required for London City instead of the more normal 3 degrees, in July 2017.

> Bombardier CS100 approved for London City

Although the headline passenger capacity is 125 passengers, the airline is restricting the number of passengers it will take on board flights to London City to 91 which will rise to 108 by August 21, 2017.

The restriction in passenger numbers is for landing only.

The airline says that the maximum number of passengers of 125 would be “fine on a dry runway”, but when wet it says it will restrict the number in the interests of safety and doubts it will ever fly a full load of 125 passengers, pointing out that with the configuration of 2-3 (AC-DEF) for business class passengers the middle seat (E) will be left empty, reducing the total number of passengers.

It also points out that the Avro RJ100 which previously had been flying into London City had a top capacity of 97 seats which was a rarely achieved for similar reasons, so even at 108 seats the CS100 is an increase in capacity.

Swiss has ordered 30 of the Bombardier aircraft with 10 CS100 and 20 CS300 aircraft. The CS300 seats 145 passengers in a two-class configuration. Both aircraft have been used widely across the Swiss network and are being used to replace the RJ100 aircraft. Swiss has so far trained over 100 pilots.

Swiss says the new aircraft is more comfortable for passengers with a roomier cabin than the RJ100 it is replacing. Seat width is 18.5 inches (47cm), seat pitch 30 inches and aisle width 20 inches (51cm. On the CS300 (the larger aircraft), the seat pitch differs between economy and business 29 inches in economy and32-33 inches in business (for the CS300).

The larger aircraft has 25 percent more hand baggage stowage, with upward closing bins for greater space, larger windows positioned more closely together, lower noise levels and consequently better cabin ambience and thinner seats which the airline says are more comfortable.

For the airline fuel consumption is 20 percent lower (eight percent due to the more efficient engines, 12 percent due to the enhanced aerodynamics and the weight savings achieved through more advanced construction materials.

The aircraft deliveries have been delayed by nearly three years because of delays to the Pratt & Whitney PW1500 engines.

swiss.com

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EXHIBIT 29

Bombardier CSeries: The ultra-comfortable plane that airlines don't think you want

Hugh Morris

Bombardier CS 100 C Series jet during its delivery to Swiss last year. Only two European carriers fly the CSeries of 100- and 145-passengers planes - Swiss and AirBaltic. Photo: Bloomberg

SHARE Bombardier, the aircraft manufacturer at the centre of a dispute which

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threatens to damage relations between the US and UK, is very proud of its new plane.

The CSeries, introduced to the public last year, promises "unparalleled comfort" in a single-aisle cabin, offering wider seats, bigger overhead compartments and larger windows. It was pioneered for airlines who wanted to give their customers that little bit more, while also enjoying fuel efficiency and reduced noise pollution.

The only problem? Very few airlines are interested.

The CSeries, introduced to the public last year, promises "unparalleled comfort" in a single-aisle cabin, offering wider seats, bigger overhead compartments and larger windows. Photo: Bloomberg

Only two European carriers fly the CSeries of 100- and 145-passengers planes - Swiss and AirBaltic, and though they praise the performance of the aircraft and have more on the order books, there is concern that few others will plump to stray from their traditional Boeing and Airbus models in the name of passenger comfort.

Who is Bombardier?

"Bombardier is the world's leading manufacturer of both planes and trains," says the company. That is to say it leads among companies that make both forms of transit - not that it leads in both markets.

In fact, when it comes to aircraft it is small fry. The Canadian company's aerospace division had a revenue of $US9.2 billion ($A11.7 billion) in 2016,

next to Boeing's $US65 billion and Airbus's $US66.6 billion. Boeing, based in Seattle, and Airbus, in Toulouse, are the two giants of the aviation industry.

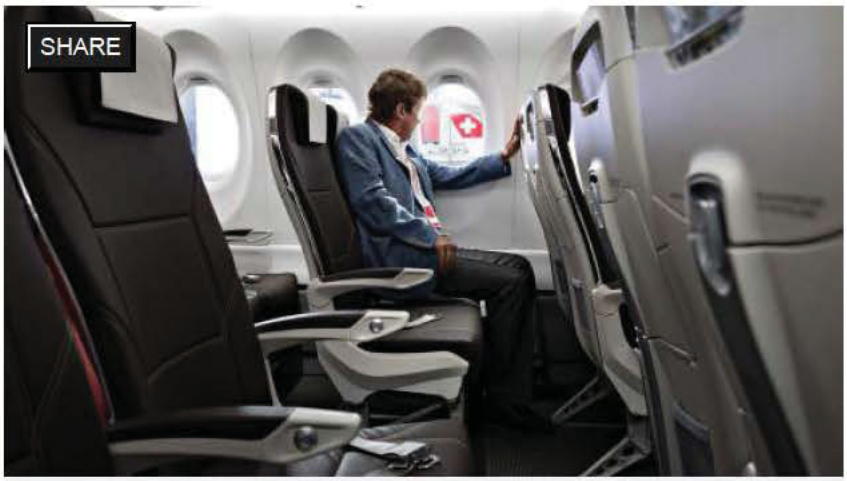
However, it has forged a path for itself in the smaller business jet market, with aircraft such as the Learjet, Challenger and Global.

The manufacturer, one of Northern Ireland's biggest employers, has become a pawn in a larger battle between Boeing and Airbus about public subsidies.

What's so good about the CSeries?

The fundamental difference is that with five seats to a row, rather than six, passengers (of the CS100) enjoy seats with 18.5 inch widths (45.7cm) and 30-32 inches (76-81cm) of legroom in economy; compared to say, Qantas' Boeing 737 layout, which allows for 17-inch widths and 30 inches of legroom.

AirBaltic, the first airline in the world to fly the CS300 (the CS100's larger sister), with seven of an order of 20 currently in its possession, said the plane has "performed beyond the company's expectations, delivering better overall performance, fuel efficiency and convenience for both staff and the passengers".



With five seats to a row, rather than six, passengers of the CS100 enjoy seats with 18.5 inch widths (45.7cm) and 30-32 inches (76-81cm) of legroom in economy. Photo: Bloomberg

In a statement, the airline, which operates out of Riga, Latvia, flying to 68 destinations, said: "The new CS300 aircraft with 145 seats, offers excellent flying experience with benefits for passengers, such as wider seats, larger windows, more hand luggage space in the cabin, and improved lavatories."

Why is nobody buying it?

Word on the market is that airlines want bigger planes that fly more passengers, earning them more revenue and enabling them to keep fares down.

The U.S Commerce Department slapped duties of nearly 220 per cent on Canada's Bombardier C Series last month. Photo: AP

"Passengers get into anything that flies if the ticket is cheap," AirBaltic chief executive Martin Gauss told the *Wall Street Journal*.

Despite concerns that Bombardier's order list (about 350) pales in comparison to the likes of Boeing (more than 3800) and Airbus (more than 5100), the manufacturer was upbeat in a recent assessment of its 20-year forecast.

"The outlook for our markets is strong," said president Fred Cromer. "We are the only manufacturer with a solution for any type of business model in the 60- to 150-seat segment, and we are well positioned to capture the value from the exciting opportunities outlined in this market forecast."

The Canadian company's aerospace division had a revenue of $US9.2 billion ($A11.7 billion) in 2016, next to Boeing's $US65 billion and Airbus's $US66.6 billion. Photo: Bloomberg

But analysts say that the Bombardier's pricing of the CSeries was too high for airlines to consider it as a single-aisle alternative.

See also: Six incredible planes you'll never get to fly on

What is the new dispute about?

The US is poised to impose punitive tariffs on Bombardier after the company lost the first round of an international trade dispute with Boeing.

Boeing's battle over Bombardier is indirectly related to its long-running feud with Airbus. The pair are the biggest aircraft makers in the world: one American, the other European, headquartered in France.

As it has rumbled on, the dispute is now being fought for them by proxy between the European and US governments.

With regards to Bombardier, Boeing claims the Canadian company received illegal support for its C-series small airliner when the province of Quebec took a $US1 billion stake in the troubled programme. This support ultimately helped Bombardier agree a sale of up to 125 of airliners to US carrier Delta at big discount.

So sensitive is the row - with the fate of 4500 jobs in Northern Ireland on the line - that Theresa May asked Donald Trump to intervene earlier this month. Awkwardly, Boeing has reminded the prime minister that it employs 16,500 people in its supply chain in the UK.

One of the most interesting things about the case is that Boeing hasn't really seen sales snatched away by Delta's purchase of the C-Series. The Bombardier jet is smaller than Boeing's smallest craft, the 737; essentially they are targeting different markets.

So how does Boeing's sabre-rattling over Bombardier relate to Airbus? Well, the US giant doesn't want to see another potential competitor supported in the same way that has allowed Airbus to come from nothing in the Seventies to being an equal rival today.

In fact, both sides claim the other has benefited from state aid at some point - given the high cost of producing aircraft, state subsidies have been an inevitable part of the aerospace sector for a long time. Unsurprisingly, some have accused Boeing of hypocrisy in taking on Bombardier, a much smaller rival, over the issue.

Where does this leave Bombardier? The company is already looking ahead to a ruling next year from the International Trade Commission on whether Boeing suffered any injury from the C Series. It is confident in its case: "Because Boeing years ago abandoned the market the C Series serves, there is no harm," it says. This battle has much further to run. - *Alan Tovey & Jon Yeomans.*

The Telegraph, London

See also: The A380 superjumbo is 10 - how has it measured up?

EXHIBIT 30

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airBaltic CS300 Operation Performance Exceeding Expectations

Riga, 12.01.2017

The Latvian airline *airBaltic* has completed more than 100 flights and flown over 200 hours with the brand new Bombardier CS300 aircraft - the greenest commercial aircraft in the world.

Chief Executive Officer of *airBaltic* Martin Gauss: "We are happy to announce that our flight operation performance with the CS300 jet airliners are exceeding expectations. Both of our aircraft have entered full commercial operations, servicing our passengers just like any other *airBaltic* aircraft. The smooth operational performance is complimented by a lot of positive feedback that we receive from our customers about the improved flying experience with the new Bombardier CS300 aircraft. "

airBaltic CS300 aircraft operates on such popular routes as Amsterdam, Munich, Frankfurt, Helsinki, Tallinn, Barcelona, Rome and others. The *airBaltic* modernized fleet with the CS300 will ensure growth of the carrier with at least 10 additional routes and 16% more tickets on sale in 2017. To see full CS300 schedule please visit company's website at https://www.airbaltic.com/fleet/cs300/lv/.

Route	Flight frequency	Start date	Price*, Basic	Price*, Premium	Price*, Business
Riga – Madrid (Spain)	3 flights weekly	May 26, 2017	75 EUR	135 EUR	499 EUR
Riga – Odessa (Ukraine)	Up to 3 flights weekly	March 26, 2017	89 EUR	149 EUR	479 EUR
Riga – Geneva (Switzerland)	3 flights weekly	May 4, 2017	69 EUR	159 EUR	539 EUR
Riga – Aberdeen (United Kingdom)	3 flights weekly	May 2, 2017	39 EUR	125 EUR	639 EUR
Riga – Stavanger (Norway)	2 flights weekly	May 2, 2017	49 EUR	145 EUR	425 EUR
Riga – Gothenburg (Sweden)	6 flights weekly	June 1, 2017	49 EUR	145 EUR	489 EUR
Riga – Tampere (Finland)	6 flights weekly	March 26, 2017	29 EUR	115 EUR	425 EUR
Riga – Catania (Italy)	1 flight weekly	May 11, 2017	99 EUR	145 EUR	639 EUR
Vilnius – Paris (France)	4 flights weekly	March 26, 2017	39 EUR	115 EUR	595 EUR
Vilnius – Munich (Germany)	3 flights weekly	March 27, 2017	39 EUR	115 EUR	539 EUR

**Lowest fare, including taxes, fees and service charges, on www.airBaltic.com, subject to availability*

airBaltic serves over 60 destinations from its home base in Riga, Latvia. From every one of these locations, *airBaltic* offers convenient connections via Riga to its network spanning Europe, Scandinavia, CIS and the

Middle East. In addition, *airBaltic* also offers direct flights from Tallinn and Vilnius.

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airBaltic (AIR BALTIC CORPORATION) is the world's most punctual airline connecting the Baltic region with 60 destinations in Europe, the Middle East, and the CIS. *airBaltic* is a joint stock company that was established in 1995. Its primary shareholder is the Latvian state, which holds 80.05% of the stock, while Ralf-Dieter Montag-Girmes holds around 20% through his fully-owned Aircraft Leasing 1 SIA. The *airBaltic* fleet consists of 25 aircraft – 2 Bombardier CS300, 11 Boeing 737 and 12 Bombardier Q400Next Gen. *airBaltic* has received numerous international awards for excellence, innovative services, and achievements in reshaping its business. In 2012, *airBaltic* was ranked by Airlinetrends among the Top 10 airlines globally for innovations. *airBaltic* achieved the best on-time performance globally for two years running in 2014 and 2015.

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airBaltic is the national Latvian airline that offers cheap flights to over 60 destinations in Europe and beyond from Riga, Vilnius and Tallinn. Its convenient flight schedule is great for both business and leisure travel, and frequent online deals at low prices provide the option to book holidays well in advance or grab a last-minute flight. Tickets are available for booking online on airBaltic.com, at travel agencies or via airBaltic call centre.

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- Over 300 destinations worldwide
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- Best price for extra services

EXHIBIT 31

PUBLIC VERSION

Boeing P&L Data for 100- to 150-Seat LCA and Other Single Aisle LCA

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	January- September 2016	January- September 2017
Net Sales Quantities												
Boeing 737-700/MAX 7	[											]
Boeing 737-800/MAX 8	[											]
Boeing 737-900/MAX 9	[											]
Boeing MAX 10	[											]
Total	[											]
	[											]
Net Sales Values												
Boeing 737-700/MAX 7	[											]
Boeing 737-800/MAX 8	[											]
Boeing 737-900/MAX 9	[											]
Boeing MAX 10	[											]
Total	[											]
Net Sales AUV												
Boeing 737-700/MAX 7	[											]
Boeing 737-800/MAX 8	[											]
Boeing 737-900/MAX 9	[											]
Boeing MAX 10	[											]
Total	[											]
Operating Income												
Boeing 737-700/MAX 7	[											]
Boeing 737-800/MAX 8	[											]
Boeing 737-900/MAX 9	[											]
Boeing MAX 10	[											]
Total	[											]
Operating Margin												
Boeing 737-700/MAX 7	[											]
Boeing 737-800/MAX 8	[											]
Boeing 737-900/MAX 9	[											]
Boeing MAX 10	[											]
Total	[											]

Source: Boeing U.S. Producers' Questionnaire at III-9a, III-9c, V-5a, V-5b, V-5c, V-5d, V-5e, and V-5f.

EXHIBIT 32

AirInsight

Premium #327 – Boeing's Trade Complaint Against Bombardier – Does It Hold Water?

By Ernes S. Avai
May 2, 2017
https://airinsight.com/2017/05/02/premium-327-boeings-trade-complaint-bombardier-hold-water/

In a Goliath vs. David move, Boeing file a trade complaint against Bombardier through the Department of Commerce and The United States International Trade Commission. This administrative process, which has already disrupted US-Canada trade with a 20% tariff on soft wood products from Canada, is being pursued by Boeing in the civil aviation field to counteract Bombardier's CSeries. The claim that Bombardier is costing Boeing jobs is laughable, at best. Delta wanted a 100 seat aircraft, a size range Boeing no longer makes.

Our analysis of Boeing's claim results in zero actual injury since Boeing does not currently and has no plans to manufacture an aircraft that competes with the CS100, which is the only CSeries model that has currently transacted for in the United States. While Boeing cites the 100-150 seat market, Bombardier's larger offering, the CS300, has been offered but has not yet sold in the United States. We have previously discussed why Airbus and Boeing are afraid of Bombardier, and this action is consistent with such fear. Bombardier has no chance of overtaking the 737 series, and the CSeries has been outsold by the 737MAX family by a ratio of 9:1 worldwide, and a 6:1 ratio in the US.

The last competing aircraft from Boeing in this size category of the CS100 include the 717 (which Boeing acquired with the McDonnell Douglas acquisition) and the 737-600, each of which went out of production in 2006, although Boeing offered the 737-600 until 2012 without market success. Neither of these aircraft are economically competitive when compared to the new technology CSeries or its Embraer E190-E2 competitor, both of which offers more than 20% better economics, better environmental performance including lower emissions and substantially lower noise, and a better passenger cabin with more comfort and convenience features when compared to Boeing's offering. Any comparison of those aircraft would clearly and obviously favor the new technology aircraft from Bombardier and Embraer over Boeing in the 110 seat class.

Boeing's 737 series is dated, with the fundamental design of the aircraft dating back to 1967. While this 50-year-old design has been updated three times since then, it remains certified under older standards and remains constrained by short landing gear built for "cigar-tube" style engines of the 1950s. Today's larger engines do not fit well under the wing of the 737, and their round shape needs to be attenuated at the bottom to provide ground clearance. The design of the 737, when compared with competition from Airbus and Bombardier, is clearly dated. There's only so much one can do with an old design, and Boeing has milked the 737 for 50 years.

Boeing's latest narrow-body models, the 737MAX, have been outsold by the Airbus A320neo family by a wide margin, with Airbus holding a 5,056 to 3,509 lead in that race. This compares with a worldwide total of 360 for CSeries and 75 firm orders in the United States. The impact of CSeries is hardly significant against a dominant duopoly in the aircraft market.

Neither Airbus nor Boeing have been successful with their smallest models, which are "shrink" versions of larger aircraft. Having been developed from larger aircraft, the structure for these aircraft was designed to carry heavier loads and is not optimized for a smaller size aircraft, which the CSeries is. This natural advantage is one of the primary reasons for the substantial economic differential between CSeries and the 737MAX7 and A319neo — it is simply a more efficient aircraft.

Boeing itself revised the design of the 737MAX7 last year, raising its seating capacity by 12 seats from 126 in dual class to 138. There were several reasons for this, among them that the market was not interested the in 737MAX7 with fewer seats, and might remain unimpressed with the new design. Boeing does not report orders by model for its MAX series, likely because it would be embarrassed by the poor performance of its MAX7 and MAX9 models, which look like market flops. Industry sources indicate that only 55 orders have been obtained for the MAX7. The MAX7 is simply not a very attractive aircraft economically, even with 12 additional seats. The MAX9 has been beaten in the market by the Airbus A321neo and Boeing is offering a MAX10 to improve its chances of winning back orders.

Airbus and Boeing have both been quite aggressive in attempting to keep the CSeries out of the market. Executives from both companies have expressed that they are making every effort to keep Bombardier out of the market, and in several instances,

have made 11th hour offers at exceptional prices to break-up potential CSeries orders. Airbus' John Leahy indicated that Airbus wasn't going to make the same mistake that Boeing did with they entered the market, and would attack the CSeries using price as a lever. With a larger base over which to amortize fixed costs, and higher production volumes leading to better economics of scale, Airbus and Boeing have an advantage. If anything, Bombardier may be well positioned to bring a case against predatory pricing from the big two, as no matter how low it goes, Airbus and Boeing are ready to beat their prices.

In their complaint, Boeing speaks about government subsidies for Bombardier, and that the cost of the CSeries development ballooned from $2.1 billion to $5.4 billion. Of course, Boeing says nothing about its 787 program ballooning from $8 billion to more than $30 billion, an even higher overrun ratio. The 787, even after multi-year delays, still resulted in an aircraft that needed to be grounded for safety reasons even after it entered service for retrofits. In an era of cost overruns, Boeing is the king. So is the pot calling the kettle black in terms of aircraft development performance? The difference – Boeing dug deeply and relied on cash flow from its defense business, while the smaller Bombardier required government assistance.

Some links provide a perspective on how much government support Boeing has managed to gather: 2011 WTO, 2016 Federal contracts, 2016 WTO are a few examples. The EU also provides this handy link to how it sees Boeing getting its business subsidized. We are not attacking Boeing – our point is that this claim by Boeing is not balanced. Every aerospace OEM gets state support. The business is capital intensive, requiring state of the art skills and technology. The payback is longer than many private investors can handle. Only state support can take such a long view, and in many cases, the support is warranted because the investment pays back in high wage jobs for skilled workers. The capital the OEMs get is a legitimate investment in most cases. Was the EU right in supporting Airbus? Absolutely, the company produces excellent aircraft and has created a big pool of highly skilled workers. Plus Airbus has repaid its state support and is now a public company. Is China right to support its aerospace industry? Absolutely and the same goes for Russia and Brazil. So why not Canada?

A thought – does it behoove Boeing to annoy Canada? Might Canada react to this claim by turning to the Rafale, Gripen or Typhoon to replace its aging F-18s? What is worth more to Boeing, fighters for Canada or competing with Bombardier's C Series? For us, given Boeing's absence from the 100-seat market, the answer is obvious.

The Bottom Line:
Boeing doesn't have a reasonable case against Bombardier, and a logical observer would be hard-pressed to find any economic damages. It is interesting that Boeing focuses on the 100-150 seat market in the complaint, as it has been moving away from that market in recent years. The 737 MAX series is now optimized around the 162-seat MAX8 as the base model. Boeing has left the 100-150 seat market, and now cries unfair when they aren't doing well. Crocodile tears for a company that is not the Boeing it once was – the market leader has become a market follower and a sore loser.

EXHIBIT 33

AirInsight

Why are Airbus and Boeing Afraid of Bombardier?

By Ernes S. Avai
February 23, 2017
airinsight.com /2016/02/23/why-are-airbus-and-boeing-afraid-of-bombardier/

Both Airbus and Boeing are being aggressive to preempt Bombardier from winning key customers in the commercial aircraft market. As we noted in our C Series report in 2010, John Leahy at Airbus stated that Airbus wouldn't make the same mistake that Boeing did when Airbus entered the market and that would be aggressive against the C Series. It appears that Boeing is taking the same path.

Boeing appears to have preempted Bombardier from a C Series order at United, and according to a article from Jon Ostrower at the Wall Street Journal. "Ray Conner, Boeing Commercial Airplanes chief executive, in an internal presentation on Feb. 10, said the first January deal with United was designed to block Bombardier from gaining a foothold with one of its most loyal customers, according to two people who heard his remarks." It appears that the two big players in the market afraid of the small competitor from Canada gaining a foothold. The question is why? There are a number of reasons:

Capabilities

The C Series is not and was not designed as a regional jet, but as a flexible small trunk-liner with full transcontinental range. This means, unlike regional jets that offered limited range, the C Series can compete with Airbus and Boeing across all narrow-body routes, including smaller routes for which "right sized" aircraft are needed. In addition, the interior, with fewer and wider middle seats, will be viewed as more comfortable by passengers, as it incorporates the latest in cabin design technology.

Efficiency

The C Series is a much more modern and efficient aircraft than either the A320neo or 737MAX families. While Airbus and Boeing have dramatically updated their A320 and 737 platforms, these program still date from 1989 and 1967, and have the same fuselage diameter and basic layout as their original designs. Think of a new car, with all of the bells and whistles, being built on platform designed in the 1960s or 1980 versus one designed in the 2010s. There's no comparison. While with aircraft this isn't as dramatic a difference as with automobile platforms, there are differences in technology.

The C Series has new materials, improved aerodynamics, and was optimized for new technology engines, rather than retrofitting them into an existing platform that in Boeing's case, was designed when engines were still cigar shaped. Even with the same engine technology, there is no way the Airbus or Boeing could be as efficient as a C Series.

While lower fuel prices today reduce the economic differential from lower fuel burn, the C Series remains better in operating costs than its similarly sized competitors, the A319neo and 737MAX7, and about equal to their larger A320neo and 737MAX8 models. From its on-board monitoring systems that reduce maintenance costs to its lighter weight Aluminum-Lithium fuselage and advanced carbon fiber wings, it is simply a newer and better airplane.

Bombardier are the Masters of Stretch

A real concern in giving Bombardier a foothold is that it will stretch the C Series with larger models that compete directly with Airbus and Boeing's larger models. Bombardier has reserved trademarks for CS500 and CS700, providing at least the possibility of future stretched models of the aircraft. Stretched models would put C Series in direct competition with the older designs for their bread and butter aircraft, and could negatively impact demand.

Return on neo and MAX Investment

The A320neo decision at Airbus was in part a reaction to the C Series, and closing the gap, since the CS300 has better operating seat-mile economics than the A320ceo, and is quite close to the A320neo because of its weight and fuel burn advantage. Airbus' decision to be more aggressive against C Series led to Boeing rushing the MAX into development rather than developing an all-new narrow-body aircraft. Each of the two big OEMs has developed a new derivative model and generated 3,000-4,000 orders between them. They do not need to develop an all-new program today, as they need to capture the return on investment from their existing programs, expected to have a 10-12 year production run before the next generation of airplanes is announced.

What has resulted from the big duopoly are no narrow-body aircraft optimized to take advantage of today's new generation of narrow-body engines, the Pratt & Whitney GTF and the CFM LEAP. Only Bombardier, Irkut, and COMAC will offer designs optimized around these engines, with Bombardier the only viable threat. Boeing's financial catastrophe with the 787, and Airbus similar saga with the A380 highlight the risks of developing new aircraft. The big duopoly simply cannot afford another new aircraft development, and had to resort to compromise and low cost reengining programs.

An All New Competitor Wouldn't Differentiate Itself Today

Engine technology drives aircraft design. The C Series is the first airplane to be optimized for new technology engines, and designed from the ground up with those engines in mind. An all new aircraft from Airbus and Boeing would also be optimized for new technology engines, but wouldn't likely gain significant competitive advantage over the C Series, since engine technology, systems, and materials technologies are already at the current state of the art.

Boeing and Airbus would look to the heart of their market for optimization, about 170 seats, for a new model. The C Series is optimized for 130 seats, and as a result is a much lighter aircraft, that could still be stretched. Just as today's "shrink" models, the A318 and 737-600, are smaller models of designs of aircraft optimized for higher seating levels, an all-new model from Airbus or Boeing could not easily compete with the CSeries in the 130 seat segment. It is much easier to stretch than shrink, and Airbus and Boeing have moved customers to larger aircraft.

Airlines would Love a Third and Fourth Competitor in the Narrow-Body Market

While someday COMAC will become a major competitor, China is not yet ready to compete aggressively with Airbus or Boeing. Nor is UAC in Russia, although the Irkut MC-21 is, on paper, a better airplane than either the A320neo or 737MAX give its modern clean sheet design optimized for same the P&W GTF engines used on the A320neo.

But Bombardier and Embraer are here with their new offerings in the 100-130 seat class. The CS100 and CS300, combined with the E2-190 and E2-195, will give Airbus and Boeing a run for their money at the low end of the market between 100-130 seats.

The E2 jets, with four abreast seating, are already quite long aircraft and are therefore unlikely to be stretched. This has taken them off the direct threat radar screen, and Airbus and Boeing seem content to allow Embraer to remain in their market niche. But Bombardier, which can seat 155 in the CS300 in high density, and have an aircraft that can be stretched, is viewed as a threat.

What has been the result so far? For airlines that invited C Series to their competition, the results have been massive price concessions from Airbus and Boeing to keep Bombardier out. A number of campaigns that Bombardier was close to finalizing have been lost at the 11th hour with an offer too good to refuse. Our sources indicate that Easyjet, Vueling, and United have all received incredible pricing on aircraft to keep Bombardier out of the picture.

With deep pockets and highly optimized cost structures due to high production levels, Airbus and Boeing can undercut Bombardier, which must amortize their development costs over a smaller number of aircraft. As a result, it is difficult for Bombardier to match pricing to simply to gain a market foothold and lose money on each aircraft.

But is taking a great deal from Airbus or Boeing counterproductive in the long term for airlines?

Airbus and Boeing would love to see Bombardier fail. By taking the low priced order from Airbus or Boeing, and not the innovative competitor with superior technology, are airlines being myopic?

The Bottom Line

Bombardier has built a great airplane that can beat its competition from Airbus and Boeing. They would rather split the market two rather than three ways, and are doing everything they can to stop Bombardier.

Airlines that are taking attractive deals for aircraft not as well suited for their operations maybe are being shortsighted by failing to recognize why those prices are so low, and the reason they are being offered them.

The cream rises to the top, and Bombardier has built a superior aircraft. Airbus and Boeing are fighting a war, and Bombardier isn't in a strong position to fight back. But the industry and the airlines need Bombardier, in ways they currently do not perceive.

EXHIBIT 34

Bombardier's CSeries at EIS: Regaining Momentum

July 2016

AirInsight

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This report is entirely the work of AirInsight, and no language in this report can be ascribed to any individual outside of our organization.

Contents

I. EXECUTIVE SUMMARY

We remain upbeat on the long-term prospects for the CSeries, despite initial difficulties with the program. The 787 experienced much more challenging difficulties, and has emerged as a viable and successful program. The CSeries will recover from its initial delays as well.

The program is gaining momentum from Air Canada and Delta orders. Combined with the confidence of the Quebec government that has invested in the program and expects a positive return on investment, the CSeries program appears poised to turn the corner.

But additional orders will be required to turn the program around, and the new management team must execute its new strategy of gaining key customers in the Americas, Europe, and Asia to generate the success it requires. While the jury remains out, the performance of the aircraft is superb, and with an uneventful EIS, should provide customers the confidence and incentive needed to place further orders. Those orders will need to be garnered during a period in which order levels have been decreasing for the industry amidst increasing economic uncertainty.

A smooth entry into service with Swiss will be critical for the success of the program. Bombardier and Swiss have been carefully planning EIS for some time, and it appears that all of the key elements are in place for success.

We believe that the CSeries will still be successful, despite prior missteps. We project sales of between 1,900 and 2,400 CSeries aircraft over the next 20 years. There is a large replacement market to be filled, as well as new demand that should generate more than 5,500 orders in the 100-150 seat class. We believe Bombardier and Embraer will dominate the orders in that segment, as their offerings are economically superior to those from Airbus and Boeing.

The new management team's strategy appears to be working. Despite the myriad of missed opportunities, the new team understands how to build, sell and support the CSeries. The aircraft, which is technologically more advanced than its competition, should be the "right aircraft" for a number of airlines if aggressively marketed, which the new management team is undertaking.

ANALYSIS

In 2010 AirInsight published "The Business Case for the Bombardier CSeries". It was upbeat on the prospects of the aircraft. In 2012 AirInsight updated our 2010 report

looking at the entire spectrum of aircraft in the 100-seat class. Once again AirInsight was upbeat on the prospects of the C Series.

In this 2016 analysis, we are perhaps a bit more sanguine. We remain upbeat regarding the potential for the aircraft. But in monitoring the Bombardier CSeries program over the past eight years we have witnessed a series of stumbles and missteps by the company and previous management teams, resulting in a more difficult financial and market position to overcome.

The CSeries is a very capable aircraft, but Bombardier's multiple errors cost the company "first mover advantage against" its re-engined competition. The current challenge faced by the CSeries program is not the aircraft itself, but the slow initial market acceptance and lack of orders from key airlines at this point in its life cycle. While recent orders from Air Canada and Delta have turned-around the situation somewhat, one or two major additional orders would change market perception of the aircraft and fill the delivery skyline beyond 2019.

AN UPHILL CLIMB

To date, the CSeries program has faced an uphill climb to overcome the unfavorable position in which the program was placed. Other aircraft, the 787-8 in particular, faced even worse challenges, and Boeing successfully overcame a series of mistakes that even included a temporary grounding of the aircraft for reasons. That proves that recovery, after initial failures, can still be achieved. We believe that will also be the case for CSeries.

The keys to a turnaround for the CSeries aircraft program today are generating additional orders and the new management team being able to fully execute their turnaround plan now that Quebec government investment in the program has been secured. At this writing, additional financing from the federal government in Ottawa remains undecided, and the subject of negotiations.

That turnaround plan includes securing large orders with major airlines. In 2016, orders for 45 aircraft from Air Canada and for 75 from Delta have breathed new life into the program, which now seems to be regaining momentum.

SUPERB TECHNOLOGY

The Bombardier CSeries is a great airplane, and virtually everyone involved in commercial aviation agrees. Even perennial critic and Airbus COO, John Leahy thinks it's a "nice little

plane."[1] The CSeries is modern, efficient, comfortable, and has performance and range that enable it to be a category leader in the market between 100 and 150 seats.

However, until this year, the aircraft had not sold particularly well, despite having the sixth largest number of orders in history for a commercial aircraft at first flight. While Bombardier has met its goal of 300 firm orders by entry into service[2], program delays have resulted in a longer time to achieve those orders, with appropriately higher expectations by the market and the financial community.

Despite the order shortfall, a market does exist for aircraft of this size, as evidenced by the Air Canada and Delta orders, and United Airlines order of 25 737-700 aircraft in the same size class. These orders demonstrate that not all airline single aisle orders are moving up to the 150-180 seats size, despite recent record orders and a trend towards upsizing at Airbus and Boeing. We believe, with EIS of the CSeries, renewed attention to the 100-150 seat market will result in additional orders.

THE MARKET AND CHANGING REQUIREMENTS

We foresee a market for 1,900 to 2,400 CS 100 and CS300 models, between 33% and 40% of a market of 5,500 to 6,000 aircraft in the 100-150 seat class. While we do not expect demand to reach the 7,500 units that Bombardier forecasts, AirInsight's assessment provides adequate demand for a successful program. We believe this segment will be primarily contested by Bombardier and Embraer, as Airbus and Boeing offerings are simply uncompetitive absent massive discounting.

Times are changing in the industry. Fuel costs are coming down, and airlines are now looking to "right size" aircraft for specific markets[3]. Airlines are reintroducing service to smaller cities that were culled during periods of high fuel costs and difficult profitability.

Airlines are now looking beyond the seat-mile cost metric that has produced a glut of larger narrow-body aircraft orders. The CSeries, and its E2 Jets competition from Embraer, offer right sized aircraft, with economics that remain compelling when compared with larger models from Airbus and Boeing on both an aircraft mile and seat mile basis.

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[1] http://www.theglobeandmail.com/report-on-business/international-business/european-business/airbus-executive-calls-bombardiers-c-series-jet-an-orphan/article28133795/

[2] Air Canada finalizing its recent LOI brought the total to 370 prior to EIS

[3] A position long espoused by Embraer

OVERCOMING ADVERSITY

Today, building an all-new technology aircraft almost always entails a delay. Historically, new aircraft were routinely announced by Boeing and McDonnell Douglas and rolled into service 48 months later, like clockwork. The design and engineering processes were straightforward and well understood.

Today, aircraft programs are no longer designed by a single company. Instead, major systems and subsystems responsibilities are outsourced in what has become a global supply chain. Coordination, and the growing importance of software as aircraft become more advanced, has moved the time frame out from 48 to 72 months for typical programs today.

With a longer development cycle, OEMs require more capital and put more at risk when they design new aircraft. Deferring cash flow combined with the 50% increase in the average time to develop an aircraft places a financial burden on aircraft OEMs when they develop a new airplane. The Airbus A380, Boeing 787, and Bombardier CSeries are all aircraft that have suffered from major development delays. Similar delays have already been incurred for forthcoming aircraft, including COMACs' ARJ-21and C919, Irkut's MC-21, and the Mitsubishi Regional Jet. While delays have become commonplace, they result in red-ink and can burn cash quickly, making it difficult for some programs to reach break-even.

The Boeing 787 is perhaps the strongest example, with estimates of more than $30 billion spend in development, and some analysts believing that despite commercial success, it will never break-even. The CSeries, with a more modest overrun, can become profitable with additional sales, and should do so over the next five years.

CHANGING MARKET REALITIES

The delays in the CSeries program have added difficulties to the task of selling the aircraft. Some key advantages that the aircraft presented when first conceived, if it had been on time, are less compelling today as its competitive position, vis-à-vis Airbus, Boeing, and Embraer continues to change. The two-and-a-half-year program delays cost Bombardier first mover advantage, and Airbus, with its A320neo program beat the CSeries into service and became the first application for the Pratt & Whitney GTF engine. The CSeries, with A320neo in service and Boeing MAX and Embraer E2 just around the corner, is no longer the first player to introduce advanced technologies.

Nonetheless, the CSeries program does retain key advantages:

- North American trans-continental range provides an advantage over the competing Embraer E2, but is not an advantage when competing against Airbus and Boeing models, which offer equal or better range capability.
- Low fuel burn is important, but no longer as crucial an element for new orders. Competitive re-engined aircraft offer closer to equivalent performance than today's models, but at lower capital costs per seat. Today, fuel is inexpensive and, given industry changes, may remain so for a while.
- The CSeries low noise footprint has been nearly matched by the competition, especially A320neo using the GTF engine.
- Low NOx and other emissions are nearly matched by the competition using new technology engines.
- Many key marketing messages from Bombardier have lost a bit of their luster without first mover advantage. While the CSeries remains the only new aircraft in its class to be optimized for new technology engines and incorporates a number of innovative technologies into its design, re-engined competitors have narrowed the economic gap significantly, and have shown they will aggressively compete on price.
- Competition has been fierce as Airbus and Boeing have each declared war on Bombardier and are doing everything they can to deny the CSeries a solid foothold in the market. Bombardier has invaded their turf, which they plan to defend at all costs.

In summary, our upbeat assessment of the aircraft has given way to a more realistic viewpoint – the CSeries is a technically superb product but faces cut throat competition on every campaign. While the CSeries remains the leading product in its class, the two questions being asked are whether the CSeries can effectively compete against Airbus and Boeing, and whether the 100-150 seat market has been dormant or is disappearing.

COMPETING AGAINST AIRBUS AND BOEING

Airbus and Boeing have retained two models in the 100-150 seat category, the A319neo and 737 MAX7, but neither is selling well. In fact, the CS300 is outselling both of them, combined. We believe that Bombardier's competition in this segment is not Airbus or Boeing, but Embraer.

While Airbus and Boeing will aggressively defend existing customers and try to steer them into larger aircraft, the new economic realities will have many looking at "right-sizing" aircraft in the 100 to 150 seats class, and that there is ample opportunity for the CSeries to be successful.

A DORMANT OR DISAPPEARING MARKET?

Orders in the 100-150 seat market have slowed in recent years, as airlines have upsized aircraft in a high fuel cost environment. With lower fuel prices and recessionary trends indicating that airlines may not be able to fill larger aircraft on many routes, airlines are once again examining the segment in which the CSeries competes. With 4,491 aircraft in this category scheduled for replacement in the next 20 years, not to mention growth as regional routes grow into mainline routes, we believe the market has been dormant waiting for new economic aircraft. The CSeries is the first to arrive in that segment.

ASSESSING THE PROGRAM AT EIS

As we look towards EIS, it is important to review how Bombardier got to its current position. To better understand the thinking and decision processes behind the program, we spoke with a number of current and former Bombardier executives and industry experts. They were candid in their assessments of how and why the CSeries program endured an extended gestation period that dug a substantial hole from which to climb.

The Good

The aircraft has demonstrated its ability to deliver on promised performance and economics. Its flight test program was uneventful, but for a partially contained engine failure. This caused a six-month delay and hobbled the program just as some positive momentum was beginning to build. The aircraft flew through the remainder of its test program without a hitch.

After accomplishing the required 2,400 hours, Bombardier decided to extend its tests. We were told this was due to "an abundance of caution". During these Function and Reliability tests, the aircraft operated at 100% of flight schedule. It performed similarly

during the route tests at launch customer Swiss. Bombardier can be proud of its test performance and especially proud that their CSeries is the first commercial aircraft in recent history to actually "beat the brochure[4]" in terms of fuel burn and economic performance prior to entry into service.

The CSeries is a great airplane, and remains better than other aircraft in its class. Bombardier has apparently managed to sell all but one of its FTV models. Considering how long it took Boeing to sell its "terrible teens" 787s, The CSeries is clearly attractive.

The Bad

A problem today is that the CSeries is struggling with market (as opposed to technical) expectations. The aircraft is sized directly between two existing market segments, the regional market, for which the aircraft is too large, and the mainline market, for which the aircraft is perceived to be on the small end of the scale[5]. The key question for Bombardier is whether that market segment is robust enough to support both the CSeries family and its competitors today, and how quickly it will develop in the future.

With 803 commitments[6] for the aircraft at the time of writing, there is clearly a market for the aircraft. But with mainline carriers replacing 737-700s with 737 MAX 8, and A319ceos with A320neos, there has been a strong shift in demand away from this segment, and the big duopoly have received more than 8,000 firm orders for the larger neo and MAX models.

We believe Bombardier overestimated the size of the 100-150 seats market, and that its forecast for 7,500 aircraft over the next 20 years is a bit optimistic. We independently forecast 5,500 to 6.000 aircraft in this sector, clearly enough to produce a profitable program, even when that market is shared with Embraer.

Bombardier faces a tough competitor in the forthcoming Embraer E2 family that will be economically competitive with CSeries. While this aircraft lacks the range of the CSeries, Embraer has the advantage of a 1,000 plus aircraft customer base for existing E-Jet models to trade-up.

As one evaluates the CSeries program today, focus has moved away from the aircraft, landing squarely on the new marketing team. After multiple delays, and slower than expected sales, the program has a long path to achieve success. Maintaining

[4] The initial brochure
[5] Delta Air Lines and British Airways, among others, previously expressed interest in a stretched model
[6] 370 firm and 212 options and 10 purchase rights, plus 211 letters of intent.

momentum from the Air Canada and Delta orders to climb this path will be the major challenge for the current management team.

The Ugly

Possibly the lowest moment for the program was news that Bombardier was in talks with Airbus about acquiring the CSeries[7]. Clearly the nature of such talks should have never have reached the public eye. But the news unfortunately leaked, somewhat undermining industry confidence in Bombardier's capability to deliver on and support the aircraft.

An Airbus official assured us that they did not leak the news, despite the fact once it leaked, Airbus was placed in a far better position with respect to future competitive campaigns.

For Bombardier, the leak was catastrophic. It sent a message to the market that Bombardier could not effectively market and sell the aircraft without help. The new management team, which had been speaking with confidence about the aircraft and their plans for it, was undermined. The uphill climb for the CSeries grew much steeper and more difficult.

The consensus of opinion among the people we spoke with that were "in the know" concur with our assessment. One dissenting voice suggested the idea of speaking to Airbus was good because Airbus is struggling to sell its A319neo and the CSeries would have offered an excellent solution. The decision to speak with Airbus would have been approved at the highest levels within Bombardier and, in essence, spoke to a sense of desperation.

THE ROAD FORWARD

The recovery from this morass began more quickly than one might have expected. Bombardier found a risk-sharing partner in the Quebec government[8]. While views on this deal were not unanimously positive[9], the deal provides Bombardier with the much-needed cash to maintain the CSeries program through the remainder of the development period (which will be short) and the initial learning curve for the aircraft in production, helping stem the losses from high cost initial aircraft.

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[7] http://www.reuters.com/article/us-bombardier-airbus-group-idUSKCN0S02MF20151007

[8] http://business.financialpost.com/investing/global-investor/bombardier-inc-to-get-1-billion-from-quebec-government-to-rescue-troubled-cseries

[9] http://www.richardaboulafia.com/shownote.asp?id=457

The surest way out of this unfortunate situation is to sell aircraft. The recent sale to Air Canada was a crucial response to the generally negative reactions to the Airbus talks. Not only is Air Canada a marquee customer, it also placed the largest order for the CSeries to date. The follow on deal with Delta Air Lines, with an even larger order, was a tremendous boost. This brings the CSeries to four marquee customers, Lufthansa for Swiss, Korean Air, Air Canada and Delta.

The CSeries deal at Air Canada constitutes the reversal of a great embarrassment Bombardier suffered at the hands of Embraer nearly a decade ago. Bombardier is effectively winning back Air Canada from Embraer. The CS300 should do what the E-190 is unable to do for Air Canada - which falls short on range for certain routes from Toronto to the West Coast, and improve operational reliability and rising maintenance costs. The recent deal with Delta removes the E-190s (ex-Air Canada) from Delta's fleet plan.

Bombardier needs to continue to build the order book for CSeries, and to begin to deliver aircraft on time and rapidly progress down the learning curve to reduce production costs.

The program has promise, and building market confidence after a series of setbacks is important. Bombardier cannot afford any additional missteps as the CSeries enters service.

II. THE RECOVERY - FEASIBLE AND UNDERWAY

Most observers indicate that the CSeries program began to recover after the program reached a nadir in early 2015, with a new management team in place and certification of the CS100. That recovery is continuing with two major orders in early 2016, and several other campaigns underway.

A NEW MANAGEMENT TEAM

Bombardier strengthened its management team in 2015 by bringing in three seasoned aerospace leaders. Their roles include executive leadership, marketing and sales. Crucially, they have the necessary industry experience and understand the commercial aircraft markets well from their prior experience. These changes were viewed as long overdue and necessary for Bombardier to turn the CSeries program in the right direction.

These new leaders needed to spend a lot of time rebuilding their internal team and instilling confidence with the marketplace. Shortly thereafter, Bombardier added another key leader with experience in airline and OEM fleet management to manage the supply chain.

The frayed leadership at Bombardier was pulled together with the hiring of Alain Bellemare as President. His experience at United Technologies, and being a native French-Canadian, made him an ideal candidate for a leadership position.

Fred Cromer was appointed President, Bombardier Commercial Aircraft on April 2015. With more than 23 years of experience in aviation, he has an unparalleled network of contacts in the airline industry.

Prior to joining Bombardier, Mr. Cromer spent six years at International Lease Finance Corporation. Earlier in his career, he held various executive positions in the airline industry, such as Chief Financial Officer, ExpressJet, Vice President and Chief Financial Officer, Continental Express, Vice President Fleet Planning, Continental Airlines and Director of Fleet Planning, Northwest Airlines.

Colin Bole was brought in as new Senior Vice President, Sales and Asset Management, effective May, 2015. Prior to joining Bombardier, Mr. Bole was Chief Commercial Officer at Intrepid Aviation and spent four years at International Lease Finance Corporation (ILFC). Earlier in his career, he held various executive positions in marketing such as Executive Vice President and Head, Marketing, Macquarie AirFinance, Managing Director

& Head, Marketing, as well as Vice President, Marketing, GATX Air, Technical Marketing Manager and Regional Sales Director, Airbus.

Nico Buchholz joined Bombardier on August 2015 as Senior Vice President and Chief Procurement Officer in Montréal. In this position, Mr. Buchholz has overall responsibility for procurement across Bombardier's four business segments. Prior to joining Bombardier, Mr. Buchholz was Executive Vice President, Lufthansa Group Fleet Management for nearly 15 years in Frankfurt. Aside from fleet strategy and aircraft evaluation for a fleet of approximately 700 aircraft, his role encompassed aircraft procurement and marketing for Lufthansa as a whole. His team was instrumental in the development of various aircraft from major OEMs, including the all-new Bombardier C Series airliner.

A NEW STRATEGY

In 2011, Bombardier's strategy was to acquire 20 customers on 5 continents and generate a "critical mass" of customers worldwide. At that time, the company believed it could obtain a premium for the aircraft.

Today that strategy has changed, and is focused on landing new bellwether or marquee customers on each continent in addition to the ones it already had – Swiss and Korean Air. In 2016, that strategy proved successful with Air Canada and Delta in North America. The next step is securing another major customer in Europe and Asia as quickly as possible. That will push out the skyline to 2020 and current projected rates, and remove the pressure to offer what amount to launch customer discounts.

The new management team understands changing market dynamics, including pricing, and the importance of timing in narrow-body sales campaigns. Since the launch of the A320neo and 737MAX families, they have generated more than 7,000 orders. Those campaigns, not decided in Bombardier's favor, represent the missed opportunities that the current management team does not want to miss in the future.

TIMING IS CRITICAL

The CSeries program background is painful reading. But it is crucial to understand how Bombardier got to where it is today. The missed opportunities are not always recoverable because the number of customers is finite. The frequency of sales campaigns is also finite. Consequently, getting timing right is critical. Aircraft programs are sensitive to timing from the start when the concept is floated, all through

development and flight test and finally delivery. Airlines run businesses that are based on schedules and timing really is everything.

The example of Delta Air Lines is apropos. In 2011 Delta was a buyer at the right price. Instead, once the campaign fell through, Delta acquired used Boeing 717s. Delta is now back as a customer, but four years later. Had a deal been struck with a marquee customer like Delta in 2012, other target airlines would have stepped forward knowing that a major carrier had confidence in the program. While all is well that ended well, in this case, the opportunity cost for the program and its momentum was significant.

A PROMISING OUTLOOK

Bombardier understands how good the CSeries aircraft really is better than anyone, especially after successful operational testing. The challenge is now convincing others that they need to add the aircraft to their fleets. We understand that several campaigns with major airlines are underway. While announcements in time for next month's Farnborough Air Show may be premature, we do expect further CSeries order in 2016, which is likely to be the year in which the market image of the aircraft changes from uncertain to positive. With a good start to 2016 with Air Canada and Delta orders, the key is maintaining positive momentum.

Potential customers now understand that the aircraft is meeting its specifications as of day one, and that the flight test program and service tests have been very smooth. Confidence in the product is building in the marketplace.

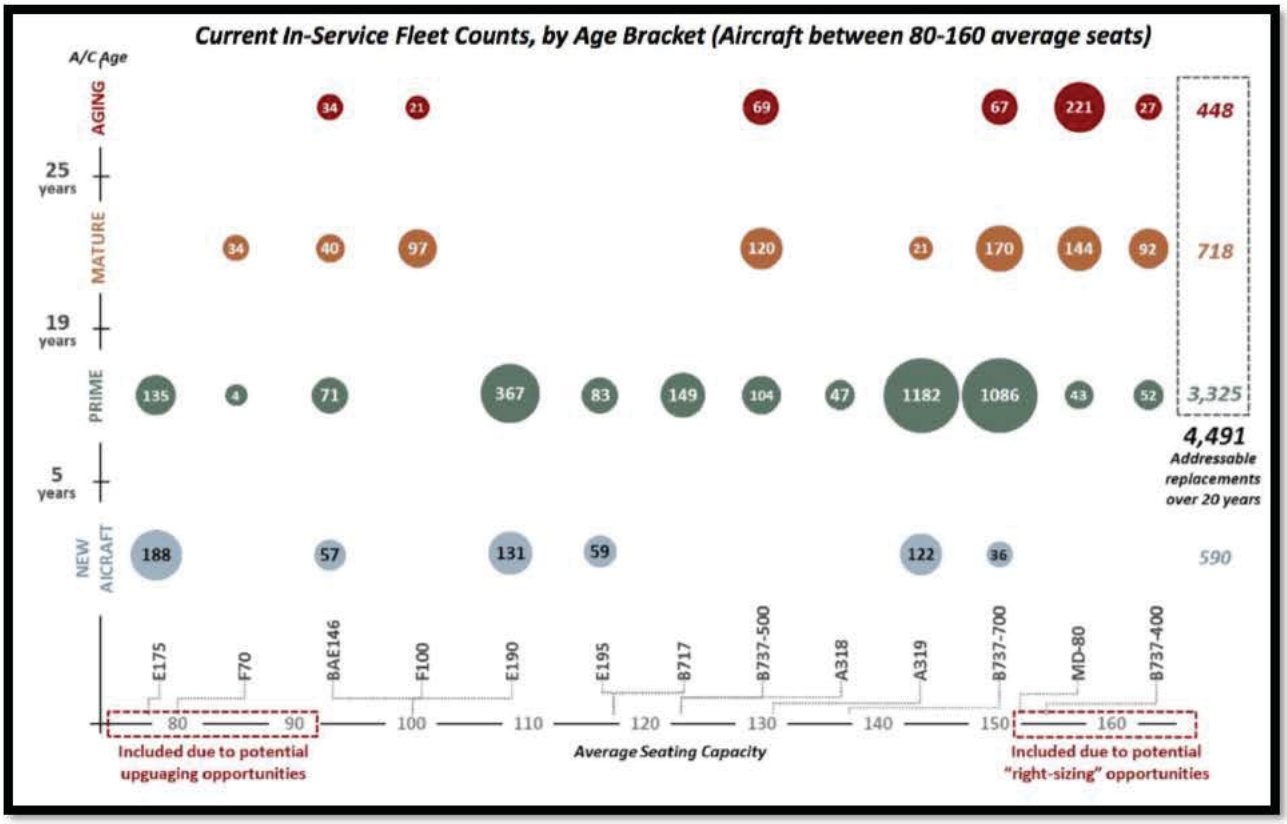
While some in the press characterize the Quebec investment in the CSeries program as a bailout, those with knowledge of the transaction indicate that it is just that, an investment for which the government expects a positive return.

Bombardier believes it is in a sweet spot in the market. Airbus and Boeing offerings in the 100-150 seat category are not competitive with Bombardier and Embraer, and there is a substantial replacement market over the next 20 years. The chart below illustrates that replacement market, which shows 4,491 aircraft that will need replacement.

448 of those aircraft are over 25 years old and candidates for rapid replacement. The BAe146/Avro RJs at Swiss are, in fact, being replaced by CSeries, and other candidates for replacement are currently being pursued by Bombardier and Embraer.

An additional 718 aircraft are maturing, and will be replaced in the 2020-2025 timeframe. The aircraft currently in their prime include a number of A319 and 737-700 aircraft that

will need replacement over the next two decades. For these aircraft, the battle will be between up-sizing and right-sizing. Airbus and Boeing, whose products are uncompetitive economically for this sector, will try to upsize their clients to larger aircraft. Bombardier and Embraer will try to "right-size" aircraft for specific routes, and demonstrate how a smaller aircraft can actually generate higher profits.



Source: Avascent

When growth is added, AirInsight forecasts a market of 5,500 to 6,000 aircraft over the next 20 years.

STRATEGIC DIRECTIONS

Bombardier is in a difficult position. While it has a superior product when compared with others similarly sized options, larger aircraft models can negate seat-mile cost advantages through capacity. Airbus and Boeing have been aggressively upselling their narrow—body customers to larger aircraft. How will Bombardier buck the trend towards larger aircraft, or will they need to invest in a stretched model to extend their product family?

Bombardier believes that, in a low fuel cost environment, the market is returning to right-sizing rather than up-sizing aircraft. They are seeing more customer interest and activity in the 100-150 seat category than previously, and more importantly a difference in the questions asked by fleet planners. The CSeries has great aircraft mile economics, seat mile economics that are competitive with larger aircraft, and has availability in the near term, as opposed to the seven year backlogs at Airbus and Boeing that preclude early deliveries of their re-engined models. There is an opportunity to be exploited, and the Bombardier team is working the issue aggressively.

One of the key differentiators for the CSeries is ease of maintenance. Bombardier has invited technical representatives of potential customers to join fleet planners in their evaluation process and see the aircraft up close. The CSeries is unique in that every line replaceable component has easy mechanic access, often through a door built specifically for ease of maintenance. This enables changing a part more quickly without as much disruption to the flight schedule.

When this is combined with the aircraft health management system on board the aircraft, which monitors the condition of components and alerts to potential failures, preventive maintenance actions can be taken to avoid cancellations and maintain high levels of dispatch reliability. As one of the first aircraft to enter into the new age of big data and health management, the CSeries offer unique advantages against the legacy products of Airbus and Boeing.

Bombardier is utilizing Pratt & Whitney and Tech Mahindra in India to manage its big data offerings. With Pratt & Whitney already having its own system for the GTF engines, the integrated offering will provide a single interface for customers for both the engine and airframe.

Bombardier has several letters of intent from small customers that are growing older by the day, and may be stale. Management is still trying to finalize those deals, but if they do not occur, have indicated that it could free up a portion of the production skyline for options that will likely be exercised by Lufthansa Group, Air Canada and Delta. In the near and intermediate term, there is no concern about filling the skyline, which is essentially sold out through 2019 but has a few slots held open for new customers.

Delta's CEO has indicated that they are interested in a larger CS500 model. That model, if launched, would provide stiff competition to the A320neo and Boeing's rumored 737

MAX 7.5[10] in the 150 seat category. It would also provide a perfect replacement for more than 100 MD-88s at Delta.

The Quebec investors have also indicated that they would be favorably disposed to a CS500 offering. Today, Bombardier is not ready to launch a stretch program, as the company is focused on a flawless EIS for the CS100 at Swiss and the CS300 at Air Baltic later this year.

The competition in the marketplace is fierce. Both major competitors have stated that they cannot allow Bombardier a foothold in this market, and are aggressively pricing against the CSeries. So far, they have often been successful, most recently at United Airlines, where Boeing offered the 737-700NG at bargain prices to preclude the CS300 from gaining a foothold in the market, with discounts near 70% of list price. How can Bombardier compete with competitors whose aircraft are priced less than what it currently costs Bombardier to make an aircraft?

The answer is achieving critical mass for CSeries production. The current plan is to gradually increase production to a rate of 10 aircraft per month. At that level, economies of scale reach a plateau that should enable Bombardier to reduce the cost of aircraft substantially, and become competitive with Airbus and Boeing.

Of course, with Airbus and Boeing producing 50-60 aircraft per month each, they can afford to amortize development costs over a larger number of aircraft. This places Bombardier at a disadvantage financially, as they cannot recover development costs at the same level as Airbus and Boeing.

Bombardier, while smaller than Airbus and Boeing, still provides strong support to its turboprop, regional jet, and business aircraft customers worldwide. It has sophisticated parts management programs and solutions for airlines, and the company has invested substantially in improving its facilities and management team. The company is confident that the reliability of the CSeries, combined with its customer support network, will provide the support customers need and require. The extensive EIS planning with Swiss reflects how closely Bombardier is working with its customers.

If there is a benefit of being late with a program, it is that this afforded Bombardier's manufacturing management team the time to hone its manufacturing technologies and develop a state of the art production facility in Mirabel. The shop floor in Mirabel resembles the shop floor in Toulouse – a modern facility with strong automation and

[10] Boeing is apparently rethinking the poor selling MAX7, and is examining a new variant that would utilize the MAX 8 wing and provide 150 seats to compete directly with A320, as its larger 162 seat MAX8 is often discounted substantially to match A320 pricing levels.

fewer personnel than traditional aircraft manufacturing facilities. As a result, Bombardier should be able to advance down the learning curve rapidly and bring the aircraft in at projected costs within the first 18 to 24 months after first delivery.

Bombardier's strategy is, fundamentally, to exploit the characteristics of the CSeries, which make it the right airplane for a number of operators. Delta wouldn't have purchase the CS100 if it wasn't the right airplane for their needs, as they could have certainly received favorable deals from the competition. Similarly, Air Canada determined that the CS300 was the right aircraft for their narrow-body markets. If the aircraft didn't work on the projected routes, neither airline would have acquired the aircraft.

The company is continuing to work with leasing companies, including Macquarie, LCI, Falco Leasing and Ilyushin Finance to support specific campaigns and include them as leasing options on campaigns it is pursuing.

The outlook in Mirabel is more positive than we've seen it in several years, buoyed by the initial success of the new management team with two bellwether airlines and the knowledge that Quebec financing will provide adequate cash flow to bring the program down the learning curve into profitability.

III. A TECHNICALLY SUPERB AIRCRAFT

The CSeries is a technically superb aircraft. It combines the latest aerodynamics with advanced materials and new generation engines to deliver 20% better economics than the current competitive generation of aircraft in service, and 10-11% better than similar sized re-engined aircraft from Airbus and Boeing. The following table compares the competition in the narrow-body market:

Comparative Aircraft Data					
	Seats	Seats	Seats	MTOW	MTOW
	Maximum	1 Ckass 32"	2 Class	KG	lbs
CS100	125	110	100	60,782	134,001.21
A318	132	129	114	68,000	149,914.16
737-600	129	126	112	65,091	143,500.92
E190	108	106	97	51,800	114,199.32
E2-190	108	106	97	56,201	123,901.85
E195LR	120	118	111	52,290	115,279.58
E2-195	136	132	118	58,700	129,411.19
CS300	150	130	122	67,586	149,001.45
A319	144	136	124	75,524	166,501.72
A319neoPW	144	136	124	75,500	166,448.81
A319neoCFM	144	136	124	75,500	166,448.81
737-700	147	137	126	79,979	176,323.30
737MAX7	147	137	126	72,347	159,497.64
A320	177	162	150	78,000	171,960.36
A320neo PW	177	162	150	79,000	174,164.98
A320neo CFM	177	162	150	79,000	174,164.98
737-800	189	178	162	79,016	174,200.25
737MAX8	189	178	162	82,190	181,197.72

ECONOMICS: STILL LEADING THE PACK

While the competition has developed re-engined aircraft, they have not managed to completely close the gap in performance vis-à-vis CSeries. But Airbus and Boeing are each expert in pricing to the point of economic indifference, and understand well the comparative economics. With volume advantages for their narrow-body fleets, they have the ability to price their aircraft lower to negate the CSeries advantage. A part of that advantage is fleet commonality for many operators, who would require no new pilot training and substantially lower initial provisioning of spares.

The advantage of the “clean-sheet” design of the CSeries is that going forward it has an upgrade and update path with more options. There is a limit to how far one can update or upgrade an older aircraft. As a result, Bombardier, with continuous improvements, should be able to sustain a performance gap.

Airbus and Boeing made it clear they were going to limit the amount of development on their re-engined aircraft. Airbus set a goal of keeping the A320neo within 95% of parts commonality on the A320ceo it replaces.

The following chart illustrates how the CSeries remains, in our estimate, the leader in its segment, and should for another 10-12 years, until all new models are developed, by both Airbus and Boeing in the 2025-2030 timeframe. Its selection of the Pratt & Whitney GTF engine means it will see ongoing technical benefits as the engine is improved. Since initial operation of the engine Pratt & Whitney has already offered a 2% improved fuel burn update. Pratt & Whitney has told us they think a 2% improvement could come every few years as they continuously improve the engine.

While Airbus, also employing this engine, benefits from such progress, its A320neo design was not optimized for the GTF, which did not exist at that time. The CSeries is optimized for the GTF and will likely extract more value from each update, as the airframe was optimized for the GTF. This should allow the CSeries to slowly improve the gap against the competition over the next decade.

COMPARATIVE ECONOMICS

The CS100 and CS300, as new technology aircraft, compare favorably to both existing and re-engined models from the competition. In this section, we will detail the economic differences between aircraft in a head to head comparison based on data using the same set of assumptions provided by each manufacturer.

Operating economics[11] are one of the most compelling features of the CSeries, as this aircraft was designed around new technology engines and incorporates a composite wing, aluminum-lithium fuselage, and advanced aerodynamics and systems, all of which enable the aircraft to be lighter and more fuel efficient than its competition.

The CSeries was also designed for maintenance, with every line replaceable unit on the aircraft having either direct access or a maintenance door to facility easy line maintenance. Today's advanced electronic systems should prove more reliable than older-technologies, further contributing to lower maintenance costs. In addition, the CSeries will incorporate a health management system to provide early warning of potentially failing parts, reducing costly aircraft down time.

The CSeries is the first truly new technology narrow-body aircraft in the 110-150 seats range since the introduction of the A320 family in 1988. As such, it has more advanced technology than the A320neo, which matches the existing technologies of that time with new technology engines to only partially close the performance gap.

OPERATING ECONOMICS

The CSeries provides a "step-change" in economics for narrow-body aircraft, and significantly "moved the line" from existing aircraft at the time of its announcement. With program delays, and the A320neo beating the CSeries into operation, some of the advantage disappeared. However, a significant advantage remains with all of the new technologies incorporated into the CSeries.

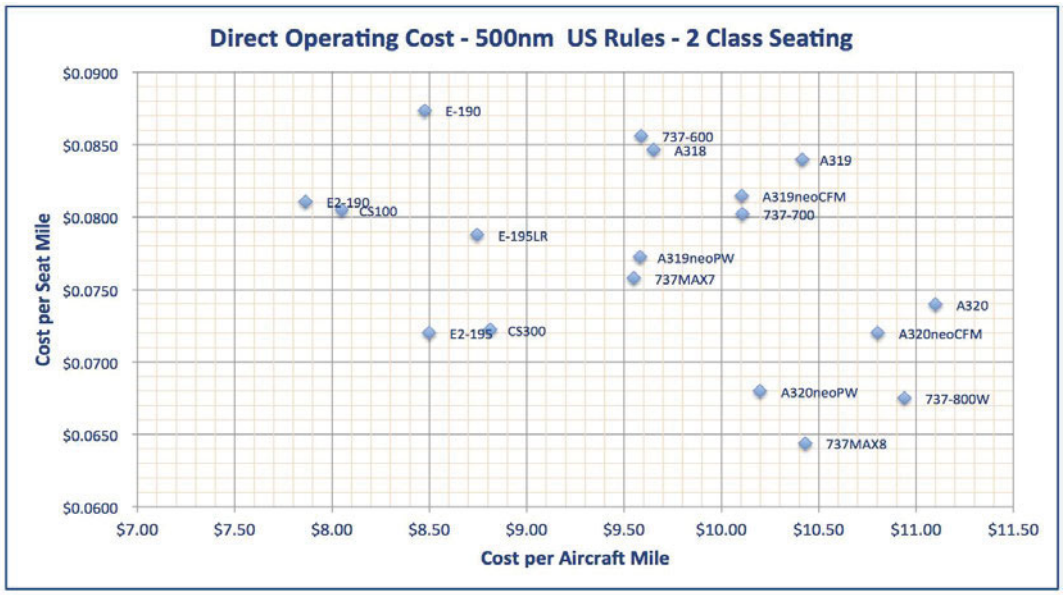
Fuel consumption benefits only account for about half of the improvements in CSeries, the other half come from new technologies, materials, and aerodynamic improvements that differentiate CSeries from its competition.

The economics of the CSeries are favorable when compared to similarly sized models from Airbus and Boeing, even their new re-engined neo and MAX programs. The CS300 remains competitive on a seat-mile basis with their larger A320 and 737-800 models, but has higher seat-mile costs than the re-engined A320neo and 737 MAX8.

The CSeries, originally designed for full transcontinental range, also competes against the shorter-range E-Jets and with the forthcoming E2 from Embraer, both designed for regional operations. With limited range, these aircraft cannot fly transcontinental routes non-stop.

[11] Airlines are also compelled by cash costs; Airbus had to sell the A340-600 at 55% of the cost of a Boeing 777-300ER to offset fuel burn costs.

The table below compares cost per aircraft mile and cost per seat mile for a 500nm mission. The E2 numbers are for the improved higher gross weight version.



Compared to the A319neo and 737MAX7, the similarly sized CS300 provides better seat-mile costs and lower aircraft mile costs, with roughly 6-7% better economics.

It is notable that the E2 from Embraer are competitive with the CSeries, particularly the E2-195, which in a two class configuration has slightly better seat-mile and aircraft mile costs when compared with the CS300.

As range extends to 1,000nm, the CSeries maintains strong economics. It retains its lead over the A319neo and 737 MAX7, and remains competitive with the E2 from Embraer.

As range increases to 1,500nm, the relative economics remain similar, with the CS300 gaining a seat-mile cost advantage over the E2-195, reversing the advantage on shorter routes, as shown in the chart below:

Airbus and Boeing correctly worried that the CSeries could take some of their mainline aircraft business. The CS300 handily beats the A319neo and 737 MAX7, and remains within 6.5% of the A320neo (P&W powered) and within 12.2% of the larger 737 MAX8 on a seat-mile basis, while beating them on an aircraft mile basis by 14.9% and 16.6% respectively.

HOW WE BUILT OUR ECONOMIC ASSUMPTIONS

We included four key elements of operating cost in our assessment: fuel consumption, maintenance cost, crew cost, and landing and other operational fees.

Fuel Cost

While fuel consumption is not the driving force it once was when fuel prices were in excess of $100 per barrel, fuel use remains a key consideration in the economics of a new aircraft. The following table estimates fuel usage for the CSeries and competing aircraft for 500, 1,000, and 1,500 nautical mile missions as shown in the table below:

Fuel Cost per Mission - $2 US per gallon			
Aircraft/Range	500nm	1000nm	1500nm
CS100	$ 1,601.80	$ 2,832.44	$ 4,101.25
A318	$ 2,068.39	$ 3,664.93	$ 5,328.60
737-600	$ 2,007.85	$ 3,518.18	$ 5,089.71
E190	$ 1,773.57	$ 3,181.23	$ 4,646.15
E2-190	$ 1,567.58	$ 2,769.27	$ 4,018.33
E195LR	$ 1,854.51	$ 3,376.69	$ 4,965.99
E2-195	$ 1,705.13	$ 3,061.46	$ 4,465.84
CS300	$ 1,739.35	$ 3,114.77	$ 4,536.91
A319	$ 2,067.08	$ 3,667.57	$ 5,334.52
A319neoPW	$ 1,867.02	$ 3,300.35	$ 4,786.99
A319neoCFM	$ 1,929.80	$ 3,399.36	$ 4,930.60
737-700	$ 2,026.28	$ 3,558.32	$ 5,166.05
737MAX7	$ 1,840.69	$ 3,239.15	$ 4,681.69
A320	$ 2,229.63	$ 3,986.08	$ 5,816.91
A320neo PW	$ 2,003.24	$ 3,570.17	$ 5,191.72
A320neo CFM	$ 2,063.34	$ 3,677.27	$ 5,347.47
737-800	$ 2,257.27	$ 3,995.30	$ 5,797.82
737MAX8	$ 2,027.59	$ 3,609.00	$ 5,250.94

The CS300 and E2-195 models have a substantial lead over the comparably sized A319 and 737-700 and MAX7 models from Airbus and Boeing, and as one would expect. They are more fuel efficient than the larger A320 and 737 models. On a fuel per seat basis, the aircraft from Bombardier and Embraer are competitive with larger models from Airbus and Boeing.

The fears Airbus and Boeing had with the arrival of the CSeries appear well founded. Embraer's successful evolution of the E-Jet to the E2 variant acts as an additional concern for Airbus and Boeing for the sub-130 seat segment.

Maintenance Cost

The CSeries was specifically designed to be easy to maintain, and its maintenance costs are competitive when compared with its contemporaries, as shown in the table below:

MAINTENANCE COST PER MISSION			
Aircraft/Range	500nm	1000nm	1500nm
CS100	$ 959.88	$ 1,174.20	$ 1,670.67
A318	$ 1,238.98	$ 1,536.76	$ 2,223.73
737-600	$ 1,275.18	$ 1,572.79	$ 2,285.19
E190	$ 1,185.13	$ 1,460.14	$ 2,107.78
E2-190	$ 1,037.57	$ 1,276.82	$ 1,884.08
E195LR	$ 1,149.57	$ 1,457.13	$ 2,115.23
E2-195	$ 1,115.22	$ 1,366.58	$ 1,980.51
CS300	$ 1,054.40	$ 1,306.21	$ 1,870.94
A319	$ 1,443.56	$ 1,706.62	$ 2,480.84
A319neoPW	$ 1,246.08	$ 1,556.82	$ 2,231.84
A319neoCFM	$ 1,444.25	$ 1,710.55	$ 2,482.55
737-700	$ 1,291.64	$ 1,603.52	$ 2,330.03
737MAX7	$ 1,277.76	$ 1,559.67	$ 2,255.63
A320	$ 1,519.25	$ 1,832.99	$ 2,658.75
A320neo PW	$ 1,303.87	$ 1,603.47	$ 2,328.24
A320neo CFM	$ 1,525.55	$ 1,840.83	$ 2,671.08
737-800	$ 1,399.64	$ 1,723.22	$ 2,489.96
737MAX8	$ 1,349.49	$ 1,645.46	$ 2,379.07

The CSeries has a distinct advantage over its direct competitors from Embraer in maintenance costs, and a marked advantage over the offerings from Airbus and Boeing.

Crew Cost

Our crew cost analyses are based upon block times for each aircraft on specific routes. Our cost assumptions include $400 per hour for flight deck personnel for smaller aircraft,

and $450 per hour for larger models. While costs vary by airline, utilizing the same assumptions provides an "apples to apples" comparison. For flight attendants, we utilized FAA requirements for the minimum number of flight attendants based on seating, and a cost of $50 per hour.

The results are shown in the table below for a 500nm mission:

CREW COST - 500nm Mission							
	500nm	Flight Crew	FA's	FA Cost	500nm	500nm	500nm
	Block Time	per minute	required	per minute	Flt Crew	FA	Total
CS100	93.8	$6.67	3	$0.83	$ 625.33	$ 234.50	$ 859.83
A318	92.0	$6.67	3	$0.83	$ 613.33	$ 230.00	$ 843.33
737-600	94.4	$6.67	3	$0.83	$ 629.33	$ 236.00	$ 865.33
E190	91.8	$6.67	2	$0.83	$ 612.00	$ 153.00	$ 765.00
E2-190	92.3	$6.67	2	$0.83	$ 615.33	$ 153.83	$ 769.17
E195LR	92.7	$6.67	3	$0.83	$ 618.00	$ 231.75	$ 849.75
E2-195	92.3	$6.67	3	$0.83	$ 615.33	$ 230.75	$ 846.08
CS300	94.2	$7.50	3	$0.83	$ 706.50	$ 235.50	$ 942.00
A319	94.8	$7.50	3	$0.83	$ 711.00	$ 237.00	$ 948.00
A319neoPW	92.9	$7.50	3	$0.83	$ 696.75	$ 232.25	$ 929.00
A319neoCFM	92.9	$7.50	3	$0.83	$ 696.75	$ 232.25	$ 929.00
737-700	94.3	$7.50	3	$0.83	$ 707.25	$ 235.75	$ 943.00
737MAX7	93.9	$7.50	3	$0.83	$ 704.25	$ 234.75	$ 939.00
A320	94.8	$7.50	4	$0.83	$ 711.00	$ 316.00	$ 1,027.00
A320neo PW	93.1	$7.50	4	$0.83	$ 698.25	$ 310.33	$ 1,008.58
A320neo CFM	95.0	$7.50	4	$0.83	$ 712.50	$ 316.67	$ 1,029.17
737-800	95.0	$7.50	4	$0.83	$ 712.50	$ 316.67	$ 1,029.17
737MAX8	94.4	$7.50	4	$0.83	$ 708.00	$ 314.67	$ 1,022.67

Similarly, crew costs were estimated for a 1,000nm mission, as shown below:

CREW COST- 1,000nm Mission							
	1000nm	Flight Crew	FA's	FA Cost	1000nm	1000nm	1000nm
	Block Time	per minute	required	per minute	Flt Crew	FA	TOTAL
CS100	161.1	$6.67	3	$0.83	$1,074.00	$402.75	$1,476.75
A318	159.5	$6.67	3	$0.83	$1,063.33	$398.75	$1,462.08
737-600	161.6	$6.67	3	$0.83	$1,077.33	$404.00	$1,481.33
E190	159.1	$6.67	2	$0.83	$1,060.67	$265.17	$1,325.83
E2-190	159.6	$6.67	2	$0.83	$1,064.00	$266.00	$1,330.00
E195LR	160.1	$6.67	3	$0.83	$1,067.33	$400.25	$1,467.58
E2-195	159.6	$6.67	3	$0.83	$1,064.00	$399.00	$1,463.00
CS300	161.4	$7.50	3	$0.83	$1,210.50	$403.50	$1,614.00
A319	161.9	$7.50	3	$0.83	$1,214.25	$404.75	$1,619.00
A319neoPW	160.1	$7.50	3	$0.83	$1,200.75	$400.25	$1,601.00
A319neoCFM	160.6	$7.50	3	$0.83	$1,204.50	$401.50	$1,606.00
737-700	161.5	$7.50	3	$0.83	$1,211.25	$403.75	$1,615.00
737MAX7	161.1	$7.50	3	$0.83	$1,208.25	$402.75	$1,611.00
A320	161.9	$7.50	4	$0.83	$1,214.25	$539.67	$1,753.92
A320neo PW	160.4	$7.50	4	$0.83	$1,203.00	$534.67	$1,737.67
A320neo CFM	161.4	$7.50	4	$0.83	$1,210.50	$538.00	$1,748.50
737-800	162.2	$7.50	4	$0.83	$1,216.50	$540.67	$1,757.17
737MAX8	161.6	$7.50	4	$0.83	$1,212.00	$538.67	$1,750.67

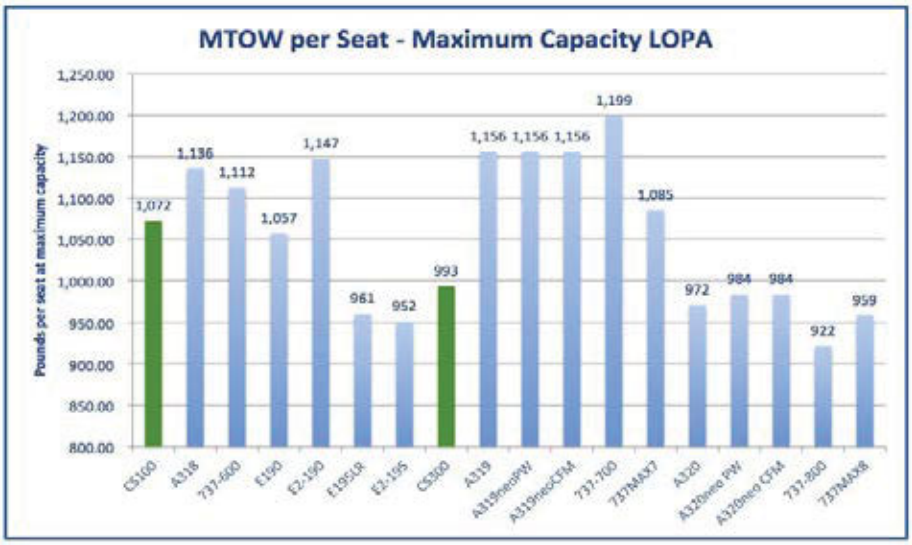
For a 1,500nm trip, crew costs would be as follows:

CREW COST - 1,500nm Mission							
	1500nm Block Time	Flight Crew per minute	FA's required	FA Cost per minute	1500nm Flt Crew	1500nm FA	1500nm TOTAL
CS100	228.4	$6.67	3	$0.83	$1,522.67	$571.00	$2,093.67
A318	227.0	$6.67	3	$0.83	$1,513.33	$567.50	$2,080.83
737-600	228.9	$6.67	3	$0.83	$1,526.00	$572.25	$2,098.25
E190	226.2	$6.67	3	$0.83	$1,508.00	$377.00	$1,885.00
E2-190	227.0	$6.67	3	$0.83	$1,513.33	$378.33	$1,891.67
E195LR	226.7	$6.67	3	$0.83	$1,511.33	$566.75	$2,078.08
E2-195	227.0	$6.67	3	$0.83	$1,513.33	$567.50	$2,080.83
CS300	228.8	$6.67	3	$0.83	$1,716.00	$572.00	$2,288.00
A319	229.1	$6.67	3	$0.83	$1,718.25	$572.75	$2,291.00
A319neoPW	227.4	$6.67	3	$0.83	$1,705.50	$568.50	$2,274.00
A319neoCFM	228.5	$6.67	3	$0.83	$1,713.75	$571.25	$2,285.00
737-700	228.3	$6.67	3	$0.83	$1,712.25	$570.75	$2,283.00
737MAX7	228.6	$6.67	3	$0.83	$1,714.50	$571.50	$2,286.00
A320	229.2	$6.67	3	$0.83	$1,719.00	$764.00	$2,483.00
A320neo PW	227.6	$6.67	3	$0.83	$1,707.00	$758.67	$2,465.67
A320neo CFM	228.7	$6.67	3	$0.83	$1,715.25	$762.33	$2,477.58
737-800	229.1	$6.67	3	$0.83	$1,718.25	$763.67	$2,481.92
737MAX8	228.6	$6.67	3	$0.83	$1,714.50	$762.00	$2,476.50

Landing, Navigation, Terminal and Environmental Fees

US and European airports differ substantially differ in terms of fees. European airlines pay additional fees for navigation and environmental compliance, in addition to the landing and terminal fees typically paid in the US.

Landing fees are typically based on aircraft weight. The following table compares the maximum take-off weight per seat for competing models, and shows the efficiency of the CSeries against its competitors in that regard.



For landing fees, we utilized an average rate of $4.50 per thousand pounds of Maximum Take Off Weight for both US and European airports. For navigation fees, we utilized the standard Eurocontrol formula, and for environmental fees, $.1 per US gallon of fuel burned in the European model. Our fees by aircraft for a 500nm trip are shown below:

LANDING, TERMINAL, NAVIGATION AND ENVIRONMENTAL FEES - 500nm - 2 Class						
Aircraft	Maximum Take Off Weight	Landing & Terminal Fees	Navigation Fees	Environmental Fees	US Rules Total	European Rules Total
CS100	134,001.21	$ 603.01	$ 1,522.76	$ 80.09	$ 603.01	$ 2,205.85
A318	149,914.16	$ 674.61	$ 1,610.64	$ 103.42	$ 674.61	$ 2,388.67
737-600	143,500.92	$ 645.75	$ 1,575.81	$ 100.39	$ 645.75	$ 2,321.96
E190	114,199.32	$ 513.90	$ 1,405.75	$ 88.68	$ 513.90	$ 2,008.32
E2-190	123,901.85	$ 557.56	$ 1,464.25	$ 78.38	$ 557.56	$ 2,100.19
E195LR	115,279.58	$ 518.76	$ 1,412.38	$ 92.73	$ 518.76	$ 2,023.87
E2-195	129,411.19	$ 582.35	$ 1,496.45	$ 85.26	$ 582.35	$ 2,164.06
CS300	149,001.45	$ 670.51	$ 1,605.73	$ 86.97	$ 670.51	$ 2,363.20
A319	166,501.72	$ 749.26	$ 1,697.41	$ 103.35	$ 749.26	$ 2,550.02
A319neoPW	166,448.81	$ 749.02	$ 1,697.14	$ 93.35	$ 749.02	$ 2,539.51
A319neoCFM	166,448.81	$ 749.02	$ 1,697.14	$ 96.49	$ 749.02	$ 2,542.65
737-700	176,323.30	$ 793.45	$ 1,635.08	$ 101.31	$ 793.45	$ 2,529.85
737MAX7	159,497.64	$ 717.74	$ 1,661.32	$ 92.03	$ 717.74	$ 2,471.09
A320	171,960.36	$ 773.82	$ 1,725.01	$ 111.48	$ 773.82	$ 2,610.31
A320neo PW	174,164.98	$ 783.74	$ 1,736.03	$ 100.16	$ 783.74	$ 2,619.93
A320neo CFM	174,164.98	$ 783.74	$ 1,736.03	$ 103.17	$ 783.74	$ 2,622.94
737-800	174,200.25	$ 783.90	$ 1,736.20	$ 112.86	$ 783.90	$ 2,632.97
737MAX8	181,197.72	$ 815.39	$ 1,770.73	$ 101.38	$ 815.39	$ 2,687.50

Our overall comparative analyses are shown for US operations, in which only landing and terminal fees are included. For a European comparison, the data per 500nm can be multiplied for 1,000 and 1,500nm missions to reflect the higher rates and our tables adjusted appropriately.

CONCLUSION

The economics of the CSeries are compelling. Along with the E2 from Embraer, these aircraft provide class-leading economic performance. This is why Airbus and Boeing have attempted to prevent Bombardier from getting a foothold in the market. The CSeries is simply better than either their existing and their re-engined, but similarly sized, models.

IV. HOW BOMBARDIER STUMBLED

No single issue or individual judgment created the deep financial hole that Bombardier must overcome. Rather, a combination of decisions, by inexperienced senior managers, along with changes in the market, competitive reactions, market dynamics, the supply chain, and fuel prices changed the playing field. Each brought significant consequences for the CSeries program.

The good news is that the recent Air Canada and Delta orders have improved momentum for the program. The bad news is that, like the 787, the damage to Bombardier's reputation has been done and that only by selling airplanes will that damage be overcome.

Great airplanes normally do sell well, once operational quality is proven. The 787 is now performing well, and selling well as a result, after a difficult shake out period. We expect the CSeries to recover, though it too will also take time and concerted effort.

Let's examine a few of the major factors, and what can be done to re-build confidence in the program.

PROGRAM DELAYS

Nothing kills customer confidence quicker than aircraft development programs delays, and the OEM denying it.[12] And nothing hobbles a program more than losing the first mover advantage.[13] At the 2008 onset of the program, the CSeries was scheduled for EIS more than two years ahead of the A320neo. Airbus had not even launched the neo program. But the re-engined A320neo beat the CSeries into service.

At that time, Airbus and Boeing were trying to avoid doing anything to improve their cash-cow narrow-bodies, and airlines were encouraging Bombardier to go forward because they knew that the CSeries would be a catalyst for improvement all around. Airbus decided they could not stand still, and the fact that they could bring the neo to market by 2015 -- within the likely margin for error of the CSeries -- was a big reason for deciding for a re-engine over a clean sheet design.

In addition to narrowing, or even eliminating, the Bombardier first mover advantage, Airbus would catch Boeing off-guard and force it to reluctantly respond. Boeing were desperately trying to avoid doing anything to the 737 as they were in the throes of the

[12] Bombardier can be fairly criticized for poor expectation management.

[13] Industry sources confirm the Airbus neo program was a reaction to the CSeries.

787 challenges and knew they would soon have to do something with the 777. It was a classic game theory play by Airbus and executed flawlessly.

While new aircraft program delays have become routine, the low-risk re-engining programs from Airbus, Boeing and Embraer that compete directly with the CSeries are on time, and in the case of Boeing, possibly a few months early.

The delays caused the CSeries program to miss its ideal entry into service, when oil prices were high and the competition was at least two years away from their own deliveries of updated aircraft. The delay caused crucial missed market opportunities.[14]

Some of the delay can be attributed to complications with the supply chain. This is the Achilles heel for any aerospace program. No OEM constructs all of the parts for an aircraft in-house, and as complexity increases, Tier 1 suppliers take on larger roles in subsystem integration. The aviation supply chain is now global. The dual challenges are to ensure these vendors deliver their parts to exacting specifications, and that they are delivered precisely on time, both within the development period for certification and later at the measured pace of production.

There was clearly a management shortfall in Mirabel. Bombardier's management and sales teams had been successful in regional and business aircraft, but trading in the mainline segment is vastly different. Bombardier's key decision makers believed the market would accept the CSeries as a vastly improved product and pay a premium. They thought that the aircraft would sell itself. The customers thought differently. Customer expectations among mainline airlines are different and far more demanding than among regional airlines.

The decision makers at Bombardier believed that they knew the market well. They did not, and they were not very open to listening to external voices that unsuccessfully tried to guide them. The senior leadership did not appreciate being challenged. Many members of the leadership team had insufficient aerospace experience. The sales and marketing team at Bombardier generally knew their target customers. But the leadership team believed that their own experience from other industries, the automobile industry in particular, would carry them through.

THE PRICING ISSUE

It is worth taking a moment to discuss the original pricing of the CSeries. During the period the CSeries program was headed by Gary Scott there was an ongoing dialogue with

[14] http://www.independent.ie/business/irish/i-dont-buy-all-that-bullst-about-branson-iag-boss-willie-walsh-34439671.html

the head office over pricing. Corporate leadership felt that the CSeries should be priced at a premium because the aircraft was a clean sheet design, was more efficient than the competition and thereby deserved a premium price. Accomplished aerospace people, like Gary Scott, did not believe this was going to work.

We understand that Scott repeatedly explained to Guy Hachet and Pierre Boudoin that Airbus entered the market by "buying" its way in with aggressive deals – and he used the A320/319 sales campaign to Northwest Airlines as the example of how this deal upset that airline's long relationship with McDonnell Douglas[15]. McDonnell Douglas never recovered from the loss of the airline as a customer.

In another example, Scott tried to explain the critical value of a deal with ILFC, which at that time was run by the highly respected Steven Udvar-Hazy. Once again the leadership did not comprehend the crucial value of winning a deal with ILFC and its downstream impact on future sales campaigns.

Sources indicate that this pricing debate cost the program considerable time and momentum. The small sales team had to sell the aircraft deals both internally and externally – and internal sales failures led directly to external failures, losing deals as a consequence. Early successful deals would have seen the program in a far better situation today in terms of order backlog and, crucially, momentum.

The company then hired[16] Chet Fuller to lead its sales team. Fuller scattered the company's small sales team across the globe, which reduced its ability to communicate internally and its overall effectiveness. Rather than focus on a few highly influential sales, Fuller proposed CSeries sales to smaller airlines, as they would not demand big discounts. Fuller therefore played to the leadership's desire for charging a premium price, which the market was unwilling, in most cases, to pay.

The corporate strategy to focus on geographically widespread smaller customers with high margins rather than key bellwether airlines at heavy discounting failed[17]. The consensus from people we spoke with was that a big marquee order was what the program needed (as Gary Scott had said more than two years before.) Lessors want to see orders from marquee airlines, and are a key to building program momentum.

[15] One of this report's author's played a role in the Airbus campaign.
[16] This took 18 months after Gary Scott left the firm.
[17] Smaller customers do not have the technical resources, making them high risk customers.

AIRBUS REACTS

Airbus naturally reacted[18] to the arrival of the CSeries. Lufthansa's CSeries order shocked Airbus. We understand Lufthansa's selection of the CSeries led to talks with Airbus that started the process for the development of the neo, and also selection of the Pratt & Whitney GTF engine for that program. Airbus listened to Lufthansa, and the airline went on to be the launch customer for the A320neo with the Pratt & Whitney GTF engine.

Bombardier officials spoke frequently during the CSeries development process that they had a good handle on the supply chain. After all, they said, their Q400 and Global Express business jets depended on global supply chains. They regarded themselves as leaders in managing global supply chains. Yet this became an area where the program encountered substantial delays.

Software integration, for example, was a key issue that resulted in multiple delays. Another was a partially-contained engine failure that resulted in an additional six-month program delay just as other problems had been overcome.

Here again the failure rests on leadership. A false sense of security came from assuming Bombardier had learned from the 787 supply chain problems. Having an executive team with automotive experience focusing on lean manufacturing was inappropriate during the aircraft development timeframe, as there was no production line to make lean.
Moreover, senior leadership decided to start the Lear 85 and Global Express programs before the CSeries project was firmly established. This meant that the few people experienced in development and supply chain work were pulled away from CSeries.

A tail wind in the regional and business jet sectors became a headwind for the CSeries going forward. The decision makers simply did not understand the market they were trading in. So they did not understand how to tailor the supply chain.

In supply chain, failures tend to be highlighted and successes are considered normal. The fact that Bombardier was now working with a vastly more complex program, with new vendors and in a segment that had far tighter margins of error meant that any slip up quickly mushroomed and caught the leadership by surprise. Bombardier was starting a new supply chain from scratch in many respects.

The demands were such that program management execution had to be perfect. If Airbus and Boeing failed with far larger and more complex programs, it was likely that

[18] http://www.theglobeandmail.com/report-on-business/international-business/european-business/airbus-executive-calls-bombardiers-c-series-jet-an-orphan/article28133795/

Bombardier would, as well. Moreover, Bombardier did not understand fully how to capitalize on the leverage it held with vendors. The fragmentation of the company worked in favor of vendors who, in some cases, exploited Bombardier's naiveté.

Suppliers also understand where their bread is buttered, and their business volumes from Airbus and Boeing dwarf Bombardier. When push comes to shove, who is likely to have the lowest priority? That answer is the smaller and least important player.

Bombardier's confidence in its supply chain management was based on having key people in place that had automobile industry experience. Aerospace programs are not sufficiently similar to the automobile industry. Automotive executives were used to larger volumes, where small errors could be lost in the volume. Aerospace is different, and volumes are comparatively minuscule.

Michele Arcamone is one of the under-appreciated people in the story; he was a leader with automobile industry supply chain experience. His former colleagues indicate that he was the first program leader of the CSeries to hold suppliers to their contracts.

CULTURE

Bombardier is Canadian and this is often overlooked as an issue. Canadians are typically not aggressive, outside of a hockey rink. Bombardier has a philosophy of treating its vendors as partners. This is normal "talk" for the industry.

But what was not normal was how the company dealt with vendor failure. Nothing was discussed publicly. The company was at pains to not "wash dirty laundry" in public. For a vendor this provided excellent cover. But it meant every program delay reflected entirely, and exclusively, on Bombardier. It looked like the company could not manage its supply chain and inflict the necessary sanctions to improve performance. Bombardier took every hit, whether deserved or not, and refused to throw suppliers under the bus.

Current and former executives provided a range of views on this issue. One pointed out that Bombardier simply did not have the leverage of an Airbus or Boeing, who many of these vendors were used to trading with. A threat from Boeing that failure disqualified a vendor from future work carries far greater weight than one from Bombardier. Another pointed out that because sales were anemic, vendors were not sufficiently engaged. Yet another shared a more positive insight saying that washing dirty laundry in public and playing the blame game is a sign of weakness, so not doing it was the better option.

An example of how the vendor environment shifted is to note what happened after Airbus selected the Pratt & Whitney GTF for its A320neo program. The importance of Bombardier to Pratt & Whitney declined markedly. This was simply realpolitik. Airbus is a far larger customer than Bombardier. Bombardier did not have sufficient critical mass to force its way on vendors. This was a weakness that became apparent as delays grew and little information emerged about the cause, and solution, to those delays.

An example cited by several former senior Bombardier executives is how Pratt & Whitney related delays were poorly handled. Bombardier never stopped apologizing for the delays. Yet Airbus went through the 2015 Paris Air Show with their neo fleet grounded due to a similar issue with Pratt & Whitney and nobody said a word. The self-deprecating and "exceedingly polite" nature of the Canadian culture hurt Bombardier when contrasted with its competitor.

MANAGEMENT CHANGES

Bombardier regularly replaced key people in the marketing and sales roles. First there was Gary Scott, then Chet Fuller and finally Ray Jones. Each individual had a unique style, but sales efforts became disrupted after each change. These changes caused consternation among customers who had to start new relationships in the midst of campaigns. The frequent management changes sent a message to the market that company management was in disarray. These changes also need to be viewed in the context of development delays, which exacerbated the perception of weakness.

The loss of Gary Scott (he retired due to a family member illness) came at a critical time for the program. He had the experience and gravitas the program needed to pull through on schedule. Senior Bombardier leadership could not credibly challenge him on anything in aerospace and production, though as we described earlier, they tried anyway.

For nearly two years after the launch of the CSeries, Bombardier did not appoint a "SVP Sales". Jim Daily had been the SVP for Bombardier Regional Aircraft (under Steve Ridolfi) but when Gary Scott took over the division, he retired. Gary Scott searched for a replacement, but the role stayed open for almost 18 months until the company brought in Chet Fuller in late 2010.

Kevin Smith served as an Interim SVP Sales for some time, but he never had a clear mandate and authority to do the deals Bombardier should have done at the time. Gary Scott was the closest thing Bombardier had to a sales leader, along with Ben Boehm, who was also heavily involved. Both were good at what they did - but they had a program to

run and were not true commercial people who had battled in the sales trenches. Yet these two men bore the brunt of the challenge of selling, both internally and externally.

In the early days of the program, sales of the CSeries was run by competent and rational engineers who believed the product would sell itself - and thus deals were developed with a reluctance to take loss leaders. Bombardier seriously undervalued the "salesmanship" required to compete with Airbus' John Leahy, Boeing's Ray Conner and their very experienced teams.

Bombardier should have had an industry heavyweight in the sales leadership role from day one, but hindsight is 20-20. Things changed under Chet Fuller - he understood the market and how to structure transactions[19] - but he ended up at odds with the head office who did not believe him when he told them of the need to get more aggressive on pricing. This led to a breakdown in communications that was difficult to recover from, and Fuller left the company.

Ray Jones was then brought in to replace Chet Fuller, on the basis of his track record with Bombardier Business Aircraft, but he was not in tune with the airline market. This was a step backwards for the CSeries program.

The CSeries program absorbed virtually all the experienced personnel and financial resources[20] at Bombardier. The program, and the company, looked wobbly. The combination of these events and frequent leadership changes sent a signal of uncertainty to potential customers.

DISTURBING THE DUOPOLY

Bombardier undertook a daring project with CSeries. It disturbed the Airbus and Boeing duopoly. It did not matter what Bombardier thought or said about not being disruptive. Airbus (it took Boeing much longer) saw the threat and reacted strongly with all the tools at their disposal.

Disrupting the duopoly was a big risk. Any errors by Bombardier were going to be exploited to maximum effect by its competitors to inflict as much pain as possible. Bombardier made a number of unforced errors. These errors were typically made by leadership people who meant well, but did not understand the market and refused to listen to either their customers or colleagues who did.

[19] Bombardier won a surprise deal with Garuda, based on hard work by Trung Ngo, VP Sales Asia Pacific who spent four months visiting Garuda almost every day to close the deal.

[20] Which negatively impacted the Lear 85 and other programs.

Meanwhile Airbus and Boeing built their backlogs for competitive aircraft to records levels as skittish airlines, running from risk, ordered the neo and MAX in record numbers.

CHANGING MARKET DYNAMICS

When Bombardier first introduced the CSeries, its major competitors were the Airbus A319ceo and the Boeing 737-700NG. Each of those programs sold well, as a part of a product family, as a robust market for aircraft in the 125-130 seats capacity existed. Bombardier believed it could enter that market, compete with Airbus and Boeing with a better aircraft at the low end of the market, and profitably sell the CSeries to a variety of legacy and low cost carriers around the world.

Shortly after moving forward with the program, Airbus changed the market dynamics in 2010, by introducing the A320neo family. Crucially, unlike the Bombardier leadership, they did this by listening to a key customer (Lufthansa). This program re-engined the A320 family with new technology engines and reduced the relative advantage Bombardier had in operating economics from 22% to 11% instantly.

In addition, Airbus COO Customers, John Leahy, declared war on the CSeries, stating that Airbus would not make the same mistake that Boeing made when they let Airbus enter the market. He indicated that Airbus would compete aggressively to preclude Bombardier from getting a market foothold, and kept his word. In several campaigns in which Bombardier had gained traction, Airbus swooped in at the last minute with low price offers too good for the airline to refuse, effectively blocking Bombardier[21].

Why would Airbus be afraid of competition from Bombardier? One reason is that Bombardier is expert at stretching aircraft. The CRJ, which began at 50 seats, grew to 70, 90, and finally 100 seat models. In addition, Bombardier trademarked the monikers CS500, CS700 and CS900, indicating interest in creating larger versions.

Airbus could have developed an all-new narrow-body design of its own. But with the A380 and A350 programs absorbing resources, Airbus decided to re-engine in reaction to the CSeries. It was a move unexpected by the market and, especially by Bombardier.

When Airbus won a large American Airlines order for the A320neo, Boeing was forced to react with its own re-engining program, the 737MAX. The narrow-body wars were on, and Airbus and Boeing were aggressive in competing with each other. Bombardier ended up in the crossfire.

[21] These campaigns included EasyJet and Vueling, among others

A former Bombardier executive confirmed that it was the decision by Boeing, staring at a potential loss of a large order at American Airlines to Airbus, to develop the MAX that changed everything. Once Boeing decided to develop the MAX, Bombardier's strategy of avoiding Airbus and Boeing's marketing forces came undone[22]. The re-engining of their aircraft was going to undermine Bombardier's plans and timeline. The CSeries competitive advantage, while still there, was cut in half and Bombardier's competitive position was threatened.

Given the efforts and scale of how Airbus and Boeing compete with each other, every target customer for the CSeries was now in play and being chased by the big duopoly. With better pricing power, greater production capacity and offering lower risk products, Bombardier was quickly eliminated from numerous competitions in which Airbus and Boeing were able to convince customers to upsize to larger aircraft.

UPSIZING TO COMPETE MORE EFFECTIVELY

Airbus' A319neo and Boeing's 737 MAX7 are both old-technology airplanes that do not compete well with the similarly sized CS300. With Boeing having built the 737 since 1967 and Airbus the A320 since 1989, these two OEMs were far down the learning curve. With optimized production facilities and positive margins on their products, which they could not afford to lose, competition against Bombardier intensified. The A320 and 737 families are the "cash cows" for Airbus and Boeing.

The 150-seat A320ceo and neo has 15% more seats than the 130-seat CS300, and the 162-seat 737-800/MAX8 has a 24.6% advantage in capacity[23]. With airlines focused on seat-mile economics, convincing airlines to upsize has been the primary modus operandi, and it has worked quite well. With higher capacity, Airbus and Boeing had airplanes to sell against the CS300 that were compelling on a seat-mile cost basis, and they offered those aircraft at low prices.

They also assured customers that for routes that would normally utilize an A319 or 737-700 the additional seats represented revenue potential and would accommodate future growth. Lower pricing typically won the day for Airbus primarily, and occasionally Boeing, in campaigns facing the CS300[24].

Bombardier is unable to discount the CSeries to the same level that Airbus and Boeing discount their programs. The recent Bombardier success at Air Canada and Delta

[22] Along with any chance of obtaining premium pricing.

[23] Bombardier did not effectively counter this strategy by talking about yield decline as airlines had to discount the extra seats in many markets where Airbus and Boeing aircraft were too large for certain markets.

[24] The recent order at United Airlines for 737-700s is a case in point.

demonstrates a new level of pricing aggressiveness, no doubt helped by the support of Quebec's pending investment. But this has come with a $500 million write off to cover those lower prices and initial learning curve. The Air Canada win overturned Airbus and Embraer. After losing to Boeing at United, the win at Delta was especially sweet.

Program development costs need to be amortized over the fleet that will be sold, and Airbus and Boeing have long since amortized the development costs of their narrow-body aircraft families. The program costs required for a re-engining program are a fraction of those required for an all-new aircraft, and Bombardier struggled to compete on price. Moreover, Bombardier leadership thinking on pricing and the value marquee wins was, until recently, completely misguided.

We know of several campaigns, including EasyJet and Vueling, in which Bombardier was well positioned in the final stages of potential orders, only to have Airbus make the airline "an offer it couldn't refuse" – typically the larger A320 at a lower price.

it is important to point out that competition with Airbus and Boeing is not the same as competing with Embraer. If Bombardier can reposition the 100-150 seat segment as being a space that Airbus and Boeing have exited they should do much better in a two-way competition with Embraer. The recent wins at Air Canada and Delta now places Bombardier in a position to credibly make this claim, as CSeries has outsold A319neo and 737MAX7 combined in its size class.

The performance and economics of the CSeries provide a much bigger competitive advantage against Embraer's existing E-Jets than with the MAX and neo. While the E2 comes close to matching CSeries economics, the E2 program is still in design and its E190, E195, and E175 models will not be delivered until 2018, 2019 and 2020 respectively.

Furthermore, the E2 still has challenges ahead. It is easy to hide program challenges prior to Flight Test. We will find out whether Embraer is on track or if they have the same challenged that the other OEMs have had[25]. Even if the E2 does well in execution - they will not beat the CSeries to production ramp up. Bombardier must to take advantage of the first mover advantage they still have over the E2.

Embraer has a customer base with more than 1,000 E-Jets in operation. Converting some of these customers, such as JetBlue and British Airways, is critical to Bombardier as it exploits first mover advantage over Embraer.

[25] That said, Embraer has stayed on budget and on schedule. We believe they will achieve their goals.

MARKETING MISSTEPS

Beating the brochure is a big issue and the CSeries was the first commercial aircraft to actually beat its original brochure numbers at EIS. We were told the CSeries suffered from a "787 tax" (the program faced similar problems). Prospective customers were anticipating delays, and expected the aircraft to miss its brochure numbers. This is typically the case with an OEM, perhaps best demonstrated early in the Boeing 787 program, when the company fell well short of promised performance.

Oddly, Bombardier's performance guarantees were significantly different to the performance numbers in marketing brochures. The guarantees were quite conservative compared to what Boeing and Airbus offered on competing products. This sent a signal that Bombardier had low confidence in the performance of its airplane, as it was unwilling to commit to the performance it was advertising. This again points to Bombardier leadership not having sufficient understanding what it took to win orders in the commercial marketplace.

As a technical achievement, the CSeries is doing what it promised to do. But the world it was designed for has changed dramatically. When the CSeries was conceived the world was entering an era of rising fuel prices and radically reduced fuel burn was the primary issue. Bombardier deployed the Pratt & Whitney GTF engine, which not only met this goal, but also provided much lower noise and much improved emissions.

To succeed, it is not just the Bombardier sales and marketing teams that need to execute flawlessly. The customer rollout team also must perform its work without the slightest hiccups. Working closely with launch customer, Swiss, this team has to ensure flight operations experience ideally no, or minimal, operational delays.

A growing source of confidence for this will be the experience Bombardier had when it conducted its own F&T tests, during which no operational delays occurred. Similarly, the F&T tests at Swiss went off without any glitches.

This demonstrates the aircraft appears to be technically ready for its task. But real world airline operations do push the aircraft into as yet unchartered territory. Bombardier's support teams, along with those from Pratt & Whitney, have to ensure a dispatch reliability of 99% at minimum. This is the benchmark number to watch for in the period after EIS.

V. MARKETS: IN OR BETWEEN SWEETSPOTS

Bombardier, which is well positioned in the regional jet market, decided to upsize and compete with the low end of the market dominated by Airbus and Boeing. This was not a poor decision, as Airbus and Boeing had aircraft in the segment that were seeing slowing sales. Moreover, the comparable Airbus and Boeing aircraft have a substantial performance gap vis-à-vis CSeries.

But during the time Bombardier envisioned for its own product development and first delivery, some two years late, the market moved and the competitive environment changed completely - leaving Bombardier with an aircraft that was larger than regional airlines needed and smaller than what made sense for many major airlines. We understand that a number of airlines had asked Bombardier for a larger CS500, and preferred a family of three models rather than two.

Do we believe this move is permanent, and that the CSeries will always be between two markets? No, we don't. But Bombardier missed a potential wave of orders when more than 7,000 narrow-body aircraft were ordered between Airbus neo and Boeing MAX models between 2010-2014. The big two OEMs upsized the market to better compete with new technology aircraft like the CSeries on seat-mile economics, and aggressively discounted those aircraft, with discounts routinely at or above 50% of list price.

Being "in between" these markets left Bombardier as a niche player in the short-term, finding customers who need specific capabilities, or those willing to risk investing in a new technology product. While Bombardier has secured orders from four marquee customers, the remainder of its customer base is a hodgepodge of carriers with unique requirements (e.g. Odyssey and Porter) and smaller, or new, carriers that bring different risks (Saudi Gulf, Atlas, Iraqi), and leasing companies, of which only Ilyushin Finance has actually announced potential customers, despite nearly seven years since the first lessor committed to the program. We should point out that another lessor customer, Macquarie indicated interest, to us, in acquiring more CSeries.

A list of CSeries current customers follows, listed by firm orders and letters of intent. It is telling that some letters of intent inked in 2011 and 2012 have not yet been converted to firm orders, but remain listed as commitments by Bombardier. That length of time to convert and LOI indicates to us that no commitment exists.

Unfortunately, only four large bellwether customers have firm orders, and many analysts perceive that Bombardier still lacks the critical mass it needs for success because of the risks associated with its customer mix. Commercial aerospace is all about economies of

scale and critical mass. Our opinion is that the aircraft is well positioned and that the new management team understands how to sell the aircraft, leading to positive results.

BOMBARDIER CSERIES PROGRAM								
FIRM ORDERS								
Date	Airline	CS100	CS300	Undecided	TOTAL	Options	Purch Rts	Maximum
3/10/09	Lufthansa for Swiss	30	0	0	30	30	0	60
3/30/09	LCI	3	17	0	20	20	0	40
2/25/10	Republic	0	40	0	40	40	0	80
6/1/11	Brathens for Malmo	5	5	0	10	10	0	20
6/7/11	Undisclosed	3	0	0	3	3	0	6
6/20/11	Gulf Air	10	0	0	10	6	0	16
6/24/11	Odyssey Airlines	10	0	0	10	0	0	10
7/29/11	Korean Airlines	0	10	0	10	10	10	30
1/19/12	PrivatAir	5	0	0	5	5	0	10
12/20/12	airBaltic	0	10	0	10	0	10	20
3/31/13	Undisclosed	-3	0	0	-3	-3	0	-6
6/4/13	Ilyushin Finance Co.	0	32	0	32	10	0	42
12/4/13	Iraqi Airways	0	5	0	5	11	0	16
1/16/14	Al Qahtani for Saudi Gulf	0	16	0	16	10	0	26
2/9/14	airBaltic	0	3	0	3	0	-3	0
7/14/14	Falcon Aviation Services	0	2	0	2	0	0	2
9/26/14	Macquarie Air Finance	0	40	0	40	10	0	50
6/15/15	Lufthansa for Swiss	-10	10	0	0	0	0	0
4/12/16	airBaltic	0	7	0	7	0	-7	0
2/17/16	Air Canada	0	45	0	45	30	0	75
4/28/16	Delta Air Lines	75	0	0	75	50	0	125
TOTAL FIRM ORDERS		*128*	*242*	*0*	*370*	*242*	*10*	*622*
LETTERS OF INTENT NOT YET FINALIZED								
Date	Airline	CS100	CS300	Undecided	TOTAL	Options	Purch Rts	Maximum
11/5/11	Atlas Global	0	10	0	10	5	0	15
7/8/12	CDB Leasing Co	5	10	0	15	15	0	30
4/10/13	Porter Airlines-conditional order	12	0	0	12	18	0	30
7/12/14	Falko Regional Aircraft	24	0	0	24	0	0	24
7/14/14	Zhejiang Loong Airlines Co.	20	0	0	20	0	0	20
7/14/14	Air Arabia Jordan	2	0	0	2	2	0	4
7/16/14	Undisclosed African Airline	0	0	5	5	0	0	5
7/16/14	Undisclosed Existing Customer	0	7	0	7	0	6	13
3/17/15	flymojo	20	0	0	20	20	0	40
TOTAL LETTERS OF INTENT		*83*	*27*	*5*	*115*	*60*	*6*	*181*
GRAND TOTAL		*211*	*269*	*5*	*485*	*302*	*16*	*803*

Can Bombardier generate enough sales to break even? We believe they can, and have the potential to exceed that substantially. But will it happen during the next two to three years? Chances are it will take longer to generate the required number of orders needed, as Bombardier needs another bellwether customer[26]. Financing the company through that period will be a difficult task.

[26] The Delta Air Lines campaign was a crucial win, maintaining program momentum.

Every aircraft program has a breakeven number, and the path to that aircraft is challenging. Airbus won't reach the real breakeven number on its A380 for a long time, if ever. Boeing's breakeven number on the 787 is now well over 1,000. But Airbus and Boeing can afford that bet, given the strength of their balance sheets and range of aircraft. Bombardier has a more difficult time, with more limited resources.

Bombardier cannot change the environment to better the CSeries, but it can change its approach to marketing and sales. With a leadership team with the aerospace insight and understands what it takes to support and enable teams to win deals, it can work with airlines and lessors to develop a compelling offer.

An example of this is a target customer, like Air Lease Corporation (ALC). While Bombardier needs to win airline deals, an influential lessor like ALC wants to ensure that there is a lot of interest in the product from airlines. As one executive suggested, ALC's own leadership needs to see at least three marquee airlines as direct customers prior to making their own commitment[27]. Marquee customers validate a program, which is why they are so valuable. With four marquee brands as customers, the CSeries is now in a far better position to attract more attention from key lessors like ALC.

Fortunately, Bombardier has already signed four leasing companies, LCI with 20 aircraft, Ilyushin Finance for 32, Macquarie for 40, Falco for 24, and CDB leasing for 15. While the latter remains an LOI, 92 of the 370 firm orders are with leasing companies, who need to be confident that they can place these aircraft with customers. These lessors perceived a market for the CSeries or would not have ordered the aircraft.

[27] Once again reinforcing the importance of winning Delta.

VI. OUTLOOK FOR THE PROGRAM

Bombardier has a new management team in place. This new team has the depth and breadth in commercial aerospace experience to work through the challenges the program faces. While the difficulties have been formidable, they are known and understood by this team. Crucially, the new leadership has the industry relationships, and they have the credibility and resources to aggressively pursue deals. The recent wins at Air Canada and Delta reinforce this.

As explained by one of the new team leaders, Bombardier needs to "…*create recognition and momentum through sales to respected and recognized airlines. While those orders do not have to be very large, unlike Boeing and Airbus, they must be to airlines that will generate confidence through their endorsement of the product, and could even often provide a significant maintenance and training presence.*

Bombardier needs to find such airlines in all continents, beginning with the North America market (Air Canada + Delta), then Europe (Swiss + at least one other), then Asia and/or Middle East (Korean + 1 other). Ultimately Bombardier plans to add a recognized customer in each of Africa and Latin America should economic conditions permit. That means the sales team must make five sales to major customers in short-order to build program momentum. That isn't easy to do without the freedom to "buy" a few orders through exceptionally low pricing, which will likely be required in facing competition from Airbus and Boeing.

Following these conquests, Bombardier plans to build momentum by increasing penetration of the leasing company market to utilize those lessors as distribution channels to expand the operator base".

The strategy is clear. There is a mission that is well defined and understood. The first two majors have been sold. The people who have to execute on this strategy know who the key players and executives they need to focus on.

At the 2015 ISTAT Americas event, ALC's Steven Udvar-Hazy was asked about the CSeries. His reply was that Bombardier needed to focus on landing marquee airline customers. He was right, and the new management team both understands this and has incorporated it into their strategy.

OIL PRICES IMPACT THE MARKET

The prospects for the CSeries are not without challenges. With low fuel prices, it's advantage over the re-engined models it competes with are diminished on a dollar, rather than fuel used, basis. The current low fuel prices provide an incentive to keep older aircraft longer, and works against Bombardier in the short-term. But with a double-digit difference in fuel burn, even at low prices the CSeries remains attractive. However, even the most optimistic forecasters anticipate current low oil prices to rise. Rising oil prices will help one of the key value propositions for the CSeries.

COMPETITIVE ENVIRONMENT IS CHANGING

Airlines can obtain larger aircraft from Boeing and Airbus at what is essentially the same price of the smaller CSeries, this can be more profitable - if they can fill the seats[28]. Across the industry, consolidation has led to record load factors, which means the likelihood of filling the larger aircraft are high. Bigger narrow-body aircraft have been popular, given record order levels for A320neo and 737MAX8. Yes, these aircraft are more expensive to operate. But a few million dollars in lower pricing can purchase a lot of fuel, and can easily make up the difference in operating costs.

In 2015 and 2016, orders of larger narrow-bodies slowed, and right-sizing appears to be the newest metric in fleet planning. Nonetheless, while this favors Bombardier, Airbus and Boeing are experts at pricing to the point of economic indifference, and Bombardier is learning how sharp their pencils need to be. The win at Delta demonstrates Bombardier is now willing to match pricing for marquee deals.

Had Bombardier made marquee airline deals two years ago when fuel was expensive, its order book would look more robust and consequently the company look more bankable. The company has a moderate (but growing) order book, a tougher than ever market to sell into, but has obtained financial support from Quebec.

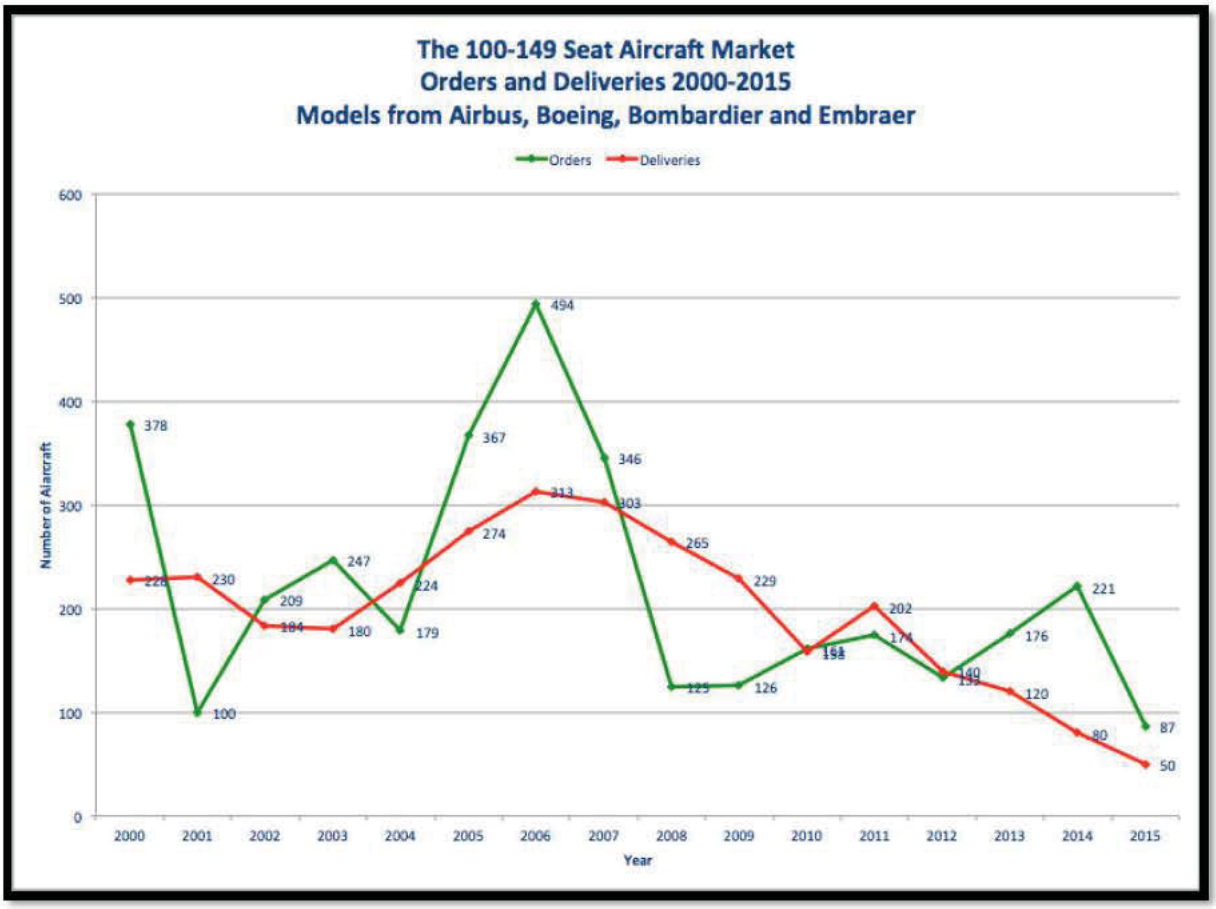
Airbus and Boeing are sitting on record backlogs. There are rising expectations that the single-aisle aircraft market is headed for a bubble. If and when such a bubble bursts, what does this mean for Bombardier? Airbus and Boeing are still committed to production increases. It would appear to us that a bursting bubble will create negative market conditions for all OEMs, but will hit Airbus and Boeing much harder than Bombardier.

[28] Load factor may be high, but as we increasingly seeing, many seats have been discounted, impacting overall yield.

ORDERS AND DELIVERIES FOR 100-149 SEAT AIRCRAFT

Over the past 15 years, the 100-149 seat aircraft market has seen a dramatic drop off in both orders and deliveries, as shown in the following chart. This has largely been a result of airlines moving up to larger models from Boeing and Airbus, with the 737-700 being supplanted by the 737-800 and MAX8, and the A319 and A319neo being supplanted by the A320 and A320neo.

The following chart shows orders and deliveries for aircraft in the 100-149 seat category from Airbus, Boeing, Bombardier and Embraer.



It is notable that while there is a sharp drop-off in deliveries from 2008-2015, orders exceeded deliveries in the last three years, as customers appear to be waiting for new technology aircraft, including the CSeries and E2 Jets, to be delivered. Plus, in early 2016, agreements for 75 CS100s from Delta Air Lines and 45 CS300s from Air Canada provide additional momentum to Bombardier, as orders for this segment already exceed those

generated in 2015. During this quarter, United Airlines also ordered 65 737-700s which are older technology aircraft that fit into this size category.

There are currently six new technology models in this segment from the major OEMs that have not yet delivered an aircraft: The Airbus A319neo, the Boeing 737 MAX7, Bombardier's CS100 and CS300, and Embraer's E2-190 and E2-195. The current order book and backlog for each program stands as follows:

Aircraft	Firm Orders	Market Share
Airbus A319neo	50	8.2%
Boeing 737 MAX7	60	9.8%
Bombardier CS100	128	21.0%
Bombardier CS300	197	32.3%
Embraer E-190 E2	85	14.0%
Embraer E-195 E2	90	14.7%
Total	**610**	**100.0%**

The CSeries has the market share lead among the six new technology models from the big four manufacturers in this segment. We expect Bombardier and Embraer to continue to share the market lead, as the A319neo and 737 MAX7 are approximately 10% less efficient than the offerings from Bombardier and Embraer. Moreover, Boeing appears to have already decided its current MAX 7 is ineffective and is revising the design. We expect, long-term, that Bombardier and Embraer will share 75-80% of this segment (about 82% today) and that sales will be relatively equal between the two manufacturers.

GROWTH AND REPLACEMENT

Air traffic continues to grow globally at a rate close to 5% per year, which, when combined with replacements, provides a robust forecast for the aircraft market over the next 20 years. The 100-149 seat market is one that has historically been strong, then became weaker in recent years as new orders moved to larger aircraft, and is now seeing a resurgence as many 70-100 seat aircraft are being replaced with newer 100-110 seat models.

However, as airline competition intensifies, narrow-body operators will likely opt for the better seat-mile economics of larger aircraft for many routes currently served by 100-149 seat aircraft, in particular, those airlines flying A319 and 737-700 aircraft. As a result, we expect growth in this segment to be slower, at approximately 2.5%, as some operators migrate to larger aircraft. This would mean that today's fleet of roughly 4,000 narrow-

bodies from the four major OEMs in this segment will likely grow to approximately 5,500 to 6,000 aircraft by 2035.

Historically, the 100-149 seat market was the mainstay of major airlines. To date, 1,472 Airbus A319s and 1,147 Boeing 737-700s have been delivered and nearly all remain in operation with major airlines worldwide. However, most of those aircraft will need to be replaced over the next two decades. We believe that at about 70% of those aircraft will be replaced by those of similar size, contributing 1,310 aircraft of the 5,000-6,000 total we project. Our projected aircraft delivery forecast by model in this segment is as follows:

AirInsight Forecast							
100-149 Seats	Projected New Technology Aircraft Deliveries 2016-2035						
Year/Type	737 MAX7	A319neo	CSeries	E-190/195 E2	797-7	A360-800	TOTAL
2016	-	-	12	-	-	-	12
2017	-	10	30	-	-	-	40
2018	30	20	60	15	-	-	125
2019	30	20	90	45	-	-	185
2020	10	15	120	90	-	-	235
2021	15	20	120	120	-	-	275
2022	20	15	120	120	-	-	275
2023	15	20	120	120	-	-	275
2024	20	15	120	120	-	-	275
2025	15	20	120	120	-	-	275
2026	20	15	120	120	-	-	275
2027	15	20	120	120	-	-	275
2028	20	15	120	120	-	-	275
2029	15	20	120	120	-	-	275
2030	20	15	120	120	50	50	375
2031	-	-	100	90	75	75	340
2032	-	-	80	75	125	125	405
2033	-	-	75	70	150	150	445
2034	-	-	70	60	175	175	480
2035	-	-	65	50	200	200	515
Total	**245**	**240**	**1,902**	**1,695**	**775**	**775**	**5,632**

Our mid-point forecast calls for roughly 2,161 CSeries aircraft to be produced over the next two decades. This should provide the critical mass of aircraft necessary for the program to generate profitability assuming competitive conditions allow Bombardier to sell the aircraft at reasonable pricing.

PROVINCIAL INVESTMENT

The Quebec investment into the CSeries program was a creative win-win solution for Bombardier's tightening cash position. It appears that federal Canadian government support may also be forthcoming[29]. The increased capital available to Bombardier should enable it to chase after orders far more aggressively than when the program began. The successful Air Canada and Delta campaigns are examples of that aggressiveness.

The CSeries team now has to focus on every opportunity the comes its way. The team knows it will have to face off against Airbus and Boeing, and that Embraer's E2 has had its rollout.

One of the lesser discussed aspects of the government support is the Canadian concerns about losing Bombardier and its thousands of high-skilled jobs. Indeed, one of the executives we spoke with believes the capital structure of the company is an advantage for the governments. This ensures that no unfriendly takeover can occur. The primary concern here is China. Buying Bombardier would provide any of the large and growing Chinese aerospace firms with overnight access to tremendous aerospace IP. Finally, there are potential issues of facing WTO complaints when state and federal funding are provided. We know that Embraer is likely to file a protest.

MARKET OPPORTUNITIES

We have described how Bombardier is now clearly in open competition with the larger OEMs for every potential order. But where do the opportunities lie? Airlines and lessors come to the market on a regular basis to refresh fleets. But what happens when the demand for air travel is stable and global economies are growing?

The key to future travel demands is China and India. China is developing its own commercial aerospace industry and its airlines and leasing firms are encouraged to buy local. Fortunately for Bombardier, the Chinese aircraft are either uncompetitive (ARJ21) or larger (C919). The CSeries could fit between these two aircraft. The decision to use AVIC as a vendor was taken in part because it was thought this would open the market to orders. This has not happened. Whether China becomes a significant market for CSeries remains an open question.

[29] http://www.theglobeandmail.com/news/politics/ottawa-mulls-options-to-give-bombardier-financial-boost/article28124937/

India has no domestic commercial aerospace industry to protect. Both these countries are expected to offer robust demand for air travel. India could be a market given its many smaller airports. But India is a difficult market to trade in. Bombardier has seen some success with the Q400 at SpiceJet.

There are other areas of interest. Among the options for Bombardier are Iran and Russia. While Russia has the Sukhoi Superjet and Irkut MC-21 coming, the CSeries could fit well between them, but Russian airlines lack the capital to invest due to sanctions over Crimea and low oil prices. This has also crimped plans at CSeries customer, Ilyushin Finance. The Russian options are limited for the foreseeable future. The Q400 production move to Russia was also interrupted by politics. Again this is unfortunate timing for Bombardier.

Fortunately, as these emerging markets attract attention, there are other much closer markets that are worth more attention. Bombardier's current customer base is heavily focused on North America. The CSeries is the right aircraft for this market.
Bombardier should target E190 operators who are struggling with the aircraft, and develop some high visibility "take outs". Even though the E-Jet has sold well, ten years on, we know that there are some airlines that are unhappy with the way the aircraft is aging prematurely. We have heard reports of the high cost of maintenance - and with Embraer switching engines to Pratt & Whitney, GE will make the CF34-10 a cash cow and will not be giving any favors when it comes to engine overhaul costs[30]. Bombardier should strike hard at some early E-Jet customers. Suggestions include COPA, JetBlue, LOT, BA Cityflyer, and some of the Middle Eastern operators (Royal Jordanian, Saudia, Egypt).

For a niche operator, like Toronto-based Porter, the aircraft provides the best solution for an ambitious route expansion. However, politics seems to be crimping this as it is unclear that Toronto's Billy Bishop airport will see its runway extended. Were the runway to be extended, and Porter to take delivery of its CS100s, the aircraft's disruptive potential will be immediately clear for all to see.

Delta Air Lines was among the very first targets when its Northwest Airlines operations had to replace many aging DC-9s. Northwest was reported to be very interested in the CSeries[31]. Even though the DC-9s were retired and replaced by 717s, Delta remained a target. The recent order announcement was a momentum changing event for the CSeries program.

[30] Which also has implications for Bombardier's CRJ program.
[31] Northwest Airlines, along with Lufthansa, was a major advisory airline to Bombardier on the CSeries.

Another operator of competitive replacement aircraft is American Airlines. While the airline is in the midst of a big fleet refresh, it might not replace all its MD-80s with 737s. Moreover, its A319s, most of which were acquired from the merger with US Airways, are unpopular with the airline's fleet management. The CSeries might be a contender for the 120-150 seat fleet replacement[32].

United Airlines did consider the CSeries. There are rumors that United has a deal with Boeing that limits its freedom when selecting single-aisle aircraft. The airline recently made a significant order for 737-700s. Boeing was not amenable[33] to allowing the CSeries in to the fleet at United. Boeing bought the United order and any objective review of this deal demonstrates Boeing's weak hand. It was a deal driven by desperation pricing.

In other marquee airline opportunities, we are aware that British Airways not only has considered the CSeries before, but still considers the aircraft a viable option. British Airways has a number of A319s and E-Jets that it will replace and is unlikely to select the A319neo, which has seen little market interest. Indeed, we would not be surprised to this airline as the next marquee customer.

Finally, another large A319 operator is Lufthansa[34]. Having already selected the CSeries for its Swiss subsidiary, it is likely to look favorably on the CSeries when it starts to retire its fleet of A319s. Lufthansa has a number of airlines that fall under its management. Moreover, Lufthansa has 30 options it has yet to exercise. We believe these will be converted to orders to ensure the airline has favorable delivery slots after the large Delta order.

FUTURE-PROOF: THE POTENTIAL IMPACT OF A STRETCHED CS500

Should Bombardier choose to offer a stretched CS500, it would place Bombardier in direct competition with Airbus and Boeing in the heart of the narrow-body market, and the 150-170 seat segment that has generated the majority of aircraft sales in recent years. We believe that Bombardier could achieve an additional 800 plus sales were it to offer a CS500. That aircraft would likely be more efficient than either the A320neo or 737MAX8. Our estimates are that a CS500 might provide economics approaching the A321neo with lower seating capacity. Given the lead time to develop an additional variant, we would expect a CS500 might have a realistic production run of approximately 10 years before new models from Airbus and Boeing are announced in the 2025 timeframe to enter

[32] Though we also expect Boeing to be aggressively marketing its redefined MAX7.5 to the airline.
[33] http://www.wsj.com/articles/boeing-beats-out-bombardier-embraer-for-coveted-united-orders-1456160980
[34] Lufthansa has not exercised all its 30 options on CSeries. Plus, it has a number of target replacements among its airline group.

service by 2030. These new models would take advantage of technology improvements and likely eclipse the CSeries in performance and economics at that time.

Currently, the A320neo and 737 MAX8 count 3,312 and 2,654 orders between them in backlog. The 5,966 aircraft on firm order are about the same size as our forecast for the entire 100-149 seat market through 2035. Penetrating this larger market sector, which is likely to see deliveries of 17,000 units through 2035, with even a 5% market share for Bombardier could yield 800 aircraft, and a 10% market share 1,600 aircraft.

We believe that Bombardier could achieve a 5% penetration in that market due to factors such as commonality for existing CSeries customers, and secure a niche for a larger aircraft that would achieve additional sales for a modest investment. It is our view that a CS500 would be an attractive aircraft against Boeing and Airbus, and provide a natural growth path for CSeries customers.

We understand that Delta Air Lines, among others, is interested in a CS500. If Bombardier is to move, they need to do so quickly, so that the aircraft would be available in the 2021 timeframe, providing ten years of potential production before being leapfrogged by new clean-sheet aircraft from Airbus and Boeing.

VII CONCLUSIONS

AirInsight believes that the CSeries program has finally reached a position in which it is poised for success. The disappointments of the early history of the program have been replaced with optimism at Entry into Service, and the new management team appears capable of executing its strategy.

The road ahead for the CSeries and Bombardier will not be easy. The company faces tough competition, but with an investment from Quebec and the aircraft performing better than expected, we remain optimistic that many of the prior problems can now be overcome.

Our judgement is that the program can become a success, and should deliver between 1,900 and 2,400 aircraft over the next two decades, and potentially 800 to 1,600 more should a CS500 model be added.

The challenge for Bombardier has moved from aircraft development to sales and support. The new management team appears ready for the challenge. But execution needs to be on-point and excellent, which has not always been the case with the program.

But if the following events occur in 2016, the future will look bright:

- EIS at Swiss and Air Baltic go smoothly;
- Another bellwether customer is signed, in Europe or Asia;
- Leasing companies begin to sign new customers;
- Existing options begin to be executed to ensure delivery slots;
- The order book grows to more than 425 firm orders by year end.

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EXHIBIT 35

United Airlines Buys B737-700s for “$20-25 million”

Author: Aircraft Value News

May 2, 2016

“Stratregic Pricing” Still Evident Despite Record Backlog

The order for 25 B737-700s by United Airlines has reportedly been placed on the basis of a sizeable and significant discount equating to a purchase price of between $20-25 million.

The 2015 list price of the B737-700 amounts to $80.6 million and the current market value of a single new example $36 million (www.aircraftvalues.net) equating to a discount of 55 percent. With a possible purchase price of approximately $23 million this would represent a discount of more than 70 percent. An order for 25 units would normally attract a substantive reduction but not 70 or more percent. This suggests that the level of discounting, if correct, was due to a number of other factors and may therefore be more of an isolated instance (refer to following article for current narrowbody pricing). A price of below $25 million is similar to the price being paid for a E175 or CRJ900. In addition to a low purchase price of perhaps $23 million, United may also have secured a restriction on the effect of escalation by zeroing the base price to a specific year including any outstanding orders. Option pricing may have secured the same discount. CFM may also have had to offer concessions not least because an order for the CSeries would have benefitted Pratt & Whitney.

The B737NG is entering the final production phase as development of the B737MAX proceeds and as such there is pressure to maintain production of the former at current, if not higher levels. The sale of 25 aircraft therefore represents some two weeks’ production for Boeing. The 25 -700s is in addition to the 40 -700s that the airline placed in January. Yet, Boeing though would likely be able to sell such production slots for the more profitable -800s to a myriad of capacity strapped customers. The aircraft manufacturers typically make a greater profit in selling larger aircraft. The incremental saving of producing a -700 is negligible but the sale price compared to the -800 can be significantly lower.

With the transition between the B737NG and B737MAX, pricing of the former can also be a function of the end of the line issue whereby there is an expectation that values of those built in the final years of the program will exhibit a marked deterioration such that value convergence becomes evident. Value convergence occurs when the value of the youngest converges on the oldest such that any differential due to the production year is of lesser significance. To compensate for this effect, new pricing needs to be competitive.

Boeing is also conscious of the considerable competition at the lower end of the B737NG seating capacity in the form of the CSeries. While the problems of the CSeries has its problems, the early availability and greater efficiency of the Bombardier product will have been attractive to United. If United had ordered the CSeries, this may have been the start of a long term relationship that may have led to more orders for the Canadian manufacturer. Unfortunately, Bombardier is at a stage of development that makes it difficult to contemplate offering strategic pricing. An order for 25 aircraft priced at below $25 million would have likely have been significantly below the cost of production and would have represented a number of months of production rather than two weeks of Boeing. The ability of Boeing to offer such deep discounting cannot usually be matched by the less financially secure manufacturers. By winning the United order, Boeing will also have avoided the CSeries becoming established with a major US carrier, thereby setting a precedent that could have longer term consequences. In selling the -700 at below $25 million Boeing will also have been able to take advantage of the fully amortized development cost of the B737NG program though of course the margins from the higher production rates of the B737s are being used to paid off the reportedly $35 billion development cost of the B787.

Whatever the differential in pricing between the B737-700 and CSeries – perhaps $5-7 million per aircraft – United will also have been conscious of the issue of commonality. Operators have been seeking to rationalize their fleets for decades and adding the CSeries would have created considerable problems for United in terms of flight crew and maintenance.

Strategic pricing reflects a one-off sale to a customer of particular note as a means of wresting an order away from an incumbent supplier or as a way of retaining an existing customer. For example, the order for A319s from easyJet saw Airbus make major pricing concessions as a means of ensuring that the airline did not place an order for more Boeing aircraft. There is speculation that Airbus made little or no money on the deal but in proving that a low cost airline such as easyJet could successfully operate what until then was seen as more of a legacy carriers aircraft, more profitable sales from similar operators followed. Ryanair has been the beneficiary of strategic pricing for decades such that it is doubtful that the carrier is still paying much more than $35 million for a -800 compared to a new value of $47 million.

Tags:

AIRCRAFT Boeing B737-700 Bombardier CRJ900

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> Aircraft Asset Assessment

EXHIBIT 36

UNITED STATES DEPARTMENT OF COMMERCE
International Trade Administration
Washington, DC 20230

A-122-859
POI: 4/1/16 – 3/31/17
Public Document
E&C OIV: LA, AN, DJ

December 18, 2017

MEMORANDUM TO: P. Lee Smith
Deputy Assistant Secretary
for Policy and Negotiations

FROM: James Maeder
Senior Director
for Antidumping and Countervailing Duty Operations
performing the duties of Deputy Assistant Secretary

SUBJECT: Issues and Decision Memorandum for the Final Affirmative Determination in the Less Than Fair Value Investigation of 100- To 150-Seat Large Civil Aircraft from Canada

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I. SUMMARY

We analyzed the comments of the interested parties in the less-than-fair-value (LTFV) investigation of 100- To 150-seat large civil aircraft (aircraft) from Canada. Based on our analysis of these comments, we made no changes to our preliminary determination that aircraft from Canada is, or is likely to be, sold in the United States at LTFV, as provided in section 735 of the Tariff Act of 1930, as amended (the Act). We further determine that it is appropriate to continue to apply total adverse facts available (AFA) to Bombardier Inc. (Bombardier), the sole mandatory respondent, pursuant to sections 776(a) and 776(b) of the Act. We recommend that you approve the positions described in the "Discussion of the Issues" section of this memorandum. Below is the complete list of the issues in this LTFV investigation for which we received comments from interested parties:

Comment 1: Application of Adverse Facts Available
Comment 2: Whether Sales or Likely Sales Occurred During the POI
Comment 3: Adequacy of Petition
Comment 4: Revision of the Seating Capacity
Comment 5: Removal of Nautical Mile Range Criterion
Comment 6: Airbus-Bombardier Transaction

II. BACKGROUND

On October 13, 2017, the U.S. Department of Commerce (Department) published the *Preliminary Determination* of sales of aircraft from Canada at LTFV.[1] The period of investigation (POI) is April 1, 2016, through March 31, 2017. We invited parties to comment on the *Preliminary Determination*. On November 3, 2017, Bombardier, and Delta Air Lines Inc. (Delta), submitted case briefs, and on November 8, 2017, The Boeing Company (the petitioner) submitted a rebuttal brief.[2]

Additionally, on November 1, 2017, the Department placed on the record of the instant investigation and the companion countervailing duty investigation factual information regarding a planned transaction between Airbus and Bombardier.[3] The Department invited interested parties to provide views on the implications of this announced transaction, and submit rebuttal factual information pursuant to 19 CFR 351.301(c)(4). In November 2017, the petitioner, Bombardier, and Delta submitted rebuttal factual information,[4] comments,[5] and rebuttal

[1] *See 100- to 150-Seat Large Civil Aircraft from Canada: Preliminary Affirmative Determination of Sales at Less Than Fair Value*, 82 FR 47697 (October 13, 2017) (*Preliminary Determination*) and accompanying Memorandum, "Decision Memorandum for the Preliminary Determination in the Less Than Fair Value Investigation of 100- To 150-Seat Large Civil Aircraft from Canada," dated October 13, 2017 (Preliminary Decision Memorandum).

[2] *See* Bombardier's Case Brief, "Antidumping Investigation of 100- to 150-Seat Large Civil Aircraft from Canada: Bombardier's Case Brief," dated November 3, 2017 (Bombardier's Case Brief); Delta's Case Brief, "100- to 150-Seat Large Civil Aircraft from Canada: Case Brief," dated November 3, 2017 (Delta's Case Brief); and Petitioner's Rebuttal Brief, "100- to 150-Seat Large Civil Aircraft from Canada: Rebuttal Brief," dated November 8, 2017 (Petitioner's Rebuttal Brief).

[3] *See* Memorandum, Antidumping and Countervailing Duty Investigations of 100- to 150-Seat Large Civil Aircraft from Canada: Opportunity to Comment on Proposed Transaction," dated November 1, 2017 (Press Release Memo).

[4] *See* Letter to Honorable Wilbur L. Ross, Secretary of Commerce, from the petitioner, concerning, "100- to 150-Seat Large Civil Aircraft from Canada: Rebuttal Factual Information on the Announced Airbus-Bombardier C Series Partnership," dated November 6, 2017; Letter to Honorable Wilbur L. Ross, U.S. Department of Commerce, from Bombardier, concerning, "Antidumping and Countervailing Duty Investigations of 100- to 150-Seat Large Civil Aircraft from Canada: Evidence on the Proposed Transaction," dated November 6, 2017; and Letter to Honorable Wilbur L. Ross, Secretary of Commerce, from Delta, concerning, "100- to 150-Seat Large Civil Aircraft from Canada: Rebuttal Factual Information in Response to the Department's November 1, 2017 Opportunity to Comment on Proposed Transaction," dated November 6, 2017.

[5] *See* Letter to Honorable Wilbur L. Ross, Secretary of Commerce, from the petitioner, concerning, "100- to 150-Seat Large Civil Aircraft from Canada: Brief on the Announced Airbus-Bombardier C Series Partnership," dated November 13, 2017 (Petitioner's Transaction Brief); Letter to Honorable Wilbur L. Ross, U.S. Department of Commerce, from Bombardier, concerning, "Antidumping and Countervailing Duty Investigations of 100- to 150-Seat Large Civil Aircraft from Canada: Brief on the Proposed Transaction," dated November 13, 2017 (Bombardier's Transaction Brief); and Letter to Honorable Wilbur L. Ross, Secretary of Commerce, from Delta, concerning, "100- to 150-Seat Large Civil Aircraft from Canada: Opportunity to Comment on Proposed Transaction," dated November 13, 2017 (Delta's Transaction Brief).

comments[6] regarding the planned transaction. The Government of Canada (GOC) also submitted timely comments and rebuttal comments regarding the planned transaction.[7]

Based on our analysis of the comments received, we made no changes to the *Preliminary Determination*.

III. SCOPE COMMENTS

In the *Preliminary Determination*, we did not modify the scope language as it appeared in the *Initiation Notice*.[8] On October 18, 2017, Bombardier submitted comments and factual information regarding the scope of the investigation.[9] On October 23, 2017, the petitioner submitted rebuttal comments and factual information regarding the scope.[10] As discussed in Comments 4 and 5, below, we made no changed to the scope language.

IV. SCOPE OF THE INVESTIGATION

The merchandise covered by this investigation is aircraft, regardless of seating configuration, that have a standard 100- to 150-seat two-class seating capacity and a minimum 2,900 nautical mile range, as these terms are defined below.

"Standard 100- to 150-seat two-class seating capacity" refers to the capacity to accommodate 100 to 150 passengers, when eight passenger seats are configured for a 36-inch pitch, and the remaining passenger seats are configured for a 32-inch pitch. "Pitch" is the distance between a point on one seat and the same point on the seat in front of it.

"Standard 100- to 150-seat two-class seating capacity" does not delineate the number of seats actually in a subject aircraft or the actual seating configuration of a subject aircraft. Thus, the

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[6] *See* Letter to Honorable Wilbur L. Ross, Secretary of Commerce, from Delta, concerning, "100- to 150- Seat Large Civil Aircraft from Canada: Rebuttal to Boeing's Brief Regarding Proposed Airbus-Bombardier Transaction," dated November 17, 2017 (Delta's Transaction Rebuttal Brief); Letter to Honorable Wilbur L. Ross, U.S. Department of Commerce, from Bombardier, concerning, "Antidumping and Countervailing Duty Investigations of 100- to 150-Seat Large Civil Aircraft from Canada: Rebuttal Brief on the Proposed Transaction," dated November 17, 2017 (Bombardier's Transaction Rebuttal Brief); and Letter to Honorable Wilbur L. Ross, Secretary of Commerce, from the petitioner, concerning, "100- to 150-Seat Large Civil Aircraft from Canada: Rebuttal Brief on the Announced Airbus-Bombardier C Series Partnership," dated November 17, 2017 (Petitioner's Transaction Rebuttal Brief).

[7] *See* Letter to Honorable Wilbur L. Ross, Secretary of Commerce, from the GOC, concerning, "Government of Canada's Comments on Proposed Bombardier Transaction: 100- to 150-Seat Large Civil Aircraft from Canada" dated November 13, 2017 (GOC's Transaction Brief); *see also* Letter to Honorable Wilbur L, Ross, Secretary of Commerce, from the GOC, concerning, "Government of Canada's Response to Boeing's Comments on the Proposed Airbus-Bombardier Transaction: 100- to 150-Seat Large Civil Aircraft from Canada," dated November 17, 2017 (GOC's Transaction Rebuttal Brief.

[8] *See 100- to 150-Seat Large Civil Aircraft from Canada: Initiation of Less-Than-Fair-Value Investigation*, 82 FR 24296 (May 26, 2017) (*Initiation Notice*).

[9] *See* Letter to the Honorable Wilbur L. Ross, Jr., U.S. Department of Commerce, from Bombardier, concerning, "Antidumping Duty Investigation of 100- to 150-Seat Large Civil Aircraft from Canada: Submission of New Scope Information," dated October 18, 2017.

[10] *See* Letter to the Honorable Wilbur L. Ross, Jr., Secretary of Commerce, from Bombardier, concerning, "100- to 150-Seat Large Civil Aircraft from Canada: Rebuttal Comments on Bombardier's Submission of New Scope Information," dated October 23, 2017.

number of seats actually in a subject aircraft may be below 100 or exceed 150.

A "minimum 2,900 nautical mile range" means:

(i) able to transport between 100 and 150 passengers and their luggage on routes equal to or longer than 2,900 nautical miles; or

(ii) covered by a U.S. Federal Aviation Administration (FAA) type certificate or supplemental type certificate that also covers other aircraft with a minimum 2,900 nautical mile range.

The scope includes all aircraft covered by the description above, regardless of whether they enter the United States fully or partially assembled, and regardless of whether, at the time of entry into the United States, they are approved for use by the FAA.

The merchandise covered by this investigation is currently classifiable under Harmonized Tariff Schedule of the United States (HTSUS) subheading 8802.40.0040. The merchandise may alternatively be classifiable under HTSUS subheading 8802.40.0090. Although these HTSUS subheadings are provided for convenience and customs purposes, the written description of the scope of the investigation is dispositive.

V. DISCUSSION OF THE ISSUES

Comment 1: Application of Adverse Facts Available

Bombardier's Case Brief:

- The application of AFA to Bombardier is contrary to law and not supported by record evidence.
- AFA may not be used in the face of ambiguous questionnaires and unanswered requests for clarification.[11] Bombardier notified the Department of its difficulties in responding to the questionnaire, but the Department did not "meaningfully engage with" Bombardier on serious and substantial issues despite Bombardier's repeated requests for clarification and assistance.[12] The Department's clarification letters only created further confusion, and its denial of extension requests created further difficulties for Bombardier.[13] Because the Department failed to address Bombardier's difficulties, it was unreasonable and impossible to provide all of the data requested by the Department.[14] The CIT has held that the application of AFA is impermissible where the Department's response to clarification requests is "so ambiguous that it was not adequate" and where the ambiguities lack a "convincing reason."[15]

[11] See Bombardier's Case Brief at 35-36
[12] *Id.* at 44.
[13] *Id.* at 36-42.
[14] *Id.* at 42.
[15] *Id.* at 44-45 (citing, *inter alia*, *Ocean Harvest Wholesale Inc. v. United States*, 26 CIT 358, 368 (2002) (*Ocean Harvest*); *Kao Hsing Chang Iron & Steel Corp. v. United States*, 206 F. Supp. 2d 1297, 1303 (CIT 2002) (*Kao Hsing*); and *Carpenter Tech. Corp. v. United States*, 26 CIT 830, 835 (CIT 2002) (*Carpenter Tech.*).

- AFA is not warranted in a proceeding where the lack of data is because the exact data are not available due to the absence of production and sales of subject merchandise.[16] The courts have held the application of AFA impermissible where companies do not keep records in the ordinary course of business.[17] The Department incorrectly determined that the cost information it requested was maintained by Bombardier. Moreover, reporting costs using the methodology required by the Department would have been distortive.[18] The Federal Circuit has held that application of facts otherwise available is not permissible when a respondent has sufficiently clarified that its inability to provide requested data is based on a lack of the precise data available.[19] Additionally, the CIT has found that the application of AFA is impermissible where the lack of responsive information was the result of challenges inherent in the investigation and not willful non-cooperation.[20]
- Bombardier cooperated in the investigation to the best of its ability and in accordance with the deadlines set by the Department. Pursuant to Section 782(c)(1) of the Act, Bombardier met its statutory obligation to suggest an alternative form to provide information when it stated that the Department should terminate the investigation or issue a negative determination which would allow the Petitioner to refile its Petition after "a sale was made and after subject merchandise was produced."[21] The Department should find that substantial material provided by Bombardier reflects its best efforts to provide responsive information for products not yet sold or produced.[22] The Department's reliance on *Nippon Steel* is misplaced because the record indicates that Bombardier put forth its maximum effort in responding to the Department's Questionnaire.[23]
- CIT decisions clarify that reliance on AFA does not permit the Department to avoid analysis of a "threshold issue," such as whether a sale of subject merchandise has occurred.[24] A lack of record evidence (*i.e.*, a full response to the AD Questionnaire) does not provide a basis to ignore record evidence on the "threshold issue" of whether a sale occurred.[25] The Department may only apply facts available to fill gaps in the administrative record,[26] and may not ignore facts on the record even when AFA is applied.[27]

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[16] *Id.* at 45.
[17] *Id.* (citing *F.lli De Cecco Di Fillipo Fara s. Martino S.p.A. v. United States*, 216 F.3d 1027 (Fed. Cir. 2000) (*De Cecco*); and *Borden, Inc. v. United States*, 4 F. Supp. 2d 1221, 1247 (CIT 1998) (*Borden*)).
[18] *Id.*
[19] *Id.* at 46 (citing *Allied-Signal Aerospace v. United States*, 996 F.2d 1185, 1192 (Fed. Cir. 1998) (*Allied-Signal*)).
[20] *Id.* (citing *Tung Fong Indus. Co. v. United States*, 318 F. Supp. 2d 1321, 1334-35 (CIT 2004) (*Tung Fong I*).
[21] *Id.* at 48.
[22] *Id.* at 47.
[23] *Id.* at 49 (citing *Nippon Steel v. United States,* 337 F.3d 1373 (Fed. Cir. 2003) (*Nippon Steel*).
[24] *Id.* at 33-35 (citing, *inter alia*, *Gerber Food (Yunnan) Co., Ltd. Green Fresh (Zhangzhou) Co., Ltd.*, 491 F. Supp. 2d 1326, 1333 (CIT 2007) (*Gerber II*); *Gerber Food (Yunnan) Co., v. United States*, 387 F. Supp. 2d 1270, 1281-1283, 1288 (CIT 2005) (*Gerber I*); *Nippon Steel*, 337 F.3d 1373, 1381-1382 (Fed. Cir. 2003); and *China Kingdom Imp. & Exp. Co. v. United States*, 507 F. Supp. 2d. 1337, 1360-61) (CIT 2007) (*China Kingdom*).
[25] *Id*. at 32.
[26] *Id*. at 33 (citing, *inter alia*, *Zhejiang Dunan Hetian Metal Co. v. United States*, 652 F. 3d 1333, 1348 (CAFC 2011) (*Zhejiang Dunan*).
[27] *Id.* (citing, *inter alia*, *Gerber II*, 491 F. Supp. 2d 1326, 1333 (CIT 2007) ("Because Commerce is empowered to use adverse inferences only in 'selecting from the facts otherwise available,' it may not do so in disregard of

Petitioner's Rebuttal Brief:

- The Department properly applied total AFA in the *Preliminary Determination* after Bombardier repeatedly failed to provide information requested by the Department.
- Bombardier's claim that its "no sale" argument is a "threshold issue" that must be addressed by the Department is contrary to law and unsupported by record evidence.[28] Because Bombardier deprived the Department of the ability to calculate a dumping margin by withholding necessary sales and cost data, the Department need not address Bombardier's alternative "no sales" argument.[29]
- Bombardier cannot be excused from failing to comply with the Department's reasonable information requests. The Department's instructions to Bombardier were clear.[30] Record evidence indicates that Bombardier could have provided the information requested by the Department.[31] However, Bombardier responded to Sections B, C and D of the Department's AD Questionnaire with unsolicited arguments and related materials rather than questionnaire responses.[32] At a minimum, Bombardier should have provided the cost data requested by the Department.[33]
- Bombardier's conduct in this investigation is distinguishable from cases where the application of AFA was found to be unwarranted because Bombardier failed to comply with straightforward requests for information.[34]

Department's Position:

We continue to find it appropriate to base Bombardier's dumping margin on total AFA because it withheld requested information, failed to provide requested information by the established deadline, significantly impeded the proceeding, and failed to cooperate by not acting to the best of its ability in supplying requested information. Sections 776(a)(1) and (2) of the Act provide that, subject to section 782(d) of the Act, the Department shall apply "facts otherwise available" if necessary information is not on the record or an interested party or any other person: (A) withholds information that has been requested; (B) fails to provide information within the deadlines established, or in the form and manner requested by the Department, subject to

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information of record that is not missing or otherwise deficient….") (emphasis in the original)).

[28] *See* Petitioner's Rebuttal Brief at 5-7 (citing, *inter alia*, section 1677e(a) and 1677e(b)(1) of the Act; *Finished Carbon Steel Flanges from Italy: Final Determination of Sales at Less Than Fair Value*, 82 FR 29481 (June 29, 2017) and accompanying Issues and Decision Memorandum (IDM) at Comment 2; *Certain Cold-Rolled Steel Flat Products from the Republic of Korea: Final Determination of Sales at Less Than Fair Value*, 81 FR 49953 (July 29, 2016), and accompanying IDM at comments 12, 15, and 19; and *Certain Hot-Rolled Carbon Steel Flat Products from Thailand: Final Results of Antidumping Duty Administrative Review and Partial Rescission of Antidumping Duty Administrative Review*, 73 FR 33396 (June 12, 2008)).

[29] *Id*. at 19-20 (citing *Certain Kitchen Appliance Shelving and Racks from the People's Republic of China: Final Determination of Sales at Less Than Fair Value*, 74 FR 36656 (July 24, 2009) and accompanying IDM at Comment 7; and *Stainless Steel Bar from India: Final Results of Antidumping Duty New Shipper Review*, 72 FR 72671 (December 21, 2007) and accompanying IDM at Comment 3 ("As the Department is applying total AFA to Ambica for the final results, the Department does not need to address Ambica's arguments on this issue.").

[30] *Id*. at 11.

[31] *Id*.

[32] *Id*. at 17.

[33] *Id*. at 18-19.

[34] *Id*. at 15-17 (citing *Tung Fung I*, 318 F. Supp. 2d 132; *Kao Hsing*, 206 F. Supp. 2d 1297, 1303 (CIT 2002); *Allied-Signal Aerospace*, 996 F.2d 1185, 1192 (CIT 1998); *Borden, Inc*., 4 F. Supp. 2d 1221 (CIT 1998); and *F.lli De Cecco*, 216 F.3d 1027 (CAFC 2000)).

subsections (c)(1) and (e) of section 782 of the Act; (C) significantly impedes a proceeding; or (D) provides information that cannot be verified as provided by section 782(i) of the Act. Section 776(b) of the Act further provides that the Department may use an adverse inference in applying the facts otherwise available when a party has failed to cooperate by not acting to the best of its ability to comply with a request for information.

If an interested party, promptly after receiving a request for information from the Department, notifies the Department that such party is unable to submit the information requested in the requested form and manner together with a full explanation and suggested alternative forms in which such party is able to submit the information, section 782(c)(1) of the Act provides that the Department shall consider the ability of the interested party to submit the information in the requested form and manner and may modify such requirements to avoid imposing an unreasonable burden to the party. Section 782(c)(2) of the Act provides that the Department shall take into account any difficulties experienced by interested parties, particularly small companies, in supplying information requested by the Department in connection with investigations and reviews, and shall provide interested parties any assistance that is practicable in supplying such information.

Where the Department determines that a response to a request for information does not comply with the request, section 782(d) of the Act provides that the Department will so inform the party submitting the response and shall, to the extent practicable, provide that party the opportunity to remedy or explain the deficiency. If the party fails to remedy the deficiency within the applicable time limits and subject to section 782(e) of the Act, the Department may disregard all or part of the original and subsequent responses, as appropriate.[35]

On June 29, 2015, the Trade Preferences Extension Act of 2015 (TPEA) was signed into law and made numerous amendments to the antidumping and countervailing duty law, including amendments to section 776(b) and 776(c) of the Act and the addition of section 776(d) of the Act.[36] The amendments to section 776 the Act are applicable to all determinations made on or after August 6, 2015 and, therefore, apply to this investigation.[37]

Section 776(b) of the Act provides that the Department may use an adverse inference in applying the facts otherwise available when a party has failed to cooperate by not acting to the best of its ability to comply with a request for information. In doing so, and under the TPEA, the Department is not required to determine, or make any adjustments to, a weighted average dumping margin based on any assumptions about information an interested party would have

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[35] *See* Memorandum, "Application of Adverse Facts Available to Bombardier Inc.," dated October 4, 2017 (Preliminary AFA Memorandum) at 8-9.

[36] *See* TPEA, Pub. L. No. 114-27, 129 Stat. 362 (2015). The 2015 law does not specify dates of application for those amendments. On August 6, 2015, the Department published an interpretative rule, in which it announced applicability dates for each amendment to the Act, except for amendments contained to section 771(7) of the Act, which relate to determinations of material injury by the International Trade Commission. *See Dates of Application of Amendments to the Antidumping and Countervailing Duty Laws Made by the Trade Preferences Extension Act of 2015*, 80 FR 46793 (August 6, 2015) (*Applicability Notice*). The text of the TPEA may be found at https://www.congress.gov/bill/114thcongress/house-bill/1295/text/pl.

[37] *See Applicability Notice*, 80 FR at 46794-95.

provided if the interested party had complied with the request for information.[38] Further, section 776(b)(2) of the Act states that an adverse inference may include reliance on information derived from the petition, the final determination from the countervailing duty or antidumping investigation, a previous administrative review under section 751 of the Act or determination under section 753 of the Act, or other information placed on the record.[39]

Section 776(c) of the Act provides that, in general, when the Department relies on secondary information rather than on information obtained in the course of an investigation, it shall, to the extent practicable, corroborate that information from independent sources that are reasonably at its disposal.[40] Secondary information is defined as information derived from the petition that gave rise to the investigation, the final determination concerning the subject merchandise, or any previous review under section 751 of the Act concerning the subject merchandise.[41] Further, under the TPEA, the Department is not required to corroborate any dumping margin applied in a separate segment of the same proceeding.[42]

Bombardier Withheld Information That Had Been Requested, Failed to Provide Information by the Deadlines Established by the Department, and Significantly Impeded the Investigation

As an initial matter, it is uncontested that Bombardier failed to provide the information requested by the Department. On the date that its sections B and C questionnaire response was due, Bombardier filed a submission that contained none of the requested home market and U.S. sales data and related information but instead contained Bombardier's claim that sections B and C of the AD questionnaire, as amended by the Department, remained so unclear that Bombardier could not reasonably be expected to provide the requested data.[43] Similarly, on the date that Bombardier's response to section D of the questionnaire was due—approximately three weeks after the Department issued its revised section D questionnaire—Bombardier filed a submission that contained none of the requested cost data and related information, but instead contained its newly raised claim that the section D questionnaire remained so unclear that Bombardier could not reasonably be expected to provide the requested data.[44] We disagree with Bombardier's rationale for why the Department should not apply adverse facts available.

First, Bombardier had ample notice that it would be required to provide sales and cost information related to the purchase agreements that it entered into during the POI because the Department initiated the investigation on the basis of such purchase agreements.[45] Additionally,

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[38] *See* section 776(b)(1)(B) of the Act; TPEA, section 502(1)(B).
[39] *See* 19 CFR 351.308(c).
[40] *See* 19 CFR 351.308(d).
[41] *See* Statement of Administrative Action Accompanying the Uruguay Round Agreements Act, H.R. Doc. No. 103-316, vol. 1 (1994) (SAA) at 870.
[42] *See* section 776(c)(2) of the Act; TPEA, section 502(2).
[43] *See* Letter to the Honorable Wilbur L. Ross, Jr., U.S. Department of Commerce, from Bombardier, concerning, "100- to 150-Seat Large Civil Aircraft from Canada: Bombardier Sections B and C Response," dated July 27, 2017.
[44] *See* Letter to the Honorable Wilbur L. Ross, Jr., U.S. Department of Commerce, from Bombardier, concerning, "100- to 150-Seat Large Civil Aircraft from Canada: Bombardier Section D Response," dated July 31, 2017.
[45] *See Initiation Notice*, 82 FR 24296, 24299 (citing *generally* Antidumping Duty Investigation Initiation Checklist: 100- to 150-Seat Large Civil Aircraft from Canada (Canada AD Initiation Checklist) and Letter to the Honorable Wilbur L. Ross, Jr., Secretary of Commerce, from the petitioner, concerning, "Petitions for the Imposition of

Bombardier even indicated in its first request for an extension of time to respond to the questionnaire that it had begun working on responding to the Department's questionnaire before the Department had even issued the questionnaire.[46]

Second, the Department's AD questionnaire,[47] as clarified in response to requests from Bombardier, was unambiguous in its request that Bombardier report cost and sales information related to contracts to sell the merchandise under investigation. The fact that the Department's AD Questionnaire was requesting information regarding sales contracts was clarified for Bombardier both in the questionnaire, and in two subsequent clarification letters issued by the Department.[48] When providing Bombardier with a second opportunity to respond to the full questionnaire, the Department specifically informed Bombardier that it should respond to sections B and C of the questionnaire with respect to firm orders from Delta for 75 CS100 aircraft and from Air Canada for 45 CS300 aircraft.[49] Thus, there was no ambiguity that Bombardier should provide the information requested in sections B and C of the questionnaire with respect to these firm orders. Moreover, although Bombardier claims that the reporting requirements were confusing and required the reporting of data on multiple bases, it made no credible showing that the requested sales and cost information was so great that reporting the information would create an undue burden.[50]

Assuming, *arguendo*, that Bombardier remained confused about specific questions in the Department's questionnaire after receiving clarifications regarding reporting requirements from the Department, its confusion does not serve as a basis to provide *none* of the sales and cost data requested by the Department. Nor did Bombardier suggest alternative methods of providing the information requested by the Department, as the statute describes.[51] Suggesting that the petitioner refile its petition after a sale was made is not a suggestion of an alternative method of providing the requested information, particularly given that this investigation is based on

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Antidumping and Countervailing Duties On 100- To 150-Seat Large Civil Aircraft from Canada -- Petitions for the Imposition of Antidumping and Countervailing Duties" (April 27, 2017) (the Petition) at Exhibit 42). *See also* Preliminary AFA Memorandum at 1-2 ("The petitioner calculated the estimated dumping margin in the petition using a U.S. price obtained from future aircraft purchase commitments identified in Delta Air Lines, Inc.'s (Delta) financial statements that relate to a 2016 contract between Delta and the Canadian producer, Bombardier, for the purchase of Bombardier's CS100 series aircraft. The petitioner based home market price information on an article in The Globe and Mail citing industry sources as to the price to be paid by Air Canada, after discounts, for aircraft purchased from Bombardier." Citations omitted.)

[46] *See* Letter to the Honorable Wilbur L. Ross, Jr., U.S. Department of Commerce, from Bombardier, concerning, "Antidumping Investigation of 100- to 150-Seat Large Civil Aircraft from Canada: Extension Request for Antidumping Questionnaire," dated June 29, 2017 ("While Bombardier has been working diligently to gather the necessary information to answer the Questionnaire since before the Department even issued it, Bombardier requires additional time to complete the Questionnaire.").

[47] *See* Department Letter re: Antidumping Duty Questionnaire, dated June 9, 2017 (AD Questionnaire).

[48] *See* Department letter re: Less-Than-Fair-Value Investigation of 100- to-150 Seat Large Civil Aircraft from Canada: Questionnaire, dated August 7, 2017 (First Clarification Letter); Department letter re: Less-Than-Fair-Value Investigation of 100- to-150 Seat Large Civil Aircraft from Canada: Questionnaire, dated August 16, 2017 (Second Clarification Letter); *see also* Preliminary AFA Memorandum at 12.

[49] *See* Second Clarification Letter.

[50] *Id.*

[51] *See* Section 782(c)(1) of the Act.

whether aircraft are being, or are *likely to be sold* in the United States at less than fair value.[52] At a minimum, in its initial response to sections B and C of the questionnaire, Bombardier should have provided detailed information regarding its POI contract with Delta, such as terms of the agreement, agreed upon terms of payment, per-unit contract prices, and quantities, warranty arrangements, *etc*.[53] Furthermore, Bombardier could have discussed and developed methodologies for reporting requested information such as warranty expenses and the cost of various ancillary items related to its purchase agreements based on its prior experience.[54] Bombardier did none of this in its purported sections B and C questionnaire response. Rather, Bombardier responded to sections B and C of the questionnaire with arguments. Although the Department's regulations permit Bombardier to submit comments, including argument, during an investigation, the submission of arguments does not relieve Bombardier of its obligation to cooperate to the best of its ability to provide information requested by the Department. The CIT has held that "{i}t is Commerce, not the respondent, that determines what information is to be provided"[55] and "to ensure the agency's full consideration of their position and rights under the antidumping law, respondents must comply with procedural guidelines and thereby afford themselves the opportunity to respond and participate in the review in a meaningful manner."[56]

Third, contrary to Bombardier's claims, the Department provided adequate assistance in response to Bombardier's requests for clarification. After Bombardier informed the Department, in writing, of its difficulties in submitting information in response to the Department's AD Questionnaire, in accordance with 19 CFR 351.301(c)(1)(iii), Department officials met with representatives of Bombardier to discuss its alleged difficulties.[57] During this meeting, Bombardier requested clarification of the terms "sales," and "contract sales/contracted sales" in reporting sales of foreign like product and subject merchandise, as well as clarification regarding how to report the constructed value of subject merchandise and the cost of production of the foreign like product.[58] In response to Bombardier's request for clarification and to address its alleged difficulties in providing the requested cost information, the Department issued a revised Section D questionnaire to Bombardier that contained detailed instructions for reporting the constructed value of subject merchandise and the cost of production of the foreign like product.[59] The Department also issued a clarification letter to Bombardier defining the terms "sales,"

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[52] *See* Section 735(a)(1) of the Act.
[53] *See*, *e.g*, AD Questionnaire at C-20 – C-23.
[54] *Id*. at, for example, C-37 where the instructions for field 58 (Expenses Associated with Performance Guarantees) include the statement "{d}escribe the methodology used to report these costs and the methodology used to calculate these costs in the normal course of business (such as estimates based on the performance records of your delivered aircraft, estimates developed for financial reporting purposes, *etc*.).
[55] *See Ansaldo Components, S.p.A., v. United States*, 628 F. Supp. 198, 205 (CIT 1986) (*Ansaldo*).
[56] *Id*. at 206.
[57] *See Letter* to the Honorable Wilbur L. Ross, Jr., U.S. Department of Commerce, from Bombardier, concerning, "Antidumping Investigation of 100- to 150-Seat Large Civil Aircraft from Canada: Notification of Difficulties in Responding to Antidumping Questionnaire," dated June 23, 2017.
[58] *See* Memorandum, "Antidumping Investigation: 100- to 150-Seat Large Civil Aircraft from Canada: Meeting with Representatives of Bombardier, Inc.," dated July 5, 2017.
[59] *See* Department Letter re: "Antidumping Duty (AD) Investigation of 100- to-150 Seat Large Civil Aircraft (Aircraft) from Canada, covering the period April 1, 2016, through March 31, 2017," dated June 29, 2017 (Revised Section D Questionnaire).

"contract sales," and "contracted sales" in the initial antidumping duty questionnaire.[60] Specifically, the Department's clarification letter defined the term "contract sales" to mean firm orders of aircraft, exclusive of purchase options, which are not firm orders.[61] In this letter, the Department instructed Bombardier to report its contract sales figures in accordance with all such order/contract information that it maintains in the ordinary course of business. The letter also underscored that Bombardier's website indicated, *inter alia*, that U.S. customer Delta ordered 75 CS100 aircraft and home market customer Air Canada ordered 45 CS100 aircraft from Bombardier.[62]

After the Department clarified the sales reporting requirement, Bombardier claimed that it remained confused about the terms "sales" and "contract sales," and sought further clarification regarding these terms. The Department issued a second clarification letter to Bombardier that addressed Bombardier's claims of continued confusion regarding the Department's request for information.[63] This second clarification letter preceded the due date for Bombardier's sections B and C response by more than one week, and during that time Bombardier did not notify the Department that it remained confused as to the Department's reporting requirements.[64] Rather, Bombardier waited until the due date for its questionnaire response to file a non-responsive questionnaire response again claiming confusion which precluded it from responding.

Fourth, Bombardier could have provided information requested in section D of the questionnaire. The Department clearly requested information within Bombardier's control. Specifically, the Department instructed Bombardier to report the actual cost of aircraft produced and completed during the POI regardless of the market in which they were sold, as adjusted to account for physical differences between those aircraft and the aircraft subject to its home-market and U.S. sales agreements.[65] However, Bombardier elected not to provide this information.

Fifth, not only did the Department take reasonable steps to provide assistance to Bombardier within the meaning of 782(c)(1) of the Act, but it granted numerous extensions of the time for Bombardier to provide the requested information and a second opportunity to submit that information.[66] The Department issued the initial AD Questionnaire to Bombardier on June 12, 2017,[67] and issued the revised section D questionnaire to Bombardier on June 29, 2017.[68]

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[60] *See* Department letter re: "Antidumping Duty Investigation of 100- to 150-Seat Large Civil Aircraft from Canada," dated July 7, 2017.
[61] *Id*.
[62] *See* Preliminary AFA Memorandum at 3-4.
[63] *See generally* Second Clarification Letter.
[64] *See* Preliminary AFA Memorandum at 4-5 (noting that the Department's second clarification letter was issued on January 20, 2017 and that Bombardier submitted its response to sections B and C of the Department's AD Questionnaire on July 28, 2017).
[65] *See generally* Revised Section D Questionnaire.
[66] *See* Department Letter re: Antidumping Duty Investigation of 100- to 150-Seat Large Civil Aircraft from Canada: Extension Request for Antidumping Questionnaire, dated June 30, 2017; *See* Department Letter re: Antidumping Duty Investigation of 100- to 150-Seat Large Civil Aircraft from Canada, dated July 20, 2017; and Department Letter re: Antidumping Duty Investigation of 100- to 150-Seat Large Civil Aircraft from Canada: Extension Request for Antidumping Questionnaire, dated July 28, 2017.
[67] *See* Department Letter re: Antidumping Duty Questionnaire, dated June 9, 2017 (AD Questionnaire).
[68] *See* Revised Section D Questionnaire.

Bombardier's deficiency questionnaire, which required Bombardier to respond in full to all these sections of the AD Questionnaire, was due on August 23, 2017.[69] Thus, Bombardier had 72 days to respond in full to sections A, B, and C of the Department's AD Questionnaire, and 55 days to respond the Department's revised section D questionnaire. The record indicates that Bombardier significantly impeded and delayed this proceeding through its use of extension requests without notifying the Department that it continued to view the Department's requests for information as unclear and without ultimately providing the requested information.[70]

Thus, Bombardier withheld information requested by the Department, failed to provide information by the deadlines established by the Department, and significantly impeded the proceeding within the meaning of sections 776(a)(2)(A), (B), and (C) of the Act. Accordingly, the Department is applying facts available. None of Bombardier's claims provide a basis for a reversal of the Department's preliminary determination to use facts available.

Use of Adverse Inferences

Bombardier failed to cooperate by not acting to the best of its ability in this investigation within the meaning of section 776(b) of the Act. As noted above, section 776(b) of the Act provides that the Department may use an adverse inference in applying the facts otherwise available when a party has failed to cooperate by not acting to the best of its ability to comply with a request for information. The Federal Circuit, in *Nippon Steel*, provided an explanation of the failure to act to "the best of its ability" provision, stating that the ordinary meaning of "best" means "one's maximum effort," and that "ability" refers to "the quality or state of being able."[71] Further, the "best of its ability" standard requires the respondent to do the maximum that it is able to do.[72] The Federal Circuit acknowledged, however, that while there is no willfulness requirement, "deliberate concealment or inaccurate reporting" would certainly be sufficient to find that a respondent did not act to the best of its ability, although it indicated that inadequate inquiries to respond to agency questions may suffice as well.[73] Compliance with the "best of its ability" standard is determined by assessing whether a respondent has put forth its maximum effort to provide the Department with full and complete answers to all inquiries in an investigation.[74] The

[69] *See* Second Clarification Letter.
[70] *See* Letter to the Honorable Wilbur L. Ross, Jr., U.S. Department of Commerce, from Bombardier, concerning, "Antidumping Investigation of 100- to 150-Seat Large Civil Aircraft from Canada: Extension Request for Antidumping Questionnaire," dated June 29, 2017; Letter to the Honorable Wilbur L. Ross, Jr., U.S. Department of Commerce, from Bombardier, concerning, "Antidumping Investigation of 100- to 150-Seat Large Civil Aircraft from Canada: Second Extension Request for Antidumping Questionnaire," dated July 6, 2017; Letter to the Honorable Wilbur L. Ross, Jr., U.S. Department of Commerce, from Bombardier, concerning, "Antidumping Investigation of 100- to 150-Seat Large Civil Aircraft from Canada: AD Questionnaire Clarification and Extension Request," dated July 13, 2017; Letter to the Honorable Wilbur L. Ross, Jr., U.S. Department of Commerce, from Bombardier, concerning, "Antidumping Investigation of 100- to 150-Seat Large Civil Aircraft from Canada: AD Questionnaire Clarification and Extension Request—Correction," dated July 13, 2017; and Letter to the Honorable Wilbur L. Ross, Jr., U.S. Department of Commerce, from Bombardier, concerning, "Extension Request for Antidumping Questionnaire Based on Difficulties with ACCESS," dated July 27, 2017.
[71] *See Nippon Steel*, 337 F.3d 1373, 1382 (Fed. Cir. 2003).
[72] *Id.*
[73] *Id.* at 1380.
[74] *Id.* at 1382.

Federal Circuit further noted that, while the standard does not require perfection and recognizes that mistakes sometimes occur, it does not condone inattentiveness, carelessness, or inadequate record keeping.[75]

First, Bombardier incorrectly assesses its level of cooperation during the proceeding based on the page count of its responses to the Department's initial and supplemental questionnaires.[76] Specifically, Bombardier cites the number of pages of its section A response and its submissions responding to sections B, C, and D of the questionnaire.[77] However, Bombardier's responses to sections B, C, and D of the Department's questionnaire consist solely of arguments regarding why: (1) there were no sales of aircraft made during POI; (2) the material terms of the purchase agreement between the Bombardier and Delta purchase agreement have not been established, and (3) the Department should terminate the investigation or issue a negative determination.[78] Bombardier failed to provide the information requested in the questionnaire that the Department needed to perform its margin calculation.[79] In particular, Bombardier failed to respond to portions of the section A questionnaire with information regarding its contract sales, and failed to provide *any* of the information required in sections B, C, and D of the questionnaire.[80] Bombardier's submission of non-responsive information and argument, regardless of its page length, does not demonstrate that Bombardier put forth its maximum effort to provide the Department with full and complete answers to all inquiries in an investigation.

Second, Bombardier did not demonstrate that it put forth its maximum effort to suggest an alternative form or manner of providing the requested information.[81] Bombardier's proposal—termination of the investigation or issuance of negative determination—is not an alternative form of reporting and is contrary to the statutory intent of section 735(a)(1) of the Act, which provides the domestic industry relief from sales or likely sales of merchandise under investigation. To demonstrate "one's maximum effort," Bombardier should, at a minimum, have suggested possible alternative reporting methodologies for providing information requested by the Department. Instead, Bombardier chose to rely on its arguments that the Department should terminate the investigation, issue a negative determination, or the petitioner should refile the petition after aircraft were invoiced by Bombardier.

Third, record evidence indicates that it was reasonable to expect that "more forthcoming responses should have been made" by Bombardier, and, therefore, it is reasonable to conclude that Bombardier failed to act to the best of its ability to provide requested information.[82] For

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[75] *Id.*
[76] *See* Bombardier's Case Brief at 46-47.
[77] *Id.* at 47 ("Our Sections B&C Response contained 366 pages of material and our Section D Response spanned 138 pages. This information was supplemented by the 807 pages in our Section A Response, the 956 pages of responsive material filed in our Supplemental QR Response, and the numerous other submissions filed on the record by Bombardier since the investigation was initiated.").
[78] *See* Letter to the Honorable Wilbur L. Ross, Jr., U.S. Department of Commerce, from Bombardier, concerning, "100- to 150-Seat Large Civil Aircraft from Canada: Bombardier Sections B and C Response," dated July 27, 2017.
[79] *Id.*
[80] *See* Preliminary AFA Memorandum at 10-18.
[81] *See* section 782(c)(1) of the Act.
[82] *See Nippon Steel*, 337 F.3d 1373, 1383 (Fed. Cir. 2003).

example, the Department's revised section D questionnaire instructed Bombardier to report costs using its cost records for each specific CS100 and CS300 aircraft produced and completed prior to the end of the POI, and to make appropriate adjustments to those costs.[83] These instructions both explicitly directed Bombardier to use *existing* cost data covering the POI, and allowed Bombardier flexibility to adjust those costs using a reasonable methodology.[84] Bombardier never attempted to do as instructed. The Department's sections B and C questionnaire instructed Bombardier to report information regarding its sales agreements covering U.S.-market sales of 75 CS100 aircraft and home-market sales of 45 CS300 sales that were reflected in its 2016 financial statement.[85] Bombardier provided none of this requested information in response to the Department's repeated requests. Significantly, as the petitioner notes, Bombardier professed its willingness to cooperate with the Department "only with respect to its 'no sale' argument."[86]

Thus, the record shows that Bombardier withheld information within its control that the Department requested (*i.e.*, cost and sales information) and selectively provided information it believed might result in the termination of the investigation or this issuance of a negative final determination. Considering the reasons described above, coupled with the other evidence contained in the Preliminary AFA Memorandum,[87] the Department finds that Bombardier failed to cooperate by not acting to the best of its ability to comply with the Department's requests for information and, accordingly, the use of adverse facts available pursuant to section 776(b) of the Act is appropriate.[88]

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[83] *See* Revised Section D Questionnaire.

[84] *Id*. at D-1 ("For purposes of this proceeding therefore, we request that you report separately the detailed production costs for each specific CS100 and CS300 aircraft produced and completed prior to the end of the end of the period of investigation (POI), regardless of where it was sold. We request that you report the detailed aircraft-specific cost information in the format contained in the instructions for submitting the COP and CV datafile. We also request that you report on the cost datafile the "production costs" for the aircrafts sold to the U.S. and the HM sales, using the actual cost of the most similar aircraft produced to date, adjusted for costs associated with physical differences between the corresponding aircraft.").

[85] *See* Preliminary AFA Memorandum at 6.

[86] *See* Petitioner's Rebuttal Brief at 15 (citing Letter to the Honorable Wilbur L. Ross, Jr., U.S. Department of Commerce, from Bombardier, concerning, "Antidumping Investigation of 100- to 150-Seat Large Civil Aircraft from Canada: Response to August 16 Supplemental Questionnaire," dated August 23, 2017 at 3, and 6, which states, in pertinent part, "Bombardier is today stating clearly its willingness to provide as, needed additional information to the Department pertaining to this lack of sale issue….Bombardier stands ready to provide the Department with additional information, if necessary, to demonstrate that no sale has occurred.")

[87] *See* Preliminary AFA Memorandum at 17-19 (stating, *inter alia*, that "Bombardier essentially refused to consider purchase agreements as a basis for reporting information required by sections B, C and D of the AD Questionnaire" and that Bombardier "failed to comply with unambiguous instructions contained in the Department's AD Questionnaire")

[88] *See Goldlink Indus. Co. Ltd. v. United States*, 431 F. Supp. 2d 1323, 1329-30 (CIT 2006) ("When {the Department} concludes that a party has not cooperated to the best of its ability and applies adverse inferences, it must make two showings. First, Commerce must make an objective showing that a reasonable and responsible importer would have known that the requested information was required to be kept and maintained. Second, Commerce must then make a subjective showing that the respondent not only has failed to promptly produce the requested information, but further that the failure to fully respond is the result of the respondent's lack of cooperation.").

Threshold Issue

Bombardier's assertion that this investigation presents a "threshold issue" that precludes the Department from applying AFA is incorrect. Specifically, Bombardier maintains that cases involving non-cooperative respondents in non-market economy proceedings establish that:

> where the record is sufficient for the Department to base a reasoned conclusion as to the threshold issue of whether a respondent is independent from {non-market economy (NME)} control, the Department must conduct such an analysis based on record evidence, even if the particular respondent is uncooperative with respect to other aspects of the AD or CVD investigation.[89]

Bombardier argues that the issue of whether it made a POI sale of subject merchandise is a "threshold issue" that is analogous to the issue of independence from NME government control and that imposes a barrier to the application of AFA in the instant investigation. In support of its "threshold issue" argument, Bombardier cites *Gerber I* (and subsequent decisions in the *Gerber* case), and analogous cases in which the CIT rejected the application of the NME-wide rate as AFA to a respondent found to be independent of government control.[90]

Bombardier's reliance on these cases is misplaced. First, none of these cases creates a distinct category of "threshold issues" that must be analyzed before the application of AFA is permissible. Second, Bombardier's argument that the Department is ignoring an alleged "threshold issue" and record evidence concerning whether a sale exists is mistaken because, as is evidenced by Comment 2 below, the Department has considered Bombardier's arguments concerning the existence of a sale or likely sale.[91] Furthermore, while Bombardier is permitted to make arguments about whether a sale or likely sale exists for purposes of the instant investigation, its arguments do not justify its decision to withhold information needed to calculate the dumping margin on sales or likely sales of merchandise under consideration. Moreover, despite Bombardier's claims to the contrary, this investigation presents no unique set of facts (*e.g.*, the CIT's consideration in *Gerber I* of eligibility for a separate rate) that are unrelated to the rate assigned as AFA.

The instant investigation may be readily distinguished from the cases cited, which involve NME proceedings in which the Department first determines that the application of AFA is warranted, and then must determine an appropriate AFA rate. In those cases, the record contained a distinct set of factual information (*i.e.*, separate-rate information) that the CIT found relevant to the Department's consideration of the appropriate rate. In the instant investigation, the Department lacks information that would permit it to measure the level of dumping on sales or likely sales of merchandise under investigation. In short, Bombardier's reliance on cases involving separate rate determinations is not relevant to the Department's application of AFA in this investigation.

Third, sound policy considerations support the rejection of Bombardier's overly-broad interpretation of the cases cited as creating a special category of issues that excuse parties from

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[89] *See* Bombardier's Case Brief at 33-34.
[90] *Id*.
[91] For further discussion about the issue of whether a sale or likely sale occurred, see Comment 2, below.

cooperating fully in less-than-fair-value investigations. The adoption of Bombardier's "threshold issue" rule would permit parties to withhold requested information while requiring the Department to make determinations on the basis of an incomplete and selectively developed record. Such a "threshold issue" rule would stand at odds with the legislative intent of applying AFA to ensure that a party "does not obtain a more favorable result by failing to cooperate than if it had cooperated fully."[92]

Fourth, the application of facts available to fill in gaps in the record is warranted when a respondent withholds requested information, and that is no less the case after a party improperly draws its own factual and legal conclusion and determines that it need not submit the information. In *Ansaldo*, the CIT found that the application of "best information available" was appropriate when the respondent chose not to submit requested information after drawing "conclusions of both factual and legal significance on matters properly within {the Department's} domain."[93] In the instant investigation, Bombardier concluded that sales or likely sales made pursuant to a purchase agreement did not constitute sales within the meaning of the Act or the Department's regulations.[94] Bombardier further concluded that the cost reporting methodology, including the 12-month cost reporting period, would result in distortions. After drawing these conclusions, Bombardier determined that its failure to report requested sales and cost information was reasonable.[95] While Bombardier indeed may make arguments for the Department's consideration, it is for the Department, not Bombardier, to make determinations regarding the appropriate date of sale, cost reporting methodologies, and whether sales or likely sales of merchandise under consideration occurred during the POI. Consistent with *Ansaldo*, because Bombardier refused to provide requested information after impermissibly drawing

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[92] *See Certain Oil Country Tubular Goods from the People's Republic of China: Final Determination of Sales at Less Than Fair Value, Affirmative Final Determination of Critical Circumstances and Final Determination of Targeted Dumping*, 75 FR 20335 (April 19, 2010) and accompanying IDM at Comment 8 (citing SAA, H.R. Doc. No. 103-316, vol 1 (1994) at 870).

[93] *See Ansaldo*, 628 F. Supp. 198, 205 (CIT 1986) ("Of equal concern to the Court is plaintiff's propensity to draw conclusions of both factual and legal significance on matters properly within Commerce's domain. The administrative record discloses several instances in which Ansaldo chose not to submit the information requested because Ansaldo had concluded such information could not serve as a basis for Commerce's administrative review. It was Ansaldo that concluded all its home-market customers were related parties and thus refused to submit home-market sales data. It was Ansaldo that concluded the administrative review should proceed on the basis of third country sales. It was Ansaldo that concluded the only comparable transformer sales were of units with a rating of 100 MVA or higher when Commerce requested information on units with a rating of 10 MVA or higher. Finally, it was Ansaldo that concluded furnishing home-market and U.S. sales price data imposed an "unreasonable and unnecessary burden on the company." Such conclusions, reached unilaterally with no foundation in statute or administrative practice, are inherently flawed. It is Commerce, not the respondent, that determines what information is to be provided for an administrative review. The net effect of Ansaldo's failure to submit the requested information, based on its own conclusory assertions, was to preclude Commerce's analysis and consideration of the merits of Ansaldo's arguments.")

[94] *See*, *e.g.*, Bombardier's Case Brief at 7 ("As such, the Department must apply its regulatory presumption and determine that sales of {aircraft} occur at the time of invoicing and further determine that because none of the {aircraft} have been invoiced there have been no sales of {aircraft} during the POI").

[95] *Id*. at 46 ("In the instant investigation, lack of responsive data is not the fault of Bombardier's failure to cooperate. It is instead due to Boeing's premature petition, the Department proceeding with an investigation in the absence of sales and produced subject merchandise, and the Department's unwillingness to provide Bombardier with meaningful clarification or assistance.")

factual and legal conclusions, the application of facts available to fill the gap left in the record is warranted.[96]

Lastly, assuming, *arguendo*, that there is a threshold issue, Bombardier has inappropriately decided that issue on its own and, by not providing the requested information, prevented the Department from calculating an estimated weighted average antidumping duty based on information from Bombardier in the event the Department reached a determination different from Bombardier's conclusion. Bombardier argues that the issue of whether a sale occurred is a "threshold issue" that must be analyzed by the Department even in the absence of a completed AD Questionnaire Response.[97] The apparent premise of Bombardier's argument is that the Department's analysis in this less-than-fair-value investigation is limited to invoiced, delivered sales because only those sales can properly be considered sales within the meaning of the Act and Department's regulations.[98] However, section 735(a)(1) of the Act directs the Department to determine whether subject merchandise *is being, or is likely to be sold* in the United States at less than its fair value.[99] Furthermore, section 772(a) of the Act defines export price to mean the price at which the subject merchandise is first sold or agreed to be sold in the United States. Accordingly, Bombardier's argument, which is based on the notion that the Department may only examine invoiced sales in this investigation, is not supported by the Act.[100]

Rather, pursuant to section 735(a)(1) and 772(a) of the Act, the Department appropriately sought information from Bombardier regarding sales or likely sales of merchandise under consideration. Bombardier failed to provide the requested information, and as a result of this failure, information necessary to calculate the margins on sales or likely sales is missing from the record.[101] Thus, Bombardier's argument that the record of this less-than-fair-value investigation is complete because it contains sufficient evidence to determine that no sales occurred during the POI is based on an inaccurate reading of the Act and mistaken presumption that the scope of this investigation is limited to invoiced sales of merchandise under consideration. As explained above, a gap exists in the record (*i.e.*, information regarding Bombardier's sales or likely sales of merchandise under investigation), and, accordingly, the application of facts available to fill this gap is warranted.

For the reasons set forth in detail above, and pursuant to 776(a)(1), 776(a)(2)(A)-(C) and 776(b) of the Act, the Department continues to find that the application of AFA to Bombardier is warranted. Specifically, the Department has assigned to Bombardier, as AFA, a dumping margin of 79.82 percent, which is the highest rate on the record of this proceeding.[102]

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[96] Although *Ansaldo* involved an earlier version of the facts available statute, the CIT's findings in *Ansaldo* are relevant to the instant investigation.
[97] *Id*.
[98] *Id*.
[99] Emphasis added.
[100] *See* Comment 2, below, for further discussion of whether sales or likely sales occurred during the POI.
[101] *See generally* Preliminary AFA Memorandum.
[102] Although Bombardier challenges the Department's application of total AFA, no interested party, including Bombardier, has commented on the selection of the Petition rate as AFA or the Department's corroboration of this AFA rate. Thus, the Department's analysis of the AFA rate and corroboration to the extent practicable has not changed from the *Preliminary Determination*. *See* Preliminary AFA Memorandum at 19-22.

Comment 2: Whether Sales or Likely Sales Occurred During the POI

Bombardier's Case Brief

- The Department must terminate the investigation or issue a negative determination because: (1) no sale of subject merchandise occurred during the POI; (2) the final determination should not be based on a "likely sale; and (3) the aircraft in question are outside the scope of the investigation.

No Sale Occurred

- Pursuant to 19 CFR 351.401(i), a sale occurs when the material terms of sale are established, which the Department presumes to be at the time of invoicing.[103] The CIT has affirmed the regulatory presumption for invoice date as the date of sale unless there is evidence that material terms of sale are established on a different date.[104]
- Record evidence indicates that none of the aircraft covered by the Delta purchase agreement have been invoiced.[105] Consistent with industry practice and U.S. Generally Accepted Accounting Principles, Bombardier's aircraft are invoiced after they are fully produced and accepted by customers.[106]
- Record evidence supports a determination that the purchase agreement does not establish the material terms of sale. The Department has recognized that preliminary written agreements do not constitute a sale in an industry such as the aircraft industry where written agreements are commonly renegotiated.[107]
- Record evidence indicates that for Bombardier, the Petitioner, and the aircraft industry in general, material terms of sale, including, *inter alia*, price and quantity, change after the purchase agreements are signed.[108] Moreover, the record indicates that the material terms of the Bombardier-Delta purchase agreement changed after parties signed the initial agreement.[109]
- The Department improperly rejected from the record information regarding the petitioner's assertions about the appropriate date of sale filed in the companion CVD investigation.[110]

[103] *See* Bombardier's Case Brief at 5.
[104] *Id.* at 6 (citing *Allied Tube and Conduit Corp. v. United States*, 132 F. Supp. 2d 1087, 1090 (CIT 2001) (*Allied Tube*)).
[105] *Id*.
[106] *Id.* at 6-7.
[107] *Id.* at 5-6 (citing, *inter alia*, *Antidumping Duties; Countervailing Duties*, 62 FR 27296, 27348-49, and *Large Power Transformers from the Republic of Korea: Final Determination of Sales at Less Than Fair Value*, 77 FR 40857 (July 11, 2012)).
[108] *Id.* at 8-14.
[109] *Id.* at 14 ("For example, since the terms of the purchase agreement were first reduced to writing, numerous contract amendments have been executed.")
[110] *Id.* at 9-10.

The Department Should Not Reach a Final Determination Based on a "Likely Sale"

- The Department has no basis, especially at this late stage of the proceeding, to convert this investigation to a "likely sales" investigation. The Department's AD Questionnaire did not indicate that the Department intended to investigate likely sales. If the Department planned to investigate likely sales, it should have notified Bombardier.
- The Act's legislative history indicates that the Department will only base a determination on likely sales where "loss of a single sale can cause immediate economic harm and where it may be impossible to offer meaningful relief if the investigation is not initiated until after importation."[111] In the instant investigation, there is no evidence that meaningful relief cannot be provided if the Department delays the investigation until after importation.[112]
- "Likely sale" should be interpreted to apply to merchandise such as commodity products with predictable prices to avoid calculating dumping margins that are speculative rather than applied to aircraft, which have unpredictable costs and prices.[113] The Department refrains from calculating dumping margins based on speculative future deliveries like the aircraft subject to this investigation because such calculations are unreliable.[114]
- Adopting a permissive interpretation of "likely sales" would risk opening the floodgates for premature petitions, and inaccurate dumping margins.[115]

The Aircraft Described in the Delta Purchase Agreement are Outside the Scope of the Investigation

- Record evidence indicates that the aircraft subject to the Delta purchase agreement fall below the 2,900 nautical mile range requirement.[116] The Department subjected Bombardier to procedural disadvantages regarding the development of the record regarding this range requirement, and relied on inadequate information to find that the aircraft in the purchase agreement meet the nautical mile requirement.[117]
- There is no evidentiary basis to conclude that the aircraft covered by the Delta purchase agreement meet the FAA type certificate requirement indicated in the scope.[118] Moreover, FAA type certificates do not specify the nautical mile range of the aircraft.

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[111] *Id*. at 17 (citing H.R. Rep. No. 98-725 (1984) at 11).
[112] *Id.* at 17-18.
[113] *Id.* at 18.
[114] *Id.* (citing *Notice of Preliminary Determination of Sales at Less Than Fair Value: Low Enriched Uranium from the United Kingdom; Preliminary Determinations of Sales at Not Less Than Fair Value: Low Enriched Uranium from Germany and the Netherlands; and Postponement of Final Determinations*, 66 FR 36748, 36748 (July 13, 2001) (*Low Enriched Uranium Prelim Determination*), and *Notice of Final Determinations of Sales at Not Less Than Fair Value: Low Enriched Uranium from the United Kingdom, Germany and the Netherlands*, 66 FR 65886 (December 21, 2001) (*Low Enriched Uranium Final Determination*)).
[115] *Id.* at 20 (citing *Lasko Metal Prods., Inc. v. United States*, 43 F.3d 1442, (Fed. Cir. 1994), and *Rhone Poulenc, Inc. v. United States*, 899 F.2d 1185 (Fed. Cir. 1990))
[116] *Id.* at 22
[117] *Id.* at 23-29.
[118] *Id*. at 29-30.

Delta's Case Brief

- The Department should not consider the purchase agreement as the date of sale because purchase agreements covering large civil aircraft do not establish the material terms of sale.[119]
- Determining that the purchase agreement establishes the date of sale is contrary to legislative intent[120] and Department practice, as affirmed by the CIT.[121]
- Consistent with *Uranium from the United Kingdom*, the Department should refrain from calculating an unreliable dumping margin based on undelivered sales.[122] The Department should find that there were no POI sales for importation.

Petitioner's Rebuttal Brief

- The Department should reject Bombardier's baseless "no sale" arguments.
- Record evidence shows Bombardier sold subject C series aircraft to Delta during the POI.
- The Act encompasses Bombardier's sale to Delta. Section 735(a)(1) of the Act directs the Department to determine whether subject merchandise is being, or is likely to be sold in the United States. Section 772(a) of the Act defines export price to mean the price at which the subject merchandise is first sold or agreed to be sold in the United States. The aircraft at issue were first sold or agreed to be sold when Bombardier and Delta concluded the purchase agreement in April 2016.[123]
- 19 CFR 351.102(b)(43) defines a "sale" to include "a contract to sell." The "firm agreement" between Bombardier and Delta constitutes a contract to sell.[124]
- 19 CFR 351.102(b)(43) expressly permits the selection of a date other than invoice date as the date of sale. The *Preamble* to the Department's regulations states that the Department will use a date of sale other than invoice date in cases involving "large custom-made machinery in which the parties engage in formal negotiation and contracting," and long-term contracts.[125] Department precedent, including *Large Newspaper Printing Presses from Japan*, support selection of contract date as the date of sale.[126]

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[119] *See* Delta's Case Brief at 6.
[120] *Id*. (citing *Antidumping Duties; Countervailing Duties*, 62 FR 27296, 27348 (May 19, 1997) (*Antidumping Duties; Countervailing Duties*).
[121] *Id*. at 7 (citing, *inter alia*, *Yieh Phui Enter. Co. v. United States*, 791 F. Supp. 2d 1319, 1326 (CIT 2011); *Hornos Electricos De Venez., S.A. v. United States*, 285 F. Supp. 2d 1353,1367-68 (CIT 2003); and *Seah Steel Corp. v. United States*, 25 C.I.T. 133, 136-137 (CIT 2001).
[122] *Id*. at 8 (citing *Notice of Final Determinations of Sales at Not Less Than Fair Value: Low Enriched Uranium from the United Kingdom, Germany and the Netherlands*, 66 FR 65886 (December 21, 2001) (*Uranium from the United Kingdom*) and accompanying IDM at Comment 13).
[123] *See* Petitioner's Rebuttal Brief at 22.
[124] *Id*.
[125] *Id*. at 22-23 (citing *Antidumping Duties; Countervailing Duties*, 62 FR at 27349).
[126] *Id.* at 23-24 (citing *Notice of Final Determination of Sales at Less Than Fair Value: Large Newspaper Printing Presses and Components Thereof, Whether Assembled or Unassembled, from Japan*, 61 FR 38139 (July 23, 1996) and accompanying IDM at Comment 4) (*Printing Presses from Japan*).

- Record evidence indicates that Bombardier entered into a long-term agreement that establishes the material terms of sale.[127]
- Information about industry practice, in general, is not relevant to the Department's date of sale determination. The Department has clarified that date of sale determinations for a particular respondent will be based on that respondent's selling processes.[128]
- At a minimum, the Bombardier-Delta agreement constitutes a likely sale.
- Bombardier deprived the Department of the opportunity to investigate likely sales by withholding requested information.
- Finding that the Bombardier-Delta agreement constitutes a likely sale is consistent with Congressional intent which offers a remedy from irreparable injury to the domestic industry prior to importation of the merchandise under investigation.[129] The Petition indicates that the domestic industry faces such irreparable injury.[130]
- The "likely sales" provision was designed for "cases involving large capital equipment."[131] Bombardier's claim that this provision should be limited to commodity products is not supported by law.[132] Moreover, Bombardier's claim that aircraft costs are unpredictable is contrary to record evidence.[133]
- Bombardier's reliance on *Uranium from Germany* is misplaced and its assertion that a finding of likely sales will open the floodgates for incomplete petitions lacks merit.[134]
- The scope of the investigation includes the C series aircraft covered by the Bombardier-Delta purchase agreement. Record evidence, including a Bombardier, press release indicates that the Delta aircraft have a range of over 3,000 nautical miles, and are covered by an FAA type certificate that also covers aircraft with a minimum 2,900 nautical mile range.[135]

Department's Position:

We disagree with Bombardier's and Delta's assertion that there is no sales transaction to be examined during the POI. Bombardier's and Delta's argument is based on the proposition that invoice date is the appropriate date of sale and, because Bombardier did not issue an invoice for the subject aircraft during the POI, there is no sale for the Department to examine during the POI. Bombardier's date of sale argument focuses on invoiced transactions, whereas the statute and legislative history make clear that the Department may also consider in its investigation whether the merchandise under consideration *is likely to be* sold at less than fair value. Therefore, the issue of whether Bombardier made a completed sale during the POI is not dispositive of the issue of whether the investigation should proceed to the final phase, or whether

[127] *Id.* at 24-28.
[128] *Id.* at 28 (citing *Antidumping Duties; Countervailing Duties*, 62 FR 27296, 27349).
[129] *Id.* at 29.
[130] *Id.* at 30-31.
[131] *Id.* at 31.
[132] *Id*.
[133] *Id*.
[134] *Id.* (citing *Low Enriched Uranium Prelim Determination*, 66 FR at 36748; *Low Enriched Uranium Final Determination*, 66 FR at 65886).
[135] *Id*. at 33-35.

Bombardier made sales or likely sales of merchandise under investigation during the POI.[136] Similarly, the issue of whether aircraft industry purchase agreements are subject to change is not dispositive of whether Bombardier made sales or likely sales of merchandise under investigation during the POI.

Section 733(b) of the Act, states that at the preliminary determination of an investigation, the Department:

> shall make a determination, based upon the information available to it at the time of the determination, of whether there is a basis to believe or suspect that the merchandise is being sold, *or is likely to be sold* at less than fair value.[137]

Similarly, section 735(a) of the Act states the following:

> Within 75 days after the date of its preliminary determination under section 733(b) {of the Act, the Department} shall make a final determination of whether the subject merchandise is being, or is likely to be, sold in the United States at less than its fair value.[138]

Section 772 of the Act defines export price and constructed export price as the price at which merchandise under consideration is first sold *or agreed to be sold*. Section 773(a)(1)(B) of the Act states that normal value is the price at which:

> the foreign like product is first sold (*or, in the absence of a sale, offered for sale*) for consumption in the exporting country, in the usual commercial quantities and in the ordinary course of trade and, to the extent practicable, at the same level of trade as the export price or constructed export price.[139]

Legislative history describes the reason for amending the countervailing duty law, along the lines of what already existed in the antidumping duty law, to make clear that the Department could initiate countervailing duty cases and render determinations in situations where actual importation had not yet occurred but a sale for importation had been completed or was imminent.[140] The House Report explained that "{a}ntidumping law has, since its inception, applied not only to imports, but to sales or likely sales.[141] This report additionally explained that the amendment (including the phrase "or sold (or likely to be sold) for importation" in section

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[136] Additionally, we disagree with Bombardier's claim that the Department improperly rejected Bombardier's comments regarding the petitioner's submission in the companion countervailing duty case. As the Department explained to Bombardier, the comments constituted untimely filed factual information. *See* Department letter re: "Less-Than-Fair-Value Investigation of 100- to-150 Seat Large Civil Aircraft from Canada: Rejection of Untimely Filed New Factual Information," dated October 13, 2017. Therefore, the Department appropriately rejected Bombardier's submission that contained these comments.
[137] Emphasis added.
[138] Emphasis added.
[139] Emphasis added.
[140] H.R. Rep. No. 98-725, at 11 (1984).
[141] *Id*.

701(a) of the Act) was "particularly important in cases involving large capital equipment, where loss of a single sale can cause immediate economic harm and where it may be impossible to offer meaningful relief if the investigation is not initiated until after importation takes place."[142] The logic described in the House Report is relevant in this antidumping duty investigation. The subject of this antidumping duty investigation is a product that may be fairly described as large capital equipment. Furthermore, record evidence suggests that the loss of a single sale can cause immediate economic harm. Specifically, the Petition indicates demand for aircraft in the U.S. is "concentrated in a handful of customers," and "after purchasing a new Aircraft type, customers are far more likely to place follow-on orders for the same Aircraft than to order another producer's competing product."[143] It is reasonable to conclude, therefore, that Bombardier's imminent sale of aircraft to Delta has the potential to cause immediate economic harm to the domestic industry and that it may be impossible to provide meaningful relief if this investigation is delayed until importation has taken place.

Bombardier argues that "there is no basis at this late point in the investigation for the Department to convert this proceeding into an investigation of likely sales … ."[144] However, as noted above, the Act does not describe a "likely sales" investigation as a distinct proceeding that requires special notice, but indicates that it is part of the fundamental decision rendered by the Department in antidumping duty proceedings, namely whether there is a basis to believe or suspect that the merchandise is being sold, *or is likely to be sold* at less than fair value.[145] Moreover, there is no need to convert anything. From the beginning, this proceeding has been an investigation of sales and likely sales. In its *Initiation Notice*, the Department made the following announcement:

> Based upon our examination of the AD Petition on aircraft from Canada, we find that the Petition meets the requirements of section 732 of the Act. Therefore, we are initiating an AD investigation to determine whether imports of aircraft from Canada *are being, or are likely to be, sold* in the United States at less-than-fair value.[146]

Thus, Bombardier had adequate notice that the instant investigation encompasses sales or likely sales of the merchandise under consideration.

Additionally, the Department clearly stated that it was seeking information in this investigation regarding Bombardier's sales agreements and not just invoiced sales. The Department requested the total U.S. and home market quantity and value of contract sales during the POI in its

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[142] *Id.*
[143] *See* the Petition at 16-17.
[144] *See* Bombardier's Case Brief at 15.
[145] *See* sections 733(b) and 735(a) of the Act; s*ee also* section 701(a)(1) of the Act, which addresses the imposition of antidumping duties when, among other factors, the Department determines that a class or kind of foreign merchandise "is being, or is likely to be" sold in the United States at less than fair value.
[146] *See Initiation Notice*, 82 FR 24296, 24299. (emphasis added).

questionnaire,[147] and later explained that "contract sales" mean firm orders of aircraft.[148] We instructed Bombardier to report its contract sales figures in accordance with all such order/contract information it maintains in the ordinary course of business. In the July 10, 2017 letter containing that instruction, the Department also stated the following:

> Bombardier provides historical order information on its website (*see* Attachment 1 of this letter); Bombardier should report its total contract sales made pursuant to contracts effective as of the last day of the period of investigation (*e.g.,* March 31, 2017). Bombardier should report each contract only once.[149]

Attachment 1 to the Department's July 10, 2017 clarification letter contained information from Bombardier's website. The attachment included a "Program Status Report" for Bombardier's subject C Series aircraft, dated March 31, 2017, which indicated, *inter alia*, that U.S. customer, Delta, ordered 75 CS100 aircraft and home market customer Air Canada ordered 45 CS100 aircraft from Bombardier.[150] Furthermore, on August 16, 2017, the Department issued a letter to Bombardier that addressed Bombardier's claims that the Department's requests for information remained unclear, and provided additional clarification to assist Bombardier in fully responding to the AD Questionnaire.[151] The August 16, 2017, letter emphasized that "{i}n press releases dated April 28, 2016, and June 28, 2016, Bombardier announced 'firm orders' from {Delta} for 75 CS100 aircraft and from Air Canada for 45 CS300 aircraft."[152] The letter further indicated that Bombardier also reported these firm orders in its 2016 financial statement.[153] The Department instructed Bombardier to provide complete responses to sections B and C of the Department's AD Questionnaire based on these firm orders.[154] These firm orders are evidence of a sale, or, at a minimum, a likely U.S. sale, of merchandise under investigation. Hence, Bombardier was given ample notice that the instant investigation encompassed likely sales, not just invoiced sales.

We disagree with Bombardier's reasons as to why an investigation of likely sales is inappropriate in this case. Bombardier's argument that the "likely sales" provision should be "interpreted narrowly to apply to merchandise such as commodity products where prices and costs are highly predictable" is contrary to legislative intent.[155] As explained above, the legislative history expressly stated that the "likely sales" provision "is particularly important in cases involving large capital equipment."[156] Furthermore, we disagree with Bombardier's claim that the "likely

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[147] The Department's AD Questionnaire instructed Bombardier to "{s}tate the total quantity and value of the merchandise under investigation that you sold (or contract sales) during the {POI} in (or to):
i. the United States, ii. the home market, and iii. each of the three largest third-country markets." *Id*. at A-1.
[148] *Id*.
[149] *See* Department letter re: "Antidumping Duty Investigation of 100- to 150-Seat Large Civil Aircraft from Canada," dated July 7, 2017. Although this letter is dated July 7, 2017, it was not available to interested parties *via* ACCESS until July 10, 2017.
[150] *Id*.
[151] *See* Second Clarification Letter.
[152] *Id*. at 3.
[153] *Id*.
[154] *Id*.
[155] *See* Bombardier's Case Brief at 18.
[156] *See* H.R. Rep. No. 98-725, at 11 (1984).

sales" provision should not apply because there is no evidence that meaningful relief cannot be provided to the petitioner unless an antidumping duty investigation is initiated prior to importation of aircraft.[157] During the initiation phase of this proceeding, the Department found adequate evidence that material injury existed, despite the fact that the aircraft that are the subject of this investigation have not yet been imported.[158] Also, in testimony at the ITC staff conference on May 18, 2017, Boeing reported, among other things, that "the confidential materials we have submitted clearly establish the direct price harm that the CS100 caused to Boeing prices."[159] Aircraft are large capital equipment requiring significant lead time between order and delivery, with deliveries that could occur over many years. To wait until delivery and importation would thwart the statutory mandate to provide the relief requested by a petitioner. The Department does not find that waiting until the importation of the aircraft in Bombardier's and Delta's purchase agreement to conduct the investigation constitutes providing meaningful relief in accordance with the statute and legislative history.[160] Lastly, we disagree with Bombardier's contention that examining likely sales in this investigation would lead to inaccurate dumping margins. Bombardier neither reported the information needed to calculate a dumping margin nor suggested alternative methodologies for providing any of that information. Consequently, there is no basis for evaluating the reliability of such information—which Bombardier did not provide--for calculating dumping margins. Additionally, because legislative intent indicates that the likely sales provision applies to cases involving large capital equipment (like aircraft) where sales are imminent, the Act contemplates the calculation of an estimated weighted-average dumping margin for such merchandise based on sales that have not yet been completed, invoiced, or delivered.[161]

We further disagree with Bombardier that the aircraft covered by the Delta purchase agreement are outside the scope of the investigation. Bombardier asserts that "the evidence on which the Department relied to find that the aircraft meet the nautical mile range requirement is wholly inadequate" and that the record is devoid of any evidence that the aircraft covered by the Delta purchase agreement meet these requirements" (the nautical mileage range and/or the FAA certificate requirements).[162] Bombardier argues that the Department singled out certain promotional materials to conclude that the C series aircraft meet the nautical mileage range requirement, and that any mileage references in these materials are estimates, subject to change because the aircraft are in the development phase. Bombardier also contends that these materials

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[157] *See* Bombardier's Case Brief at 18.

[158] *See Initiation Notice*, 82 FR 24296, 24298 ("The petitioner contends that the threat of material injury is illustrated by the domestic industry's vulnerability, existing unused production capacity available to imminently and substantially increase exports of subject merchandise to the United States, significant increase in the market penetration of subject imports and likelihood of further increase in the volume and market penetration of subject imports, adverse price effects on domestic prices, and negative effects on product development and production. We have assessed the allegations and supporting evidence regarding threat of material injury and causation, and we have determined that these allegations are properly supported by adequate evidence, and meet the statutory requirements for initiation." (internal citations omitted)).

[159] *See* Letter to the Honorable Wilbur Ross Jr., Secretary of Commerce, from the petitioner "100- To 150-Seat Large Civil Aircraft from Canada: Petitioner's Rebuttal Comments on Scope," dated June 29, 2017 (Petitioner Scope Rebuttal Comments) at Exhibit 2 .

[160] *See* H.R. Rep. No. 98-725, at 11 (1984).

[161] *Id.*

[162] *See* Bombardier's Case Brief at 21-23.

do not provide the "specific characteristics of the aircraft covered by the Delta purchase agreements."[163] Therefore, Bombardier concludes that "these promotional materials do not demonstrate that the C Series aircraft generally, or the aircraft covered by the Delta purchase agreement specifically meet the 2,900 nautical mile range requirement in the scope of the investigation."[164]

First, the promotional materials that identify the nautical mileage ranges do not consist of broad descriptions of the aircraft with generalities, but are Bombardier's product brochures which list, in detail, the specifications of the aircraft, including nautical mileage ranges of 3,300 for CS300 aircraft and 3,100 for CS100 aircraft.[165] While the product brochures contain a note indicating that they do not constitute a warranty and the performance of the aircraft may differ from the images shown, Bombardier has publicly confirmed these mileage ranges in various venues.[166] The petitioner placed on the record a press release regarding the Bombardier-Delta agreement which includes this statement: "{t}he C Series aircraft's maximum range has also been confirmed to be up to 3,300 NM (6,112 km), some 350 NM (648 km) more than originally targeted."[167] Delta placed on the record an article regarding Bombardier's delivery of CS100 aircraft to Swiss International Airlines which includes the statement: "{p}owered by Pratt & Whitney PurePower PW1500G engines, Bombardier is claiming a maximum range of 3,300 nautical miles (6,112 km/3,798 mi) for the aircraft."[168] Bombardier's website additionally identified a nautical mile range of 3,100 per 108 passengers for CS100 aircraft and a 3,300 nautical mile range for 130 passengers for CS300 aircraft.[169] Consequently, Bombardier declared on its website that both "the CS100 and the CS300 possess a range of over 3,000 nautical miles," which meets the nautical mile requirement of the scope of the investigation."[170]

Even if the promotional materials are considered unreliable, there is other information on the record supporting the nautical mile ranges of the CS100 and CS300 aircraft. The record contains Bombardier's 2015 Financial Report which includes the statement: "The *C Series* aircraft's maximum range has been confirmed to be 3,300 NM (6,112 km), some 350 NM (648 km) more than originally targeted."[171] Additionally, Bombardier certified to the Department during the investigation that both the CS100 and CS300 aircraft meet the nautical range requirement in the scope. Specifically, in response to the Department's question to "provide a description of the types of merchandise under investigation produced and/or sold by your company" Bombardier reported that it "sells two aircraft models: the CS100 and the CS300.… The CS300 also has higher design weights allowing it to carry extra payload as compared to the CS100 and the standard range of the CS300 is 3300 nautical miles, whereas the standard range for the CS100 is 3100 nautical miles."[172] Although Bombardier argues that the Department relied on "inadequate

[163] *Id*. at 29.
[164] *Id*.
[165] *See* Petition at Exhibits 68, 86 and 87.
[166] *See* Bombardier's July 10, 2017 Section A questionnaire response at Exhibit A-6.C.
[167] *See* Petition at Exhibit 63.
[168] *See* Delta's June 19, 2017 submission to the Department at Exhibit 22.
[169] *Id*.
[170] *See* Petition, at Exhibit 68.
[171] *See* Bombardier's July 10, 2017 Section A questionnaire response at Exhibit A-6.C (2015 Financial Report at page 66).
[172] *Id*. at 36.

information" to conclude that the CS100 and CS300 aircraft meet the nautical mile requirement, we considered Bombardier's certified statements that the CS100 and CS300 aircraft meet the nautical mile requirement in making our determination.

Second, we do not find that the materials provided in Exhibits 1B and 2B of Bombardier's August 23, 2017, Supplemental Questionnaire Response (SQR) demonstrate conclusively that the aircraft do not meet the 2,900 nautical mile requirement. Bombardier explained that the nautical mile figures listed in the exhibits were derived using its own proprietary software program for assessing aircraft performance characteristics based on parameters, including specific characteristics of the aircraft, which are either optimal (in which case manipulating them would only decrease the range), mandated by law, or provided for in the Delta purchase agreement."[173] Bombardier argues that there is no record evidence suggesting that the parameters input into the software program could be changed to "mechanically, commercially, or legally increase the range of the aircraft subject to the Delta purchase agreement."[174] The Department has re-examined the materials provided in Exhibits 1B and 2B of Bombardier's August 23, 2017, Supplemental Questionnaire Response (SQR) in light of Bombardier's claims and determines the information presented in these exhibits does not adequately support Bombardier's claim that "{r}ecord evidence demonstrates conclusively that the aircraft covered by the Delta purchase agreement do not meet the 2,900 nautical mileage requirement."[175] Based on its examination of record evidence, the details of which may not be publicly disclosed, the Department finds that the information presented in these exhibits is insufficient to refute Bombardier's public statements and statements made in the instant investigation about the capabilities of its aircraft.[176]

Furthermore, even if the specific Bombardier CS100 aircraft covered by the Delta purchase agreement and the CS300 aircraft covered by the Air Canada purchase agreement had actual ranges that fell below 2,900 nautical miles, record evidence indicates that they would nevertheless be covered by the scope. The scope of the investigation covers aircraft with ranges below 2,900 nautical mile if they are covered by a FAA type certificate or supplemental type certificate that also covers other aircraft with a minimum 2,900 nautical mile range. Record evidence indicates (1) that Bombardier's CS100 and CS300 aircraft are covered by FAA Type Certificate TY00008NY,[177] and (2), as explained above, Bombardier's CS100 and CS300 aircraft have ranges that exceed the 2,900 nautical mile minimum range specified by the scope of this investigation. Therefore, even though Bombardier may produce specific CS100 or CS300 aircraft with ranges that fall below the 2,900 nautical mile minimum range specified by the scope, these aircraft would still be covered by the scope because they are covered by FAA Type Certificate TY00008NY, which covers CS100 and CS300 that have ranges that exceed 2,900 nautical miles.

Lastly, while Bombardier argues that any lack of clarity with respect to product coverage was because it was procedurally disadvantaged due to multiple rejections of its information (and

[173] *See* Bombardier's Case Brief at 26.
[174] *Id*. at 28.
[175] *Id*. at 22.
[176] *See* Memorandum, "Antidumping Duty Investigation of 100- to 150-Seat Large Civil Aircraft from Canada: Proprietary Information Considered for the Final Determination," dated concurrently with this memorandum.
[177] *See* Bombardier's July 10, 2017 Section A questionnaire response at Exhibit A-7.E.

resubmissions) by the Department, Bombardier was given multiple opportunities to comment on the scope; these opportunities extended beyond the initial deadline for submitting scope comments.[178] Moreover, for the reasons explained in separate letters to Bombardier,[179] we find the rejections were appropriate.

For the foregoing reasons, the Department determines that terminating this investigation is not warranted. As explained above, record evidence indicates that Bombardier made sales or likely sales of subject aircraft. The Department requested information from Bombardier necessary to examine these sales or likely sales; however, Bombardier failed to cooperate with respect to these requests for information. Accordingly, as explained in the section entitled "Adverse Facts Available" above, the Department finds that the continued application of total AFA to Bombardier for this final determination is warranted.

Comment 3: Adequacy of Petition

Bombardier's Case Brief

- The petition failed to demonstrate that a sale of subject merchandise occurred; as a result, the Department should have terminated the investigation consistent with the international obligations of the U.S. under the WTO AD agreement.[180]
- Specifically, the Petition contains evidence that United Airlines Inc.'s order of 65 737-700 aircraft from Boeing changed in a post-purchase agreement, and "Delta has flexibility under the purchase agreement" with Bombardier.[181] This evidence demonstrates that purchase agreements in the aircraft industry do not provide an adequate basis upon which the Department can initiate an investigation.
- Prior to initiation, Bombardier attempted to notify the Department that an investigation was unwarranted because no sale was made, but the Department improperly rejected Bombardier's request to comment pursuant to section 732(b)(3)(B) of the Act.
- This section of the statute (732(b)(3)(B)) has singled out Bombardier as a non-domestic interested party and prohibited Bombardier from providing the Department with comments on the adequacy of the Petition. This discriminatory treatment lacks any rational basis, and has violated equal protection principles.[182]

[178] *See*, *e.g.*, Memorandum, "Antidumping Duty Investigation of 100- to 150-Seat Large Civil Aircraft from Canada: Response to Clarification on Submission of New Scope Information," dated September 29, 2017.
[179] *See* Memorandum, "Less-Than-Fair-Value Investigation of 100- to-150 Seat Large Civil Aircraft from Canada: New Scope Information," dated August 25, 2017; and Memorandum, "Less-Than-Fair-Value and Countervailing Duty Investigations of 100- to-150 Seat Large Civil Aircraft from Canada: October 4, 2017 Submissions of New Scope Information by Bombardier Inc.," dated October 13, 2017.
[180] *See* Agreement on Implementation of Article VI of the General Agreement on Tariffs and Trade 1994, art. 5.3; art 5.8; *see also* Panel Report, *Guatemala – Definitive Anti-Dumping Measures on Grey Portland Cement from Mexico*, 8.75, WTP. WT/DS156/R (adopted Oct. 24, 2000); *see also* Panel Report, *Mexico – Anti-Dumping Duties on Steel Pipes and Tubes from Guatemala*, 7.61, WTO Doc. WT/DS331/R (adopted June 8, 2007).
[181] *See Petition* at Exhibit 3.
[182] *See Hodel v. Indiana*, 452 U.S. 314, 331 (1981); *see also Romer v. Evans*, 517 U.S. 620, 633, 116 (1996).

Petitioner's Rebuttal Brief

- Bombardier's arguments are contrary to the statute which provides that the Department shall initiate an antidumping investigation where industry support is sufficient, which Bombardier does not contest, and the Petition (a) "allege{s} the elements necessary for the imposition" of antidumping duties, and (b) is supports those allegations with "information reasonably available" to the petitioner.[183]
- The Petition contains evidence that the Bombardier-Delta purchase agreement constitutes a sale and otherwise met the statutory requirements for initiation.
- The Department's discretion to terminate an investigation is limited under the Act to certain situations, such as inadequate industry support or fraud, and Bombardier has not alleged that such situations existed.
- The Act plainly states that {t}he administering authority shall not accept any unsolicited oral or written communication from any person other than an interested party described in section {771}(9)(C),(D),(E),(F), or (G) of this title {referring to domestic interested parties} before the administering authority makes its decision whether to initiate an investigation…"[184]
- The Federal Circuit confirmed that *ex parte* communications during the pre-initiation phase are prohibited under the statute,[185] noting "it is not the intent of Congress to have an ongoing advocacy proceeding" before the initiation of an investigation" and that "petitions or information seeking to rebut the allegations should not be considered by the administering authority."[186]
- Bombardier's constitutional objection that the statutory prohibition on non-domestic parties submitting comments before an investigation is a denial of equal protection is misplaced. Economic legislation is subject to a rational basis review,[187] and Congress has a rational basis for distinguishing between domestic and non-domestic parties during the pre-initiation phase of an investigation. The Department's refusal to entertain Bombardier's comments before initiation of this investigation did not prejudice Bombardier in any manner.

Department's Position:

We disagree with Bombardier's argument that the petition must demonstrate a completed sale of subject merchandise and that the petition failed to demonstrate such a sale, and, as a result, the Department should have terminated the investigation. A petitioner must allege, and support with information reasonably available to them, that merchandise is being sold, or is likely to be sold, in the U.S. at less than fair value. The petition in this investigation did allege the same and supported its allegation with information reasonably available. Specifically, the petitioner alleged that aircraft are being sold or are likely to be sold in the U.S. at less than fair value and as support for U.S. price, used the U.S. price from purchase commitments identified in the U.S.

[183] *See* Petitioner's Rebuttal Brief at 44 (citing Section 732 of the Act).
[184] *Id.* at 47 (citing Section 732 of the Act).
[185] *Id.* at 48 (citing *United States v. Roses, Inc.*, 706 F.2d 1566-68 (Fed. Cir. 1983) (*Roses*).
[186] *Id.* at 48 (citing *Roses,* 706 F.2d at 1566-68; 125 Cong. Rec. 20172 (1979)).
[187] *Id.* at 49 (citing *SKF USA, Inc. v. U.S. Customs and Border Protection*, 556 F.3d 1337, 1360 (Fed. Cir. 2009)).

customer's financial statements that relate to a 2016 contract between the customer and the Canadian producer, Bombardier, for the purchase of Bombardier's CS100 series aircraft.[188]

Section 732(b)(1) of the Act states:

> An antidumping proceeding shall be initiated whenever an interested party described in subparagraph (C), (D), (E), (F), or (G) of section 771(9) files a petition with the administering authority, on behalf of an industry, which alleges the elements necessary for the imposition of the duty imposed by section 731, and which is accompanied by information reasonably available to the petitioner supporting those allegations.

Additionally, section 731 of the Act states:

> If—
> (1) the administering authority determines that a class or kind of foreign merchandise is being, or is likely to be, sold in the United States at less than its fair value, and
> (2) the Commission determines that—
> (A) an industry in the United States—
> (i) is materially injured, or
> (ii) is threatened with material injury, or
> (B) the establishment of an industry in the United States is materially retarded,
> by reason of imports of that merchandise or by reason of sales (or the likelihood of sales) of that merchandise for importation, then there shall be imposed upon such merchandise an antidumping duty, in addition to any other duty imposed, in an amount equal to the amount by which the normal value exceeds the export price (or the constructed export price) for the merchandise.

Thus, the statute is clear regarding the initiation phase of a proceeding. The Department *shall* initiate an antidumping duty proceeding on the basis of a petition which alleges the elements necessary for the imposition of the duty imposed under section 731 of the Act. One of the elements listed under section 731 of the Act is a determination by the Department that "a class or kind of foreign merchandise is being, *or is likely to be*, sold in the United States at less than its fair value …." Therefore, we continue to find that the petition was supported with information reasonably available regarding merchandise that is "being, or is likely to be, sold in the United States" at less than fair value.

Furthermore, the Department disagrees that record evidence indicates that a purchase agreement is not an adequate basis on which to initiate an investigation. Regardless of industry practice or flexibility within a purchase agreement, as stated above, the statute directs the Department to consider not only sales, but also likely sales. Record evidence suggests that the purchase

[188] *See Initiation Notice*, 82 FR 24296 (May 26, 2017).

agreement between Bombardier and Delta was, at a minimum, indicative of a likely sale of merchandise under consideration.

Moreover, we "examined the accuracy and adequacy of the evidence provided in the Petition…and recommend{ed} determining the evidence is sufficient to justify the initiation of the requested antidumping duty investigation with regard to Canada."[189] As explained in the *Initiation Notice*:

> In accordance with section 731(b) of the Tariff Act of 1930, as amended (the Act), the petitioner alleges that imports of aircraft from Canada are being, or are likely to be, sold in the United States at less-than-fair value within the meaning of section 731 of the ACT, and that such imports are threatening material injury to an industry in the United States. Also, consistent with section 732(b)(1) of the Act, the Petition is accompanied by information that is reasonably available to the petitioner supporting its allegations.[190]

Therefore, the Petition satisfied the statutory requirements for initiating an investigation and there is no basis for terminating this investigation.

Furthermore, the Department did not improperly refuse to solicit comments from Bombardier prior to initiating the investigation.[191] Section 732(b)(3)(B) of the Act makes clear that the Department shall not accept any unsolicited oral or written communication from any person other than an interested party described in sections 771(9)(C)-(G) of the Act before the administering authority makes its decision whether to initiate an investigation, except as provided in section 732(c)(4)(D) of the Act (which provides for comments on industry support). Bombardier is not an interested party within the meaning of sections 771(9)(C)-(G) of the Act. Thus, solicitation of such comments is contrary to legislative intent, which indicates that the Department should limit its review of petitions to "only to the four corners of the petition—the pleading—and the information filed supporting the allegations and not elsewhere."[192] Moreover, compelling administrative reasons exist to limit the review of the petition to the allegations and supporting information contained therein, as supplemented. Pursuant to, section 732(c)(1)(A) of the Act, the Department must make a determination within 20 days after the date a petition is filed. Thus, the statute provides only a brief amount of time to make a determination as to the adequacy of a petition. As the Federal Circuit has held, "the receipt of material during the 20 days, from the anticipated target, frustrates the intended statutory scheme. . . {and} whether the investigation would appear warranted if all the facts were known, rests primarily on the veracity of the petitioner."[193] Furthermore, the Supreme Court of the United States has stated:

> On rational-basis review, a classification in a statute . . . comes to us bearing a strong presumption of validity . . . and those attacking the rationality of the legislative classification have the burden "to negative every conceivable basis

[189] *See AD Initiation Checklist* (May 17, 2017).
[190] *See Initiation Notice*, 82 FR 24296.
[191] *See* Bombardier's Case Brief at 59-62.
[192] *See Roses,* 706 F.2d 1563, 1566 (citing 125 Cong. Rec. 20172 (1979)).
[193] *Id*. at 1567.

> which might support it" . . . Moreover, because we never require a legislature to articulate its reasons for enacting a statute, it is entirely irrelevant for constitutional purposes whether the conceived reason for the challenged distinction actually motivated the legislature. . . Thus, the absence of " 'legislative facts' " explaining the distinction "{o}n the record," . . . has no significance in rational-basis analysis. . . " 'Only by faithful adherence to this guiding principle of judicial review of legislation is it possible to preserve to the legislative branch its rightful independence and its ability to function.' "[194]

For this reason, Bombardier's claim that the Department's refusal to consider Bombardier's pre-initiation comments does not contain "any rational basis" and "violated equal protection principles," lacks merit.[195] Nevertheless, Bombardier did receive an opportunity to present its arguments regarding initiation. On June 21, 2017, Bombardier filed a request to terminate this investigation. Bombardier attached to this submission its pre-initiation comments which the Department had previously rejected. The June 21, 2017, submission is still on the record. Therefore, Bombardier was not denied an opportunity during this proceeding to make arguments that the Department should not have initiated, or that the Department should terminate, this investigation.

Comment 4: Revision of the Seating Capacity

Delta's Case Brief

- The Department should exclude single-aisle aircraft with a seating capacity of less than 125 seats (*i.e.*, CS100 aircraft) from the scope of the investigations. Delta specifically sought to purchase an aircraft with a seating capacity between 100 and 110 seats, not an aircraft with a capacity anywhere between 100 and 150 seats. If a carrier seeks to purchase a 100- to 110-seat aircraft to fill that niche within its fleet, larger aircraft are not viable alternative products.
- The petitioner acknowledged that it did not compete with Bombardier's offer of a CS100 aircraft and it does not produce such aircraft. The petitioner's smallest capacity 737-700 aircraft have 126 to 137 passenger seats whereas the maximum capacity of the CS100 is 124 seats. When comparing seating capacity, it is not appropriate to compare the minimum capacity of one type of aircraft (the 737-700 – 126 seats) with the maximum capacity of another aircraft (the CS100 124 seats) (the Department made this comparison in the preliminary determination).
- While the petitioner may have intended to include the CS100 aircraft in the scope, the petitioner's intention does not overrule the Department's authority to narrow[196] the scope of an investigation.

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[194] *See F.C.C. v. Beach Communications, Inc.*, 508 U.S. 307, 314-15 (1993) (internal citations omitted).
[195] *See* Bombardier's Case Brief at 61-62.
[196] *See*, *e.g., Investigation of Antidumping Duty Investigations: Spring Table Grapes from Chile and Mexico*, 66 FR 26,831, 26,833 (May 15, 2001) (citing *Torrington Co. v. United States*, 745 F. Supp. 718, 721 n.4 (CIT 1990) ("ITA's authority to modify the class or kind, where necessary, is not limited to expansion of the petition; ITA also may narrow the scope."))

- 100-110 seat aircraft should be excluded from the scope of the investigations because the petitioner does not produce this aircraft, as evidenced by the fact that the petitioner did not enter a bid to supply Delta with aircraft which it ultimately purchased from Bombardier. While the petitioner does not need to produce every type of product encompassed by the scope of an investigation, the scope should not include something that does not compete with the petitioner's products; the petitioner does not compete in the 100- to 125-seat large carrier aircraft market.
- The scope offered by the petitioner is merely a proposed scope - not the final scope. The Department has the inherent authority to "define and clarify" the scope of its investigations.[197]
- Given the unusual nature of this case - where there is only one domestic purchaser, one foreign producer/exporter, no domestic producer of the purchaser's desired product and no sales or imports - the Department should consider the expectations of the ultimate purchaser in defining the scope of the investigations.
- The scope is currently defective because it includes a product that has different physical characteristics from products produced by the petitioner. The Department has used its authority in the past to exclude certain products initially included in the petition,[198] and should modify the currently over-inclusive scope.

The Petitioner's Rebuttal Brief

- The Department should not exclude CS100 aircraft from the scope of the investigations as the petition establishes that the petitioner intended to cover CS100 aircraft. The dumping margin calculated in the petition was based on Bombardier's sale of 75 CS100s to Delta.
- The Department's practice is to accept the scope, as defined by the petitioner, even when the petitioner does not produce every type of product that falls inside the scope of an investigation.[199] The Department and ITC have initially determined that all products described in the scope constitute a single like product.
- The Department has also considered and preliminarily rejected Delta's arguments regarding the petitioner's 737 aircraft competing against CS100 aircraft and the unusual nature of this case.

Department's Position:

In determining whether a product falls within the scope of an investigation, the Department considers the plain language of the scope. Furthermore, the Department normally grants "ample

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[197] *See Ad Hoc Shrimp Trade Action Cmte. v. United States*, 637 F. Supp. 2d 1166, 1175 (CIT 2009).
[198] *See Certain Seamless Carbon and Alloy Steel Standard, Line, and Pressure Pipe from the People's Republic of China*: Initiation of Antidumping Duty Investigation, 74 FR 52744 (October 14, 2009) (*Seamless Pipe PRC Initiation*).
[199] *See Notice of Preliminary Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Affirmative Preliminary Determination of Critical Circumstances in Part: Prestressed Concrete Steel Wire Strand from Mexico,* 68 FR 42378 (July 17, 2003), unchanged in the final determination *see Notice of Final Determination of Sales at Less Than Fair Value and Negative Final Determination of Critical Circumstances: Prestressed Concrete Steel Wire Strand from Mexico*, 68 FR 68350 (December 8, 2003).

deference to the petitioners" in defining the scope of an investigation.[200] Absent an "overarching reason to modify the scope" in the petition, the Department will accept the scope proposed by the petitioner. While the Department has ultimate authority to determine the scope of an investigation it "must exercise this authority in a manner which reflects the intent of the petition, and the Department should not use its authority to define the scope of an investigation in a manner that would thwart the statutory mandate to provide relief requested in the petition."[201]

The record indicates that modifying the scope as suggested by Delta would thwart the statutory mandate to provide the relief requested in the petition. Regardless of whether Boeing produces aircraft with a 100-124 seat capacity, or produces a product identical to the aircraft that Delta sought to purchase (*e.g.*, with a seating capacity between 100 and 110 seats), Boeing was clear that CS100 and CS 300 aircraft compete with its products and it was seeking relief with respect to unfairly priced U.S. sales of those products.

In testimony at the ITC staff conference on May 18, 2017, Boeing reported the following:

> In the first place, Bombardier has been quite clear that the CS100 and the CS300 compete with Boeing and Airbus in the 100-150 seat market. The CS300 is very close in seat count and range capabilities to Boeing's "737-700" and "MAX 7" and importantly the price for both the "C Series" models affect Boeing prices. This is not theoretical but fact. Bombardier competed the CS100 against Boeing at United. We won that campaign but the confidential materials we have submitted clearly establish the direct price harm that the CS100 caused to Boeing prices. Then there is a direct downward pull on Boeing prices from the close connection between the price of the CS100 and the CS300. Because the CS300 is a larger sibling in the same market, the CS300's price is closely tied to that of the CS100. Dropping the CS100 price means dropping the CS300 price which in turn depresses the price for the "737-700" and "MAX 7." The Delta deal is a painful example of how this price transmission effect works.[202]

Hence, record information indicates that Boeing wishes to cover this aircraft in the scope, believes it is being injured by CS100 aircraft, and it is seeking relief with respect to this aircraft. Therefore, we find that despite possible differences outlined by Delta, including the difference in the maximum seating capacity of the 737-700 aircraft (137 seats) and the CS100 aircraft (124 seats), CS100 aircraft are appropriately covered by the scope of these investigations.

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[200] *See Large Residential Washers from the People's Republic of China: Preliminary Determination of Sales at Less Than Fair Value, Affirmative Preliminary Determination of Critical Circumstances, in Part, and Postponement of Final Determination,* 81 FR 48741 (July 26, 2016) and accompanying PDM at 4, unchanged in the final determination *see Large Residential Washers from the People's Republic of China: Final Determination of Sales at Less Than Fair Value and Final Negative Determination of Critical Circumstances* 81 FR 90776 (December 15, 2016) and accompanying IDM at Comments 4 and 5..

[201] *See Notice of Final Determination of Sales at Less Than Fair Value: Certain Softwood Lumber Products from Canada, 67 FR 15539* (April 2, 2002) and accompanying IDM, at Comment 49.

[202] *See* Petitioner Scope Rebuttal Comments at Exhibit 2.

Moreover, the Department, for initiation purposes, and the ITC, in its preliminary determination, have initially determined that all products described in the scope of the investigation constitute a single like product,[203]and that the petitioner manufactures products that fit into the like product description.[204] The statute does not require that the petitioner has to produce every type of product that is encompassed by the scope of the investigation.[205] Additionally, Delta has not argued, nor has it demonstrated, that aircraft with a seating capacity of less than 125 seats (*i.e.*, CS100 aircraft) are a different class or kind of merchandise.

Furthermore, we disagree that the scope of the investigations should be customized to exclude exactly the seating capacity that Delta specified. The ITC noted in its preliminary determination that the traditional definition of large civil aircraft are those aircraft having more than 100 seats.[206] Therefore, modifying the scope, as Delta proposes, to only cover aircraft with 125 or more seats is not consistent with the traditional definition of the class of products the petitioner intends to cover.

Delta relies on *Seamless Pipe PRC Initiation* to urge the Department to change the scope language regarding seating capacity. *Seamless Pipe PRC Initiation* is distinguishable from the instant investigation. In *Seamless Pipe PRC Initiation,* the Department explained that the change was due to an omission of one of the revisions that the petitioner in that investigation had suggested prior to the initiation.[207] Furthermore, the revision was to remove scope language related to end-use, which is the Department's preference. None of these circumstances are present in the instant investigation. The Petition intended to cover aircraft with a seating capacity of 100-150 and the seating capacity language is not related to end-use. Therefore, we find that the facts are different in this case and in *Seamless Pipe PRC Initiation.*

Delta's claim regarding the unusual nature of this case - where there is only one domestic purchaser, one foreign producer/exporter, no domestic producer of the purchaser's desired product and no sales or imports is not persuasive. The existence of limited market participants is

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[203] *See AD Initiation Notice,* 82 FR at 24298 and *ITC Preliminary Determination* at I-8.
[204] Additionally, the scope of the investigation also covers CS300 aircraft, which has a standard configuration of up 135 seats and a high-density single class configuration of up 150 seats. Therefore, even if the scope covered 125- to 150-seat aircraft, CS300 would be covered by the scope. The scope of the investigation covers "standard 100- to 150-seat two-class seating capacity." Thus, CS300, also covered by the scope, fall within 125- to 150-seat capacity.
[205]*See Final Determination of Sales a Less Than Fair Value: Certain Activated Carbon from the People's Republic of China,* 72 FR 9508 (March 2, 2007) and accompanying IDM at Comment 2 (finding respondent's products to be in scope despite allegations that the domestic industry did not produce them because the products were included in plain language of the scope, which is dispositive); *see also Light-Walled Rectangular Pipe and Tube from Mexico: Notice of Final Determination of Sales at Less Than Fair Value,* 69 FR 53677 (September 2, 2004) and accompanying IDM at Comment 5 ("Although Prolamsa argues that pre-primed subject merchandise should be excluded because petitioners do not manufacture this product, the statute does not require that petitioners currently produce every type of product that is encompassed by the scope of the investigation."); *Notice of Final Determination of Sales at Less Than Far Value; Certain Hot-Rolled Carbon Steel Flat from The Netherlands,* 66 FR 50408 (October, 3, 2001) and accompanying IDM at Comment 6 (finding respondent's product within the plain language of the scope, and not accepting respondent's argument that Battery Quality Steel should be excluded from the scope because, inter alia, there was no qualified supplier of the Battery Quality Steel in the U.S. and only minimal interest in Battery Quality Steel by the U.S. producers) (*remanded on other grounds*, *Corus Staal* (CIT 2003)).
[206] *See ITC Preliminary Determination* at I-8 footnote 23.
[207] *See Seamless Pipe PRC Initiation.*

not a factor considered in determining whether scope language is appropriate. Also, as noted above, the petitioner does not need to produce every product in the class or kind of products covered by the scope. Delta has not provided an "overarching reason to modify the scope" in the petition, and thus we have not modified the scope as advocated by Delta for the final determination.

Comment 5: Removal of Nautical Mile Range Criterion

Bombardier's Case Brief

- Due to significant administrability and circumvention concerns, the Department should remove both the 2,900 nautical mile range and the Federal Aviation Administration (FAA) type certificate requirements in the scope. Assessing range capabilities, even for airline industry experts, is complex as it involves sophisticated mathematical formulae, assumptions regarding a series of environmental variables, and only results in range estimates, all of which are difficult for U.S. Customs and Border Protection (CBP) to administer.
- Contrary to the claims of the petitioner, FAA type and supplemental type certificates make no mention of nautical miles, and range capabilities cannot mathematically be extrapolated from the data contained on these certificates. Therefore, FAA type and supplemental type certificates cannot be used to determine whether an imported plane from Canada meets the range requirement of the current scope.
- These concerns are not overcome by presuming that the C Series Bombardier planes are mechanically capable of flying more than 3,000 nautical miles (and thus subject to the scope), regardless of conditions such as headwinds or other variables. Based on the example provided in Bombardier's August 23, 2017 SQR,[208] the C Series mileage range would be inconsistent with the nautical mileage range requirement in the scope.
- A nautical mileage range requirement is likely to encounter administrability issues because an aircraft's range can be mechanically altered. Aircraft can theoretically be taken out of scope if its range is reduced by altering thrust configurations, reducing fuel tank capacity, modifying fuel grade specifications, *etc*.
- The C Series FAA type certificate lacks any data relevant to range. Promotional materials providing notional performance characteristics cannot serve as a basis for determining whether C Series aircraft meet the range requirement.
- The 2,900 nautical mileage range requirement fails to serve its intended purpose (to exclude regional jets from the scope) because regional jets are not defined by nautical mile range. The existing seat requirements exclude regional jets. Therefore, there is no reason to include a nautical range requirement in the scope.
- The FAA, the petitioner, and Airbus, classify aircraft based on seat configurations, not nautical miles. The Harmonized Tariff Schedule (HTS) subheadings used in the scope do not reference nautical mile range. In proceedings before the World Trade Organization (WTO), the United States defined a large carrier using seating capacity and maximum take-off weight, not nautical mile range, to which parties to the counter-complaint agreed.

[208] *See* Bombardier August 23, 2017 SQR at Exhibit 1B.

- Removing the nautical mile range requirement would not impact the petitioner's stated intent of subjecting large carrier aircraft to this investigation, while excluding regional jets. Therefore, the range requirement can be removed without issue given the serious administrability and circumvention concerns listed above.

The Petitioner's Rebuttal Brief

- The Department should not eliminate the nautical mile range criterion from the scope. FAA type certificate No. T00008NY covers CS100 and CS300 aircraft, which possess nautical mile ranges over 3,000 nautical miles.
- The Department addressed Bombardier's administrability concern in the preliminary scope memorandum by stating that the certificate need not reference the actual mileage range, but merely that it be a type of certificate which covers other aircraft with a 2,900 nautical mile range.[209]
- The only risk of circumvention may refer to Bombardier as it is the only Canadian manufacturer of 100- to 150- seat large civil aircraft. Therefore, no modification of the scope is necessary.

Department's Position:

Although in most cases the Department will defer to the petitioner's proposed scope language, the Department will consider modifying that language when the proposed scope raises concerns regarding administrability or evasion with the Department and CBP.[210] During our review of the petition, we discussed the scope language with the petitioner and thoroughly considered the language to ensure that it did not present administrability or evasion issues with the Department or CBP.[211] We ultimately accepted the scope, as modified by the petitioner. We continue to find that the issues raised by Bombardier with respect to the 2,900 nautical mile range requirement are not sufficient to modify scope language specifically requested by the petitioner.

First, Bombardier continues to treat the nautical mile range requirement as an experiential figure which varies and is difficult to determine even for airline industry experts. However, as we found in the *Preliminary Determination*:

> "…the minimum 2,900 nautical mile range is a mechanical capability rather than an experiential one. Thus, if the nautical mile range is not 2,900 miles in certain cases based on headwinds or other variables, but the plane is mechanically capable of transporting 100 to 150 passengers with their luggage on routes equal to or longer than 2,900 nautical mile range, the aircraft is covered by the scope. Hence, changes in the actual range of an

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[209] *See* Preliminary Scope Memorandum, at 9.

[210] *See, e.g., Narrow Woven Ribbons with Woven Selvedge from the People's Republic of China: Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination,* 75 FR 7244, 7247 (February 18, 2010), *unchanged in Notice of Final Determination of Sales at Less Than Fair Value: Narrow Woven Ribbons with Woven Selvedge from Taiwan,* 75 FR 41804 (July 19, 2010) (*Narrow Woven Ribbons*); *see also Notice of Final Determination of Sales at Less Than Fair Value: Certain Softwood Lumber Products from Canada*, 67 FR 15539 (April 2, 2002) (*Lumber IV Final Determination*), and accompanying Issues and Decision Memorandum at " "Scope Issues."

[211] *See* Memorandum, "Telephone conversation with the petitioner," dated May 3,2017.

aircraft based on various conditions would not provide an avenue for circumvention if an aircraft is mechanically capable of transporting between 100 and 150 passengers with their luggage on routes equal to or longer than a 2,900 nautical mile range."[212]

Second, as we stated in the *Preliminary Determination*, the FAA certificate does not have to reference the actual mileage range of the aircraft, it merely needs to be a type certificate or supplemental type certificate that covers other aircraft with a minimum 2,900 nautical mile range.[213] This requirement is not subjective and can be applied based on facts regarding certificates and aircraft: specifications are available for the aircraft in various sources and websites.[214] Therefore, we do not view this as an administrability issue.

Third, notwithstanding any such difficulties claimed by Bombardier, its own website identifies a specific nautical mile range of 3,100 per 108 passengers for CS100 aircraft and a 3,300 nautical mile range for 130 passengers for CS300 aircraft.[215] While this may constitute promotional material, it is presumably accurate as it is the manufacturer that is making the claim, and thus it provides an indication that these aircraft are mechanically capable of flying these distances. Hence, the C Series mileage range is not inconsistent with the nautical mileage range requirement in the scope. Furthermore, despite Bombardier's claim that the FAA, the HTSUS, the petitioner, and Airbus do not classify aircraft based on mileage ranges, Bombardier's website demonstrates that mileage ranges are identified for aircraft and, therefore, the mileage range in the scope can be applied.

Fourth, Bombardier's example of administrability issues involves mechanically altering aircraft to take them out of the scope. This example does not demonstrate difficulties in applying the scope language (administering an order), rather it is a description of how one may attempt to avoid the order. The Department has specific statutory provisions to examine possible circumvention.

Fifth, we do not find that petitioner's description of the merchandise it seeks to have covered by this investigation need be bound by descriptions of large carriers at the WTO.

Finally, despite Bombardier's claim about the mileage range requirement not distinguishing regional jets, the petitioner provided detailed information as to why the mileage requirement was necessary to differentiate subject aircraft from non-subject regional aircraft. On page 29 of the petition, the petitioner stated that "{r}egional jets, such as those produced by Embraer of Brazil, do not have a minimum 2,900 nautical mile range, and therefore do not qualify as {subject merchandise}…. The greater range capability of {subject merchandise} is commercially significant, since it enables airlines to operate {subject merchandise} on routes between the U.S. East and West coasts that are beyond the range of regional jets."[216] Hence,

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[212] *See* Preliminary Scope Memorandum, at 8.
[213] *Id.* at 9.
[214] *See e.g.,* Petitioner's Letter, "100- To 150-Seat Large Civil Aircraft from Canada – Proposed Scope Clarification," dated May 9, 2017 at Exhibit Supp.-15; Petition at Exhibit 68.
[215] *See* Preliminary Scope Memorandum at 9.
[216] *See* Petition, footnote 90 on page 29. The petitioners also provided the following details in the footnote: *Compare* Bombardier, "C Series," *available at*

regardless of whether regional jets are typically defined by a nautical mileage range, the range requirement, nevertheless, seeks to ensure that regional jets will be excluded from the scope of the investigation. While Bombardier claims that other characteristics of regional aircraft would suffice to exclude them from the scope, it is not clear that is correct. Information provided in the petition indicates that the Embraer E 195-E2 has a multi-class seating capacity of 120 seats.[217]

For the reasons mentioned above, we have not eliminated the nautical mile requirement from the scope of the investigation for the final determination.

Comment 6: Airbus-Bombardier Transaction

Bombardier's Case Brief

- It is improper for the Department to consider the proposed transaction in making determinations in these investigations. First, if the transaction does occur, it will take place after the POI for these investigations. Secondly, the proposed transaction has not been finalized and is still dependent on regulatory approvals. It would be speculation to base any decision on it.
- The Department's regulations direct the Department to conduct a retrospective analysis[218] limited to an established period. It is the Department's well-established practice to not consider events that occur after the POI or after the POR.[219] This practice has been affirmed by the CAFC and CIT.[220] Accordingly, the Department should wait for an

http://commercialaircraft.bombardier.com/content/dam/Websites/bca/literature/cseries/Bombardier-CommercialAircraft-CSeries-Brochure-en.pdf.pdf ("Both the CSIOO and the CS300 possess a range of over 3,000 nautical miles, meaning they can easily connect far-flung points."), attached as Exhibit 68, *with* Embraer website, "Specifications E 190", *available at* http://www.embraercommercialaviation.com/Pages/Ejets-190.aspx (last accessed Aug. 30, 2016) ("The Advanced Range (AR) version of the E 190 can carry a full load of passengers up to 2,400 nm (4,537 km)."), attached as Exhibit 69; Embraer website, "Specifications E 195", *available at* http://www.embraercommercialaviation.com/Pages/Ejets-J 95.aspx (last accessed Aug. 30, 2016) ("The Advanced Range (AR) version of the E 195 can carry a full load of passengers up to 2,300 nm (4,260 km)."), attached as Exhibit 70; Embraer website, "Specifications E 190-E2" & "Specifications E 195-E2" (showing that the maximum ranges of the E 190-E2 and E 195-E2 are 2,850 and 2,450 nautical miles, respectively), attached as Exhibit 71.

[217] *See* Petition at Exhibit 71.

[218] *See* Bombardier's Transaction Brief at 3 (citing 19 CFR 351.212(a)).

[219] *Id.* at 12 (citing *Final Determination of Sales at Less Than Fair Value: Uranium from the Republic of Kazakhstan*, 64 FR 31179 (June 10, 1999); *see also Supercalendered Paper from Canada: Final Results of Countervailing Duty Expedited Review*. 82 FR 18896 and accompanying IDM at Comment 2 (April 24, 2017); *see also Polyethylene Terephthalate Film, Sheet, and Strip from India: Final Results of Countervailing Duty Administrative Review*, 73 FR 7708 and the accompanying IDM at 18 (February 11, 2008); *see also Final Negative Countervailing Duty Determinations: Standard Pipe, Line Pipe, Light-walled Rectangular Tubing and Heavy-walled Rectangular Tubing from Malaysia*, 53 FR 46904 (November 21, 1988); *see also Antidumping Duty Investigation of Low Enriched Uranium ("LEU") from Germany, Netherlands and the United Kingdom*, 66 FR 65886 (*LEU Investigation*) and accompanying IDM at Comment 6 (December 21, 2001); *see also Notice of Initiation of Antidumping Duty Investigations: Ferrovanadium from the People's Republic of China and the Republic of South Africa*, 66 FR 66398 (December 26, 2001)).

[220] *Id.* at 4 (citing *USEC Inc. v. U.S.*, 34 Fed.Appx. 725, 729 (Fed. Cir. 2002); *see also General Elec. Co. v. United States*, 17 CIT 268, 271 (CIT 1993), *aff'd* after remand by 18 CIT 245 (1994); *see also Helmerich & Payne, Inc. v. United States,* 24 F. Supp. 2d 304, 310 (CIT 1998); *Shandong Rongxin Import & Export Co., Ltd. v. United States*, 203 F. Supp. 3d 1327, 1339 (CIT 2017)).

administrative review to evaluate the proposed transaction in order to avoid any speculative analysis.

Government of Canada's Case Brief

- This proposed transaction was not announced until October 16, 2017 (after the POI), the deal has not been closed, and the operational aspects have not been finalized. There is nothing final or concrete for the Department to evaluate. The Department should take no action at this time and should address the proposed transaction in a subsequent administrative review.

Delta's Case Brief

- In light of the information that has been placed on the record by the Department and the parties, the Department should find there was no sale for importation during the POI and terminate these investigations.
- In the aircraft industry, a purchase agreement does not finally establish the material terms of a sale. The Department's policy is long-standing; to reject the contract date as the date of sale where the material terms of sale were not "finally and firmly established on the contract date."[221]

Petitioner's Case Brief

- The proposed deal between Airbus and Bombardier has no bearing on the Department's current investigations. There is no finalized deal in place to evaluate at this time.
- The only reason to conduct C Series assembly in the U.S. would be to circumvent any antidumping or countervailing duties that may be imposed. However, any orders resulting from these investigations would cover fully or partially assembled C series imported into the U.S. and should apply whether or not a second C Series assembly line is located in the U.S. Nevertheless, this is not an issue the Department needs to address in these investigations as no C Series assembly is currently taking place in the U.S.
- However, for reference, in other cases, the Department has used the phrase "partially assembled" to refer to articles imported in the form of multiple large components or parts.[222] In all these cases, the partially assembled article was subject to the orders.

[221] *See* Delta's Transaction Brief at 2(citing *e.g., Yieh Phui Enter. Co. v. United States*, 791 F. Supp. 2d 1319, 1326 (CIT 2011)).

[222] *See* Petitioner's Transaction Brief at 10 (citing *Printing Presses from Japan,* 61 FR 38139 (July 23, 1996); *see also Notice of Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination: Engineered Process Gas Turbo-Compressor Systems, Whether Assembled or Unassembled, and Whether Complete or Incomplete from Japan,* 61 FR 65013 (December 10, 1996); *see also Notice of Final Determination of Sales at Less Than Fair Value: Engineered Process Gas Turbo-Compressor Systems, Whether Assembled or Unassembled, and Whether Complete or Incomplete, from Japan,* 62 FR 24394 (May 5, 1997)).

Bombardier's Rebuttal Brief

- There is broad agreement amongst parties that the proposed transaction should not impact these investigations as the proposed transaction developed after the POI of these investigations.
- However, the petitioner mischaracterizes, and unlawfully seeks to expand the scope by claiming it covers aircraft "articles" (components or parts) from Canada. The scope is specific to "aircraft from Canada" and the term "partially assembled" in the scope refers to aircraft, not "articles."
- The Department's practice, as affirmed by the CIT, is not to expand the scope at such a late stage of an investigation.[223] There is insufficient evidence on the record to determine exactly what components or parts should be included within the scope of any eventual order.[224]
- Establishing a final assembly line for the manufacture of C Series aircraft in the United States does not constitute a form of circumvention; rather, it is motivated by significant business opportunities.
- A production facility for aircraft in the U.S. does not meet the statutory definition of circumvention. Only one type of circumvention involves production in the U.S.: minor or insignificant assembly or completion in the U.S.[225] There is no question that a facility to produce aircraft is not minor or insignificant.
- The scope of an AD or CVD order is determined during the investigation; it cannot be amended or expanded after the order is issued. As the petitioner has raised a question concerning the products covered by the scope of these investigations, the Department must resolve these questions before any order might be established. Failing to resolve the issue will cause significant uncertainty. It is crucial the Department make clear that these investigations and any resulting orders would not apply to articles, components, or parts from Canada.
- No record evidence suggests that C Series aircraft have been produced or delivered for sale into the U.S. Ample evidence on the record demonstrates that the purchase agreement between Delta and Bombardier does not constitute a sale.

Government of Canada's Rebuttal Brief

- There is consensus among all parties that any proposed transaction between Bombardier and Airbus is irrelevant to this proceeding. Such events should only be addressed in later subsequent administrative reviews.
- Should the Department entertain the petitioner's comments on whether the arrangement would constitute circumvention, and whether any duties resulting from the investigations would cover components or parts imported into the U.S., the GOC incorporates by reference the rebuttal comments submitted by Bombardier.

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[223] *See* Bombardier's Transaction Rebuttal Brief at 8 (citing *Smith Corona v. United States*, 796 F.Supp. 1532 (Ct. Int'l Trade 1992)).
[224] *Id.* at 9 (citing *Final Determination of Sales at Less Than Fair Value; Certain Internal-Combustion, Industrial Forklift Trucks from Japan*, 53 FR 12552 (April 15, 1988).
[225] *Id.* at 12 (citing Section 781(a) of the Act).

Delta's Rebuttal Brief

- The Department should ignore the petitioner's comments regarding circumvention and reject any attempt to expand the scope of these investigations.
- Any circumvention allegation is premature. The petitioner has not cited the statutory criteria for finding circumvention, not demonstrated that the U.S. manufacture of C Series aircraft will be minor or insignificant, and not demonstrated that any other statutory circumvention applies. The petitioner cannot make a circumvention allegation during an investigation; circumvention is clearly defined by the statute.[226]
- The scope of these investigations is limited to aircraft; it does not include parts, components, or subassemblies. Furthermore, when a scope does include parts or components or subassemblies it does so expressly.[227] The scope in these investigations does not explicitly include parts, components, or subassemblies. The Department should reject any attempt to expand the scope of these investigations.

Petitioner's Rebuttal Brief

- Bombardier, the GOC and the Government of Quebec (GOQ) all agree that the proposed deal between Bombardier and Airbus has yet to be finalized and does not impact the Department's current investigations. Delta alone argues that the proposed transaction has an implication for the Department's investigations.
- Delta's contention that the proposed transaction confirms that no sale has occurred is false. Delta and Bombardier's argument for no sale has already been rebutted, as their April 2016 "firm agreement for the sale and purchase" of subject merchandise was described by Bombardier as a "watershed moment" and made Delta "the C Series aircraft's largest customer."[228]
- Furthermore, any attempt by Delta to make a no sale argument in the CVD investigation is wrong. Delta relies on the preamble to the Department's regulations concerning date of sale in AD investigations, not CVD investigations.[229] Additionally Delta relies on evidence that is not in the record of the CVD investigation.[230]
- Section 701(a)(1) of the Act requires the imposition of countervailing duties where subsidies have been provided with respect to merchandise imported, or sold (or likely to be sold) for importation, into the United States. Record evidence in the CVD investigation compels the conclusion that C Series aircraft were sold (or likely to be sold)

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[226] *See* Delta's Transaction Rebuttal Brief at 2 (citing Section 781 of the Act).
[227] *Id.* at 5 (citing *Notice of Final Determination of Sales at Less Than Fair Value: Large Newspaper Printing Presses and Components hereof, Whether Assembled or Unassembled from Germany*, 61 FR 38166 (July 23, 1996); *see also Large Residential Washers from the Republic of Korea: Amendment to the Scope of the Countervailing Duty Investigation*, 77 FR 46715 (August 6, 2012)).
[228] *See* the Petitioner's Transaction Rebuttal Brief at 7.
[229] *Id.* at 8 (citing Delta's Case Brief, "100- to 150- Seat Large Civil Aircraft from Canada: Opportunity to Comment on Proposed Transaction," dated November 13, 2017 at 2).
[230] *Id.* at 8 (citing Delta's Case Brief, "100- to 150- Seat Large Civil Aircraft from Canada: Opportunity to Comment on Proposed Transaction," dated November 13, 2017 at 2-3).

for importation into the United States when Bombardier and Delta completed their purchase agreement.

Department's Position:

The Department agrees with interested parties that the information related to the planned partnership between Bombardier and Airbus does not impact the current investigation because it did not occur during the POI and has yet to be finalized. The press release details that the proposed transaction is subject to regulatory approvals and that there are no guarantees that the transaction will be completed, but that expectations are for completion in the second half of 2018.[231] Additionally, the record lacks detailed information regarding the production process that would result from the planned partnership between Bombardier and Airbus. In the absence of such information, the Department does not find it appropriate to make a scope or circumvention determination about whether activity conducted pursuant to the planned partnership, which has yet to be finalized, may render merchandise outside the scope of an order, should this investigation result in an order. A circumvention ruling under section 781(a) of the Act (merchandise completed or assembled in the United States), for example, requires an order (or a finding) and requires the Department to analyze the nature of the production process in the United States, processing in the United States, and patterns in trade, among other things. The record of this investigation lacks this information. Accordingly, it would be premature to conduct an analysis or reach a determination where relevant information is not on the record and the planned partnership has yet to be finalized.

Finally, the Department has addressed Delta's comment that the proposed Airbus-Bombardier partnership is further evidence that no sale has occurred in its position to Comment 2.

[231] *See* Press Release Memo at Attachment I.

VI. RECOMMENDATION

Based on our analysis of the comments received, we recommend adopting the above positions. If this recommendation is accepted, we will publish the final determination and the final weighted-average dumping margins in the *Federal Register*.

☒	☐
Agree	Disagree

12/18/2017

X

Signed by: PRENTISS SMITH

EXHIBIT 37

UNITED STATES DEPARTMENT OF COMMERCE
International Trade Administration
Washington, D.C. 20230

C-122-860
Investigation
Public Document
POI: 01/1/2016 – 12/31/2016
E&C AD/CVD Office II: AMM, RRB, WAM, AKM

DATE: December 18, 2017

MEMORANDUM TO: P. Lee Smith
Deputy Assistant Secretary for Policy and Negotiations

FROM: James P. Maeder
Senior Director
performing the duties of Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations

SUBJECT: Issues and Decision Memorandum for the Final Determination in the Countervailing Duty Investigation of 100- to 150-Seat Large Civil Aircraft from Canada

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SUMMARY

The Department of Commerce (Department) determines that countervailable subsidies are being provided to the producers of 100- to 150-seat large civil aircraft (aircraft) in Canada, as provided in section 705 of the Tariff Act of 1930, as amended (the Act). Below is the complete list of issues in this investigation for which we received comments from interested parties:

Issues

Equity Infusions
1. Countervailability of the Caisse de dépôt et placement du Québec (CDPQ) Equity Infusion
2. Whether CDPQ is an Authority
3. Whether the Department Should Accept the Petitioner's[1] Rebuttal Factual Information Regarding the CDPQ Verification Report
4. Equityworthiness of Investissement Québec's (IQ's) Investment in the C Series Aircraft Limited Partnership (CSALP)
5. Whether to Revise the Calculation of the IQ Equity Infusion

International Consortia
6. Whether the International Consortia Provision of the Act Applies to this Investigation

[1] The petitioner in this investigation is The Boeing Company.

Creditworthiness

7. Creditworthiness of Bombardier, Inc. (Bombardier), Short Brothers PLC (Shorts), and the C Series Program

Launch Aid

8. Whether the Government of the United Kingdom (U.K.) Launch Aid Provides a Market Rate of Return
9. Analyzing the U.K. Launch Aid Separately from the Government of Canada (GOC) and Government of Québec (GOQ) Launch Aid
10. The Appropriate Denominator for the GOC Launch Aid
11. Capping the Launch Aid Benefit Amounts
12. The Appropriate Benchmark for the U.K., GOC, and GOQ Launch Aid
13. Whether to Adjust the Benefit Streams for the U.K., GOC, and GOQ Launch Aid

Land for Less Than Adequate Remuneration (LTAR)

14. The Appropriate Benchmark for the Land Provided at Mirabel for LTAR
15. Whether Aéroports de Montréal (ADM) is an Authority

Other GOC and GOQ Programs

16. *Emploi-Québec* Grants: Specificity and Benefit Calculation
17. Whether GOQ and GOC Scientific Research & Experimental Development (SR&ED) Tax Credits are Countervailable
18. Bombardier's Federal SR&ED Tax Credit

Other U.K. Programs

19. Specificity and Benefits of U.K. Tax Credits
20. Specificity of Invest Northern Ireland (INI), Resource Efficiency, Innovate UK and Aerospace Technology Institute ATI Grants

Scope Issues

21. Removal of Nautical Mile Range Criterion
22. Revision of the Seating Capacity

Bombardier-Airbus SE (Airbus) Merger

23. Airbus-Bombardier Transaction

BACKGROUND

Case History

The mandatory respondent in this investigation is Bombardier, Inc. On October 2, 2017, the Department published the *Preliminary Determination* in this investigation and aligned this final

countervailing duty (CVD) determination with the final antidumping duty (AD) determination, in accordance with section 705(a)(1) of the Act and 19 CFR 351.210(b)(4)(i).[2]

Between September 25, 2017, and October 27, 2017, we conducted verification at the offices of the GOQ, CDPQ, the GOC, the U.K., Shorts, and Bombardier, in accordance with section 782(i) of the Act.[3]

We invited parties to comment on the *Preliminary Determination*. In November 2017, we received case and rebuttal briefs from the GOC, the GOQ, CDPQ, the U.K., Bombardier, and the petitioner, The Boeing Company.[4] We also received case briefs from Delta Air Lines, Inc. (Delta) and the European Commission.[5]

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[2] *See 100- to 150-Seat Large Civil Aircraft from Canada: Preliminary Affirmative Countervailing Duty Determination and Alignment of Final Determination with" Final Antidumping Duty Determination*, 82 FR 45807 (October 2, 2017), (*Preliminary Determination*) and accompanying Preliminary Decision Memorandum (PDM).

[3] *See* Memorandum, "Verification of the Questionnaire Responses of Caisse de dépôt et placement du Québec (CDPQ, or Caisse)," dated October 17, 2017 (CDPQ Verification Report); Memorandum, "Verification of the Questionnaire Responses of the Government of Canada (GOC)," dated October 23, 2017 (GOC Verification Report); Memorandum "Verification of the Questionnaire Responses of the Government of Québec (GOQ)," dated November 3, 2017 (GOQ Verification Report); Memorandum, "Verification of the Questionnaire Responses of the Government of the United Kingdom (U.K.)," dated November 3, 2017 (U.K. Verification Report); Memorandum, "Verification of the Questionnaire Responses of Bombardier, Inc. Pertaining to Short Brothers PLC (Shorts)," dated November 1, 2017 (Shorts Verification Report); and Memorandum, "Verification of the Questionnaire Responses of Bombardier, Inc. and the C Series Aircraft Limited Partnership," dated November 7, 2017 (Bombardier Verification Report).

[4] *See* GOC's Case Brief, "Government of Canada Case Brief 100-to 150- Seat Large Civil Aircraft from Canada (C-122-860)," dated November 15, 2017 (GOC's Case Brief); GOQ's Case Brief, "Countervailing Duty Investigation of 100- To 150-Seat Large Civil Aircraft from Canada (C-122-860): Case Brief of the Government of Québec," dated November 14, 2017 (GOQ's Case Brief); CDPQ's Case Brief "100- to 150- Seat Large Civil Aircraft from Canada: Case Brief of Caisse de dépôt et placement du Québec," dated November 14, 2017 (CDPQ's Case Brief); U.K.'s Case Brief "100- to 150-Seat Large Civil Aircraft from Canada: Case Brief of the Government of the United Kingdom," dated November 14, 2017 (U.K.'s Case Brief); Bombardier's Case Brief "Countervailing Duty Investigation of 100-10 150-Seat Large Civil Aircraft from Canada: Case Brief of Bombardier Inc. and C Series Aircraft Limited Partnership," dated November 14, 2017 (Bombardier's Case Brief); Petitioner's Case Brief "100-To 150-Seat Large Civil Aircraft from Canada: Petitioner's Case Brief," dated November 14, 2017 (Petitioner's Case Brief); *see also* GOC's Rebuttal Brief "Government of Canada Rebuttal Brief for 100- to 150-Seat Large Civil Aircraft from Canada (C-122-860)," dated November 21, 2017 (GOC's Case Brief); GOQ's Rebuttal Brief "Countervailing Duty Investigation of 100- To 150-Seat Large Civil Aircraft from Canada (C-122-860): Rebuttal Brief of the Government of Québec," dated November 21, 2017 (GOQ's Case Brief); CDPQ's Rebuttal Brief "100-to 150- Seat Large Civil Aircraft from Canada: Rebuttal Brief of Caisse de dépôt et placement du Québec," dated November 20, 2017 (CDPQ's Rebuttal Brief); U.K.'s Rebuttal Brief "100- to 150-Seat Large Civil Aircraft from Canada: Rebuttal Brief of the Government of the United Kingdom," dated November 28, 2017 (U.K.'s Rebuttal Brief); Bombardier's Rebuttal Brief "Countervailing Duty Investigation of 100- to 150-Seat Large Civil Aircraft from Canada: Re-bracketed Case and Rebuttal Brief Pages of Bombardier Inc. and C Series Aircraft Limited Partnership," dated November 28, 2017 (Bombardier's Rebuttal Brief); Petitioner's Rebuttal Brief "100- To 150-Seat Large Civil Aircraft from Canada: Petitioner's Rebuttal Brief," dated November 21, 2017 (Petitioner's Rebuttal Brief).

[5] *See* Delta's Case Brief "100- to 150- Seat Large Civil Aircraft from Canada: Case Brief," dated November 14, 2017 (Delta's Case Brief); European Commission's Case Brief "Submission by the European Commission in Relation to the Preliminary Determinations," dated November 16, 2017 (European Commission's Case Brief).

We also invited parties to comment on the proposed Bombardier-Airbus merger on November 1, 2017.[6] We received rebuttal factual information from Boeing, Bombardier and Delta.[7] We received comments from Boeing, Bombardier, Delta, the GOQ, and the GOC.[8] We also received rebuttal comments from Boeing, Bombardier, Delta, the GOQ, and the GOC.[9]

Period of Investigation

The period of investigation (POI) is January 1, 2016, through December 31, 2016.

Scope of the Investigation

The product covered by this investigation is 100- to 150-seat large civil aircraft from Canada. For a full description of the scope of this investigation, *see* the accompanying *Federal Register* notice at Appendix I.

Scope Comments

During the course of this investigation, the Department received numerous scope comments from interested parties. On November 8, 2017, the Department issued a Preliminary Scope Decision

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[6] *See* Memorandum, "Opportunity to Comment on Proposed Transaction," dated November 1, 2017 (Press Release Memorandum).

[7] *See* Petitioner's Letter, "100- To 150-Seat Large Civil Aircraft from Canada: Rebuttal Factual Information on the Announced Airbus-Bombardier C Series Partnership," dated November 6, 2017; Bombardier's Letter, "Antidumping and Countervailing Investigations of 100- to 150-Seat Large Civil Aircraft from Canada: Evidence on the Proposed Transaction," dated November 6, 2017; Delta's Letter, "100- to 150-Seat Large Civil Aircraft from Canada: Rebuttal Factual Information in Response to the Department's November 1, 2017 Opportunity to Comment on Proposed Transaction," dated November 6, 2017.

[8] *See* Boeing's Proposed Transaction Case Brief, "100- To 150-Seat Large Civil Aircraft from Canada: Brief on the Announced Airbus-Bombardier C Series Partnership," dated November 13, 2017(Petitioner's Proposed Transaction Brief); Bombardier's Proposed Transaction Case Brief, "Antidumping and Countervailing Investigations of 100-to 150-Seat Large Civil Aircraft from Canada: Brief on the Proposed Transaction," dated November 13, 2017 (Bombardier's Proposed Transaction Case Brief); Delta's Proposed Transaction Case Brief, "100- to 150- Seat Large Civil Aircraft from Canada: Opportunity to Comment on Proposed Transaction," dated November 13, 2017 (Delta's Proposed Transaction Case Brief); GOQ's Proposed Transaction Case Brief, "100- To 150-Seat Large Civil Aircraft from Canada (C-122-860): Comments of the Government of Québec in Response to the Department's Invitation to Submit Comments Regarding Proposed Transaction," dated November 13, 2017 (GOQ's Proposed Transaction Case Brief); GOC's Proposed Transaction Case Brief, "Government of Canada's Comments on Proposed Bombardier Transaction: 100- to 150-Seat Large Civil Aircraft from Canada," dated November 13, 2017 (GOC's Proposed Transaction Case Brief).

[9] *See* Petitioner's Proposed Transaction Rebuttal Brief, "100- To 150-Seat Large Civil Aircraft from Canada: Rebuttal Brief on the Announced Airbus-Bombardier C Series Partnership," dated November 17, 2017 (Petitioner's Proposed Transaction Rebuttal Brief); Bombardier's Proposed Transaction Rebuttal Brief, "Antidumping and Countervailing Investigations of 100-to 150-Seat Large Civil Aircraft from Canada: Rebuttal Brief on the Proposed Transaction," dated November 17, 2017 (Bombardier's Proposed Transaction Rebuttal Brief); GOQ's Proposed Transaction Rebuttal Brief, "100- To 150-Seat Large Civil Aircraft from Canada (C-122-860): Government of Québec's Response to Petitioner's Comments Regarding the Proposed Transaction," dated November 17, 2017 (GOQ's Proposed Transaction Rebuttal Brief); GOC's Proposed Transaction Rebuttal Brief, "Government of Canada's Response to Boeing's Comments on the Proposed Airbus- Bombardier Transaction: 100- to 150-Seat Large Civil Aircraft from Canada," dated November 17, 2017 (GOC's Proposed Transaction Rebuttal Brief).

Memorandum to address these comments and made no changes to the scope of the investigation as it appeared in the Initiation Notice.[10]

Interested parties also raised issues in their case briefs regarding the scope of this investigation. *See* Comments 22 and 23 in the "Analysis of Comments" section, below. In response to these comments, we did not change the scope of this investigation.

Subsidies Valuation Information

A. Allocation Period

The Department made no changes to, and interested parties raised no issues in their case briefs regarding, the allocation period or the allocation methodology used in the *Preliminary Determination*. For a description of the allocation period and the methodology used for this final determination, *see* the *Preliminary Determination.*

B. Attribution of Subsidies

The Department made no changes to the attribution of subsidies. For a description of the methodologies used for this final determination, *see* the *Preliminary Determination*.

C. Denominators

Interested parties raised issues in their case briefs regarding the denominators we used to calculate the countervailable subsidy rates for the subsidy programs described below. For information on the denominators used in the final determination, *see* the *Preliminary Determination*, the "Analysis of Comments" section below, and the Final Calculation Memorandum.[11]

D. Creditworthiness

Interested parties raised issues in their case briefs regarding the "uncreditworthy" interest rates used by the Department in the *Preliminary Determination*. For information on the interest rates used in the final determination, *see* the *Preliminary Determination*, the "Analysis of Comments" section below, and the Final Calculation Memorandum.

E. Equityworthiness

Interested parties raised issues in their case briefs regarding the equityworthiness findings made by the Department at the *Preliminary Determination*. For information on the equityworthiness

[10] Memorandum, "100- To 150-Seat Large Civil Aircraft from Canada: Scope Comments Decision Memorandum for the Preliminary Determination," dated November 8, 2017 (Preliminary Scope Memorandum).
[11] *See* the Department's Final Calculation Memorandum, dated concurrently with this memorandum (Final Calculation Memorandum) at Attachment 2.

findings made in the final determination, *see* the *Preliminary Determination*, the "Analysis of Comments" section below, and the Final Equityworthiness Memorandum.[12]

F. Loan Benchmarks and Interest Rates

Interested parties raised issues in their case briefs regarding the loan benchmarks and interest rates used by the Department in the *Preliminary Determination* as part of the Department's creditworthiness analysis. For information on the loan benchmarks and interest rates used in the final determination, *see* the *Preliminary Determination*, the "Analysis of Comments" section below, and the Final Calculation Memorandum.

Analysis of Programs

A. Programs Determined To Be Countervailable[13]

Equity Infusion

1. Equity Infusion by *Investissement Québec*

Interested parties submitted comments in their case and rebuttal briefs regarding this program, which are addressed below. The Department has modified its calculation of the subsidy rate for this program from the *Preliminary Determination*. For this final determination, we are using the denominator for all C Series sales during the POI, not only sales made by CSALP, for the reasons explained in Comment 5, below.

Bombardier: 127.22 percent *ad valorem*

Launch Aid

2. Launch Aid by GOC

Interested parties submitted comments in their case and rebuttal briefs regarding this program, which are addressed below. The Department has not modified its calculation of the subsidy rate for this program from the *Preliminary Determination*.

Bombardier: 28.99 percent *ad valorem*

[12] *See* Memorandum entitled, "Countervailing Duty Investigation of 100- to 150-Seat Large Civil Aircraft from Canada: Final Analysis of the Equityworthiness of *Investissement Québec's* (IQ's) Equity Infusion in the C Series Aircraft Limited Partnership (CSALP) and Caisse de dépôt et Placement du Québec's (CDPQ's) Equity Infusion in Bombardier Transportation (Investment) UK Ltd (BT Holdco)" (Final Equityworthiness Memorandum), dated concurrently with this memorandum. This analysis relies on business proprietary information that cannot be discussed in this public memorandum.

[13] For additional information on the below subsidy rate calculations, *see* the *Preliminary Determination* and the Final Calculation Memorandum, dated concurrently with this memorandum.

3. Launch Aid by GOQ

Interested parties submitted comments in their case and rebuttal briefs regarding this program, which are addressed below. The Department has not modified its calculation of the subsidy rate for this program from the *Preliminary Determination*.

Bombardier: 9.16 percent *ad valorem*

4. Launch Aid by the U.K.

Interested parties submitted comments in their case and rebuttal briefs regarding this program, which are addressed below. The Department has modified its calculation of the subsidy rate for this program from the *Preliminary Determination*. For this final determination, we are using, as the benefit amount, the total outstanding loan balance, including principal and accrued interest. *See* Comments 8, 9, and 13, below.

Bombardier: 28.36 percent *ad valorem*

Québec Province Tax Programs

5. Tax Incentives and Other Support Provided by the City of Mirabel

No parties submitted comments regarding this program. The Department has not modified its calculation of the subsidy rate for this program from the *Preliminary Determination*.

Bombardier: 0.18 percent *ad valorem*

6. PR@M Tax Credit

No parties submitted comments regarding this program. The Department has not modified its calculation of the subsidy rate for this program from the *Preliminary Determination*.

Bombardier: 0.01 percent *ad valorem*

7. Tax Credits from the GOQ for the C Series

Interested parties submitted comments in their case and rebuttal briefs regarding this program, which are addressed below. The Department has not modified its calculation of the subsidy rate for this program from the *Preliminary Determination*.

Bombardier: 9.68 percent *ad valorem*

U.K. Tax Programs

8. U.K. R&D Tax Credits

Interested parties submitted comments in their case and rebuttal briefs regarding this program, which are addressed below. The Department has modified its calculation of the subsidy rate for this program from the *Preliminary Determination*. As discussed in Comment 19, below, we observed, at verification, that a portion of the U.K. R&D tax credits are tied to production of the C Series; therefore, we have determined to countervail only the portion tied to the C Series and to use C Series sales as the denominator.[14]

Bombardier: 4.99 percent *ad valorem*

Canadian Federal Grant Programs

9. Technology Demonstration Program (TDP)

No parties submitted comments regarding this program. The Department has not modified its calculation of the subsidy rate for this program from the *Preliminary Determination*.

Bombardier: 0.01 percent *ad valorem*

Québec Province Grant Program

10. *Emploi-Québec*

Interested parties submitted comments in their case and rebuttal briefs regarding this program, which are addressed below. The Department has modified its calculation of the subsidy rate for this program from the *Preliminary Determination*. We have corrected the calculation of the two *Emploi-Québec* grants for the C Series to allocate all disbursements over time.[15] Additionally, we determined that the other, smaller grants from *Emploi-Québec*, received in 2016 under different *Emploi-Québec* grant programs, provide no measurable benefit. For further discussion, *see* Comment 16, below.

Bombardier: 1.19 percent *ad valorem*

U.K. Grant Programs

11. INI Grant for the C Series - Selective Financial Assistance (SFA)

Interested parties submitted comments in their case and rebuttal briefs regarding this program, which are addressed in Comment 20, below. The Department has modified its calculation of the

[14] *See* Final Calculation Memorandum and Shorts Verification Report at pages 2 and 9-10.
[15] *See CVD Preamble* at 65394 ("once the 0.5 percent test has been applied to the approved amount and the subsidy exceeds 0.5 percent of sales, all disbursements will be allocated over time") and Final Calculation Memorandum.

subsidy rate for this program from the *Preliminary Determination*. We have corrected the calculation of the INI SFA grant for the C Series to allocate all disbursements over time.[16]

Bombardier: 2.60 percent *ad valorem*

B. Programs Determined Not To Provide Countervailable Benefits During the POI

1. Equity Infusion by CDPQ

Interested parties submitted comments in their case and rebuttal briefs regarding this program, which are addressed below. The Department has not modified its determination that CDPQ's investment in BT Holdco is equityworthy and, thus, this program provided no benefit to Bombardier. Further, because we reached a final determination that there is no benefit from this program, the question of whether CDPQ is an "authority" within the meaning of section 771(5)(B) of the Act is moot.

2. Government Provision of Production Facilities and Land at Mirabel for LTAR

Interested parties submitted comments in their case and rebuttal briefs regarding this program, which are addressed below. The Department has modified its calculation of the subsidy rate for this program from the *Preliminary Determination*, and, determines that this program provided no measurable benefit to Bombardier.[17] Further, because we reached a final determination that there is no benefit from this program, the question of whether ADM is an "authority" within the meaning of section 771(5)(B) of the Act is moot.

3. Tax Credits from the Government of Canada for the C Series

Interested parties submitted comments in their case and rebuttal briefs regarding this program, which is also known as the Federal SR&ED Tax Credit. The Department has determined that the transaction at issue does not provide a financial contribution or benefit to Bombardier during the POI. *See* Comment 18, below, for further discussion.

4. Other Programs Conferring No Measurable Benefit During the POI

Bombardier and its cross-owned affiliates reported receiving benefits under various programs, some of which were specifically alleged and others of which were self-reported. Based on the record evidence, we determine that the benefits from the following 21 programs: 1) were fully expensed prior to the POI; 2) are less than 0.005 percent *ad valorem* when attributed to the respondent's applicable sales; 3) are only tied to the production of non-subject merchandise; or 4) in the case of export subsidies, were not tied to U.S. sales of subject merchandise. Consistent

[16] *See CVD Preamble* at 65394 and Final Calculation Memorandum.
[17] *See* Final Calculation Memorandum at Attachments 2, 11a, and 11b.

with the Department's practice,[18] we determine that it is unnecessary for the Department to make a final determination as to the countervailability of the following programs and have not included them in our final subsidy rate calculations for Bombardier.

Canadian Federal Programs

1. Export Development Canada Export Financing
2. Consortium for Aerospace Research and Innovation in Canada
3. Defence Industry Productivity Program
4. Green Aviation Research and Development Network
5. National Research Council
6. Natural Sciences and Engineering Research Council of Canada
7. Ontario Centers of Excellence
8. Regional Aircraft Credit Facility
9. Water Bomber (CL-215 Amphibious Aircraft) Nose Wheel Steering Kit Purchase Agreement

Québec Province Programs

10. *Investissement Québec* Export Financing
11. Consortium for Research and Innovation in Aerospace Québec
12. Fuel Tax Refund
13. *Investissement Québec* Loan Guarantees for Non-Subject Aircraft
14. MESI Support for Events
15. Systemes Aeronautiques D'Avante-Garde Pour L'Environnement I
16. Systemes Aeronautiques D'Avante-Garde Pour L'Environnement II
17. Tax Credit for Investment (CR 85)
18. Tax Credit for Private Partnership Pre-Competitive Research (CR 79))

U.K. Programs

19. INI Grants Tied to Non-Subject Merchandise
20. R&D Grants Expensed Prior to the POI
21. Aeronautical Engineering Transitional Funding Project

[18] *See e.g.*, *Coated Free Sheet Paper from the People's Republic of China: Final Affirmative Countervailing Duty Determination*, 72 FR 60645 (October 25, 2007) (*Coated Paper from the PRC*), and accompanying Issues and Decision Memorandum (IDM) at "Analysis of Programs, Programs Determined Not To Have Been Used or Not To Have Provided Benefits During the POI for GE;" *Certain Steel Wheels From the People's Republic of China: Final Affirmative Countervailing Duty Determination, Final Affirmative Critical Circumstances Determination*, 77 FR 17017 (March 23, 2012), and accompanying IDM at "Income Tax Reductions for Firms Located in the Shanghai Pudong New District;" *Aluminum Extrusions from the People's Republic of China: Final Results of Countervailing Duty Administrative Review; 2010 and 2011*, 79 FR 106 (January 2, 2014), and accompanying IDM at "Programs Used By the Alnan Companies;" and *Countervailing Duty Investigation of Certain Cold-Rolled Steel Flat Products from the Russian Federation: Final Affirmative Countervailing Duty Determination and Final Negative Critical Circumstances Determination*, 81 FR 49935 (July 29, 2016), and accompanying IDM at "Tax Deduction for Research and Development Expenses."

C. Programs Determined Not To Be Used During the POI

1. CDPQ Line of Credit
2. Innovation, Science, and Economic Development Canada Support for Aerospace R&D
3. Technology Partnerships Canada Program

D. Program Determined To Be Not Countervailable In This Investigation

1. Tax Credit for On-the-Job Training Period (CR 9)

As discussed in the *Preliminary Determination*, we determined this program was not specific, based upon the information on the record.[19] No party has argued that this program should be specific for the final determination; thus, we have not changed our finding with regard to the specificity of the tax credit for on-the-job training period (CR 9) program for the final determination.

As discussed below in Comment 6, the Department is modifying its *Preliminary Determination* and not including the following programs in this investigation.

2. Skills Growth
3. Apprenticeships
4. Resource Efficiency Grants
5. Innovate U.K. and ATI Grants

ANALYSIS OF COMMENTS

Equity Infusions

Comment 1: Countervailability of the CDPQ Equity Infusion

Because the comments raised and our analysis of this issue largely consist of business proprietary information, we cannot discuss them here. Therefore, this information is discussed and analyzed in the Final Equityworthiness Memorandum.[20] As a result of our analysis, we continue to find that CDPQ's equity infusion in BT Holdco is consistent with the usual investment practices of private investors in Canada. Thus, we continue to determine that this program provided no benefit to Bombardier.

Comment 2: Whether CDPQ is an Authority

Because we determined that the CDPQ equity infusion is consistent with the usual investment practices of private investors in Canada and, as a result, did not confer a benefit to Bombardier, this issue is moot. Although we made a preliminary determination regarding the status of CDPQ as an authority and received comments on that preliminary determination, we did so in order to develop fully the record on this question, in case our final benefit determination

[19] *See* PDM at 33-34.
[20] *See* Final Equityworthiness Memorandum at 20.

changed from the preliminary determination. Because the final benefit determination has not changed, the status of CDPQ is not relevant, and we have not addressed the question of whether CDPQ is an authority for this final determination.[21]

Comment 3: Whether the Department Should Accept the Petitioner's Rebuttal Factual Information Regarding the CDPQ Verification Report

Petitioner's Case Brief

- Following the publication of the Department's CDPQ verification report, the petitioner submitted information to rebut, clarify or correct the report. The Department rejected this submission as untimely new factual information pursuant to 19 CFR 351.301(c)(5) and removed it from the record. The Department erred in rejecting this submission and should reverse its decision for the final determination.[22]
- The Court of International Trade (CIT) in *US Magnesium* determined that the Department's rejection of an untimely submission in the underlying proceeding amounted to an abuse of discretion.[23] The Court further stated that *prima facie* evidence of fraud undermines the accuracy and fairness of a proceeding and, thus, the Department should have exercised its authority by addressing that evidence which was rejected as untimely in its analysis.[24]
- The facts of the present case are analogous to those of *US Magnesium* because: 1) the petitioner made its submission almost two months before the Department's final determination, while in *US Magnesium* the petitioner filed its submission three months before the final results; and 2) the rejected submissions in both cases were submitted while the proceedings were still open.
- Moreover, the Department itself subsequently reopened the record to solicit factual information and comments regarding the proposed transaction between Airbus and Bombardier.
- Finally, while the Department rejected the its submission because post-verification submissions of new factual information cannot be verified, the document may be viewed as self-verifying due to its origin. Alternatively, the Department could ask the GOC to authenticate the document.[25]

CDPQ's Rebuttal Brief

- The Department correctly rejected the petitioner's October 27 submission because it was untimely filed.[26]
- CDPQ disputes the petitioner's contention that the CIT's decision in *US Magnesium* compels the Department to accept the petitioner's unsolicited new factual information. The CIT

[21] *See* Final Equityworthiness Memorandum.
[22] *See* Petitioner's Case Brief at 47-48 (citing Department Letter re: Countervailing Duty Investigation of 100- to-150-Seat Large Civil Aircraft from Canada, dated October 31, 2017 (Rejection of Unsolicited New Factual Information)).
[23] *Id.* at 49 (citing *US Magnesium LLC v. United States*, 895 F. Supp. 2d 1319 (CIT 2013) (*US Magnesium*), where the petitioner challenged as an abuse of discretion the Department's rejection of a submission as untimely filed that allegedly showed that respondents had deliberately mislead the Department).
[24] *Id*.
[25] *Id.* at 50.
[26] *See* CDPQ's Rebuttal Brief at 19 (citing Rejection of Unsolicited New Factual Information).

reached its decision after considering whether the newly discovered evidence would have altered the dumping margin in that case.[27] The CIT considered whether the respondent "deliberately failed to report information to which it clearly had access," in rendering its decision. Thus, the current case is not analogous as the petitioner had the opportunity to comment on this issue because CDPQ explicitly discussed it throughout its submissions in this investigation.[28] Moreover, even if it had not disclosed the issue allegedly raised in the petitioner's submission, this information is not *prima facie* evidence of fraud and has no effect on the Department's determination of the subsidy rate in this investigation.

- The Department's solicitation of new factual information regarding the proposed transaction between Airbus and Bombardier has no bearing on whether the Department should accept the petitioner's new factual information at issue here. The Department could not have investigated the proposed transaction until after the date of the *Preliminary Determination*, while the petitioner had ample opportunity to submit information rebutting CDPQ's submissions.[29]

Department's Position:

We have not reversed our rejection of the petitioner's October 27 submission as untimely filed new factual information.

In adopting its 1997 regulations, the Department stated the following in response to arguments that parties be allowed to submit new factual information in response to verification reports:

> Parties are free to comment on verification reports and to make arguments concerning information in the reports up to and including the filing of case and rebuttal briefs (note that § 351.309(c)(2) provides that the case brief must present all arguments that a party wants the Department to consider in its final determination or final results of review). In making their arguments, parties may use factual information already on the record or may draw on information in the public realm to highlight any perceived inaccuracies in a report. *Though comment on the Department's verification findings is appropriate, submission of new factual information at this stage in the proceeding is not, because the Department is unable to verify post-verification submissions of new factual information*.[30]

Thus, the preamble to *Antidumping Duties; Countervailing Duties* supports the Department's longstanding practice not to permit interested parties to submit new factual information in response to verification reports.

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[27] *Id.* at 20 (citing *US Magnesium).*
[28] *Id*.
[29] *Id.* at 20-21.
[30] *See Antidumping Duties; Countervailing Duties; Final Rule*, 62 FR 27296, 27332 (May 19, 1997) (emphasis added).

Further, we find that the facts of *US Magnesium* are distinguishable from the present case. In *US Magnesium*, the CIT considered whether the Department's rejection of an untimely submission of factual information constituted an abuse of discretion.[31] In that case, the petitioner submitted *prima facie* evidence that the respondent committed fraud by knowingly misleading the Department during the underlying administrative review. Further, the information contained in the petitioner's submission was material to the Department's margin calculations.[32]

In the present case, the petitioner submitted heavily redacted information after the issuance of the CDPQ Verification Report regarding communication between CDPQ and the GOC. However, CDPQ had already informed the Department that it communicates with the GOC regarding its investments.[33] Thus, the petitioner's submission of such communication cannot be considered *prima facie* evidence of fraud. As a result, there is no basis to conclude that this information would have a material effect on the Department's subsidy calculations here.

We also disagree with the petitioner that we should accept its untimely submission because the Department itself reopened the record of this case regarding the proposed Airbus-Bombardier transaction. The proposed transaction was only announced on October 16, 2017, after the date of *Preliminary Determination*; thus, and in contrast to the information proffered by petitioner, the Department could not have investigated this issue earlier.[34] Moreover, the Department's regulations provide that it may place factual information on the record at any time in the course of a proceeding and solicit comments on that information.[35] In any event, the Department's solicitation of information regarding the Airbus-Bombardier transaction has no bearing on its decision to reject the petitioner's untimely filed October 27 submission. The two issues are unrelated and the petitioner's attempt to conflate them is unpersuasive. It would impede the timely completion of the investigation for the Department to reopen the record as to any other issue merely because it sought information on a single, discrete development that occurred after deadlines for submission of factual information had long passed.[36]

Finally, the petitioner's suggestion that the information should be accepted because it is self-verifying, or that the Department could simply ask the GOC to verify the authenticity of the submission, is contrary to the Department's regulations and practice. Section 351.307(b)(i) of the Department's regulations directs the Department to "… verify factual information upon which the Secretary relies in countervailing duty investigation{s}." The verification process involves examining documents that originated from the party being verified, discussing them, and tying them to supporting information. Thus, merely asking the GOC to verify the authenticity of the petitioner's submission would not qualify as verification.

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[31] *See US Magnesium* at 6.
[32] *Id.* at 5-6.
[33] *See* CDPQ's September 5, 2017 Supplemental Questionnaire Response (CDPQ September 5, 2017 SQR) at 8, *see also* CDPQ's July 24, 2017 Initial Questionnaire Response (CDPQ July 24, 2017 IQR) at 31-32.
[34] *See* Memorandum, "Opportunity to Comment on Proposed Transaction," dated November 1, 2017.
[35] *See* 19 CFR 351.301(c)(4).
[36] In any event, if the Department were to accept the petitioner's submission, the Department's regulations at 19 CFR 351.301(c)(5) require that parties be permitted to submit rebuttal factual information in response to it. Such information would also be subject to verification, further impeding the timely completion of this investigation.

Comment 4: Equityworthiness of IQ's Investment in CSALP

Because the comments raised and our analysis of this issue largely consist of business proprietary information, we cannot discuss them here. Therefore, this information is discussed and analyzed in the Final Equityworthiness Memorandum.[37] As a result of our analysis, we continue to find that IQ's equity infusion in CDPQ was inconsistent with the usual investment practices of private investors in Canada. Thus, we continue to determine that this program provided a countervailable benefit to Bombardier.

Comment 5: Whether to Revise the Calculations of the IQ Equity Infusion Subsidy Rate

Bombardier's Case Brief

- The Department incorrectly calculated the sales denominator and discount rate for IQ's equity infusion in CSALP. If the Department makes a final determination that the equity infusion conferred a countervailable benefit, it should revise its calculations.
- In the *Preliminary Determination*, the Department used CSALP's sales as the denominator of the IQ equity infusion calculation.[38] However, the equity infusion was not directly tied to CSALP. Rather, CSALP was the investment vehicle for the equity infusion.[39] Because IQ's equity infusion was directed to the C Series program as a whole, the Department should use all 2016 C Series sales in the denominator of its subsidy rate calculation.
- The data on which the Department based its calculation of the 18.87 discount rate used to allocate the benefit for IQ's equity infusion are flawed. Specifically, the Department used cumulative default rate data with a five-year time horizon. However, the IQ equity infusion had a time horizon of at least 20 years.[40] Therefore, the 15-year default rates on the record of this investigation are closer to Bombardier's actual 2015 cost of capital of 8.75 percent.[41]
- Additionally, the Department should use the cumulative default rates for BB-rated, rather than CCC-rated companies in its discount rate calculation, in order to match the company's actual credit rating at the end of 2015.[42]
- Finally, given that IQ obtained an interest in less than half of CSALP, treating the equity investment as if it were a grant grossly overstates the benefit to CSALP. This result violates the SCM Agreement, which requires that a subsidy must be measured based on the benefit to the recipient.[43]

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[37] *See* Final Equityworthiness Memorandum at 1.
[38] *See* Bombardier's Case Brief at 23 (citing *Preliminary Determination*, and accompanying PDM at 15).
[39] *Id.* at 23 (Bombardier's July 25, 2017 Initial Questionnaire Response (Bombardier July 25, 2017 IQR) at Exhibit GEN-03).
[40] *Id.* at 25 (citing Bombardier July 25, 2017 IQR at Exhibit GQ-IQINV-07).
[41] *Id.* at 25 (citing Verification Exhibit BVE6 at 44; Bombardier July 25, 2017 IQR at Exhibit FS-21, and at 133, 165, and 186).
[42] *Id.* at 25 (citing Bombardier's September 5, 2017 Supplemental Questionnaire Response (Bombardier September 5, 2017 SQR) at Exhibit 7A; and Bombardier July 25, 2017 IQR at 31 and Exhibit FS-21).
[43] *Id.* at 25 (citing SCM Agreement at Article 14).

GOC's Case Brief

- The Department should correct its calculations of the sales denominator and the discount rate for IQ's equity infusion, both of which inflate the subsidy rate.[44]

Petitioner's Rebuttal Brief

- Bombardier's argument that the Department should have used the default rates for BB-rated bonds should be rejected because it contradicts the language of 19 CFR 351.505(a)(3)(iii).[45]
- The Department should continue to use Canadian five-year default data to calculate the uncreditworthy discount rate for all benefit allocation periods of five years or more.[46]

Department's Position:

For the final determination, we revised our calculation of the IQ equity infusion subsidy rate to use all C Series sales during the POI as the denominator. As CSALP's financial statements demonstrate, CSALP acquired the assets and liabilities of the C Series program, including the sale made by Bombardier before the June 30, 2016 date of IQ's first disbursement of equity to CSALP.[47]

Furthermore, we continue to find that the C Series program was uncreditworthy using a project-specific analysis, pursuant to 19 CFR 351.505(a)(4). Therefore, we continue to calculate an uncreditworthy discount rate, pursuant to 351.505(a)(3)(iii), which we have used in our benefit calculation for this program. *See* Comments 7 and 12 below, discussing the creditworthiness of Bombardier, Shorts, and the C Series Program, for further discussion.

International Consortia

Comment 6: Whether the International Consortia Provision of the Act Applies to this Investigation

The European Commission's Brief

- In the *Preliminary Determination*, the Department found subsidies provided by the U.K. to Shorts countervailable under the international consortium provision of section 701(d) of the Act. The Department applied the international consortium provision because: 1) Shorts is a wholly-owned subsidiary of Bombardier; 2) The U.K. financing provided to Shorts is an integral part of the C Series project, and; 3) the launch aid packages from the

[44] *See* GOC's Case Brief at 40.
[45] *See* Petitioner's Rebuttal Brief at 74.
[46] *Id*. at 79 (citing *Circular Welded Carbon Quality Steel Line Pipe from the People's Republic of China: Final Affirmative Countervailing Duty Determination*, 73 FR 70961 (November 21, 2008), and accompanying IDM at 10).
[47] *See* Bombardier July 25, 2017 IQR at Exhibit FS-10.

U.K., the GOC and GOQ were all provided in the same time period to help Bombardier launch the C Series aircraft.

- Any alleged subsidies provided by the U.K. to Shorts to produce wings are outside the scope of this investigation. The Repayable Launch Investment (RLI) can only be used to fund the design and the development of wings in Northern Ireland before being shipped to Canada, where the aircraft is assembled.[48]
- The alleged subsidies provided by the U.K. and Northern Ireland to Shorts are exclusively to support production and related activities in the U.K., not Canada, a fact on which the European Commission's state aid analysis relied.[49]

GOC's Case Brief

- The Department's precedent demonstrates that the international consortium provision requires a formal and cooperative relationship among participating governments and companies. That relationship must be sufficient to warrant a determination that a subsidizing government, as a member of a consortium, intended to provide subsidies to that consortium to assist it in achieving its objective.[50] In the present case there is no such separate "consortium" entity.[51]
- The record shows that each company received financial support from its government for activities performed solely within the country where it is located; accordingly, U.S. CVD law does not permit countervailing alleged subsidies provided by the U.K. to Shorts.

U.K.'s Case Brief

- Section 701(d) of the Act requires that an international consortium have a separate existence independent of the individual companies, which is made clear by the following language of the Act: 1) the phrase "enable their participation in that consortium;" and 2) the statement that the subsidies that may be countervailed include "countervailable subsidies provided directly to the international consortium."[52] In addition to having an independent existence, a consortium must also be formed "to promote a common objective or engage in a project."[53]
- An examination of the Airbus case is instructive for examining the "Airbus consortium" that Congress considered when drafting section 701(d) of the Act. The WTO panel report demonstrates that the U.S. understood Airbus as an entity of "formal and institutionalized industrial policy," with "systematic and coordinated" governmental support.[54]

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[48] *See* European Commission's Case Brief at 1.
[49] *Id*.
[50] *See* GOC's Case Brief at 40-41 (citing *Notice of Preliminary Affirmative Countervailing Duty Determinations and Alignment with Final Antidumping Duty Determinations: Low Enriched Uranium from Germany, the Netherlands, and the United Kingdom*, 82 FR 45807 (May 14, 2001) (*LEU Preliminary Determination*); *Low Enriched Uranium from Germany, the Netherlands and the United Kingdom*, 66 FR 65903 (December 21, 2001) (*LEU Final Determination*) and accompanying IDM).
[51] *Id*. at 31.
[52] *See* U.K.'s Case Brief at 20.
[53] *Id*.
[54] *See* U.K.'s Case Brief at 21-22 (citing *Panel Report, European Communities and Certain Member States – Measures Affecting Trade in Large Civil Aircraft*, WT/DS316/AB/R, DSR 2011:II p. 685 (*Large Civil Aircraft*)).

- Section 701(d) of the Act is an exception to the general rule that a government only provides subsidies to support production and employment within its own borders. However, due to the nature of the Airbus project, Congress decided that the general rule would not apply because support was provided with the express purpose of working on a specific project.[55]
- In *LEU*, the Department relied specifically on the existence of a separate consortium entity and the structured cooperation between the three participating governments, codified in a treaty, in finding that the Urenco Group (Urenco) constituted an international consortium.[56]
- Unlike in Airbus and *LEU*, there is no basis to determine that an international consortium exists in this case. There is no paperwork similar to the treaty which created the Urenco Group, nor the international agreements that existed in the Airbus case, for the C Series Program. The U.K. provided no funding for any part of the C Series Program, INI did not support activities outside of the U.K., nor was there any statement in any C Series document by which the U.K. or INI express the intent to support activities outside of the U.K.
- Shorts' relationship to Bombardier regarding the C Series is as a subcontractor. The fact that Shorts' status as a subcontractor makes it part of an international consortium would mean that millions of companies are potentially members of such consortia.[57]
- For the Department to investigate any subsidies provided to Shorts for the C Series, the petitioner must meet the requirements of section 771A of the Act. As the Preamble states, 19 CFR 351.523(a)(iii) requires "a demonstration of the significance of prior-stage subsidies in order for the Department to initiate an upstream subsidy investigation."[58]
- The requirement of "significance" is not satisfied by merely alleging that a subsidy is for an affiliated supplier's production of a product used for the subject merchandise. Section 351.523(a)(iii) of the Department's regulations requires the petitioner to demonstrate that the subsidy rate on the input product, multiplied by the proportion of the total production costs of the subject merchandise accounted for by the input product, is at least one percent. The petitioner has neither alleged that subsidies provided to Shorts are upstream subsidies, nor has the petitioner made any allegation of significance in relation to the subsidies Shorts received. Because the petitioner has not alleged an upstream subsidy, the Department's investigation of U.K. funding provided to Shorts must be terminated.[59]

Bombardier Case Brief

- The Department did not explain what facts led the Department to state in the *Preliminary Determination* that section 701(d) of the Act "is intended to address precisely the type of situation presented by {RLI to Shorts}." Section 701(d) of the Act was not drafted to

[55] *Id*. at 22 (citing 133 Cong. Rec. 17525 (1987)).
[56] *Id*. at 25 (citing *LEU Preliminary Determination* and *LEU Final Determination*).
[57] *See* U.K.'s Case Brief at 11, FN 9.
[58] *Id*. at 12 (citing *Countervailing Duties: Final Rule*, 63 FR 65348 (November 25, 1998) (*CVD Preamble*)).
[59] *See* U.K.'s Case Brief at 12-13.

permit the Department to countervail subsidies across borders simply because companies produce aircraft.[60]

- The legislative history of section 701(d) of the Act makes clear that multilateral cooperation is an important element of the provision.[61] In the years leading up to the drafting of section 701(d) of the Act, four European aerospace companies were brought together to form Airbus Industrie GIE as a result of multilateral governmental cooperation.[62] This process was coordinated through a series of treaties between France, Germany, Spain, and the U.K.[63]
- In *LEU*, which is the only other case in which the Department had applied the international consortium provision, the Department countervailed subsidies provided to a consortium of companies formed as a result of formal cooperation between the governments of Germany, the Netherlands, and the U.K. Similar to Airbus, in *LEU*, three independent companies were brought together through the Treaty of Almelo to create a new company, Urenco, which coordinated all consortium activity.[64]
- Bombardier's relationship with Shorts is very different from that of Airbus and *LEU*. Shorts was purchased by Bombardier in 1989, and there is no evidence to suggest that this relationship was created by an agreement between governments.
- Also unlike Airbus and *LEU*, where the participating governments created a separate consortium entity, there is no such entity present in this case. Record evidence demonstrates that Bombardier and Shorts are distinct companies with their own business practices.
- The Department improperly relied on the cross-ownership provision to countervail transnational input subsidies. The regulation that concerns transnational subsidies, 19 CFR 351.527, establishes a rule that transnational subsidies provided for a project are not countervailable, except for subsidies provided to international consortia and upstream subsidies. This regulation shows that the Department intends to address transnational input subsidies through an upstream subsidy analysis.[65]
- The fact that cross-ownership is not mentioned in the transnational subsidies regulation is compelling evidence that the cross-ownership regulation is not excluded from the general rule against countervailing transnational subsidies. Therefore, the Department cannot countervail transnational subsidies via the cross-ownership regulation.[66]
- Section 351.525(b)(7) of the Department's regulations is the only portion of this regulatory provision that provides for the attribution of subsidies across borders. Therefore, because the Department did not discuss attributing subsidies across borders

[60] *See* Bombardier's Case Brief at 54.
[61] *Id*. at 55 (citing 133 Cong. Rec. S8715 (daily ed. June 25, 1987) (statement of Sen. Adams).
[62] *Id*. at 55-56.
[63] *Id*. at 56.
[64] *Id*. at 58 (citing *Preliminary Results of Countervailing Duty Administrative Review: Low Enriched Uranium from Germany, the Netherlands and the United Kingdom*, 70 FR 10986, 10989 at FN 2 and *LEU Final Determination* at 24331).
[65] *Id*. at 64 (citing *CVD Preamble* at 65400).
[66] *Id*.

with respect to the cross-ownership regulations, this shows that the cross-ownership regulations does not apply to subsidies across borders.[67]

- This interpretation of the cross-ownership regulation is confirmed by the *CVD Preamble*, which does not discuss transnational subsidies in relation to cross-ownership. Rather, the *CVD Preamble* only discusses countervailing transnational subsides through an upstream subsidy analysis. The *CVD Preamble* discussion of the upstream subsidy regulation confirms that this provision can only be applied transnationally when an international consortium is present.[68]
- While an examination of upstream subsidies is the proper basis to use the transnational subsidy provision, the petitioner failed to allege an upstream subsidy in this investigation. Thus, because the Department never initiated an upstream subsidy investigation, it lacks the necessary information for such an examination here.[69]

Petitioner's Rebuttal Brief

- The Department properly applied the international consortium provision of section 701(d) of the Act. In fact, the C Series presents the exact situation that the legislative history indicates that this section of the Act is intended to address.[70]
- Bombardier's production model for the C Series is similar to Airbus' production model, which motivated Congress to create section 701(d) of the Act. Airbus spread its production across Germany, France, the U.K., and Spain and handled final assembly in either Germany or France. Similarly, Bombardier has spread its production of the C Series across different geographical locations, with final assembly in Canada. Another similarity between Airbus and Bombardier is that, for both companies, individual governments provided launch aid to entities located in each respective country to support aircraft production activities.[71]
- Shorts and Bombardier's parent-subsidiary relationship meets the definition of an international consortium because the companies have a clear, legally-defined relationship and are engaged in a common project.[72]
- Press releases issued by Bombardier demonstrate that Bombardier coordinated with Shorts and the GOC, GOQ, and U.K. to obtain financing for the development of the C Series.[73]
- The contention that either section 701(d) of the Act or the legislative history requires a formal agreement among the governments providing subsidies is incorrect. *LEU*, where the

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[67] *Id*. at 65. Bombardier's Case Brief acknowledged that 19 CFR 351.525(b)(7) provides for the attribution of subsidies across borders, but states that this provision applies when the Department can attribute subsidies of a multinational company to multinational production where the company that received the subsidy has production facilities in more than one country and the subsidy was tied to more than domestic production, circumstances which are different from the present case. *See* Bombardier's Case Brief at 65, FN 214.

[68] *Id*.

[69] *Id*. at 67.

[70] *See* Petitioner's Rebuttal Brief at 81 (citing *Preliminary Determination* at 18).

[71] *Id*. at 81-82 (citing Petition at 99-100).

[72] *Id*. at 82 (citing U.K.'s July 25, 2017 Initial Questionnaire Response (U.K. July 25, 2017 IQR) at Exhibit RLI-5, RLI-2).

[73] *See* the Petitioner's Rebuttal Brief at 83-84 (citing Letter from the petitioner, "In the Matter of 100- to 150-Seat Large Civil Aircraft from Canada – Petitions for the Imposition of Antidumping and Countervailing Duties" (April 27, 2017) (the Petition) at Exhibit 16 (Press Release, Bombardier, "Bombardier Announces Location of Final Assembly Site and Work Package for the C Series" (May 13, 2005)); and the Petition at Exhibit 20 (Press Release, Bombardier, "Bombardier Launches C Series Aircraft Program" (July 13, 2008)).

Department stated that Congress intended "a broad application" of the international consortium provision, demonstrates that Congress enacted section 701(d) of the Act out of a concern with multi-country subsidies.[74] The fact that the launch aid was provided by different governments at the same time, and for the same purpose, is sufficient evidence to apply the international consortium provision.[75]

- The U.K.'s allegation that the Department may only countervail subsidies provided to Shorts if the petitioner has first alleged an upstream subsidy in accordance with section 701(e) of the Act is also incorrect. The plain language of the first clause of section 701(d) of the Act suggests that Congress had the opposite of what the U.K. proposes in mind when drafting this section. While Congress enacted the upstream subsidy provision in 1984, it did not draft the international consortium provision until 1988. Therefore, if Congress had intended that the international consortium provision be used after the upstream subsidy provision, it would have simply added it as a sub-clause to section 701(d) of the Act instead of as a standalone provision.[76] As explained in the *CVD Preamble*, while the Department interprets section 701(d) of the Act to include situations involving upstream subsidies, the international consortium provision is not limited solely to such situations.[77]
- The U.K. incorrectly characterizes the EU's subsidization of Airbus regarding the application of section 701(d) of the Act. The only evidence for the U.K.'s argument that the United States understood Airbus existing as the result of a formal process with coordinated governmental support is a WTO dispute settlement panel's report, not statements by Congress when it enacted this provision of the Act in 1988.[78] Because the WTO did not exist in 1988, its descriptions are not relevant to interpreting Congressional intent.
- The U.K.'s argument that section 701(d) of the Act only applies where there are formal agreements among governments is also bereft of evidentiary support other than the WTO dispute settlement panel's description of the agreements. Furthermore, assuming *arguendo* that Congress was aware of the agreements concerning certain Airbus airplanes when it enacted section 701(d) of the Act in 1988, then one must also assume that Congress was aware that similar agreements were not in place for other Airbus planes that were launched before 701(d) was enacted.[79]
- The U.K.'s interpretation of section 701(d) of the Act as it relates to *LEU* is also misguided. Although the U.K. discusses the facts of *LEU* at length, it does not cite anything in the text of the statute itself to support the argument that section 701(d) of the Act requires formal, coordinated support from the participating governments. This is because Congress enacted section 701(d) of the Act because it was concerned with "vertically-integrated international organizations benefitting from subsidies bestowed at different stages of production," not formal and cooperative support between governments.[80]

[74] *Id*. at 85 (citing *LEU Final Determination* and accompanying IDM at Comment 2).
[75] *Id*. at 85-86.
[76] *Id*. at 88, FN 391 (citing 19 USC §§ 1671(d), (e); 1677-1).
[77] *Id*. at 88 (citing *CVD Preamble*, 63 FR at 65,390, 65,405).
[78] *Id*. at 88-89.
[79] *Id*. at 90 (citing *Large Civil Aircraft* at para. 7.290).
[80] *Id*. at 91 (citing *LEU Final Determination* and accompanying IDM at Comment 2).

Department's Position:

We continue find that it is appropriate to apply the international consortium provision of section 701(d) of the Act to this investigation. Section 701(d) of the Act provides the following:

> (d) Treatment of International Consortia. For purposes of this subtitle, if the members (or other participating entities) of an international consortium that is engaged in the production of subject merchandise receive countervailable subsidies from their respective home countries to assist, permit, or otherwise enable their participation in that consortium through production or manufacturing operations in their respective home countries, then the administering authority shall cumulate all such countervailable subsidies, as well as countervailable subsidies provided directly to the international consortium, in determining any countervailing duty upon such merchandise.

In the *Preliminary Determination,* we examined this provision of the Act and determined the following:

> The legislative history indicates that this section of the Act is intended to address precisely the type of situation presented by this program. Specifically, the "international consortium" language was added in response to Airbus Industrie's subsidies from various European Union member nations to manufacture sections of the aircraft in their home countries before final assembly. The legislative history further provides that the Department "administer the provision by collapsing its subsidy analysis so that the consortium members would be treated as one company for purposes of determining the level of multi-country subsidization attributable to the final product manufactured and exported by the consortium and its members."
>
> We preliminarily find that Bombardier's situation is similar. Shorts, as Bombardier's wholly-owned subsidiary, is the same company and should be treated as one company for purposes of the Department's analysis of multi-country subsidization of subject merchandise. Bombardier was formally involved in obtaining the U.K. launch aid, acting as Shorts' guarantor. The law defines an international consortium as consisting of "members" and "other participating entities," which may encompass a broad set of relationships, including among them, as in this case, a clearly defined legal relationship in which the companies in question have common ownership and a common project in the C Series.[81]

For the final determination, we continue to find that it is appropriate to apply the international consortium provision to Bombardier and Shorts' joint production of the C Series.

We disagree that the finding of an international consortium requires a formal agreement between the cooperating governments. The U.K. and Bombardier argue that, because there is no such formal agreement between the GOC, GOQ, and the U.K., the Department may not apply section

[81] *See Preliminary Determination*, and accompanying PDM at 18 (citations omitted).

701(d) of the Act. As support for this contention, the U.K. and Bombardier point to the examples of Airbus and *LEU*, noting that both cases involved a formal agreement between cooperating governments. However, the statute imposes no such requirement. Section 701(d) of the Act requires only that member or participating entities of an international consortium "receive countervailable subsidies from their respective home countries." Furthermore, the conference report explaining this amendment to the CVD statute references only Congress' concern that "U.S. manufacturers are increasingly confronting unfair competition from international consortia receiving subsidies from multiple foreign governments."[82]

Bombardier and the U.K. attempt to rely on a single statement from the *Congressional Record*, in which a co-sponsor of the international consortium amendment, Senator Adams, refers to the problem of foreign governments that "seek to cooperatively provide subsidized assistance to international production and marketing ventures."[83] However, a requirement of "cooperative" government assistance is conspicuously absent from the statute, and neither does the conference report mention this concept. That Congress was aware of Airbus' legal structure but did not limit the international consortium provision by including any such requirements indicates an intent that the provision have a broader application. Indeed, the Department addressed this issue in *LEU*, noting that:

> While it is true that the legislative history uses the example of Airbus and its cascading subsidies, the provision is not limited to those facts. Indeed, the legislative history goes on to discuss the concerns and intent of Congress. The legislative history makes clear that Congress intended a broad application of this provision to situations "in which foreign governments provide subsidized assistance for participation in international marketing ventures both within and beyond traditional customs union frameworks."[84]

It is clear that in this case the GOC, GOQ, and the U.K. provided "subsidized assistance" to Bombardier and Shorts for the C Series.[85] We agree with the petitioner that Bombardier's production model for the C Series is similar, in all respects relevant under the statute, to that employed by Airbus, which similarly located production and final assembly of its planes across multiple countries. Moreover, for both Bombardier and Airbus, individual governments have provided launch aid to entities located in each respective country to support aircraft production activities. Therefore, the fact that there is no formal agreement between the GOC, GOQ, and the U.K. does not preclude our application of the international consortium provision here. Although such a formal agreement was present in *LEU*, nothing in *LEU* suggested that the Department considered the international consortium provision to be limited to the circumstances of that case.

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[82] Omnibus Trade and Competitiveness Act of 1988, H.R. Rep. No. 100-576, pt. B, at 589 (1988) (Conf. Rep.).

[83] 133 Cong. Rec. 17525 (June 25, 1987).

[84] *See LEU Final Determination* and accompanying IDM at Comment 2.

[85] In addition, there is evidence on the record regarding the interrelationship of the subsidies provided by the GOC and GOQ, however, that information is business proprietary information (BPI) and we cannot discuss it here. *See* GOQ's July 24, 2017 Initial Questionnaire Response (GOQ July 24, 2017 IQR) at Exhibit QC-IQLA-2 at 9-10; GOC's July 24, 2017 Initial Questionnaire Response (GOC July 24, 2017 IQR) at Exhibit GOC-CSERIES-4 at 3-4; and GOQ's July 24, 2017 IQR at Exhibit QC-IQLA-2 at 1.

Rather, the Department rejected the respondents' argument that section 701(d) of the Act addressed *only* the international production activities of vertically integrated companies that receive cascading subsidies, such as the subsidies at issue here.[86]

We also disagree that we cannot apply the international consortium provision in this case because Bombardier and Shorts have not formed a separate legal entity. As an initial matter, we note that Shorts is wholly-owned subsidiary of Bombardier; thus, the companies already have a clear legal relationship.[87] Therefore, the "international consortium" consists of the Canadian parent company and its U.K. subsidiary to produce the C Series, which, because the two companies were already vertically integrated, did not require the creation of a new legal entity. Examining section 701(d) of the Act, we again find that Congress intended the provision to be interpreted broadly. Rather than limit the identity of a "consortium" to joint ventures and potentially induce companies to utilize legal relationships outside of the scope of the provision, section 701(d) of the Act refers to a "consortium" as consisting of "members" and "other participating entities" "engaged in the production of subject merchandise."

Moreover, record evidence demonstrates that the two companies are acting in concert to produce subject merchandise, in particular. Shorts competed against other companies to receive the contract to produce the C Series' wing, and Shorts produces wings and other aerostructures for companies other than Bombardier.[88] Bombardier's and Shorts' joint C Series project is consistent with the U.K.'s argument that a consortium is a "group of companies formed to promote a common objective or engage in a project of benefit to all the members."[89] At the same time, Shorts is not merely a "subcontractor," as the U.K. suggests, because, unlike other suppliers of components of the C Series, Bombardier owns Shorts, assisted Shorts in securing U.K. subsidies, and acted as its guarantor for its receipt of the RLI. At verification, U.K. officials noted that: 1) the success of the C Series wing required the success of the C Series project;[90] and 2) "Bombardier was involved in demonstrating the viability of the program overall, because the launch aid relied upon the sales of the aircraft, not the sales of the wings."[91] Similarly, Shorts' officials "stated that Bombardier was involved in the review process for the {U.K.} RLI application even before Shorts was selected to provide the C Series wing," and Bombardier was a joint signatory to the U.K. RLI.[92] In any event, there is nothing in the text of the statute or the legislative history of the Act that requires the existence of an independent legal entity in order for the Department to countervail subsidies that are provided to distinct members or participating entities of an international consortium.[93]

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[86] *See LEU Final Determination* and accompanying IDM at 25.
[87] We disagree that it is Shorts' status as a subcontractor that permits our application of the international consortium provision in this case. As noted above, Shorts is Bombardier's wholly-owned subsidiary, as well as the producer of the wings used for the C Series. It is this combination of factors that makes the application of the international consortium provision permissible in this case.
[88] *See* Bombardier's September 5, 2017 Supplemental Questionnaire Response (Bombardier September 5, 2017 SQR) at 5; *see also* Shorts Verification Report at 4.
[89] *See* U.K.'s Case Brief at 20 (citing Dictionary of Finance and Investment Terms (2010)).
[90] *See* U.K. Verification Report at 5.
[91] *Id*.
[92] *See* Shorts Verification Report at 6.
[93] *See* section 701(d) of the Act.

The GOC and U.K. also argue that this case is distinguishable from *LEU* because, in *LEU*, the relevant governments specifically intended that its subsidies support the consortium. However, there is no factual distinction between the two cases on this point, as the U.K. subsidies relate directly to the joint Bombardier-Shorts C Series project, and not merely Shorts' production of C Series wings in Northern Ireland. The wings that Shorts produces are designed specifically for the C Series and are not interchangeable with other aircraft. With respect to the RLI, its repayment is based on C Series aircraft sales, rather than sales of wings.[94] INI's Selective Financial Assistance grant was interdependent with the RLI and included many similar terms, but was designed to fund capital costs of Shorts' work for the C Series not covered by the RLI.[95] These U.K. subsidies secured Shorts' place as part of the consortium and thereby ensured that a portion of the C Series' production occurred in Northern Ireland. Therefore, we find that the U.K. subsidies served "to assist, permit, or otherwise enable" Shorts' participation in the consortium "through production or manufacturing operations" in the U.K.[96]

Furthermore, we disagree that the Department may only countervail subsidies provided to Shorts if the petitioner makes an upstream subsidy allegation pursuant to section 701(e) of the Act. The U.K. does not cite any statutory provision in support of this contention and neither the international consortium provision of section 701(d) of the Act, nor the upstream subsidy provision of section 701(e) of the Act, imposes such a requirement. In fact, the language of section 701(d) of the Act, as well as the legislative history (which does not refer to section 701(e) of the Act), makes clear that it applies "for purposes of this subtitle," not only for purposes of section 701(e) of the Act. Furthermore, we note that the upstream subsidy provision predates the international consortium provision of the Act, which demonstrates that, had Congress intended that the international consortium provision be used in conjunction with the upstream subsidy provision, it would have clearly linked the two provisions, instead of placing the international consortium provision separately.[97] Finally, as the *CVD Preamble* makes clear, the upstream subsidy provision applies when the companies at issue are mere affiliates.[98] When the companies at issue meet the higher standard of cross-ownership, then the cross-ownership rules apply.

Similarly, the argument that the Department's regulation concerning transnational subsidies prevents the Department from using the cross-ownership provision to reach subsidies provided to Shorts is incorrect. Shorts is not only a cross-owned affiliate of Bombardier, but also a member of an international consortium with Bombardier for the production of the C Series. The language of 19 CFR 351.527 is expressly inapplicable to subsidies provided to international consortia. Thus, the transnational subsidies regulation does not prohibit our examination of the subsidies provided to Shorts related to the C Series.[99]

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[94] *See* U.K. Verification Report at 5. *See also* U.K. July 25, 2017 IQR at Exhibit RLI-2 (RLI Agreement and amendments) at Schedule 1, paragraph 13 ("Securing of Whole Project Financing") (providing evidence summarized at pages 4-5 of the proprietary version of the U.K. Verification Report that the RLI was linked to the C Series aircraft).
[95] *See* U.K. Verification Report at 4; and Shorts Verification Report at 6-7, 13.
[96] *See* section 701(d) of the Act.
[97] *Id*. at 88, FN 391.
[98] *See CVD Preamble*, 63 FR at 65390.
[99] *See* 19 CFR 351.523, 351.527.

Finally, we determine that it is appropriate in this case to countervail only those subsidies which, in the language of the Act, were provided to Shorts "to assist, permit, or otherwise enable {Short's} participation in {the} consortium through production or manufacturing operations" in the United Kingdom. As a result, we did not include the following grant programs in the calculation of the final subsidy rate for Bombardier because they do not have a direct relationship to the consortium's production of subject merchandise: Skills Growth, Apprenticeships, Resource Efficiency, and Innovate UK and Aerospace Technology Institute (ATI) grants. *See* Comment 19 for further discussion. We also included in our subsidy calculations only the U.K. R&D tax credits that, based upon Shorts' submissions to the U.K. Government, reflected R&D for the C Series[100] and attributed them to sales of the C Series. *See* Comment 18 for further discussion.

Creditworthiness

Comment 7: Creditworthiness of Bombardier, Shorts, and the C Series Program

Bombardier's and GOC's Case Brief

- In the *Preliminary Determination*, the Department conducted a project-specific analysis of the C Series program and found it to be uncreditworthy. Therefore, the Department calculated uncreditworthy interest rates for the launch aid programs, the *Investissement Québec* equity infusion, and for the *Emploi-Québec* allocated grants using the formula specified in 19 CFR 351.505(a)(3)(iii).
- The Department's regulations and practice provide that the Department only investigates creditworthiness when the petitioner has made a specific allegation and provided a reasonable basis to believe that the respondent was uncreditworthy.[101] Although, in the *Preliminary Determination,* the Department claimed[102] that the petitioner alleged Bombardier to be uncreditworthy, the petitioner made no such allegation and the Department never initiated an investigation of the uncreditworthiness issue. Therefore, the Department acted contrary to its regulations and practice in undertaking a creditworthiness investigation; consequently, the Department should decline to make any finding regarding creditworthiness for the final determination.
- Bombardier and the C Series program were creditworthy in 2009. The GOC, GOQ, and U.K. carefully considered the business case for the C Series program when making their decisions to provide the repayable advances. The Department's regulations direct the

[100] *See* Shorts Verification Report at 9.

[101] *See* Bombardier's Case Brief at 33 and the GOC's Case Brief at 7 (citing 19 CFR 351.505(a)(6)(i)); *Certain Crystalline Silicon Photovoltaic Products from the People's Republic of China: Final Affirmative Countervailing Duty Determination*, 79 FR 76962 (December 23, 2014) (*Solar Cells II from the PRC*), and accompanying IDM at Comment 17; *Lightweight Thermal Paper from the People's Republic of China: Final Affirmative Countervailing Duty Determination*, 73 FR 57323 (*LWTP from PRC CVD Final*); *Changzhou Trina Solar Energy Co., Ltd. v. United States*, Slip Op. 17-122, 2017 WL 4125008, F. Supp. 3d (CIT, September 8, 2017) (*Changzhou Trina Solar*); *Allegheny Ludlum Corp. v. United States*, 25 CIT 816, 827 (CIT 2001) (*Allegheny Ludlum 2001*); and *CVD Preamble*, 63 FR at 65368).

[102] *See* Bombardier's Case Brief at 33-34 (citing *Preliminary Determination*, and accompanying PDM at 8).

Department to analyze the loan recipient's ability to repay the loan at issue.[103] Bombardier and Shorts had more than sufficient liquidity to cover the additional debt provided by the GOC, GOQ, and U.K. Further, the GOC and U.K. had experience with Bombardier and Shorts, respectively, obtaining launch aid financing and repaying it; the GOQ relied upon the GOC's analysis to assess the likelihood of Bombardier's repayment. Thus, given Bombardier and Shorts' demonstrated ability to repay, the Department should not find them uncreditworthy in this investigation.

- Analyses by the credit rating agencies (*i.e.*, Moody's, Fitch, and Standard & Poor's) indicate that Bombardier was creditworthy in 2009, especially with respect to the C Series program.[104] These positive assessments by the credit rating agencies of Bombardier's ability to finance the C Series program were further affirmed by KPMG's analysis of the project, undertaken by the U.K. as it considered whether to provide funds through its RLI program (also referred to in this investigation as U.K. Launch Aid).
- Bombardier's BB credit rating suggests a far lower probability of default than that for CCC rated firms, even though the Department considered the CCC default rate in determining Bombardier's risk premium. Thus, in determining whether Bombardier was creditworthy, the Department significantly exaggerated Bombardier's risk of default and relied upon a risk measure not supported by the evidence on the record.

Bombardier's Case Brief

- "While the {financial} ratios for Bombardier that the Department considered were not ideal" (*see* Attachment 7a of the Preliminary Calculation Memorandum), these ratios are "mitigated by the positions of the credit rating agencies…, which made it clear that Bombardier had sufficient liquidity to cover its existing debt and to meet the needs of the C Series program."[105] Thus, the Department's conclusion in the *Preliminary Determination* that Bombardier's quick ratios and current ratios in the relevant years indicated that it could not cover 100 percent of its upcoming obligations is proven wrong by Bombardier's liquidity information—a position which was confirmed by all three credit rating agencies. Moreover, Bombardier's interest coverage ratio, at 3.42 percent for the year ended January 2009, demonstrates that Bombardier was well-positioned with respect to its ability to pay its existing interest obligations.[106]
- Under its practice, the Department considers the existence of long-term debt when evaluating creditworthiness; in this case, there was none issued in the relevant years. However, had Bombardier chosen to issue debt during this period, Bombardier's credit rating indicates that it would have been able to borrow at rates applicable to a BB-rated company, rather than at rates applicable to a CCC-rated company.[107]

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[103] *See* Bombardier's Case Brief at 36 and the GOC's Case Brief at 8-9 (citing 19 CFR 351.505(a)(4)(i) and *Archer Daniel Midland Co. v. United States*, 917 F. Supp. 2d 1331, 1346 (CIT 2013) (*ADM*)).

[104] *See* Bombardier's Case Brief at 39-41 (citing rating reports from Moody's, Standard & Poor's, and Fitch in Bombardier September 5, 2017 SQR at Exhibits 7B, 7C, and 7D, respectively).

[105] *Id.* at 43.

[106] *Id.* at 43. Bombardier also notes that the Department incorrectly calculated its debt-to-equity ratio for the year ended January 2009 as 2.41; based on the company's financial statements, the correct debt-to-equity ratio is 1.55.

[107] *Id.* at 44. Bombardier also asserts that the Department exaggerates the European Commission's report on the U.K. launch aid, arguing that the report does not state that Bombardier and Shorts were "unable" to obtain financing from commercial banks (citing U.K.'s September 5, 2017 Supplemental Questionnaire Response (U.K. September 5,

- The Department also considers the financial health of a company as part of its creditworthiness analysis; in this case, the financial indicators demonstrate that Bombardier had more than adequate liquidity and the credit rating agencies were uniformly positive on Bombardier's trends, in general, and the C Series program, in particular. As such, the evidence indicates that Bombardier and the C Series program were creditworthy when the GOC, GOQ, and U.K. made their decisions to provide repayable advances.
- Bombardier and the C Series program were creditworthy in 2016, as well as in 2015, the key year for determining the creditworthiness for the IQ equity investment. Specifically, in 2015, Bombardier implemented a strategic financial plan to ensure that its resources remained adequate and to improve its credit rating. Bombardier developed a three-part strategy to: 1) issue equity (raising $868 million U.S. dollars through a public share offering in February 2015); 2) raise new long-term debt capital (issuing $2.25 billion U.S. dollars in new debt in the form of senior notes in March of 2015); and 3) reduce debt by selling off a portion of its transportation business (entering into a definitive agreement with CDPQ for a $1.5 billion U.S. investment in the transportation business). These actions substantially improved Bombardier's overall financial picture and demonstrated that Bombardier was able to attract investment and generate liquidity. Therefore, Bombardier should be considered creditworthy at the time of the investment by IQ.
- The Department's preliminary decision to determine the creditworthiness of the C Series, as opposed to Bombardier as a whole, is not consistent with how large corporations raise funds in the marketplace. Accordingly, there is no basis for the Department's assertion in the *Preliminary Determination* that Bombardier's unrelated bonds are not dispositive as to the C Series program's creditworthiness.[108]
- Further, the Department incorporated corporate bond rates into its calculation of the uncreditworthy risk premium. If the difference in likelihood of default between investment grade and CCC/C grade corporate bonds is relevant to the Department's calculation of how much risk is incurred in loaning to an uncreditworthy company, then the issuance of corporate bonds at a higher credit rating (in Bombardier's case, BB) must be relevant to the Department's consideration that the firm is not uncreditworthy.
- Not only were Bombardier and the C Series program creditworthy, but also Shorts was individually creditworthy. Shorts was profitable in all three years prior to the RLI. Moreover, if the Department were to conduct a creditworthiness analysis of Shorts, it would find the relevant financial ratios indicate its creditworthy status in 2009.[109] Shorts had more than adequate liquidity to cover its debts.

U.K.'s Case Brief

- At the time the U.K. was considering the RLI for Shorts, Bombardier's financing structure consisted of a mixture of long-term corporate bonds and credit facilities. In fact, Bombardier's bonds were trading at 400 basis points over U.S. government benchmark bonds at the time, equating to a yield in line with Bloomberg's generic BB spread for U.S. industrial corporations. This is dispositive evidence of Bombardier's creditworthiness.[110]

2017 SQR) at Exhibit 3, European Commission, State Aid N 654/2008 – United Kingdom, Large R&D Aid to Bombardier (June 17, 2009)).

[108] *Id.* at 46-47 (citing PDM at 9).

[109] *Id.* at 47 and Attachment A.

[110] *See* U.K.'s Case Brief at 38 (citing 19 CFR 351.505(a)(2)(i) and (a)(4)(iii)).

Specifically, Bombardier's corporate bonds are comparable to the RLI in that: 1) the interest rates were fixed; 2) the debt instruments were both long-term; and 3) both were denominated in British pounds. While Bombardier did not issue new debt in 2008 or 2009, relying on this fact would be inconsistent with 19 CFR 351.505(a)(4)(i) and with commercial logic, as Bombardier's debt was being traded in the secondary market. Moreover, the reason that Bombardier was not issuing new debt at the time is because it was pursuing a deliberate strategy of lowering its corporate debt to increase its credit rating.[111]

- Bombardier was financially healthy and able to meet its fixed financial obligations with its cash flow. The Department did not take certain key financial indicators into account which are mentioned in the KPMG report and evince significant positive improvements in Bombardier's financial viability, including increased profitability, increased order backlog, improved cash flow, and significant customer prepayments.[112]
- While it is true that Bombardier's credit rating was lower than its peers and "speculative grade," this is not indicative of an uncreditworthy company and does not mean that Bombardier could not get a commercial loan. In fact, speculative grade companies routinely receive commercial loans in the high yield market. A speculative grade rating simply means that investors expect a higher yield than for investment grade debt and certain institutions with very conservative investing restrictions, such as pension funds, may not be allowed to purchase the debt. Moreover, the evidence suggested that Bombardier's credit rating was likely to be upgraded in the near future. In January 2008, Fitch upgraded Bombardier to BB from BB-, bringing it in line with Standard and Poor and Moody's, both of which continued to keep Bombardier on positive watch.
- By choosing to treat Bombardier as "uncreditworthy," the Department is assessing Bombardier as being virtually certain to default, which is not reflective of its actual BB rating.
- In 2009, when the RLI agreement was executed, Bombardier's current and quick financial ratios were just below the Department's benchmarks. Further, Bombardier had a revolving credit facility which it did not use; this is an indication the company had sufficient short-term liquidity to meet its obligations. Further, it is the Department's usual practice to look not only at the absolute value of these ratios, but also the trend of the ratios.[113] Data from Infinancials suggest that, for the transportation industry as a whole, there is a requirement for a substantial level of debt and that the industry average ratios are well below the Department's benchmarks.[114] Thus, for the transportation industry, it does not make sense to apply the Department's one-size-fits-all benchmark. Otherwise, the Department may determine that all transportation and aerospace companies are uncreditworthy.
- The Department's regulations indicate that it will consider market studies and other evidence of a firm's future financial position.[115] The KPMG report, which was prepared

[111] *Id.* at 39 (citing U.K. July 25, 2017 IQR at Exhibit RLI-6, KPMG Report at 69).
[112] *Id.* at 40 (citing U.K. July 25, 2017 IQR at Exhibit RLI-6, KPMG Report at 20-23).
[113] *Id.* at 43 (citing *Certain Frozen Warmwater Shrimp from Indonesia: Negative Preliminary Countervailing Duty Determination*, 78 FR 33349 (June 4, 2013) (*Shrimp from Indonesia*), and accompanying PDM at 12).
[114] *Id.* at 43 (citing Preliminary Calculation Memorandum at Attachment 7a).
[115] *Id.* at 44 (citing 19 CFR 351.505(a)(4)(i)).

prior to the agreement, constitutes such evidence, projecting free cash flow growth and increases in earnings before interest and tax (EBIT).[116]

- Despite the Department's statement that it was conducting a project-specific analysis of creditworthiness focused on the C Series project, its analysis focused almost exclusively on the creditworthiness of Bombardier. First, the Department's conclusion that the C Series did not receive any commercial loans ignores record evidence that industry participants found the project to be creditworthy at the time of the RLI; additionally, a private entity was willing to loan Bombardier assets for the production of the C Series.[117] Second, with respect to the Department's statement that the European Commission found that Bombardier and Shorts were unable to obtain loans or other commercial financing for the C Series, the U.K. asserts that the European Commission's findings were not as broad as the Department suggests. The European Commission focused on whether Bombardier could have obtained project financing or used debt financing for the remaining portion of the C Series funding that was not already obtained from other sources, including financing already obtained from private lenders.[118] The European Commission did indicate that Bombardier likely would not be able to obtain project financing and that debt financing was not a reasonable option; however, in concluding that Bombardier could not rely on debt financing, the European Commission pointed only to Bombardier's credit rating. As noted above, such a rating does not mean that a company cannot obtaining financing; rather, it simply means that any financing obtained will have a higher yield. According to the KPMG report, the cost of debt to Bombardier at the time was below the interest rate agreed with the U.K.; thus, it was not the cost of the debt for Bombardier that prevented its use of debt financing, but rather that Bombardier was attempting to reduce its debt load to improve its credit rating.[119]
- The Department does not cite any evidence for its assumption regarding the financial health of the C Series project relative to the financial health of Bombardier; thus, this unsupported assumption does not meet the legal standard for "substantial evidence." Moreover, as explained above, Bombardier was in good and improving financial health. Therefore, its financial position cannot be used to cast doubt on the creditworthiness of the C Series project. Consequently, the Department's limited analysis of the creditworthiness of the C Series project is not dispositive and a thorough examination of the evidence demonstrates that the project was, in fact, creditworthy.
- From the perspective of the U.K., the risk of the investment was substantially reduced through various protections in the RLI agreement negotiated with Shorts, which provide only a single scenario under which the U.K. will not receive full repayment. Thus, because of the structure of the RLI, there were no project-specific risks that could prevent repayment.
- The facts of the instant case do not warrant a project-specific creditworthiness analysis. The *Preamble* has three distinct prongs which must be satisfied for the Department to conclude that it is appropriate to make a project-specific, rather than company-wide, analysis of creditworthiness.[120] Contrary to the prongs established in the *CVD Preamble*, the U.K.

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[116] *Id.* at 40 (citing U.K. July 25, 2017 IQR at Exhibit RLI-6, KPMG Report at 25).
[117] *Id.* at 46 (citing U.K. July 25, 2017 IQR at Exhibit RLI-6, KPMG Report at 58-59).
[118] *Id.* at 46 (citing U.K. September 5, 2017 SQR) at Exhibit 3, European Commission, State Aid N 654/2008 – United Kingdom, Large R&D Aid to Bombardier (June 17, 2009) at paragraphs 122, 125-126).
[119] *Id.* at 46-47 (citing U.K. July 25, 2017 IQR at Exhibit RLI-6, KPMG Report at 59).
[120] *Id.* at 49 (citing *CVD Preamble,* 63 FR at 65366-67).

contends that: 1) the financing for the C Series was not provided on the basis of project financing, but was provided to Shorts corporately; 2) the RLI loan was not linked solely to the success of the C Series project; and 3) the Department did not cite any evidence that the risk of the C Series project was higher or lower than the average of the company's existing operations. Thus, because the facts in this case do not meet the standard for conducting a project-specific analysis, the Department should focus its creditworthiness analysis on Bombardier.[121]

Petitioner's Rebuttal Brief

- Bombardier is mistaken that the petitioner did not make a specific allegation about the creditworthiness of the C Series. The petitioner specifically alleged that the C Series project was uncreditworthy and supported the allegation with substantial record evidence.[122] Additionally, the cases Bombardier cites in support of its position are inapposite; for example, in *Solar Cells II from the PRC*, the Department declined to assess the respondent's creditworthiness, because the petitioners had merely referred to a prior investigation, instead of providing requisite evidence.[123]
- The Department properly focused its creditworthiness analysis on the C Series project.[124] Section 351.505(a)(4)(i) of the Department's regulations provides that the Department "will determine uncreditworthiness on a case-by-case basis, and may, in appropriate circumstances, focus its creditworthiness analysis on the project being financed rather than the company as a whole." Looking solely at the creditworthiness of Bombardier as a whole would be inappropriate because the risk associated with the C Series was much higher than the average risk of Bombardier's existing operations, as demonstrated by record evidence.[125] Nonetheless, the Department also properly took into account Bombardier's own financial indicators because, at the time of the launch aid in 2009, the C Series was a newly-developed project with no track record of financial performance.

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[121] *Id.* at 55 (citing *Stainless Steel Sheet and Strip in Coils from France*, 64 FR 30774 (June 8, 1999) (*SSSSC from France*), where the Department did not perform a project-specific creditworthiness analysis, even though a loan was given for development of a new type of steel, and repayment was solely contingent upon sales of the product resulting from the project exceeding a set amount).

[122] *See* Petitioner's Rebuttal Brief at 53-54 (citing the Petition at 8-9, 63-64, 96, and Exhibit 14; and Petitioner's Pre-Prelim Comments at 18-29).

[123] *Id.* at 54 (citing *Coated Free Sheet Paper from the People's Republic of China: Amended Preliminary Affirmative Countervailing Duty Determination*, 72 FR 17484, 17490 (April 8, 2007) (*CFS Paper from the PRC*), where the Department rejected respondent's objection to a preliminary determination of uncreditworthiness because there was adequate time to consider the allegation and petitioners had submitted financial ratios for the companies and pointed to other evidence on the record).

[124] *Id.* at 54-55 (citing *CVD Preamble*, 63 FR at 65366-67).

[125] *Id.* at 55 and 58 (citing Petitioner's September 6, 2017 Pre-Prelim Comments at 9-11; Gompers Report at paragraphs 87-92; Nickelsburg Report at paragraphs 99-10; and U.K. September 5, 2017 SQR at Exhibit 3, "European Commission, State Aid N 654/2008 – United Kingdom Large R&D Aid to Bombardier" (June 17, 2009) (EC State Aid Report) at paragraphs 113-119).

- The U.K. cites no legal authority for its assertion that the Department has a "three-prong" "standard" to determine when it will apply a project-specific analysis.[126] Moreover, the evidence on the record contradicts the U.K.'s analysis of the three factors it identified.[127]
- Record evidence demonstrates that Bombardier failed to obtain any commercial long-term loans for the C Series, let alone loans on terms comparable to the launch aid. Specifically, GOC and European Commission evaluations concluded that if launch aid had not been available to Bombardier, the product would have been delayed, compromised, or abandoned.[128]
- Bombardier's financial indicators demonstrate it was virtually insolvent from 2005 to 2009; Bombardier's current ratio was never above 2 and its quick ratio was never above 1; both benchmarks were used by the Department in *Solar Cells I from the PRC* where the Department stated that "either the respondents have liquid funds to cover upcoming obligations or they do not."[129] Therefore, Bombardier fails the Department's critical test with regard to these ratios.
- In addition to poor liquidity ratios, Bombardier's solvency and capital structure were poor in the years in question, which limited its ability to borrow and repay funds. In particular, Bombardier had high debt-to-equity ratios, over 2.0 in every year except 2008. As the Department explained in *Solar Cells I from the PRC*, "the risk of being repaid increases with these expanding debt levels and lenders would accordingly demand a premium for lending."[130]
- Additionally, Bombardier had low interest coverage ratios, less than 2.5 in every year except 2009, indicating it was barely able to cover its interest payments at the time the GOC committed to provide launch aid. Bombardier's poor financial health is confirmed by its abysmal credit rating, always below investment grade and in the range of marginally speculative (*i.e.,* Ba2 for Moody's and BB for Standard and Poor's). Further, contemporary evidence casts serious doubt on Bombardier's future financial prospects. Bombardier's 2009 Annual Report (covering the fiscal year from February 1, 2008, through January 31, 2009) predicted that "{i}n the near future, the current recession should… negatively impact {Bombardier Aerospace's} revenues, EBIT margin and free cash flow, and delay the achievement of our global leverage metric targets," further supporting a finding that the C Series project was uncreditworthy in 2009, in accordance with the factors in 19 CFR 351.505(a)(4).[131]
- Bombardier's arguments that both it, and the C Series project, were creditworthy and had sufficient liquidity in 2009 rely largely on pre-financial crisis data that predate the provision

[126] *Id.* at 56 (citing U.K.'s Case Brief at 49).
[127] *Id.* at 56-58 (citing U.K. July 25, 2017 IQR at Exhibit RLI-2 at 26-31; Nickelsburg Report at paragraphs 99-10; and EC State Aid Report at paragraphs 113-119).
[128] *Id.* at 59 (citing GOC July 24, 2017 IQR at Exhibits GOC-CSERIES-3 and GOC-CSERIES-4; Petition Exhibit 21 at 13; U.K. July 25, 2017 IQR at Exhibit RLI-5; EC State Aid Report, paragraph 170; and U.K. September 5, 2017 SQR at Exhibit 3).
[129] *Id.* at 60 (citing *Crystalline Silicon Photovoltaic Cells, Whether or Not Assembled Into Modules, from the People's Republic of China: Final Affirmative Countervailing Duty Determination and Final Affirmative Critical Circumstances Determination*, 77 FR 63799 (October 17, 2012) (*Solar Cells I from the PRC*) and accompanying IDM at 56).
[130] *Id.* at 60-61 (citing *Solar Cells I from the PRC* and accompanying IDM at 58).
[131] *Id*. at 61-62 (citing Bombardier September 5, 2017 SQR at Exhibit 6B (Bombardier 2009 Annual Report) at 38).

of launch aid. What Bombardier and the U.K. attempt to obscure is that, halfway through 2008, the global financial crisis froze credit worldwide. The GOC, GOQ, and U.K. committed to provide launch aid to the C Series project in 2009, at a time when no commercial lender was willing to provide funding. The European Commission's state aid decision states that, in 2009, Bombardier's credit rating was "lowest among its peers" and that debt financing "was not a credible solution" for Bombardier.[132]

- The Department's definition of uncreditworthiness is a firm or project that "could not have obtained long-term loans from conventional commercial sources;" thus, the C Series project clearly meets this standard.[133] The "informed industry participants" referenced by the U.K. do not meet the Department's standard of "*conventional commercial sources*," as they do not operate as commercial lenders.[134] Furthermore, there is no record evidence of any financing agreements to support the U.K.'s contentions, nor is there any basis for the Department to find this type of financing analogous to the cash payments of launch aid made by the GOC, GOQ, and U.K. or to standard commercial lending.
- Counter to the KPMG report cited by the U.K. are the Canadian government evaluation and the European Commission state aid decision. Specifically, Innovation, Science and Economic Development (ISED) Canada, Audit and Evaluation Branch concluded that, without government funding the C Series would have been delayed, design compromises would have been made, and the viability of the development of the aircraft would have been jeopardized.[135] Likewise, the European Commission stated that, "without public funding of this project {Bombardier} would have had to abandon it."[136] Thus, the GOC and U.K. both believed that no commercial lender would have provided loans for the C Series under any terms. Consequently, the Department should affirm its preliminary finding that the C Series project was uncreditworthy in 2009.
- The C Series project was not creditworthy in 2015-2016 and Bombardier was in a tailspin in the years leading up to the 2016 equity infusions. Bombardier's issuance of equity has no bearing on whether Bombardier could have obtained long-term loans from conventional commercial sources.[137] Additionally, Bombardier's raising of long-term debt capital in 2015 was not tied to any particular assets or security related to the C Series project. Finally, Bombardier's sale of a stake in its transportation business does not constitute evidence that either Bombardier, or the C Series, were creditworthy.
- In the months preceding *Investissement Québec's* equity commitment, the C Series program was on the brink of failure and threatening to bring down Bombardier. Although the program was still years away from production at normal levels, Bombardier had burned through the program's original USD $3.2 billion budget, and needed an additional USD $2 billion to get the program to production.[138] Bombardier had garnered only 243 orders for the aircraft—well short of its program target of 300—and 108 of those orders faced a

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[132] *Id.* at 63-64 (citing EC State Aid Report at paragraphs 126-127).
[133] *Id.* at 64 (citing 19 CFR 351.505(a)(4)(i)).
[134] *Id.* at 64-65 (citing U.K.'s Case Brief at 45 and 51).
[135] *Id.* at 67 (citing Petition Exhibit 21, ISED report titled "Evaluation of the Bombardier CSeries Program" (September 2013) (ISED C Series Evaluation), at 13).
[136] *Id.* at 67 (citing EC State Aid Report at paragraph 170).
[137] *Id.* at 68 (citing the Department's practice in *Solar Cells I from the PRC* and accompanying IDM at 57).
[138] *Id.* at 69 (citing Petition Exhibit 15, Kristine Owram, *How Bombardier's CSeries dream got its wings clipped*, National Post (December 12, 2015)).

significant risk of delay or cancellation—and customer confidence was low.[139] Further, the lack of any new orders during the period September 2014 through October 2015 was an indicator of the market's lack of faith that the program was technically and financially viable.[140] Thus, in the fall of 2015, Bombardier was in desperate need of a deep-pocketed investor to fund C Series development; Bombardier first turned to commercial investors, asking Airbus to invest in the C Series program. The two companies held talks, and Bombardier offered Airbus a stake in the program, but Airbus terminated negotiations in early October 2015. Following termination of negotiations, Credit Suisse issued a research note suggesting that the failure of the Airbus negotiations was the clearest affirmation "of the dire position of the {C Series} program."[141]

- Other evidence of the C Series program's poor financial prospects at the time of the 2015-2016 equity infusions includes the following:
    - According to Bombardier's CEO, the company was on the brink of bankruptcy at the time.[142]
    - Bombardier announced the *Investissement Québec* equity infusion on the same day it announced its third-quarter 2015 financial results, which included a loss of nearly USD $5 billion.[143] Bombardier wrote off USD $3.235 billion in investments in the C Series program; in 2014 Bombardier took a charge of USD $1.357 billion in conjunction with shutting down the Lear 85 program.[144]
    - Bombardier's investment ratings in the time period prior to *Investissement Québec's* commitment were extremely poor. According to Bombardier's 2015 annual report, Bombardier's credit rating was five notches below investment grade,[145] and all three major rating companies rated Bombardier as "non-investment grade: speculative" in 2014, the most recent fiscal year-end prior to the new equity commitments.
    - As Bombardier ramped up production of the C Series, it faced several years of large negative cash flows, and observers predicted it would need further infusion of funds.[146]
- Bombardier's "highly speculative" credit rating in 2015 was even worse than in 2009, when it also could not obtain commercial loans. Accordingly, the Department should affirm its preliminary finding that the C Series project was uncreditworthy in 2015-2016.

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[139] *Id*.
[140] *Id*.
[141] *Id*. at 70 (citing Petition at Exhibit 30, Robert Spingarn *et al*., *Credit Suisse, Bombardier Inc.(SVS): Comment* (October 7, 2015)).
[142] *Id*. at 70 (citing Petition at Exhibit 25, Bertrand Marotte, *Bombardier was on 'brink of bankruptcy,' CEO says*, Globe and Mail (November 12, 2016)).
[143] *Id*. at 70 (citing Petition Exhibit 62, Press Release, Bombardier, "Bombardier Announces Financial Results for the Third Quarter Ended September 30, 2015; Government of Québec Partners with Bombardier for $1 billion in C Series as Certification Nears" (October 29, 2015)).
[144] *Id*. at 71 (citing Petition at Exhibit 111, Bombardier Financial Report 2015, at 21).
[145] *Id*. at 70 (citing Petition at Exhibit 111, Bombardier Financial Report 2015, at 31).
[146] *Id*. at 71 (citing Petition at Exhibit 112, Kristine Owram, *Bombardier Inc. may run out of cash by mid-2016: Scotiabank*, Financial Post (October 5, 2015); and Petition at Exhibit 113, Ross Marowits, *Bombardier may need more public funding after Quebec bailout: analysts*, The Canadian Press (November 2, 2015)).

Department's Position:

We continue to find that the C Series program was uncreditworthy using a project-specific analysis, pursuant to 19 CFR 351.505(a)(4), and continue to calculate uncreditworthy interest rates based on the particular terms and disbursement dates of the various programs, pursuant to 19 CFR 351.505(a)(3)(iii).

As an initial matter, we note that the petitioner did allege that the C Series program was uncreditworthy, supporting its allegation with information establishing a reasonable basis to believe or suspect that the firm (or project) was uncreditworthy, pursuant to 19 CFR 351.505(a)(6)(i).[147] Neither the Department's regulations, nor the *CVD Preamble,* requires that the Department separately initiate a creditworthiness investigation, and the Department has performed creditworthiness analyses in other cases without such a formal initiation.[148] Thus, we find that the Department properly analyzed the creditworthiness of the C Series program as part of the *Preliminary Determination*. As a result, the cases Bombardier and the GOC cite in support of their arguments that the Department inappropriately examined the creditworthiness of the C Series program in this investigation are inapposite.[149]

As explained in the *Preliminary Determination*, when making a creditworthiness determination in accordance with 19 CFR 351.505(a)(4)(i), the Department may examine, among other factors, the following four types of information: (1) the receipt by the firm of comparable commercial long-term loans; (2) present and past indicators of the firm's financial health; (3) present and past indicators of the firm's ability to meet its costs and fixed financial obligations with its cash flow; and (4) evidence of the firm's future financial position.[150] Based upon our analysis of these factors, we preliminarily determined that Bombardier's C Series program was uncreditworthy, including during the following relevant periods: 1) the time when the launch aid was provided in 2009; 2) the periods in which the equity infusions were provided; and 3) the periods in which Bombardier received non-recurring grants tied to the C Series which were allocable.[151]

Bombardier and the GOC argue that, because both Bombardier and Shorts had sufficient liquidity to cover the additional debt of the launch aid, the Department should not find them to be

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[147] *See* the Petition at 8-9, 63-64, 96, and Exhibit 14; Petitioner's August 28, 2017 NFI Submission, at Exhibit 1 (Infinancials financial ratios for Bombardier); and Petitioner's Pre-Prelim Comments at 18-29, 35-39, 49-53, and Exhibit 1.

[148] *See, e.g., Countervailing Duty Investigation of Certain Corrosion-Resistant Steel Products from the Republic of Korea: Preliminary Affirmative Determination*, 80 FR 68842 (November 6, 2015), unchanged in *Final Affirmative Determination of Countervailing Duty Investigation, and Final Affirmative Critical Circumstances Determination, in Part*, 81 FR 35310 (June 2, 2016).

[149] Specifically, Bombardier and the GOC cite *Solar Cells II from the PRC*, *LWTP from PRC CVD Final*, *Changzhou Trina Solar*, *Allegheny Ludlum 2001*, cases where the Department declined to assess the respondent's creditworthiness because the petitioner did not properly allege and/or provide support for its allegation. In fact, the situation in the instant investigation mirrors that of *CFS Paper from the PRC*, where the Department rejected respondent's objection to its preliminary determination of uncreditworthiness when there was adequate time to consider the allegation and the petitioners submitted financial ratios and pointed to other evidence on the record supporting it.

[150] *See* PDM at 8.

[151] *Id*. at 9.

uncreditworthy.[152] However, as explained above, the Department undertook a *project* creditworthiness analysis of the C Series program.[153] This type of analysis is explicitly contemplated by the *CVD Preamble* in the case of large projects which may not have been able to otherwise garner commercial funding:

> Another commenter argued that the Department should not limit itself to examining the creditworthiness of firms as a whole, but should also give itself the flexibility to examine the creditworthiness of individual projects. This commenter argued that some foreign manufacturers, though creditworthy *per se*, are able to carry out new development projects only because they obtain government financing. The commenter argued that these manufacturers would not have been able to secure financing from commercial sources for their huge development projects because these projects are not commercially viable and would be impossible to finance without government subsidies. The commenter noted that, under the Department's traditional approach, the Department would analyze the creditworthiness of the company as a whole, not the creditworthiness of the specific project. Hence, the Department would be likely to find the foreign manufacturer creditworthy, regardless of the commercial viability of the project. The commenter argued that, in this type of situation, the Department should focus on the creditworthiness of the project, not the firm. We share this commenter's concern and have amended the 1997 Proposed Regulations to allow for a project specific analysis in determining creditworthiness. For example, for loans that are provided to fund a large investment project into new products, processes, or capacity (*e.g.*, a plant expansion or new model or product line, where repayment of a loan is contingent upon the success of the particular project being funded), our traditional analysis focusing primarily on the creditworthiness of the company as a whole may be inappropriate because the risk associated with a new project may be much higher or lower than the average risk of the company's existing operations. In these situations, we would expect commercial lenders to place

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[152] Bombardier also argues that the Department should separately analyze the creditworthiness of Shorts. However, we have not done so here because, as discussed further below, we analyzed the creditworthiness of the C Series program, not that of Bombardier and Shorts as a whole.

[153] The U.K. also cites to *SSSSC from France*, and argues that the C Series program does not meet the standards set forth in the *CVD Preamble* to conduct a project specific analysis. We disagree on all counts. The C Series meets each prong of the test identified by the U.K. Specifically, the launch aid financing was provided for development of the C Series; repayment was tied to sales of C Series aircraft; and there was significant risk surrounding the C Series project. The C Series was a complex and highly sophisticated product with high capital needs and significant technical and marketing challenges (*i.e.*, winning customers for a brand-new jet in an aircraft segment that Bombardier did not have experience in). The EC State Aid Report, issued in 2009, clearly states that "{f}inancial partners (potential and existent) recognize the risk involved in the project, which are further reinforced by the fact that Bombardier has secured a limited amount of sales of the CSeries aircrafts." *See* EC State Aid Report at paragraph 123. By the end of 2015, Bombardier had garnered only 243 orders for the aircraft-well short of its program target of 300—and 108 of those orders faced a significant risk of delay or cancellation—and customer confidence was low. *See* Petition Exhibit 15, Kristine Owram, *How Bombardier's CSeries dream got its wings clipped*, National Post (December 12, 2015). Further, Moody's July 2009 analysis for Bombardier considered the "CSeries development costly, with prospects uncertain," highlighting the significant development and financial risks involved with the undertaking. *See* Bombardier Verification Report at Verification Exhibit 6, page 4 of Moody's July 2009 Corporate Finance Report on Bombardier.

> greater emphasis on the expected return and risk of the project because the success or failure of the project would be the most important indicator of the borrowing firm's ability to repay the loan. This is not to say that the financial position of the firm as a whole would be irrelevant to the lender's decision, only that the primary focus would be on the project itself. Therefore, paragraph (a)(4) now allows for the possibility of focusing the creditworthiness analysis on the project being financed rather than the company as a whole.[154]

We continue to find this guidance from the *CVD Preamble* to be directly applicable to this case, in which Bombardier sought the financing at issue specifically for a large investment project into a new product line, and repayment of the financing was contingent upon the success of that product line. Accordingly, the primary focus of our creditworthiness analysis continues to be the C Series project.

The record demonstrates that Bombardier/Shorts did not obtain any commercial financing (*e.g.*, bank loans or issuances of debt) specifically for the C Series;[155] thus, the companies received no commercial financing comparable to the launch aid. Moreover, as noted in the *Preliminary Determination*, Bombardier and Shorts did not have any long-term commercial loans at all during the AUL.[156] Bombardier and the U.K. argue that Bombardier's commercial bonds and available credit facilities should be taken into account as evidence of Bombardier's creditworthiness. We disagree on two counts. First, as discussed above, we are making a project-specific creditworthiness assessment for of the C Series, not a company-specific assessment for Bombardier's creditworthiness. Unlike the launch aid, the bonds and credit facilities were backed by Bombardier's entire corporate operations and were not specifically tied to the performance of the C Series; additionally, Bombardier's bonds were senior to both the launch aid debt and to equity.[157] Second, the bonds and credit facilities held by Bombardier are not comparable to long-term commercial loans, as contemplated by 19 CFR 351.505(a)(4)(i)(A). The credit facility is a short-term revolving borrowing facility, so it does not constitute a long-term loan. Additionally, while Bombardier's bonds are issued on the market and traded, they are not structured in a manner comparable to the launch aid, and they are not tied to the success of the C Series.

The record also demonstrates that Bombardier, as a whole, was in a very weak financial situation for the duration of the C Series program. Therefore, in the absence of financial ratios for the C Series program itself, the Department examined Bombardier's financial ratios. Bombardier itself acknowledges that its financial ratio ratios "were not ideal."[158] In fact, when

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[154] *See CVD Preamble*, 63 FR at 65366-67.
[155] *See* EC State Aid Report at paragraph 132 ("financing the new project through debt financing was not really a possible option for the company faced with a sub-investment rating grade").
[156] *See* PDM at 9.
[157] *See* U.K. Verification Report at 8 ("U.K. officials stated that, in the case of a default or bankruptcy filing by Bombardier/Shorts, secured creditors rank first, followed by unsecured creditors (including the U.K.'s RLI), while equity holders rank last.").
[158] *See* Bombardier's Case Brief at 43. The U.K. also acknowledges that "Bombardier's credit rating was lower than its peers and was 'speculative grade.'" *See* U.K.'s Case Brief at 41. This fact is also echoed in the EC State Aid Report at paragraph 126 ("its credit rating remains the lowest among its peers").

compared with similar companies and the financial ratios which the Department has used as benchmarks in its creditworthiness analysis in past cases, Bombardier's financial ratios alone indicate that it is a company struggling to maintain liquidity.[159] Bombardier claims that, based on the positions of the rating agencies, the Department was incorrect to conclude in the *Preliminary Determination* that Bombardier's quick ratios and current ratios indicated it could not cover 100 percent of its obligations.[160] We disagree that the Department's interpretation of Bombardier's financial ratios was incorrect. The Department has, in many other cases, relied on a benchmark of 1.0 for quick ratios and 2.0 for current ratios to indicate financial health.[161] Financial ratios below those levels are indicative of potential liquidity issues.[162]

Furthermore, we disagree with Bombardier's claims that the credit rating agency's assessments of the company were positive. To the contrary, Bombardier's credit rating from all three rating agencies over the AUL period never exceeded non-investment grade, marginally speculative ratings of Ba2 (Moody's) or BB+ (Standard & Poor's and Fitch). In 2009, Moody's acknowledged the risks involved with the C Series and Bombardier's constrained cash position, which was partially attributed to the C Series development.[163] In 2015-2016, at the time of the *Investissement Québec* equity infusion, Bombardier's credit rating tumbled to the highly speculative level of B2 (Moody's) or B- (Standard & Poor's).[164]

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[159] *See* PDM at 9-10, discussing the Infinancial ratios and citing *Solar Cells I from the PRC*. In *Solar Cells I from the PRC*, the Department noted that the benchmark for a quick ratio is 1.0, or funds available to cover 100 percent of upcoming obligations, and a current ratio of 2.0. We calculated quick ratios for Bombardier below 1.0 for the entire AUL, with only two instances (for the years ending January 31, 2009, and January 31, 2010) where Bombardier's quick ratio was above 0.70. Similarly, Bombardier's current ratio only rose above 1.50 during the same two years noted above and was near 1.0 for much of the AUL. In *Solar Cells I from the PRC*, the Department also considered a debt-to-equity ratio above 1.0 to be "high." Bombardier's debt-to-equity ratio was consistently high or very high during the AUL, dipping to a low of 1.10 in 2010 and 1.84 in 2007-2008, but remaining above 2.0 throughout the remainder of the AUL. *See also* Final Calculation Memorandum at Attachment 7a and Petitioner August 28, 2017 New Factual Information at Exhibit 1 (Infinancials data for Bombardier and "peer" companies covering the AUL period). Based on the Infinancials data, compared to the average ratios for its peers covering the AUL, Bombardier's current ratio, quick ratio, interest coverage ratio, and funded capital ratio were all significantly lower than average, with Bombardier's highest ratios during the AUL never reaching the lowest average ratios during the AUL.

[160] *See Preliminary Determination* at 10.

[161] *See e.g.*, *Shrimp from Indonesia*, and accompanying PDM at "Central Proteinaprima's Creditworthiness;" *Sugar from Mexico: Final Affirmative Countervailing Duty Determination,* 80 FR 57337 (September 23, 2015) at Issue 2; and *Certain Crystalline Silicon Photovoltaic Products from the People's Republic of China: Final Results of Countervailing Duty Administrative Review, and Partial Rescission of Countervailing Duty Administrative Review; 2014-2015,* 82 FR 42792 (September 12, 2017) at "D. Creditworthiness."

[162] Additionally, we note that Bombardier had negative free cash flow usage in the year ending January 2010 and in the years ending December 2011 through December 2016. *See* Final Calculation Memorandum at Attachment 7a.

[163] *See* Verification Exhibit 6 at pages 4-5 of Moody's July 2009 Corporate Finance Report on Bombardier ("Bombardier's cash flows and cash position are critical elements to its rating given that the company lacks committed bank operating lines for funded borrowing purposes. The recent reduction in balance sheet cash and potential for further cash erosion were factors that contributed to us lowering the company's liquidity rating to SGL-3 (adequate) from SGL-2 (good) on July 2, 2009.").

[164] *See* Final Calculation Memorandum at Attachment 7a; *see also* Bombardier September 5, 2017 SQR at Exhibit 7A.

In the *Preliminary Determination,* we found that Bombardier's financial ratios did not meet the standard for creditworthiness and also served as a "conservative proxy for the likely worse financial ratios of the C Series project."[165] This conclusion is supported by contemporary record evidence which indicated that, in 2015: 1) Bombardier was on the brink of bankruptcy, due, in part, to losses, delays, and budget overruns on the C Series program;[166] and 2) Bombardier wrote-off USD $3.235 billion in investments in the C Series program.[167] Earlier in the program development, the C Series was no less risky an undertaking. For example, in its June 2009 report on state aid, the European Commission concluded that "it is clear from the documents produced that Bombardier, without public funding of this project would have had to abandon it."[168]

Therefore, consistent with the *Preliminary Determination* and as described further above, we continue to find the C Series program to be uncreditworthy during 2009 (when the launch aid and INI SFA grant for the C Series were provided); 2010 and 2012 (when the *Emploi-Québec* grants were provided); and 2015-2016 (when the *Investissement Québec* equity investment was made).[169] As a result, we have continued to calculate uncreditworthy benchmark interest rates for Bombardier during these time periods, in accordance with 19 CFR 351.505(a)(3)(iii).

We also disagree that the Department should take Bombardier's actual credit rating (Ba2 – B2 range) grade into account, rather than apply the Caa to C-rated category specified in 19 CFR 351.505(a)(3)(iii) for firms which are found to be uncreditworthy. As explained above, the Department performed a project-specific creditworthiness analysis of the C Series program and determined that it was not creditworthy. Thus, Bombardier's actual credit rating does not control because the Department is calculating an uncreditworthy interest rate for programs tied to the C Series. Although, under the guidance provided by the *CVD Preamble*, Bombardier's financial condition is not irrelevant, we find that its substantial weakness, as summarized above, makes it unlikely that Bombardier could have obtained long-term loans from conventional commercial sources for the extraordinarily risky C Series project.

Finally, we disagree that the analysis in the KPMG report is dispositive as to either: 1) the financial health of Bombardier and the C Series; or 2) the ability of Bombardier to obtain financing for the C Series program. The U.K. notes the existence of a private entity willing to lend Bombardier assets for production of the C Series, as well as other funding sources that Bombardier had already obtained for the C Series.[170] However, these sources of funding are not

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[165] *See* PDM at 10. Bombardier does not prepare project-specific financial reports or ratios and CSALP did not come into existence until concurrent with the equity infusion; hence, there are no C Series-specific financial statements to analyze.

[166] *See* Petition at Exhibit 25 ("Bombardier was on 'brink of bankruptcy,' CEO says," Globe and Mail, November 12, 2016).

[167] *See* Petition at Exhibit 111, Bombardier Financial Report 2015, at 21.

[168] *See* U.K. September 5, 2017 SQR at Exhibit 3 (EC State Aid Report, at paragraph 170).

[169] *Id*. at 9-10.

[170] *See* U.K.'s Case Brief at 46, citing U.K. July 25, 2017 IQR at Exhibit RLI-6, KPMG Report at 58-59 and EC State Aid Report at paragraphs 122, 125-126. To the contrary, the EC State Aid Report indicates that Shorts was unable to obtain any commercial funding for the C Series and that it was further constrained as a subsidiary of Bombardier. The European Commission stated that "{d}ebt financing option was not a credible solution" and that even Shorts' proposals for sale and lease-back of property "have drawn little interest from financial institutions"

the same as "comparable commercial long-term loans," as contemplated by 19 CFR 351.505(a)(4)(i)(A), and, in fact, the U.K.'s comments in this regard are misleading. None of the funding Bombardier obtained for the C Series was, as far as the record demonstrates, provided by commercial lenders who are in the business of providing financing to companies or projects. Additionally, the positive developments cited in the KPMG report are not tied to the C Series and do not outweigh Bombardier's substandard credit ratings or the lack of commercial lending for the C Series.[171] Thus, the information contained in the KPMG report does not support finding that the C Series program is creditworthy.

Finally, Bombardier and the GOC cite *ADM*, where the Department analyzed the creditworthiness of a Chinese company and found it to be uncreditworthy. We find that *ADM* is consistent with our finding that the C Series program is uncreditworthy. In *ADM*, the CIT upheld the Department's uncreditworthiness finding, which was based upon a similar level of detailed analysis as in the instant case. In *ADM*, the CIT stated that "19 CFR 351.505(a)(4)(i)… grants to Commerce the authority to make that determination, and to make it on 'a cases-by-case basis,' guided by, 'among other factors,' the considerations articulated in 19 CFR 351.505(a)(4)(i)(A)-(D)."[172] Although the CIT in *ADM* paraphrased the inquiry under 19 CFR 351.505(a)(4)(i) as an inquiry into the loan recipient's ability to repay the loan, it took this paraphrasing from the petitioner's brief in that case and not from the regulation. In any event, the CIT actually examined and affirmed the Department's finding in that case based on the multiple factors and the standard in the regulation. In the instant case, we also have analyzed multiple factors regarding the C Series program under the Department's regulations; as explained above, the record evidence supports a finding of uncreditworthiness for the C Series program.

Launch Aid

Comment 8: Whether the U.K. Launch Aid Provides a Market Rate of Return

U.K.'s Case Brief

- In the *Preliminary Determination*, the Department treated RLI from the U.K. as an interest free contingent liability loan under 19 CFR 351.505(d). While the Department was correct to conclude that RLI was a loan, rather than a grant,[173] the RLI is not interest free. Under the terms of the RLI, although Bombardier/Shorts is not currently due to repay principal and interest, interest is accruing nonetheless. In contrast, in all but one case where the Department applied 19 CFR 351.505(d), no interest was accruing.[174] Further,

(*i.e.*, even for tangible property assets, there was little appetite on the part of lenders and institutions to work with Bombardier or Shorts on the C Series program). *See* EC State Aid Report at paragraphs 123-132.

[171] *See* U.K.'s Case Brief at 4, citing U.K. July 25, 2017 IQR at Exhibit RLI-6, KPMG Report at 20-23.

[172] *See ADM v. U.S.*, 917 F. Supp. 2d 1331, at 1346.

[173] *See* U.K.'s Case Brief at 34 (citing *Final Affirmative Countervailing Duty Determination: Certain Steel Flat Products from Austria*, 58 FR 37217 (July 9, 1993) (*Steel Flat Products from Austria*), and accompanying IDM at Comment 13; *Cut-to-Length Carbon Steel Plate from Belgium; Final Results of Countervailing Duty Administrative Review*, 64 FR 12982, 12985 (March 16, 1999) (*CTL Plate from Belgium*)).

[174] *Id.* at 34-35 (citing *Welded Line Pipe from Korea: Final Negative Countervailing Duty Determination*, 80 FR 61365 (October 13, 2015), and accompanying IDM at 8 (*WLP from Korea*); *SSSSC from France,* 64 FR at 30778;

Bombardier/Shorts is on track to make its first interest payment. Thus, the initial repayment deferral during the POI does not constitute a benefit.

- As explained on the record of this investigation, commercial lenders readily provide royalty-based financing where interest payments are not initially required until a certain level of sales is reached.[175]
- Additionally, although repayment of the RLI may occur based on aircraft deliveries, it is not contingent solely on sales of the C Series.

European Commission's Case Brief

- The RLI cannot be considered an interest-free loan. The RLI takes the form of a loan repayable to the U.K. via a levy linked to future aircraft deliveries. Like a market lender, the U.K. requires repayment of principal and interest such that the government is properly compensated for the risks involved. The Department's focus should be on the market rate of return that a commercial investor would have demanded over the term of the loan, not on denying the commercial basis of the entire transaction. Thus, the RLI financial instrument is subject to repayment at a market rate of return which potentially removes, or at least minimizes, any element of subsidy.

Petitioner's Rebuttal Brief

- The U.K. has failed to demonstrate that royalty-based financing would have been readily available to Bombardier/Shorts from commercial lenders on terms comparable to launch aid.[176] To the contrary, evidence on the record demonstrates that no commercial lenders were willing to provide financing for the C Series project.[177] Further, there is no evidence on the record that commercial lenders provided royalty-based financing on terms comparable to launch aid.[178]
- Additionally, the U.K. failed to provide any evidence in support of its assertions that the RLI is not contingent solely upon sales of the C Series; rather, the record evidence shows that repayments are dependent entirely on deliveries of the C Series aircraft.
- The U.K.'s reliance on *CTL Plate from France* is misplaced. In that case, the Department found that: 1) a reimbursable advance was a contingent liability loan because repayment was contingent on the success of the project; but 2) also found that the loan did not confer a benefit during the POI because it had been disbursed during the POI and the first interest payment on a comparable commercial loan would not have been due until after the POI.[179] In this case, Bombardier first received launch aid seven years prior to the POI (in 2009). Accordingly, the Department properly found that launch aid constitutes a contingent liability, interest-free loan, and calculated the benefit as the amount of interest foregone during the POI.

CTL Plate from Belgium, 64 FR at 12985; and *Final Affirmative Countervailing Duty Determination: Certain Cut-to-Length Carbon-Quality Steel Plate from France*, 64 FR 73277 (December 29, 1999) (*CTL Plate from France*)).

[175] *Id.* at 35-36 (citing U.K.'s August 25, 2017 NFI Submission at Exhibit 2).

[176] *See* Petitioner's Rebuttal Brief at 49 (citing U.K.'s Case Brief at 35-36).

[177] *Id.* at 49-50 (citing EC State Aid Report at paragraphs 109, 127, 131, 142, 143, and 170).

[178] *Id.* at 50-51. The petitioner explains that the governments lack certain recourse actions under the launch aid contracts and provides proprietary examples of failures on the U.K.'s part to make the case that commercial lenders offer royalty-based financing on similar terms.

[179] *Id.* at 52 (citing *CTL Plate from France*, 64 FR at 73284).

Department's Position:

For the final determination, we continue to treat RLI from the U.K. as an interest-free contingent liability loan under 19 CFR 351.505(d). As the U.K. acknowledges, while the U.K. agreed to provide the RLI to Shorts in April 2009 and began disbursements thereafter, Bombardier/Shorts did not make payments of any interest, or principal, on the RLI during the POI because the contingency for payments did not occur.[180] We disagree with the U.K. and European Commission that, just because interest was theoretically accruing on the RLI during the POI, the Department should not consider RLI to be an interest-free loan. Further, as the Department observed at verification: 1) Bombardier/Shorts tracks the liability with accrued interest;[181] and 2) the RLI repayment is tied to future aircraft deliveries.[182] Thus, while Bombardier/Shorts may in the future make repayments to the U.K., during the POI the loan was an interest-free contingent liability and it should be treated as such, consistent with 19 CFR 351.505(d)(1).

There is no record evidence which indicates that similar launch aid, with similar payment deferral terms and at similar rates of return, was available to Bombardier from commercial lenders at the time the U.K. agreed to provide the RLI. Moreover, there is no record evidence regarding any other commercial (or comparable) financing available during this time frame for the C Series.[183] To the contrary, record evidence indicates that Bombardier/Shorts was unable to garner any commercial loans for the C Series project.[184]

Regarding the cases cited by the U.K., it cites *WLP from Korea* and *SSSSC from France* as examples of cases where interest was not accruing on a contingent liability and the Department treated the liability as an interest-free loan, under 19 CFR 351.505(d)(1). However, this is not the fact pattern at issue in this investigation, where the interest that Shorts ultimately owes the U.K. on the RLI is accruing. Further, the U.K. points to: 1) *CTL Plate from France* as a case where the Department included interest in its benefit calculations because the respondent would have been required to pay interest on a comparable commercial loan; and 2) *CTL Plate from Belgium* as the sole exception where interest was accruing but the Department treated the loan as a contingent liability interest-free loan, because it was not a normal commercial practice to defer interest payments for five years. We disagree that *CTL Plate from France* is on point, given that the respondent in that case was required to repay principal and interest in the year following disbursement of the loan; thus, the loan at issue in that case was not interest free and operated in a typical commercial manner, when compared with other commercial loans in that country and at

[180] *See* U.K.'s Case Brief at 34 and U.K. Verification Report at 3-8.
[181] *See* Shorts Verification Report at 7.
[182] *See* European Commission's Case Brief at 2. *See also* Shorts Verification Report at 8 and U.K. Verification Report at 7.
[183] Although the U.K. points to certain other financing agreements for the C Series mentioned in the KPMG report commissioned by the U.K., there is nothing on the record regarding the terms of these agreements. In any event, nothing on the record indicates that these agreements operated in a manner similar to RLI.
[184] The EC State Aid Report makes clear that Bombardier was unable to obtain financing from commercial sources for the C Series and required government funding. *See* EC State Aid Report at paragraphs 109, 127, 131, 142, 143, and 170. Additionally, ISED Canada's, Audit and Evaluation Branch concluded that, without government funding the C Series would have been delayed, design compromises would have been made, and the viability of the development of the aircraft would have been jeopardized. *See* ISED C Series Evaluation at 13.

that time. Finally, we find that *CTL Plate from Belgium* supports the Department's treatment of the RLI as an interest-free contingent liability in this investigation, as the loan in that case was a similarly structured investment with a delayed repayment schedule.

Comment 9: Analyzing the U.K. Launch Aid Separately from the GOC and GOQ Launch Aid

Bombardier's Case Brief

- The RLI provided by the U.K. is a separate alleged subsidy provided to a different party, and should be analyzed entirely separately from the launch aid provided by the GOC and GOQ. The record evidence demonstrates that the U.K. RLI was a separately negotiated agreement with terms independent from those of the launch aid provided by the GOC and GOQ. Further, RLI repayment is structured differently than the GOC and GOQ repayment obligations.

The petitioner did not comment on this issue.

Department's Position:

In the *Preliminary Determination*, the Department analyzed the three launch aid programs provided by the GOC, GOQ, and U.K. separately, and conducted separate benefit calculations for each program.[185] We calculated an *ad valorem* subsidy rate for each program based upon the amounts disbursed (*i.e.*, the outstanding balance), the agreement date, and the currency of the launch aid provided. We found that each of the launch aid programs was an interest free, contingent liability under 19 CFR 351.505(d)(1), and we derived the uncreditworthy interest rate used in our calculations based on the formula outlined in 19 CFR 351.505(a)(3)(iii).

For this final determination, we continue to examine each program separately and calculate separate and distinct benefits, based upon each government's launch aid program, using an uncreditworthy interest rate, as discussed in Comment 7, above. Nonetheless, we note that, although the each of the launch aid programs is different, the technology development under all three programs was for Bombardier to bring the C Series aircraft to market. Moreover, repayment under all three programs is tied to sales and deliveries of the C Series aircraft on a royalty basis, per aircraft delivered.

Finally, based upon our findings at verification, we modified our calculations for the U.K. launch aid to include accrued interest as part of the outstanding balance.[186] For further discussion, *see* Comment 13, below.

Comment 10: The Appropriate Denominator for the GOC Launch Aid

GOC's Case Brief

- The Department calculates an *ad valorem* subsidy rate by dividing the amount of any measured benefit by the sales value of the product or products to which it attributes the

[185] *See* PDM at 15-20 and Preliminary Calculation Memorandum at Attachments 4, 5, and 6.
[186] *See* U.K. Verification Report at 8.

subsidy. In the case of domestic subsidies, the Department will attribute the subsidies to all products sold by a firm. Only where a subsidy is tied to the production or sale of a particular product will the Department attribute that subsidy to that product.[187] The Department makes tying decisions based on the stated purpose of the subsidy at the time of bestowal and does not trace the use of subsidies through a company's books to inform its tying decision.[188] Accordingly, the Department erred in the denominator it used to calculate a portion of the benefit provided by the GOC's launch aid.

- Specifically, the GOC initiated the Bombardier C Series Program (BCP) in September 2008 to provide repayable contributions to Bombardier for the development of new commercial aircraft technologies under two distinct tranches: 1) generic technologies, including advanced materials, technologies and manufacturing processes, which are applicable to a variety of aircraft platforms and other commercial applications; and 2) technologies specific to the Bombardier C Series aircraft. The GOC established separate projects and funding streams, based on distinct contribution agreements.
- The Generic Technologies Contribution Agreement demonstrates that the funds provided under this agreement were intended to develop technology and production much broader than C Series aircraft.[189] The Department confirmed the separate contribution agreements at verification. Therefore, it would be contrary to Department practice to allocate the generic technology portion of the GOC's launch aid over the sales of the C Series aircraft. Instead, the generic technology contribution should be allocated over Bombardier's total aerospace sales.

Petitioner's Rebuttal Brief

- The evidence on the record demonstrates that the Generic Technologies program is tied to the C Series project. The GOC provided launch aid to Bombardier through two projects, the Generic Technologies project and the C Series Technology project, that it administered under a single program, the Bombardier C Series Program (BCP). BCP provided a total of C$350 million to Bombardier under this program, the repayment of which is tied solely to sales of C Series aircraft. Because the programs were linked at inception, and repayment is tied solely to deliveries of the C Series, the Department should continue to tie the benefits from the Generic Technologies project to C Series sales.
- The Generic Technologies program was created to benefit development and production of the C Series, notwithstanding its titular reference to "generic technolog{y}." The *CVD Preamble* makes clear that the Department analyzes tying claims with an appropriate level of skepticism.[190] The Department should not allow Canada to circumvent CVD law simply by funneling some of the launch aid subsidies through a so-called "generic" program.

[187] *See* GOC's Case Brief at 12-13 (citing 19 CFR 351.525(a), (b)(3), and (b)(5)(i)).
[188] *Id.* at 13 (citing *CVD Preamble,* 63 FR at 65403).
[189] *See* GOC's Case Brief at 14 (citing GOC July 24, 2017 IQR at Volume IV, Exhibit GOC-CSERIES-3, Generic Technologies Contribution Agreement).
[190] *Id*. at 73 (citing *CVD Preamble*, 63 FR at 65400, "{W}e are extremely sensitive to potential circumvention of the countervailing duty law. We intend to examine all tying claims closely to ensure that the attribution rules are not manipulated to reduce countervailing duties.").

Department's Position:

We continue to attribute the full amount of the GOC launch aid, including both generic technologies and technologies specific to the C Series, to sales of the C Series by Bombardier/CSALP in the final determination. We disagree with the GOC that we should use two different denominators for the two different portions of the GOC launch aid. Verification at both the GOC and Bombardier demonstrated that Bombardier initially approached the GOC regarding its funding needs for the C Series in 2005.[191] Bombardier then put the C Series project on hold, but once again approached the GOC in 2008 regarding funding for the C Series, receiving a commitment the same year for the GOC launch aid. Bombardier finalized the launch aid agreements with the GOC in 2009 and immediately began receiving funds under the launch aid program. In order to administer the launch aid agreements, the GOC created a new program under ISED called the Bombardier CSeries Program, or "BCP." The BCP program consisted of two portions: one related to generic technologies for the C Series that may have broader applications; and one related to technologies specific to the C Series.[192] Repayment of the GOC's launch aid commitments (under both the C Series and the "generic technologies" portions) was tied solely to sales and deliveries of C Series aircraft, based upon royalties on each C Series aircraft delivered.[193]

The Department's regulations provide that "{i}f a subsidy is tied to the production or sale of a particular product, the Secretary will attribute the subsidy only to that product."[194] The Department in the past has stated that a subsidy is tied if its intended use is known to the subsidy grantor and so acknowledged prior to, or at the time of, bestowal.[195] Further, the *CVD Preamble* states the following with regard to tying:

> {W}e are extremely sensitive to potential circumvention of the countervailing duty law. We intend to examine all tying claims closely to ensure that the attribution rules are not manipulated to reduce countervailing duties. If the Secretary determines as a factual matter that a subsidy is tied to a particular product, then the Secretary will attribute that subsidy to sales of that particular product, in accordance with paragraph (b)(5).[196]

Repayment of the GOC launch aid, from the program's inception, was tied solely to sales of the C Series. Under 19 CFR 351.525(b)(5)(i), this fact alone supports finding that the full amount of the GOC launch aid is tied to the C Series. No record evidence supports finding that the GOC would have provided the generic technologies funding to Bombardier absent the company's C Series program. Moreover, based upon the history of the launch aid agreements,

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[191] *See* GOC Verification Report at 2 and Bombardier Verification Report at 16.
[192] *See* GOC Verification Report at 2 and Bombardier Verification Report at 16. *See also* GOC July 24, 2017 IQR at Volume IV, GOC-CSERIES-1.
[193] *See* GOC Verification Report at 3-4. *See also* GOC July 24, 2017 IQR at Volume IV, GOC-CSERIES-2.
[194] *See* 19 CFR 351.525(b)(5)(i).
[195] *See, e.g.*, *Certain Softwood Lumber Products from Canada: Final Affirmative Countervailing Duty Determination and Final Negative Determination of Critical Circumstances*, 82 FR 51814 (November 8, 2017), and accompanying IDM at Comment 53.
[196] *See CVD Preamble*, 63 FR at 65400.

it is apparent that the GOC launch aid was intended entirely for the benefit of the C Series program. It is clear that this is so because the GOC created a new program called the "Bombardier CSeries Program" to administer both agreements, which proceeded on identical time frames.[197] Additionally, at verification, Bombardier officials admitted that, while the generic technologies were more broadly applicable to other aircraft, they were nonetheless "of use to the C Series."[198] Given the connection of launch aid to sales of the C series and the entire design and structure of launch aid, we have not modified our calculations of the GOC launch aid for the final determination and we continue to attribute the entire amount of the GOC launch aid to sales of the C Series by Bombardier/CSALP.

Comment 11: Capping the Launch Aid Benefit Amounts

GOC's Case Brief

- The Department's treatment of repayable contributions as loans, to which it has applied an uncreditworthy benchmark, results in benefits that exceed the amounts which would be calculated had the repayable contributions been treated as grants in the year of receipt.
- The Department's regulations evidence an intent to limit absurd or excessive measurements of benefit;[199] the Department has in prior cases applied a "grant cap" to any measured loan benefit, limiting the amount of the benefit to the amount that would have been calculated had the loan in question been treated as a grant.[200] In applying a "grant cap," the Department has explained that it "will not impose greater countervailing duties for a subsidized loan (to a creditworthy or an uncreditworthy company) than for an outright grant in the amount of the loan principal, because a loan cannot be worth more to a company than an outright grant of the same amount."[201] This rationale has been upheld by the CIT.[202] The same rationale should apply here for all repayable contributions. Thus, if the Department continues to find the C Series project uncreditworthy, then any measured benefit under the Department's loan methodology for the POI should not exceed the amount that would have been calculated had the repayable contribution been treated as a grant.

Bombardier's Case Brief

- The Department should apply its practice of calculating a "grant cap" to ensure that the benefits it calculates for the launch aid provided by the GOC, the GOQ, and U.K. do not exceed the "grant cap" amount.[203] Typically, the Department applies a grant cap to its loan

[197] *See* ISED C Series Evaluation at 3 and 13; although legally there may have been two separate contribution agreements, they functioned together as the "Bombardier CSeries program" and jointly enabled Bombardier to undertake development of the C Series.
[198] *See* Bombardier Verification Report at 16; *see also* ISED C Series Evaluation at 3.
[199] *See* GOC's Case Brief at 16 (citing 19 CFR 351.505(d)).
[200] *See* GOC's Case Brief at 16 (citing *Prestressed Concrete Steel Wire Strand from France*, 47 FR 47031, 47041 (October 22, 1982) (*PC Steel Wire Strand from France*)).
[201] *Id.* (citing *Cold-Rolled Carbon Steel Flat Products from Argentina: Final Affirmative Countervailing Duty Determination and Countervailing Duty Order*, 49 FR 18006, 18016-20 (April 26, 1984) (*Cold-Rolled Steel from Argentina*)).
[202] *Id.* (citing *SSAB Svenskt Staal AB v. United States*, 764 F. Supp. 650, 658 (May 10, 1991) (*SSAB*)).
[203] *See* Bombardier's Case Brief at 31 (citing *Countervailing Duty Order: Certain Steel Products from Sweden*, 58 FR 43758, 43759 (August 7, 1993) (*CVD Order on Certain Steel Products from Sweden*)).

and equity benefit calculations because, as the Department explained in *Certain Steel Products from Belgium*, "a loan cannot be worth more to a company than an outright grant of the same amount."[204]

Petitioner's Rebuttal Brief

- The Department should reject arguments regarding the grant cap. As an initial matter, neither the GOC nor Bombardier has cited to any instance where the "grant cap" in the aggregate has been exceeded in the Department's launch aid calculations.
- Section 351.505(d)(1) of the Department's regulations does not mention a year-by-year grant cap application, only that the present value of the amounts of the benefit, discounted back to the year of receipt of the loan, cannot exceed the loan principal. The use of the plural "amounts" implies that the aggregated benefit, adjusted for present value, must be compared to the total principal of the loan. Thus, the single year grant cap proffered by the GOC has no legal basis.
- Moreover, the Department cannot apply the grant cap separately for each year, as the periods for allocating the benefits from grants (the AUL) and loans (the life of the loan) are different. Thus, the benefits of launch aid may extend as long as the loan is outstanding.
- However, if the Department were to find that a grant cap should be incorporated into its launch aid calculation, it would need to be set as the present value of launch aid funds.

Department's Position:

We disagree with the GOC and Bombardier that the Department should apply a "grant cap" to the launch aid programs for the final determination. As explained in Comments 8, 9, 12, and 13, the Department is treating the launch aid benefits as contingent liability interest-free loans under 19 CFR 351.505(d)(1). As contingent liability interest-free loans, we continue to calculate a benefit for the C Series launch aid programs by treating the "balance on the loan outstanding during {the} year as an interest-free … loan," and using "a long-term interest rate as the benchmark" because "the event upon which repayment of the loan depends will occur at a point in time more than one year after the receipt of the contingent liability loan."[205] Further, the same section of the Department's regulations provides that "{i}n no event may the present value (in the year of receipt of the contingent liability loan) of the amounts calculated under this paragraph exceed the principal of the loan."[206] In the case of the launch aid to Bombardier from the GOC, the GOQ, and the U.K., the benefit amounts calculated under 19 CFR 351.505(d)(1) do not exceed the principal of the loans.[207] Therefore, there is no basis to apply the regulatory cap to the benefit amounts.

Additionally, the *CVD Preamble* makes no mention of a grant cap, nor does it identify any other situation in which a loan would be treated as a grant (or compared to a grant), other than that

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[204] *See* Bombardier's Case Brief at 31 (citing *Final Affirmative Countervailing Duty Determinations; Certain Steel Products from Belgium*, 47 FR 39304, 39320 (September 7, 1982) (*Certain Steel Products from Belgium*)).
[205] Additionally, in accordance with the uncreditworthy finding for the C Series program (*see* Comment 7, above), we have calculated uncreditworthy interest rates for the GOC, GOQ, and U.K. launch aid programs.
[206] *Id.*
[207] *See* Final Calculation Memorandum at Attachments 4, 5, and 6.

identified in 19 CFR 351.505(d)(2). This section of the Department's regulations would only apply if a loan were forgiven, in which case we would "treat the entire unpaid principal of a forgiven loan and any accumulated interest, regardless of whether it is a contingent liability loan or a regular loan, as a grant bestowed at the time of the forgiveness."[208]

The GOC and Bombardier cite *PC Steel Wire Strand from France*, *Cold-Rolled Steel from Argentina*, *SSAB*, *CVD Order on Certain Steel Products from Sweden,* and *Certain Steel Products from Belgium* in support of their argument that the Department should apply a "grant cap" here. These cases, dated from the 1980s to 1993 discuss the "grant cap" methodology under the Department's prior loan calculation methodology and prior regulations, which were in effect before the Department modified its CVD regulations in 1998.[209] In fact, our research did not disclose a proceeding in which the Department applied its "grant cap" methodology after 1993, in *Certain Steel Products from Sweden*.

The Department's current calculation methodology for loans, as outlined in 19 CFR 351.505, requires that the benefit not exceed the principal of the loan. There is no requirement under the Department's current loan methodology to analyze the outstanding loan balance and compare it to how the program would be treated if it had been in a grant. This is for good reason, because the launch aid was provided to Bombardier as loans with an expectation of repayment; hence both Bombardier and Shorts treat the launch aid they received as contingent liabilities in their books.[210] Had the launch aid provided in this case merely been a grant, with no repayment obligation, we would have treated it as such. However, no party has argued that launch aid should be treated as a grant and, given the repayment expectations, there is no reason to treat it in this manner. In any event, if the Department later determines that "the event upon which repayment depends is not a viable contingency," we "will treat the outstanding balance of the loan as a grant received in the year in which the condition manifests itself," in accordance with 19 CFR 351.505(d)(2).[211]

Comment 12: The Appropriate Benchmark for Launch Aid

U.K.'s Case Brief

- Because Bombardier and the C Series are creditworthy, the Department may not use the uncreditworthy interest rate calculation under 19 CFR 351.505(a)(3)(iii); instead, the Department must select an appropriate commercial interest rate and determine whether the

[208] *See CVD Preamble*, 63 FR at 65370.
[209] *See CVD Preamble*, 63 FR at 65369 ("We have decided to eliminate our old loan allocation formula described in the 1989 Proposed Regulations, as part of our effort to streamline methodologies, where possible.").
[210] *See* Bombardier Verification Report at 17-18 and Shorts Verification Report at 7.
[211] Additionally, and without prejudice to whether the "grant cap" might be still applicable in other lending situations, we determine that the policy behind the grant cap is not applicable to contingent liability loans such as the ones at issue in this case. Unlike most loans, these contingent liability loans do not have a fixed term. Because repayment is tied to sales of the C Series aircraft, it is unknown whether they will be paid off in, hypothetically, five years, 15 years, 25 years, or never. It would be speculative on the Department's part to estimate a term for the loan, and without a fixed term, the present value of the loan cannot be calculated in the manner that the present value of other variable repayment loans can be calculated. *See, e.g.*, 19 CFR 351.505(c)(3)(i); *see also CVD Preamble*, 63 FR at 65369 (noting that when calculating the present value of a loan, using a different allocation period that the life of the loan "could mean that subsidy benefits would end even though the subsidized loan is itself still outstanding").

RLI confers a benefit based upon that benchmark. In this case, the appropriate interest rate benchmark is Bombardier's actual cost of long-term debt in British pounds of 6.75 percent.[212]

- Although the RLI carries some additional risk over standard commercial loans, the Department cannot claim that the standard loan benchmarks are inappropriate. In other cases, the Department has relied upon the company-specific cost for standard fixed rate loans or, where those are not available, national average interest rates, to calculate the benefit for contingent liability interest free loans.[213] The Department added no risk premium due to the fact that the loan was contingent and therefore carried some additional risk. In this case, since the RLI is not interest free, the determination of whether there is a benefit must involve a comparison of the RLI interest rate to the rate on the standard long-term debt issued by Bombardier. Bombardier's cost of debt is well below the interest rate for the RLI provided to Shorts. However, even if the Department were to attempt to create a hybrid benchmark that adds a risk premium to the interest rate on Bombardier's standard loan rates, such a rate should not be higher than the nominal rate associated with the RLI provided to Shorts.
- Because the rate of return for the RLI was set using commercial principles, applying a higher interest rate would be inappropriate. Specifically, the U.K. government assessed the project as an investor, and sought to charge a market rate of return based upon Bombardier's credit rating, the spread on Bombardier's bonds, and the risks associated with the project.

Bombardier's Case Brief

- While Bombardier agrees generally with the Department's treatment of the launch aid provided by the GOC, GOQ, and U.K. as repayable liabilities in the *Preliminary Determination*, by applying its "contingent liability" methodology, the Department failed to recognize that these repayable advances do not meet the Department's definition because they are not interest free.[214] As a result, the Department overstated the benchmark interest rate against which the terms of the repayable advances should be compared and failed to account for the interest accrued by the companies on the outstanding balances. Both of these errors resulted in an overstatement of the subsidy benefit by large margins.
- Both the launch aid agreements and Bombardier's and Shorts' accounting for the launch aid demonstrate that the loans are not interest free. The record demonstrates that interest is due on these advances and that it is accrued in Bombardier's and Shorts' accounts.
- It would be inappropriate to assume that no "interest" is paid until all the principal is repaid. Such an assumption would contravene the actual structure and flow of payments. The royalty payments are similar to a mortgage payment on a house; each payment contains elements of both the principal and the interest that will accrue over the life of the mortgage. The Department should acknowledge these specific circumstances of the royalty payments at issue in this case.
- The Department should find that the launch aid and RLI were provided on fully commercial terms. At a minimum, assuming the Department continues to apply a benchmark to determine whether a benefit exists, it must adjust its calculations for the accrued interest.

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[212] *See* U.K.'s Case Brief at 56 (*citing* 19 CFR 351.505(a)(2)(i) and (ii)).
[213] *See* U.K.'s Case Brief at 57 (citing *SSSSC from France*, 64 FR at 30778; and *CTL Plate from Belgium*, 64 FR at 12985).
[214] *See* Bombardier's Case Brief at 28-29 (citing *CVD Preamble*, 63 FR at 65396 and 19 CFR 351.505(d)).

Thus, the Department should deduct the interest that is accruing from the benchmark interest rate.

- Further, the Department overstated the uncreditworthy benchmark and departed from the instructions in its regulations and the *CVD Preamble*. According to 19 CFR 351.505(a)(3)(iii), the Department will normally use the spread in default rates between the average of Moody's study of historical bond issues for Caa to C-rated companies and the average cumulative default rates for Aaa-to-Baa-rated companies. The *CVD Preamble* explains that the Department, in such instances, will rely on "default information pertaining to the United States" unless data for the relevant country exists and are provided to the Department and that "default experience in the country in question differs significantly from that in the United States."[215] Contrary to these instructions, the Department used Moody's rates from Canada and the U.K., without conducting any analysis of whether those rates differed significantly from those in the United States. Nor did the Department consider that Bombardier obtains the majority of its debt offerings in the United States, not Canada or the U.K. Similarly, the Department chose to use only a 5-year window, contrary to the *CVD Preamble* which provides that the Department "will use the average cumulative default rate for the number of years corresponding to the length of the loan, as reported in Moody's study of historical corporate bond default rates."[216]
- The Department did not act consistently with its regulations in the *Preliminary Determination* and, therefore, it must instead rely upon the best available information on the record to support any analyses it undertakes. An evaluation of the best available information demonstrates that the Department vastly overstated the risk premium to be applied in constructing loan benchmarks and discount rates for Bombardier. Throughout both periods, Bombardier had bonds that were traded on the marketplace; thus, there is marketplace information regarding the premium that Bombardier paid for debt in relation to its riskiness.[217] The rates calculated by the Department are two to four times higher than the rates that Bombardier actually paid for the commercial paper that it issued.
- The Department should use Standard & Poor's historical U.S. default information which is on the record; such information also provides longer-term default rates that are more comparable to the maturity of the financial instruments in question (*i.e.*, 15-year default data). Additionally, while the Department established a spread by using the Caa/C rated bonds, the Department has evidence that Bombardier's bond ratings are above this level; thus, if the Department continues to find Bombardier uncreditworthy, it should use the default rates at its actual credit rating level of BB.
- Bombardier raises the following concerns with the Department's calculations of uncreditworthy discount rates in the Preliminary Calculation Memorandum:
    - Bombardier is unable to replicate the corporate bond data at Attachment 7c; the weblink provided does not appear to exist; and the data found by Bombardier do not appear to match perfectly the Department's data.
    - The Department does not appear to have provided any support for the default rates for "Investment Grade" bonds at Attachments 7c and 7d.

[215] *Id.* at 48 (citing *CVD Preamble,* 63 FR at 65365).
[216] *Id.* at 49 (citing *CVD Preamble* 63 FR at 65365).
[217] *Id.* at 50.

Petitioner's Rebuttal Brief

- The Department properly found that the launch aid provided the by the GOC, GOQ, and U.K. to Bombardier constitute contingent-liability interest-free loans, because the repayment obligations are contingent upon Bombardier achieving a certain number of deliveries of C Series aircraft and Bombardier is not obligated to pay any interest.[218]
- Unlike standard commercial loans with fixed principal and interest payment schedules, launch aid repayments have neither a fixed principal repayment requirement, nor a fixed interest rate; repayment is in the form of royalties paid on aircraft delivered. Therefore, the anticipated rate of return for launch aid depends entirely on the number of aircraft delivered, and it is factually inaccurate to characterize launch aid as accruing interest. Bombardier's and the U.K.'s arguments ignore two crucial aspects of launch aid: 1) that it is success dependent;[219] and 2) the structure of the repayment schedule.
- Even if the terms of the RLI agreement purport to provide for a return to the U.K. if certain conditions are met, they do not actually require Bombardier (or Shorts) to pay interest. Because launch aid is entirely success-dependent, the U.K., GOC, and GOQ provided the loans without requiring any return, even of principal. Further, even if it were appropriate to treat the scheduled launch aid repayments as including an interest component, there is no evidence that Bombardier paid interest during the POI.
- Bombardier's argument that the Department should make an adjustment for interest accrued but unpaid during the POI is contrary to the Department's practice and wholly unsupported by the law.[220] Given the circumstances,[221] and because the repayment of launch aid is entirely success-dependent, the Department properly treated GOC, GOQ, and U.K. launch aid as contingent liability, interest-free loans and found that a benefit exists in the amount of interest foregone during the POI.[222]
- When the Department finds a company to be uncreditworthy, 19 CFR 351.505(a)(3)(iii) provides a formula for adjusting the long-term interest rate to estimate the rate that an uncreditworthy borrower might pay; such rate is used as the uncreditworthy discount rate. The Department correctly calculated the uncreditworthy benchmark pursuant to the formula in its regulations and should not change the calculation for the final determination.
- The Department should reject Bombardier and the U.K.'s argument to use a BB default rate since that was Bombardier's actual credit rating; the regulations specify that, for a project deemed uncreditworthy, the Department will use the cumulative default based on junk bonds (*i.e.*, CCC rated).[223] Bombardier cites no precedent where the Department matched the default rate to a respondent's specific credit rating in an uncreditworthy calculation. Moreover, as the Department preliminarily found, the credit rating for the C Series project would likely be lower than Bombardier's overall credit rating. Further, the European

[218] *See* Petitioner's Rebuttal Case Brief at 44 (citing 19 CFR 351.505(d)(1)).
[219] *Id.* at 47 (citing GOC July 24, 2017 IQR at GOC-CSERIES-17 and Exhibits GOC-CSERIES-3 and GOC-CSERIES-4; the petitioner asserts that Bombardier's repayment obligations for the GOC, GOQ, and U.K. launch aid are entirely dependent upon the success of the C Series program and that, if the program fails, the governments may not even recover the launch aid principal, much less receive any return).
[220] *Id.* at 48 (citing 19 CFR 351.505(d)(1) and *CTL Plate from Belgium,* 64 FR at 12985).
[221] *Id.* at 48; the petitioner provides a proprietary explanation regarding the specific circumstances in this case.
[222] *Id.* at 49 (citing *Corrosion-Resistant Carbon Steel Flat Products from the Republic of Korea: Preliminary Results of Countervailing Duty Administrative Review*, 77 FR 58512, 58515 (September 21, 2012)).
[223] *Id.* at 74 (citing 19 CFR 351.505(a)(3)(iii)).

Commission report provided by the U.K. states that Bombardier's "credit rating remains the lowest among its peers."[224] The Department has conducted such a comparison in other cases when conducting its creditworthiness analysis.[225]

- The Department should continue to use Canadian default data to determine the applicable uncreditworthy rates. Bombardier's argument ignores the reasoning found in the *CVD Preamble* to use U.S. default data—primarily, that such data may be difficult to locate and lacking in comprehensive detail.[226] The GOC has provided information on Canadian default rates that is detailed, comprehensive, and from Moody's (*i.e.*, the same source the Department typically uses for U.S. default rates).[227]
- The Department did not self-identify the default rate on investment grade bonds; rather it simply utilized the information from page 8 of the Moody's publication submitted by the GOC. Further, there is ample support for the conclusion that the Canadian default rates "differ significantly" from both the U.S. and global default rates.[228] The record establishes that Canadian Caa-C rated bonds are far more likely to default than U.S. Caa-C rated bonds. Thus, in addition to the fact that the Canadian default data provided by the GOC are detailed and comprehensive, the data also establish that the Canadian default experience differs significantly from that in the United States.
- The Department appropriately used the Canadian 5-year default data, and should continue to do-so for the final for all loans or benefit allocations with periods of five or more years. The Department's practice, when the term of the loan or benefit allocation period exceeds the term of the default data, is to use the final year of the available benchmark.[229] In this case, the final year of the Canadian default data provided by the GOC is year five.

Bombardier's Rebuttal Brief

- The Department overstated the benchmark for its uncreditworthy interest rate calculations because it used default rates with a 5-year horizon rather than default rates with a period closer to the maturity of the loans being investigated, *i.e.*, the repayable advances. Based upon the maturity ranges for the repayable advances, the correct benchmark would be based on the 15-year data available from Standard & Poor's rather than the 5-year Moody's data used in the preliminary calculations.[230] The calculations presented at Attachment 1 to the

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[224] *Id.* at 75 (citing EC State Aid Report at paragraph 126).
[225] *Id.* at 75 (citing *Notice of Preliminary Affirmative Countervailing Duty Determination and Alignment with the Final Antidumping Duty Determinations: Certain Hot-Rolled Carbon Steel Flat Products from Thailand*, 66 FR 20251, 20254 (April 20, 2001)).
[226] *Id.* at 76 (citing *CVD Preamble*, 63 FR at 65365).
[227] *Id.* at 76 (citing GOC August 25, 2017 NFI at Exhibit 2).
[228] *Id.* at 77-78 (citing GOC August 25, 2017 NFI at Exhibit 2 and Bombardier Verification Report at Verification Exhibit 6; Moody's shows that Canadian Caa-C bonds are 71.57 times more likely to experience a default than investment-grade Canadian bonds; whereas globally, Caa-C bonds are only 44.73 times as likely to experience a default when compared with global investment-grade rated bonds; likewise for U.S. default rates, based upon information submitted by Bombardier, Caa-C bonds are only 43.85 times more likely to experience default than investment-grade U.S. bonds.).
[229] *Id.* at 79 (citing *Circular Welded Carbon Quality Steel Line Pipe from the People's Republic of China: Final Affirmative Countervailing Duty Determination*, 73 FR 70961 (November 21, 2008) (*CWP from the PRC*), and accompanying IDM at 10).
[230] *See* U.K.'s Case Brief at 57 (citing *SSSSC from France,* 64 FR at 30778, and *CTL Plate from Belgium,* 64 FR at 12985).

petitioner's case brief support Bombardier's argument to use the 15-year data available from Standard & Poor's because they rely on periods that much more closely correspond to the maturity of the repayable advances. The petitioner's own calculations confirm the degree to which the Department's rates in the *Preliminary Determination* were overstated.[231] By basing its calculation on a longer period, the petitioner has recognized that any calculation of uncreditworthy interest rates must properly reflect the maturity of the repayable advances in question.

- While the petitioner's calculations correctly reflect the maturities of the repayable advances in question, they incorrectly apply the longer maturities to the same 5-year Canadian default rates used by the Department. In order for the petitioner's calculation to accurately reflect whether Bombardier received a benefit, the Department should use the available default rates with the maturities closest to the repayable advances in question, *i.e.*, the 15-year Standard & Poor's U.S. cumulative default rates and the default rates for Bombardier's actual credit rating during the relevant periods (*i.e.*, BB) as opposed to the CCC/C rates.

Department's Position:

As discussed in Comment 7, above, we continue to find the C Series project uncreditworthy. Thus, in the final determination, we continue to calculate uncreditworthy benchmark discount rates for Bombardier during the relevant time periods, in accordance with the formula provided in 19 CFR 351.505(a)(3)(iii).

Further, we continue to treat the GOC, GOQ, and U.K. launch aid as contingent liability interest-free loans in accordance with 19 CFR 351.505(d)(1). Section 351.505(d)(1) states that:

> In the case of an interest-free loan, for which the repayment obligation is contingent upon the company taking some future action or achieving some goal in fulfillment of the loan's requirements, the Secretary normally will treat any balance on the loan outstanding during a year as an interest-free, short-term loan in accordance with paragraphs (a), (b), and (c)(1) of this section. However, if the event upon which repayment of the loan depends will occur at a point in time more than one year after the receipt of the contingent liability loan, the Secretary will use a long-term interest rate as the benchmark in accordance with paragraphs (a), (b), and (c)(2) of this section.[232]

The launch aid which the GOC, GOQ, and U.K. provided to Bombardier and Shorts was given as loans, structured in the form of royalties to be repaid per aircraft delivered. Bombardier did not

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[231] *See* Bombardier's Rebuttal Brief at 17 (citing Petitioner's Case Brief at Attachment 1; As seen in its calculations for the GOC launch aid, the petitioner calculates an uncreditworthy interest rate using the same March 25, 2009, creditworthy rate (5.46 percent), the same investment grade default rate (0.70 percent) and the same Caa-C default rate (50.10 percent) as in the Department's calculations at Attachment 7b of the Department's Preliminary Calculations Memorandum. However, the uncreditworthy interest rates that the petitioner calculates for each of the repayable advances is far lower than the 21.02 percent calculated by the Department. This is because the petitioner uses a term in years that corresponds to the maturity of the repayable advances in question. The petitioner makes similar calculations for the GOQ launch aid and the U.K. RLI).

[232] *See* 19 CFR 351.505(d)(1).

begin delivering aircraft until 2016, during the POI, and made no repayments of the launch aid until after the POI. Thus, during the POI, Bombardier's and Shorts' repayment obligations were "contingent upon the company taking some future action or achieving some goal in fulfillment of the loan's requirements."[233] Therefore, during the POI, the launch aid met the definition of contingent liability interest-free loans for which Bombardier and Shorts benefited by owing money but for which they did not, in fact, repay any principal or interest during the POI. We disagree with Bombardier's argument that, just because the launch aid may have been accruing a hypothetical amount of interest, that we should somehow deduct that as part of our launch aid calculations. To the contrary, because Bombardier and Shorts did not pay any interest during the POI, we did not attempt to compare any interest that may be accruing on the launch aid to the uncreditworthy benchmark interest rate calculated in accordance with 19 CFR 351.505(a)(3)(iii).

Moreover, we find the arguments regarding the benchmarks used in other cases and other possible benchmark rates to use in this case to be moot,[234] because, as explained in Comment 7, above, we have found the C Series project to be uncreditworthy. Therefore, in accordance with the Department's regulations, we calculate an uncreditworthy benchmark interest rate using the formula provided in 19 CFR 351.505(a)(3)(iii):[235]

> (iii) Exception for uncreditworthy companies. If the Secretary finds that a firm that received a government-provided long-term loan was uncreditworthy, as defined in paragraph (a)(4) of this section, the Secretary normally will calculate the interest rate to be used in making the comparison called for by paragraph (a)(1) of this section according to the following formula:
>
> $i_b = [(1 - q_n)(1\ i_f)^n / (1 - p_n)]^{1/n} - 1,$
>
> where:
>
> n = the term of the loan;
> i_b = the benchmark interest rate for uncreditworthy companies;
> i_f = the long-term interest rate that would be paid by a creditworthy company;
> p_n = the probability of default by an uncreditworthy company within n years; and
> q_n = the probability of default by a creditworthy company within n years.
>
> "Default" means any missed or delayed payment of interest and/or principal, bankruptcy, receivership, or distressed exchange. For values of p_n, the Secretary will normally rely on the average cumulative default rates reported for the Caa to C-rated category of companies in Moody's study of historical default rates of corporate bond issuers. For values of q_n, the Secretary will normally rely on the average cumulative default rates reported for the Aaa to Baa-rated categories of

[233] *Id*.
[234] The U.K. cites to *SSSSC from France* at 64 FR 30778 and *CTL Plate from Belgium* at 64 FR 12982, 12985. Neither case is applicable here because in the instant case, we have found the C Series program to be uncreditworthy, and therefore we have calculated an uncreditworthy benchmark, as directed by our regulations.
[235] *See* Final Calculation Memorandum at Attachments 7b, 7c, 7d, and 7e.

companies in Moody's study of historical default rates of corporate bond issuers.[236]

Bombardier argues, on several points, that the Department did not correctly calculate the benchmark uncreditworthy interest rates. First, Bombardier claims that the Department should have used the default information pertaining to the United States, not Canada or the U.K.[237] Bombardier's argument ignores the reasoning found in the *CVD Preamble* to use U.S. default data, which is primarily because such data may be difficult to locate and lacking in comprehensive detail.[238] In this case, the GOC provided information on Canadian default rates that is detailed, comprehensive (*i.e.*, with an explanation of methodology, relevant context, and comparisons), and from Moody's, which is the same source the Department typically uses for U.S. default rates.[239] Thus, the Department relied on information that is more specific to Canada and Canadian companies from the same reliable source mentioned in the *CVD Preamble* and in the regulations—Moody's.[240] Second, rather than rely on detailed Moody's data, Bombardier asserts that the Department should rely on unsubstantiated data it provided at verification in summary form from Standard & Poor's.[241] Bombardier argues that the 15-year time period of the Standard & Poor's data better matches the time periods of the launch aid. However, the Standard & Poor's data are only in summary form, not the original publication, and do not include any supporting information. Moreover, the Department's preferred source for default data is Moody's, not Standard & Poor's. In any event, when the term of the loan or benefit allocation period exceeds the term of the default data, the Department's practice is to use the final year of the available benchmark.[242] In this case, the final year of the Moody's Canadian default data is year-five and we have continued to use this year-five data in the uncreditworthy interest rate calculation for the final determination.[243] Third, Bombardier suggests that the Department should determine the benchmark interest rate based on its actual

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[236] *See* 19 CFR 351.505(a)(3)(iii).

[237] We note that the Department only used Canadian, not U.K., default rates, in the *Preliminary Determination*; therefore, Bombardier's reference to U.K. default information is misplaced. While the Department did use British pound-denominated bond rates and long-term loan rates for the RLI and INI SFA grant uncreditworthiness calculations, respectively, no party made arguments regarding these rates or calculations. Therefore, we have not revised them for purposes of the final determination.

[238] *See CVD Preamble*, 63 FR at 65365.

[239] *See* GOC's Letter "Government of Canada's Submission of Factual Information 100-to-150 Seat Large Civil Aircraft from Canada (C-122-860)," dated August 25, 2017 (GOC NFI Submission) at Exhibit 2.

[240] Additionally, we note that 19 CFR 351.505(a)(3)(iii) does not specify that the default data be U.S. data, only that Moody's is the preferred source; the GOC itself put Canadian Moody's data on the record. Further, based on the record evidence, it appears that the likelihood of default for Caa-C rated bonds in Canada is higher than in the U.S. *See* Petitioner's Rebuttal Brief at 77-78, citing GOC August 25, 2017 NFI at Exhibit 2 and Bombardier Verification Report at Verification Exhibit 6.

[241] *See* Bombardier Verification Report at Verification Exhibit 6, at slide titled "Financial Health Assessment: Default Probabilities."

[242] *See, e.g., CWP from the PRC*, and accompanying IDM at 10.

[243] As an initial matter, we note that the launch aid contributions are not typical loans and do not have a fixed repayment term; thus, using the fifth year of data is not unreasonable as the last year when calculating an uncreditworthy benchmark interest rate, as prescribed in 19 CFR 351.505(a)(3)(iii). Further, due to data limitations, we are not able to use a longer period due to limitations imposed by the available record evidence. However, we note that, if the data were available over, for example, a 20-year period, the likelihood of the result being significantly different is minimal because, as the number of years increases, the probability that a Caa-C rated company will default also increases, essentially mitigating the use of a longer period in the calculations.

credit rating (*i.e.*, BB), rather than using the interest rate calculated as a result of the Department's uncreditworthiness determination (*i.e.*, based on a Caa/C- credit rating). However, Bombardier's credit rating is inapposite because we found the C Series program to be uncreditworthy. 19 CFR 351.505(a)(3)(iii) directs that we use the "average cumulative default rates reported for the Caa to C-rated category of companies." Thus, we have continued to rely on the credit ratings determined for the C Series program as a result of our uncreditworthiness determination.

Furthermore, as we explained above at Comment 7, the mere fact that Bombardier had other commercial bonds does not demonstrate the creditworthiness of the C Series program. Repayment of the launch aid was tied solely to sales of the C Series, while Bombardier's bonds were issued with the backing of its entire corporate operations. Therefore, Bombardier's bonds are not an appropriate benchmark for the launch aid.

Bombardier also states that it was unable to replicate corporate bond data at Attachment 7c of the Preliminary Calculation Memorandum and that the default rates for investment grade bonds at Attachments 7c and 7d lack support. As noted on Attachment 7c, we used as the source of the corporate bond data at Attachment 7c information from the U.S. Federal Reserve for Moody's AAA rated bonds from the Bank of Canada. Bombardier does not point to another source of data on the record or to any record evidence that discredits these bond rates. Further, the source of the average cumulative default rates for investment grade bonds and for Caa-C bonds, found at Attachments 7b, 7c, 7d, and 7e of the Preliminary Calculation Memorandum, is Exhibit 2 of the GOC's August 25, 2017, factual information submission, at page 8 of the May 2014 report by Moody's Investors Service titled "Default and Recovery Rates of Canadian Corporate Issuers, 1989-2013."[244] Further, we disagree with Bombardier that there were errors in the calculation or that Bombardier's own risk premium is a more accurate measure of the risk level of the C Series program. Because we have found the C Series program to be uncreditworthy, we followed the guidance in 19 CFR 351.505(a)(3)(iii); thus, using Bombardier's own borrowing rate for corporate bonds not tied to the C Series would be counter to the Department's regulations.

Finally, we disagree with the U.K.'s contention that, because the rate of return for the RLI was set using commercial principles, it would be inappropriate to apply a higher benchmark interest rate. The U.K. is a government, not a market investor. The U.K. was concerned with developing Shorts as "a centre of excellence" and maintaining manufacturing jobs in Northern Ireland;[245] these are inherently governmental concerns. Unlike government investors, market investors are typically concerned with making a monetary return on their investment and do not put strictures on where a business can operate or employment levels.[246] That "Bombardier's cost of debt was well below the interest rate for the RLI provided to Shorts,"[247] only shows how desperate Bombardier/Shorts were for additional financing for the C Series project. Further, we note that, in the case of a company being uncreditworthy, 19 CFR 351.505(a)(3)(iii) provides the formula

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[244] *See* GOC's Letter "Government of Canada's Submission of Factual Information 100-to-150 Seat Large Civil Aircraft from Canada (C-122-860)," dated August 25, 2017 (GOC's NFI Submission) at Exhibit 2.
[245] *See, e.g.,* EC State Aid Report at paragraphs 150, 151, and 166.
[246] *See, e.g.,* U.K. Verification Report at 3 ("under the RLI program, the applicant must … demonstrate that there will be a return on investment to the U.K. and wider benefits to the U.K. in general (*e.g.*, employment, centers of excellence, and overall economic impact)").
[247] *See* U.K.'s Case Brief at 57.

to use for calculating the uncreditworthy rate, and the Department does not rely upon other potential benchmark data.

Comment 13: Whether to Adjust the Benefit Streams for the Launch Aid Bombardier Received from the U.K., GOC, and GOQ

Petitioner's Case Brief

- For the final determination, the Department should adjust the benefit stream of its launch aid benefit calculations to account for the time between when disbursements were received and when repayment begins. Unlike traditional financing, launch aid is provided years in advance for development of an entirely new product. Also unlike standard commercial loans with fixed principal and interest payments, launch aid repayments do not have fixed principal and interest repayment requirements. Thus, based upon language in the *CVD Preamble*, the Department should adjust the benefit streams so that they begin when commercial production begins.[248]
- The record establishes that the C Series launch aid is the precise type of development subsidy that the *CVD Preamble* envisioned as an exception under 19 CFR 351.524(d)(2)(iv). First, the C Series development required extensive research and development; total R&D costs were US$5.4 billion. Second, the record establishes that these funds were spent prior to implementation of commercial production; Bombardier wrote off US$3.2 billion in 2015, before the first commercial C Series rolled off the final assembly line. If the Department agrees that the countervailable benefit commences with the first commercial production, then it must adjust its benchmark loan calculation to capture the substantial subsidies associated with the time value of money received.
- Consistent with 19 CFR 351.505(d), the Department should calculate the benefit from the contingent launch aid as an interest-free loan based upon the entire principal amount, plus compounded interest. Absent this adjustment, the Department will not capture the full extent of the launch aid subsidies that Bombardier has received from the GOC, the GOQ, and the U.K.

Bombardier's Rebuttal Brief

- The petitioner's proposed benefit calculation lacks any basis in law, fact, or the Department's practice. Pursuant to 19 CFR 351.505(d)(1), the regulatory provision under which the Department is countervailing the repayable advances, a loan benefit is calculated based on the outstanding loan balance, which is created at the time the loan is received. Nothing in 19 CFR 351.505(d)(1) or any other provision of the Department's loan regulations provides that loan benefits should be calculated based on when the proceeds of the loan result in the commencement of production. Furthermore, the petitioner has not explained how its methodology is consistent with the "cap" set forth in 19 CFR 351.505(d)(1).
- There is no basis in the Department's regulations or the *CVD Preamble* to move the benefit stream for loans; the discussion in the *CVD Preamble* to which the petitioner cites only relates to grants. In any event, the record demonstrates that the launch aid was received after Bombardier and Shorts had already incurred the expenses. Further, the petitioner has

[248] *See* Petitioner's Case Brief at 40-41 (citing *CVD Preamble*, 63 FR at 65396-97).

not cited any case in which the Department adjusted the benefit stream to begin at the time of the commencement of production for a grant calculation, let alone a loan calculation. Moreover, the Department has relied on its standard loan methodology in similar large capital cases and did not deviate from its standard methodology to move the benefit stream to when production commenced.[249]

- In any event, if the Department rejects the petitioner's argument to move the benefit stream to when production commences, then it does not need to consider the petitioner's argument regarding a compounding element. Nonetheless, the discussion in the *CVD Preamble* does not suggest that the calculation include a compounding element; to apply a compounding element as the petitioner suggests would elongate the benefit stream to countervail much more than the benefit conferred by the subsidy.[250]
- The RLI was provided to a separate company, Shorts, by a different government; the terms of the agreement were independently negotiated and, as such, it is not reasonable to apply the terms of the U.K. RLI to the GOC and GOQ agreements. Further, the Department should not add a compounding element to the U.K. RLI because the U.K. agreement already includes one and, thus, the petitioner's suggested adjustment would be gratuitous.
- Commercial lending agreements take many forms, based on a variety of variables and may or may not include a compounding element. Regardless, the launch aid agreements have their own terms and should not be revised to include a new one based on the petitioner's concept of commercial lending practices, as interest, in the form of royalties, is already included in the repayment terms. Moreover, the repayment terms of the launch aid agreements already reflect the governments' understanding of the time value of money.

GOC's Rebuttal Brief

- The Department should reject the petitioner's arguments regarding the timing of benefit streams for repayable contributions. The issue presented is not novel and the concerns raised by the petitioner are, in fact, addressed in the Department's regulations at 19 CFR 351.505.
- As the petitioner concedes, the commentary from the *CVD Preamble* and 19 CFR 351.524(d)(2)(iv) are addressed to grants, not repayable contributions. Repayable contributions fall under the Department's loan methodologies that measure benefits based on the difference between the cost of the financing paid by the respondent and its market cost; this benefit is allocated (or expensed) on an annual basis. Similarly, the Department has a specific rule on contingent liability interest free financing, which it has applied to the repayable contributions.[251] The Department's methodology addresses the petitioner's concerns regarding allocation of the benefit during periods of production and sale of the product under investigation; indeed, the Department will continue to allocate the benefit at

[249] *Id.* at 22 (citing *Utility Scale Wind Towers from the People's Republic of China: Preliminary Affirmative Countervailing Duty Determination*, 77 FR 33422, 33431-32 (June 6, 2012), unchanged in *Utility Scale Wind Towers from the People's Republic of China: Final Affirmative Countervailing Duty Determination*, 77 FR 75978 (December 26, 2012) (*Wind Towers from PRC*), and accompanying IDM; and *Certain Carbon Steel Products from Mexico: Preliminary Affirmative Countervailing Duty Determinations*, 49 FR 5148, 5150 (February 10, 1984) (*Carbon Steel Products from Mexico Prelim*)).
[250] *Id.* at 23 (citing *CVD Preamble*, 63 FR at 65396-397).
[251] *See* GOC's Rebuttal Brief at 3 (citing 19 CFR 351.505(d)).

levels which will be shaped by the level of production and deliveries, given the terms of the repayable contributions.

- Additionally, the rate of return will depend on the number of aircraft deliveries; the financing does not have an annual interest component. The Department's methodology countervails this annual interest free aspect of the financing and expenses the measured benefit each year.
- Further, commercial lending takes place on many bases, with terms shaped by any number of variables. There is no fixed rule on the treatment of interest, and the petitioner has identified none. In effect, the petitioner wants the repayable contributions to be treated as both a grant and a loan, with simultaneous benefit streams, as if more than one transaction has taken place. However, only if the principal were to be forgiven at some future date would the Department need to address the issue of a grant.
- Also, the petitioner has failed to explain how its methodology (*i.e.*, adjusting the benefit stream) is consistent with the "cap" found at 19 CFR 351.505(d)(1). Similarly, the petitioner fails to consider that the Department's methodology is producing a benefit in excess of the benefit that would have been measured if the repayable contributions were treated as grants under a methodology that takes into account compounding time value of funds, which is contrary to the Department's practice.[252]
- Finally, the petitioner neglects an important aspect of the repayable contributions. Under the terms of the launch aid, Bombardier will continue to make payments upon each incremental delivery of aircraft even after the principal is repaid. This distinguishes repayable contributions from a simple grant scenario. Unlike a grant that is extinguished in a finite allocation period set at the time the grant is bestowed, repayable contributions represent an obligation that could far exceed the 10-year average useful life (AUL).

U.K.'s Rebuttal Brief

- The petitioner erroneously cites to the *CVD Preamble* to justify adjusting the benefit stream allocation for launch. The portion cited by the petitioner pertains to 19 CFR 351.524(d)(2)(iv), which governs benefits provided by grants, and does not apply to loans. The petitioner does not argue that the Department erred in determining that the U.K. RLI is a loan, rather than a grant. Thus, the calculation and allocation of benefits provided by loans is governed by section 19 CFR 351.505.
- The U.K. RLI should be covered by section 351.505(c), the only other provision dealing with the allocation of loan benefits. None of these long-term loan provisions provide for: 1) the shifting of the benefit stream to the date of the first sale; or 2) the addition of a compounding interest factor.
- Further, during the rule making process, the Department rejected suggestions to add an additional amount to reflect the present value of the benefit from a deferred loan, instead opting to match the allocation period with the life of the government-provided loan as a more predictable and transparent approach.[253] Thus, if the Department had intended the analysis in the *CVD Preamble* to apply not just to grants, but also to loans, it would have adopted an exception similar to 19 CFR 351.524(d)(2)(iv).

[252] *Id.* at 4-5 (citing *Cold-Rolled Steel from Argentina*, 49 FR at 18016-020).
[253] *See* U.K.'s Rebuttal Brief at 5 (citing *CVD Preamble*, 63 FR at 65369).

- The petitioner has also failed to acknowledge the limitation of the Department's loan regulations, which state that the present value of the benefits calculated may not exceed the principal of the loan.
- Even if the Department applies a grant methodology to the RLI loan, neither the legal authority cited by the petitioner nor record evidence supports the application of compounding interest in the manner the petitioner suggests.

Department's Position:

We disagree with the petitioner that we should adjust the launch aid benefit streams so that they begin at the time of the commercial production of the C Series, rather than when Bombardier received the launch aid. To support its proposed change to the launch aid benefit streams, the petitioner cites the *CVD Preamble* and the discussion therein of 19 CFR 351.524(d)(2)(iv).[254] However, the exception to the Department's normal methodology for determining the benefit stream discussed in the *CVD Preamble* relates to the treatment of non-recurring benefits, not loans or royalty arrangements like the launch aid. We are treating the launch aid as interest-free contingent liabilities; thus, these are recurring benefits under 19 CFR 351.524(a) and (c). The petitioner cites no cases in which the Department has altered the benefit stream in the manner it proposes, either in situations when the subsidy at issue conferred a non-recurring benefit (consistent with the exception provided in the *CVD Preamble*) or a loan. In any event, in situations similar to those described in the *CVD Preamble* (*i.e.*, "subsidies to develop certain new technologies, or to fund extraordinarily large development projects that require extensive research and development") the Department's practice has been to use its standard loan calculation methodology, and not to move the benefit stream to when production commenced.[255]

We also disagree that it would be appropriate to add compound interest to the GOC and GOQ launch aid benefit calculations, as the petitioner proposes. In general, the Department's practice in calculating the benefit for interest-free contingent liabilities is to expense the benefit in the year of receipt at the time of the waiver of the interest (*i.e.*, as a recurring benefit);[256] therefore, we would not accrue the interest in the manner suggested by the petitioner because the benefit is being expensed every year as it is received. Further, regarding the GOC and GOQ launch aid, these contingent liabilities are not accruing interest, but only require fixed royalty repayment amounts per aircraft sold.[257] Therefore, the outstanding balance Bombardier owes for the GOC and GOQ launch aid is not increasing. Consequently, were we to add compound interest to the GOC and GOQ launch aid, we would be artificially constructing an outstanding balance with a

[254] *See CVD Preamble*, 63 FR at 65396-97.
[255] *See*, *e.g.*, *Utility Scale Wind Towers from the People's Republic of China: Final Affirmative Countervailing Duty Determination*, 77 FR 75978 (December 26, 2012).
[256] *See*, *e.g.*, *Corrosion-Resistant Carbon Steel Flat Products from the Republic of Korea: Final Results of Countervailing Duty Administrative Review*, 76 FR 3613 (January 20, 2011), and accompanying IDM at items A and B.
[257] *See* Bombardier Verification Report at 18-19 ("for the GOC launch aid, the repayable contribution is a fixed royalty amount that is not dependent on when Bombardier received the reimbursements under the launch aid agreement or when Bombardier begins to make repayment" and "the terms of the repayable contribution … were the same for the GOQ launch aid as for the GOC").

hypothetical accrued amount of interest which Bombardier does not owe, thereby inappropriately inflating the benefit.

Finally, regarding the U.K. launch aid, we note that it is structured differently from the GOC and GOQ launch aid in that it is accruing interest as time passes.[258] Therefore, for the final determination, we revised our benefit calculations to include this accrued interest by using the actual amount of the outstanding U.K. launch aid balance at the end of the POI, rather than the total of the amounts disbursed, which were exclusive of the compounding interest assessed as part of the RLI.[259] Such treatment of the U.K. launch aid is consistent with our calculations for the GOC and GOQ launch aid, where we are using the actual outstanding balances to calculate the benefit under 19 CFR 351.505(d), as interest-free contingent liabilities.[260]

Land for LTAR

Comment 14: The Appropriate Benchmark for the Land Provided at Mirabel for LTAR

Bombardier's and the GOC's Case Briefs

- In the *Preliminary Determination*, the Department used as its land benchmark the average price of land at certain airports in the United States in 2013, 2015, and 2017 to calculate the benefit conferred by the provision of land by the GOC. The record of this investigation now contains benchmark information that demonstrates that Bombardier received no benefit from this land and the Department should use this information in its calculations for the Final Determination.[261]
- However, should the Department continue to use the U.S. benchmark data from the *Preliminary Determination*, the Department should correct certain mistaken conclusions that the petitioner drew in its benchmark submission related to: 1) the distinction between commercial and general aviation airports; and 2) the lower land price associated with a remote location and a large land parcel.[262] For these reasons, if the Department continues to rely on the petitioner's submission, it should use a benchmark rate based on the average rental rate of rural general aviation airports discounted by 36 percent to reflect the large size of Bombardier's land parcel.[263]

The GOC's Case Brief

- As part of its initial sublease with Bombardier, ADM obtained three land valuation studies from a third-party expert which establish that ADM subleased land to

[258] *See* U.K. July 25, 2017 IQR at RLI-2 ("RLI is usually structured such that the principal amount is repaid with interest") and Shorts Verification Report at 8 ("interest keeps accruing until repayment and Shorts' repayment amounts are based on the amount of time between disbursement and repayment").
[259] *See* Final Calculation Memorandum at Attachment 6 and U.K. Verification Report at 8.
[260] *See* Final Calculation Memorandum at Attachments 4 and 5.
[261] *See* GOC's Letter, "Government of Canada's Submission of Additional Factual Information 100-to-150 Seat Large Civil Aircraft from Canada (C-122-860)," dated September 29, 2017 (GOC's Benchmark Submission).
[262] *See* GOC's Case Brief at 26-31 (citing the Petitioner's September 6 submission, at Exhibit 4); *see also* GOC's Case Brief at 68.
[263] *See* GOC's Case Brief at 36.

Bombardier at fair market value.[264] The Department should use these land studies as the benchmark for the final determination as they reflect the actual market value of the land Bombardier subleased.[265]

- ADM used these valuation studies to establish the fair market rental value of the land.[266] The petitioner's own land benchmark submission demonstrates that this approach was used by the Metropolitan Airport Commission in Minneapolis, Minnesota to establish market rental rates on long-term ground leases.[267]
- The land rental rate ADM negotiated with Bombardier was above the fair market value of the land in question as it was negotiated based on the first land evaluation it obtained, while the second land valuation it obtained lowered the estimated value of the property.
- Regarding the benchmark data the GOC provided regarding the sale of land in Mirabel by non-governmental entities, the data show that the per-unit price of land goes down as the amount of land being sold increases, and that therefore, the price of small parcels of land cannot be used as a reasonable benchmark for larger bulk sales of land.[268] These private commercial transactions are a reasonable alternative benchmark to the land studies, discussed above.
- Further, using the most appropriate U.S. benchmark, the 2016 sale of Willow Run Airport also shows the absence of a benefit to Bombardier from this land. The Willow Run Airport is an appropriate benchmark because it is: 1) a general aviation airport with no passenger traffic; 2) in a rural area close to a major city; and 3) involved a large parcel of land. Should the Department choose to use a tier three benchmark in the final determination, the Willow Run Airport is the most appropriate such benchmark on the record.
- Finally, if the Department continues to use the petitioner's tier three benchmark, the Department adjust this benchmark to reflect the Mirabel's location and the large amount of land Bombardier leased.

Petitioner's Rebuttal Brief

- The Department should continue to use the benchmark data from the *Preliminary Determination.*
- The Department cannot rely on the land lease fees charged by ADM as the benchmark under 19 CFR 351.511(a)(2).
- The GOC's alternative benchmark, the sale of Willow Run Airport, is inappropriate for two reasons: 1) it is a sale price, not a lease price for land near an airport; and 2) Willow Run Airport is not comparable to Mirabel Airport because it is a former General Motors plant that was purchased by a non-profit organization which was partially funded by the Government of Michigan.

[264] *See* GOC's Brief at 25-26.
[265] *Id*. at 28.
[266] *Id*. at 27.
[267] *Id*. at 27 (citing the Petitioner's September 6, 2017 Submission, Exhibit 4).
[268] *See* GOC's Case Brief at 29.

Department's Position:

To determine whether Bombardier received a benefit from the land it leased from ADM, we evaluated the potential benchmarks on the record of this investigation, in accordance with 19 CFR 351.511(a)(2) and section 771(5)(E)(iv) of the Act. First, we examined whether there are market-determined prices from actual transactions (referred to as tier-one prices in the LTAR regulation) within the country under investigation.[269] In the *Preliminary Determination*, we noted that no party had submitted benchmarks for leases of privately-owned land in Canada, or evidence of competitively-run government auctions; the only benchmark information the GOC had submitted was for leases in Canada governed by ADM. However, subsequent to the *Preliminary Determination*, we requested additional benchmark information and the GOC timely provided data regarding actual private land transactions in the city of Mirabel.[270] After evaluating this information, we determine that it constitutes an appropriate tier-one benchmark pursuant to 19 CFR 351.511(a)(2)(i). While these transactions are not for "airport" land, we find that they are comparable because Mirabel airport is not a commercial airport; rather, it is an airstrip, without a terminal, located in a rural area and is, therefore, similar to other land in Mirabel.

Because the Department now has appropriate tier-one information on the record, we are no longer relying on the tier-three benchmark information used in the *Preliminary Determination* (*i.e.*, U.S. commercial airport rental rates).[271] Additionally, while the GOC provided additional information related to Canadian land prices (*i.e.*, land surveys of the Bombardier land parcels at Mirabel airport and government land transactions in Mirabel), this information does not constitute "prices stemming from actual transactions between private parties" such that we may consider either price to be an appropriate market-determined tier-one benchmark pursuant to 19 CFR 351.511(a)(2)(i).

We used the benchmark information provided by the GOC regarding private land transactions in Mirabel to derive a rental rate using the formula provided by ADM, which it uses to calculate rental rates in the ordinary course of business.[272] Additionally, we inflated the benchmark prices to the POI using Producer Price Index data from the International Monetary Fund's International Financial Statistics.

To calculate the potential benefit, we calculated the difference between the price Bombardier paid for land in Mirabel and the Canadian benchmark described above (both converted to U.S. dollars using the Federal Reserve exchange rate for 2016). We determined that the benefit Bombardier received from this program was less than 0.005 percent *ad valorem* when attributed to Bombardier's 2016 sales of the C Series. Therefore, pursuant to 19 CFR 351.511(b) and (c),

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[269] *See* 19 CFR 351.511(a)(2)(i).
[270] *See* GOC's Letter, "Government of Canada's Submission of Additional Factual Information 100-to-150 Seat Large Civil Aircraft from Canada (C-122-860)," dated September 29, 2017 (GOC's Benchmark Submission).
[271] For the same reason, we did not evaluate the tier-three benchmark information the GOC placed on the record subsequent to the *Preliminary Determination*.
[272] *See* Final Calculation Memorandum; *see also* GOC's Benchmark Submission at Exhibit 5, GOC Verification at 9, Exhibit 5.

and our practice,[273] we determine that the land Bombardier leased from ADM at Mirabel provided no measurable benefit to Bombardier.

Comment 15: Whether ADM is an Authority

Because we determined that the provision of land at Mirabel to Bombardier did not confer a measurable benefit, this issue is moot. Although we made a preliminary determination regarding the status of ADM as an authority and received comments on that preliminary determination, we did so because we preliminarily determined that the provision of land at Mirabel provided a measurable benefit to Bombardier. Because our final benefit determination has changed, the status of ADM is not relevant, and we have not addressed the question of whether ADM is an authority for this final determination.[274]

Other GOC and GOQ Programs

Comment 16: *Emploi-Québec* Grants: Specificity and Benefit Calculation

Bombardier and the GOQ's Case Briefs

- In the *Preliminary Determination*, the Department found that: 1) the *Emploi-Québec Mesure de Formation de la Main d'oeuvre* (MFOR) and *Fonds de développement et de reconnaissance des compétences de la main d'oeuvre* (FDRCMO) grants are *de facto* specific under section 771(5A)(D)(iii)(III) of the Act because the aerospace products and parts industry received a disproportionate share of the benefits disbursed to the manufacturing sector; and 2) the *Emploi-Québec Projet économique d'envergure* (PÉE) grants are *de facto* specific under section 771(5A)(D)(iii)(I) of the Act because they are given to a limited number of enterprises.[275]
- The MFOR, FDRCMO, and PEE grants are worker training/skills development grants, and based on the Department's practice and regulations, such worker training and worker assistance are examples of recurring benefits which should not be countervailable.[276]
- In addition, the Department incorrectly determined that the *Emploi-Québec* grants are *de facto* specific for the following reasons:[277]
    - Record evidence demonstrates that the aerospace industry accounted for a small amount of assistance given under the MFOR and FDRCMO programs, and that the PEE program is not limited to an enterprise or industry.[278]

[273] *See e.g.*, *Coated Paper from the PRC*, and accompanying IDM at "Analysis of Programs, Programs Determined Not To Have Been Used or Not To Have Provided Benefits During the POI for GE" ("Where the countervailable subsidy rate for a program is less than 0.005 percent, the program is not included in the total CVD rate.").
[274] *See* Comment 14.
[275] *See Preliminary Determination*, and accompanying PDM at 26.
[276] *See* Bombardier's Case Brief at 75-76 (citing 19 CFR 351.524(c)(1)); *see also* GOQ Case Brief at 20 (citing *Supercalendered Paper from Canada: Final Affirmative Countervailing Duty Determination*, 80 FR 63535 (October 20, 2015); and *Welded Line Pipe From the Republic of Korea: Preliminary Negative Countervailing Duty Determination and Alignment of Final Determination With Final Antidumping Duty Determination*, 80 FR 14907 (March 20, 2015)).
[277] *See* Bombardier's Case Brief at 76.
[278] *See* GOQ's Case Brief at 20.

- The Department's specificity analysis is inconsistent with the Act because the Act requires that the Department find that an industry received a disproportionately large amount of a subsidy, not a disproportionately large amount of a subsidy within an industry.[279]
- The Department must find that the FDRCMO grant is not *de facto* specific because the Department never requested a standard questions appendix for the FDRCMO program and the GOQ did not provide information regarding the industries that used the program, the total amount of assistance provided, or the amount the manufacturing sector received for this program.[280]
- The Department did not explain how the PÉE program was specific to an enterprise or industry, but instead just stated that such grants were given to a limited number of enterprises.[281]

Petitioner's Rebuttal Brief

- *Emploi-Québec* grants should be treated as non-recurring benefits and the GOQ and Bombardier ignore the language of 19 CFR 352.524(c)(2), which states that the Department will examine claims that a subsidy on the recurring list should be treated as non-recurring.[282]
- It is also appropriate to treat *Emploi-Québec* grants as non-recurring because Bombardier: 1) required approval from the GOQ in order to receive these grants, which were limited in duration; and 2) cannot expect to receive additional subsidies under the PEE program on a yearly basis.[283]
- The Department properly determined that *Emploi-Québec* grants are *de facto* specific because record evidence demonstrates that either: 1) the aerospace sector received a disproportionate amount of the grants provided to the manufacturing sector; or 2) the grants are given to a limited number of enterprises.[284]

Department's Position:

After further examination of our preliminary determination calculations, we find that the combined benefits Bombardier received under the MFOR and FDRCMO programs are less than 0.005 percent *ad valorem* when attributed to Bombardier's POI sales. Therefore, consistent with our practice, we are not including these programs in our final subsidy rate calculations for Bombardier. As a result, the issues related to the specificity of the MFOR and FDRCMO programs are moot and we have not addressed them here.

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[279] *Id*.
[280] *Id*. at 21.
[281] *Id*. at 21-22.
[282] *See* Petitioner's Rebuttal Brief at 110.
[283] *Id*. at 111.
[284] *Id*. at 111-112 (citing *Coated Free Sheet Paper from the Republic of Korea: Notice of Final Affirmative Countervailing Duty Determination*, 80 FR 60639 (October 25, 2017), and accompanying IDM at 21; *Silicon Metal from Australia: Preliminary Affirmative Countervailing Duty Determination and Alignment of Final Determination with Final Antidumping Duty Determination*, 82 FR 37843 (August 14, 2017), and accompanying IDM at 8; and *Large Residential Washers From the Republic of Korea: Final Affirmative Countervailing Duty Determination*, 72 FR 60642 (October 25, 2007), and accompanying IDM at 8).

However, we continue to treat the *Emploi-Québec* PÉE grants as non-recurring subsidies in accordance with 19 CFR 351.524(c)(1) and (2). While the Department's regulations include an illustrative list of the programs "normally" treated as providing recurring benefits (*i.e.*, "{d}irect tax exemptions and deductions; exemptions and excessive rebates of indirect taxes or import duties; provision of goods and services for less than adequate remuneration; price support payments; discounts on electricity, water, and other utilities; freight subsidies; export promotion assistance; early retirement payments; worker assistance; worker training; wage subsidies; and upstream subsidies"), they also provide a test for determining whether a benefit is recurring. Specifically, 19 CFR 351.524(c)(2) states:

> If a subsidy is not on the illustrative lists, or is not addressed elsewhere in these regulations, or if a party claims that a subsidy on the recurring list should be treated as non-recurring or a subsidy on the non-recurring list should be treated as recurring, the Secretary will consider the following criteria in determining whether the benefits from the subsidy should be considered recurring or non-recurring:
>
> (i) Whether the subsidy is exceptional in the sense that the recipient cannot expect to receive additional subsidies under the same program on an ongoing basis from year to year;
>
> (ii) Whether the subsidy required or received the government's express authorization or approval (*i.e.*, receipt of benefits is not automatic), or
>
> (iii) Whether the subsidy was provided for, or tied to, the capital structure or capital assets of the firm.

Thus, consistent with the petitioner's request,[285] we examined whether: 1) Bombardier expects to receive additional subsidies under this program on a yearly basis; and 2) this program required express approval from the GOQ. Record evidence demonstrates that Bombardier must apply for benefits under the PÉE grant program on a yearly basis and these applications must be approved each year by the GOQ.[286] Moreover, the PÉE grant was exceptional and unlikely to be received in this fashion on a yearly basis, because it supported a large one-time action.[287] Consequently, we determine that this program is properly treated as a non-recurring subsidy.

Furthermore, we continue to find that PÉE grants are *de facto* specific, pursuant to section 771(5A)(D)(iii) of the Act, which provides the following:

> (iii) Where they are reasons to believe that a subsidy may be specific as a matter of fact, the subsidy is specific if one or more of the following factors exist:

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[285] *See* Petitioner's Rebuttal Brief at 110.

[286] *See* Bombardier September 5, 2017 SQR at 17 ("The applicant company must build a case for the grant. The company must provide: a company description, information on the company project, a description of the training plan and resources, and the cost. The proposal is then reviewed by Emploi Quebec and can be accepted or rejected").

[287] *See* Bombardier September 5, 2017 SQR at 18 and Exhibits 15A, 15B, l5 D.

> (I) The actual recipients of the subsidy, whether considered on an enterprise or industry basis, are limited in number.
> (II) An enterprise or industry is a predominant user of the subsidy.
> (III) An enterprise or industry receives a disproportionately large amount of the subsidy.
> (IV) The manner in which the authority providing the subsidy has exercised discretion in the decision to grant the subsidy indicates that an enterprise or industry is favored over others.

In the *Preliminary Determination*, we found that, because the actual recipients of PÉE grants are limited in number on an enterprise basis, they are *de facto* specific pursuant to section 771(5A)(D)(iii)(I) of the Act. In determining *de facto* specificity, the Statement of Administrative Action (SAA) explicitly states:

> The Administration intends that Commerce seek and consider information relevant to all of these factors. However, given the purpose of the specificity test as a screening mechanism, the weight accorded to particular factors will vary from case to case. For example, where the number of enterprises or industries using a subsidy is not large, the first factor alone would justify a finding of specificity, because the absurd results envisioned by *Carlisle* would not be threatened if specificity were found. On the other hand, where the number of users of a subsidy is very large, the predominant use and disproportionality factors would have to be assessed. Because the weight accorded to the individual de facto specificity factors is likely to differ from case to case, clause (iii) makes clear that Commerce shall find de facto specificity if one or more of the factors exists.[288]

Thus, the SAA makes clear that under the first factor in a *de facto* specificity analysis, when the number of recipients is not large, that can be a basis for specificity. In this case, we continue to find that record evidence demonstrates the number of enterprises that received the PÉE grants is small.[289] Consequently, we continue to find that the PÉE grants provided by the GOQ to Bombardier are *de facto* specific for purposes of the final determination.

Comment 17: Whether the GOQ's SR&ED Tax Credits are Countervailable

The GOQ's and Bombardier's Case Brief

- In the *Preliminary Determination*, the Department determined that the GOQ's SR&ED tax credits are *de facto* specific, pursuant to section 771(5A)(D)(iii)(I) of the Act, because the number of recipients that received the credit, compared to the total corporate tax filers in the province of Québec, is limited in number on an enterprise basis. However, because the

[288] *See Statement of Administrative Action (SAA) accompanying the Uruguay Round Agreements Act*, H.R. Doc. No. 103-316, Vol. 1 at 931 reprinted at 1994 U.S.C.C.A.N. 4040, 4199 (1994) at 931.
[289] *See* GOQ's September 5, 2017 Supplemental Questionnaire Response (GOQ September 5, 2017 SQR) at 27 and Exhibits QC-SUPP1-38 through QC-SUPP1-45. For example, in the years in which Bombardier received PÉE (*i.e.*, in 2008-2009 and 2012-2013), there were only 47 projects and 21 projects, respectively, which received large funding grants under this program; in no year were more than 50 projects approved under the PÉE program.

Department's preliminary analysis did not determine whether the SR&ED tax credits are specific to an enterprise or industry, this finding is contrary to the Act. Therefore, the Department should determine that the SR&ED tax credits are neither specific nor a countervailable subsidy.

The GOQ's Case Brief

- The Department focused its specificity analysis on whether fewer than all of the corporations in Québec benefited from the SR&ED credit. This comparison is unreasonable because it assumes that all corporate tax filers applied for the SR&ED credit during the POI but only a limited number of them received the credit. However, this is a false assumption because not every corporation applies for every tax credit each year.
- Instead, the Department should focus its specificity analysis on whether the SR&ED tax credits were limited in number to an enterprise or industry when compared to the total number of companies that applied for the credit. However, the tax credit is designed to stimulate R&D and is available to all corporations, not limited to any industry.[290]
- Alternatively, the Department should analyze specificity by determining whether an enterprise or industry is a predominant user or receives a disproportionately large amount of the subsidy.[291] The aerospace industry did not account for a predominant share of accepted SR&ED tax credit allowances for the 2015-2016 fiscal year.[292]
- The Department's preliminary finding that the GOQ's SR&ED tax credits were *de facto* specific is not supported by the record of this case because the information the Department cited was not on the record at that time.[293]

Petitioner's Rebuttal Brief

- The Department's specificity finding is supported by record evidence and is consistent with the Act and the Department's practice.[294]
- Record evidence supports the finding that the SR&ED tax credit is *de facto* specific because the number of recipients of the tax credit is limited, on an enterprise basis.[295]

Department's Position:

We continue to find that the GOQ's SR&ED tax credits are *de facto* specific, under section 771(5A)(D)(iii)(I) of the Act. Section 771(5A)(D)(iii)(I) of the Act states that a subsidy is specific as a matter of fact if the actual recipients of the subsidy, whether considered

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[290] *Id.* at 19 (citing the GOQ Verification Report at 3, and the GOQ July 24, 2017 IQR at 112).
[291] *Id.* at 20 (citing sections 771 (5A)(D)(iii)(II) and (III) of the Act).
[292] *Id.* at 19 (citing the GOQ July 24, 2017 IQR at Exhibit QC-RQSRED-24).
[293] *Id.* at 17 (citing *Preliminary Determination*, and accompanying PDM at 23). The GOQ notes that did not provide this information to the Department until September 18, 2017.
[294] *See* Petitioner's Rebuttal Brief at 106 (citing to *Super Calendered Paper from Canada: Final Results of Countervailing Duty Expedited Review,* 82 FR 18896 (April 24, 2017) and accompanying IDM at Comment 28; *Countervailing Duty Investigation of Certain Cold-Rolled Steel Flat Products from the Republic of Korea: Final Affirmative Determination,* 81 FR. 49943 (July 29, 2016) and accompanying IDM at Comment 13; *Final Affirmative Countervailing Duty Determination: Certain Cut-to-Length Carbon-Quality Steel Plate from the Republic of Korea,* 64 FR 73176 (December 29, 1999)).
[295] *Id*. at 107-108 (citing the SAA and the GOQ's Case Brief).

on an enterprise or industry basis, are limited in number. Further, section 771(5A) of the Act states that "any reference to an enterprise or industry is a reference to a foreign enterprise or industry and includes a group of such enterprises or industries." The SAA states that "{t}he Administration intends to apply the specificity test in light of its original purpose, which is to function as an initial screening mechanism to winnow out only those foreign subsidies which truly are broadly available and widely used throughout an economy."[296]

Under section 771(5A)(D)(iii)(I) of the Act, we may find a subsidy program *de facto* specific if the actual recipients of a subsidy, whether on an enterprise or industry basis, are limited in number. The SR&ED tax credits at issue in this investigation are tax incentives that are available to all types of businesses and corporations in Québec.

Thus, it is appropriate to include all corporate tax returns in our analysis of whether the SR&ED tax program is *de facto* specific. In order to determine whether these SR&ED tax credits are broadly available and widely used throughout an economy, we examined the number of recipients of the SR&ED tax credit, and compared that number to the actual number of corporate tax returns.[297] On this basis, we find that the actual recipients of the tax credits are limited in number, on an enterprise basis, and therefore the program is *de facto* specific.

Finally, we acknowledge that the Department erred in the *Preliminary Determination* by not citing the correct submission in which the GOQ provided the total number of corporate tax returns filed in the Province of Québec for tax year 2015. While the GOQ argues that this information was not provided prior to the *Preliminary Determination*, this is not so. In fact, the GOQ provided this information on September 25, 2017.[298] Therefore, we continue to rely on this information in our specificity analysis for the final determination.

Comment 18: Bombardier's Federal SR&ED Tax Credit

Petitioner's Case Brief

- At verification, Bombardier corrected its questionnaire responses by noting that in tax year 2015 it owed the GOC previously-accrued SR&ED tax credits upon the sale of certain assets. To pay this tax amount, Bombardier applied a small portion of its previously accrued SR&ED tax credits, reducing the overall value of Federal SR&ED tax credits available to the company. Therefore, the Department should determine that Bombardier benefited from this

[296] S*ee* SAA at 929. The SAA "shall be regarded as an authoritative expression by the United States concerning the interpretation and application of the Uruguay Round Agreements and this Act…" 19 U.S.C. §1352(d).
[297] *See* GOQ July 24, 2017 IQR at Exhibits QC-RQSRED-23 and QC-RQSRED-24. *See also* GOQ's letter, "Antidumping and Countervailing Investigations of 100- to 150-Seat Large Civil Aircraft from Canada: Evidence on *Countervailing Duty Investigation of 100- To 150-Seat Large Civil Aircraft from Canada:* Response of the Government of Québec to the Department's May 19, 2017 Initial Questionnaire," dated September 25, 2017 (GOQ September 25 Response) at 16. The exact number of recipients is business proprietary information and cannot be disclosed in this public document. For additional information on the SR&ED tax credit analysis, *see* the Final Calculation Memorandum.
[298] *See* GOQ's September 25, 2017 Second Supplemental Questionnaire Response (GOQ September 25, 2017 SQR) at 16.

subsidy program during the POI and use C Series sales as the denominator of its benefit calculation.[299]

Bombardier's Case Brief

- Bombardier's use of the Federal SR&ED tax credit in 2016 is not a financial contribution under section 771(5)(D) of the Act. The GOC did not forgo any tax-related revenue from Bombardier as a result of this tax credit. Thus, this program provided no benefit to Bombardier and is not a countervailable subsidy.[300]
- As Bombardier explained at verification, the sale of assets for which Bombardier had accrued, but not used, Federal SR&ED credits in previous years triggered its use of this tax credit in the 2015 tax year.[301] Thus, Bombardier repaid a small portion of its accrued Federal SR&ED tax credits to the GOC, reducing the amount of the accrued Federal SR&ED tax credits available to the company in future years.[302]

Petitioner's Rebuttal Brief

- Using tax credits to offset an income tax obligation is a financial contribution that provides a benefit. The GOC allowed Bombardier to reduce its special federal income tax by granting it Federal SR&ED credits, thereby providing a financial contribution within the meaning of section 771(5)(D)(ii) of the Act.[303]
- Because this program meets the definition of a direct tax under 19 CFR 351.509, a benefit exists to the extent that the tax paid by the firm as a result of the program is less than the tax the firm would have paid in the absence of the program.

Department's Position:

For the final determination, we find that Bombardier's use of the Federal SR&ED tax credits to repay previously claimed tax credits does not constitute a financial contribution within the meaning of section 771(5)(D)(ii) of the Act. Section 771(5)(D)(ii) of the Act defines "financial contribution" as "foregoing or not collecting revenue that is otherwise due, such as granting tax credits or deductions from taxable income." However, absent the Federal SR&ED tax credit program, Bombardier would neither have earned the SR&ED tax credits on certain assets, nor have had to reverse and repay these tax credits upon its sales of these assets. Thus, we find that, because there was no revenue forgone by the GOC from Bombardier during the POI, the tax accounting on this transaction does not constitute a financial contribution or benefit and we have not included it in our subsidy calculations for the final determination.

[299] *See* the Petitioner's Case Brief at 47 (citing GOC July 24, 2017 IQR at Exhibit GOC-CSERIES-10).
[300] *See also* Bombardier's Rebuttal Brief at 25-26.
[301] *See* Bombardier's Case Brief at 72 (citing the Bombardier Verification Report at Verification Exhibit 1).
[302] *Id.* at 72 (citing the Bombardier Verification Report at 3).
[303] *See* Petitioner's Rebuttal Brief at 110.

Other U.K. Programs

Comment 19: Specificity and Benefits of U.K. Tax Credits

The EU and U.K.'s Case Briefs

- In the *Preliminary Determination*, the Department found that the R&D tax credit program is *de facto* specific under section 771(5A)(D)(iii)(I) of the Act because the number of recipients that received the U.K. R&D tax credits, compared to total corporate tax filers in the U.K., is limited in number on an enterprise basis. However, the Department's specificity finding is not supported by record evidence and these tax credits are not restricted to any particular company, industry or sector.
- In the 2015-2016 tax year, U.K. companies claimed R&D tax credits equaling 99 percent of R&D expenditures.[304] Thus, companies claimed R&D tax credits for virtually all R&D activities conducted in the U.K.
- The difference between the number of companies claiming R&D tax credits and those filing corporate tax returns is explained because some companies which could claim tax credits did not do so because they were not conducting R&D activities during that tax year. In prior cases with similar fact patterns, the Department has found such programs not to be *de facto* specific.[305]
- Most industrialized countries provide similar tax incentives for R&D, including the United States. Moreover, record evidence demonstrates that R&D tax incentives are significantly more concentrated in the United States than in the U.K.[306]
- The Department also erred by including service providers when analyzing the total number of tax filers. The inclusion of service providers is contrary to the WTO Agreement on Subsidies and Countervailing Measures (SCM Agreement), which only applies to producers of goods.[307] The Department cannot assume that the same outcome would be reached had it excluded service providers from the analysis because the SCM Agreement requires that a determination of specificity be based on positive evidence.

The EU's Case Brief

- The R&D tax credit program is not *de facto* specific because not all companies in an area must benefit from a program in order for it not to be specific. The number of companies receiving this tax credit mean that it can be considered sufficiently broadly available under Article 2.1(c) of the SCM Agreement.
- The Department determined that the recipients of the R&D tax credits are limited in number on an enterprise basis. However, this is not the standard in Article 2.1(c) of the SCM Agreement, which refers to the use of a subsidy by a limited number of certain enterprises.[308]

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[304] *See* U.K.'s Case Brief, at 60 (citing U.K. Verification Report at 9).
[305] *Id*. at 61 (citing *Final Affirmative Countervailing Duty Determination: Certain Hot-Rolled Carbon Steel Flat Products from Thailand*, 66 FR 50410 (October 3, 2001) (*HRCs from Thailand))*, where the Department found that the recipients of a subsidy under a debt restricting program were not limited in number where there were "1,694 cases representing numerous industries identified during the POI").
[306] *Id*. at 61 (citing U.K. Verification Report at Verification Exhibit 10).
[307] *Id*. at 61-62 (citing to the U.K. Verification Report at 8).
[308] *See* European Commission's Case Brief at 3 (citing to *Panel Report, United States — Subsidies on Upland Cotton*, WT/DS267/R, DSR 2004 para. 7.1142).

Bombardier's Case Brief

- In the *Preliminary Determination*, the Department found that the U.K. R&D tax credits conferred a benefit equal to the amount of Shorts' tax savings, pursuant to 19 CFR 351.509(a)(1).
- The finding is incorrect because the tax credit provisions are not specific. Furthermore, if the tax credits are specific, the Department overstated the benefits received by Shorts, based on the following:
    - Shorts did not use the total amount of tax credits that it earned in 2015 during in the POI. Further, the Department accounted for the entire amount of the tax credit as if it had been received in the POI.[309]
    - The Department incorrectly overstated the benefit that Shorts received during the POI by nearly three times because the amount calculated by Department was based on the amount of R&D tax credits Shorts earned during the POI, instead of the amount Shorts received in 2016.[310]

The petitioner did not comment on this issue.

Department's Position:

We continue to find that the U.K.'s R&D tax credits are *de facto* specific, under section 771(5A)(D)(iii)(I) of the Act. Generally, section 771(5A)(D)(iii)(I) of the Act states that a subsidy is specific as a matter of fact if the actual recipients of the subsidy, whether considered on an enterprise or industry basis, are limited in number. Further, section 771(5A) of the Act states that "any reference to an enterprise or industry is a reference to a foreign enterprise or industry and includes a group of such enterprises or industries." The SAA states that "{t}he Administration intends to apply the specificity test in light of its original purpose, which is to function as an initial screening mechanism to winnow out only those foreign subsidies which truly are broadly available and widely used throughout an economy."[311]

Under section 771(5A)(D)(iii)(I) of the Act, we may find a subsidy program *de facto* specific if the actual recipients of a subsidy, whether on an enterprise or industry basis, are limited in number. The R&D tax credits at issue in this investigation are tax credits that are available to all types of businesses and corporations in the U.K.

Thus, it is appropriate to include all corporate tax returns in our analysis of *de facto* specificity. In order to determine whether the R&D tax credits are broadly available and widely used throughout an economy, we examined the number of recipients of the R&D tax credits, and compared that number to the actual number of corporate tax returns.[312] Specifically, 21,525 enterprises received the R&D tax credits for the 2015 tax year, out of 1,392,511 corporate tax filers during this period. On this basis, we find that this program benefitted only a limited

[309] *See* Bombardier's Case Brief at 73.
[310] *Id*. at 74-75 (citing to the Preliminary Calculation Memorandum, at Attachment 14).
[311] S*ee* SAA at 929. The SAA "shall be regarded as an authoritative expression by the United States concerning the interpretation and application of the Uruguay Round Agreements and this Act…" 19 U.S.C. §1352(d).
[312] *See* U.K. September 5, 2017 SQR at Exhibits 8 and 9.

number of users, and, therefore, it is *de facto* specific. Our *de facto* specificity analysis in this case is consistent with the approach utilized in *CRS from Korea* and *Bottom Mount Refrigerators from Korea*, where the Department compared the number of recipients that received the benefits under the programs in question to the number of companies that filed tax returns during the same period.[313]

Furthermore, we disagree with the U.K.'s argument that because U.K. companies claimed R&D tax credits equaling 99 percent of R&D expenditures, there is no specificity for this program. The Act instructs us to determine whether the actual recipients of the subsidy "are limited in number," and not whether those limited recipients represent all the entities eligible for the program or only some subset of all the entities eligible for the program. In other words, there is no requirement in the Act to find not only that the actual recipients of the subsidy are limited in number, but also that those actual recipients constitute a limited number out of all eligible recipients of the subsidy. In essence, the U.K. proposes finding "double" specificity.

In fact, the information above demonstrates that less than two percent of total taxpayers received this tax credit, which in turn further supports our finding that the recipients of this subsidy are limited in number. Moreover, we disagree that the Department erred in its analysis by considering not only the producers of goods, but also service providers, in the total number of U.K. tax filers, contrary to the SCM Agreement. The Act, which is consistent with the SCM Agreement, does not require that the Department exclude service providers from its specificity analysis.[314] Even assuming, *arguendo*, it was appropriate to make this adjustment, the number of service providers is not on the record of this investigation because even the U.K. does not segregate its tax data between producers and service providers. Finally, the U.K. tax data on the record includes service providers in both the numerator (the R&D tax claims) and in the denominator (the total number of tax returns filed) and, as result, their inclusion in our specificity analysis is not distortive.[315]

We disagree with the U.K. that the circumstances of this case are similar to those of *HRCs from Thailand*. As an initial matter, the program at issue in *HRCs from Thailand* was a debt restructuring program, not a tax credit program. Thus, in *HRCs from Thailand,* the Department examined the amount of debt restructuring obtained by each identified company and the industries to which these companies belonged. This differs from the specificity analysis performed in the instant investigation, where the Department compared the total number of enterprises that received the tax credit to the total number of corporate tax filers. However, because the Act does not mandate any specific methodology in conducting a *de facto* specificity analysis, the Department has discretion to apply any reasonable methodology in making a *de facto* specificity determination in light of the facts and circumstances of each particular case.[316] Consequently, the specific number of companies receiving debt restructuring in *HRCs from Thailand* has no bearing on the *de facto* specificity analysis performed in this investigation.

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[313] *See CRS from Korea*, and accompanying IDM at Comment 13*; see also Bottom Mount Combination Refrigerator-Freezers from the Republic of Korea: Final Affirmative Countervailing Duty Determination*, 77 FR 17410 (March 26, 2012) *(Bottom Mount Refrigerators from Korea).*
[314] *See* 771(5A)(D)(iii) of the Act.
[315] *See* U.K. Verification Exhibit 10. *See also* U.K.'s Case Brief at 62
[316] *See* SAA at 931.

Moreover, while the U.K. argues that most industrialized countries, including the United States, provide similar tax incentives for R&D, we are analyzing the U.K. R&D tax credit program, not that of other countries. The fact that other countries may provide benefits pursuant to similar programs is irrelevant to our analysis in this investigation.

As a result of the above analysis, we continue to determine that the R&D tax credit constitutes a countervailable subsidy to Bombardier/Shorts. However, as noted above in Comment 6, we find that the U.K. R&D tax credits which were not directly linked to the C Series do not have a direct relationship to the international consortium's production of subject merchandise; thus, these tax credits are not relevant to the calculation of Bombardier's final subsidy rate. Consequently, we are including in our subsidy calculations only the U.K. R&D tax credits which were directly linked to the C Series and attributing them to sales of the C Series. Any other R&D tax credits that Shorts received are not relevant to our analysis.

Finally, we disagree with Bombardier that we included amounts which were outside the POI and that we overstated the benefit Shorts received. The U.K. R&D tax credit program relates to income tax liabilities. The income tax is a direct tax, and treatment of tax credits for direct taxes is defined in 19 CFR 351.509(b)(1), which states:

> In the case of a full or partial exemption or remission of a direct tax, the Secretary normally will consider the benefit as having been received on the date on which the recipient firm would otherwise have had to pay the taxes associated with the exemption or remission. Normally, this date will be the date on which the firm filed its tax return.

Thus, we included in our benefit calculation the total amount of the U.K. R&D tax credits for Bombardier based upon the 2015 tax returns that it filed during the POI.

Comment 20: Specificity of INI, Resource Efficiency, Innovate UK, and ATI Grants

The EU's Case Brief

- In the *Preliminary Determination*, the Department found that the INI grants[317] are *de facto* specific under sections 771(5A)(D)(iii)(I) or 771(5A)(D)(iii)(III) of the Act because either the actual recipients on an enterprise basis are limited in number, or because Shorts received a disproportionately large amount of grant benefits when compared to other recipients. The Department also found that Innovate UK and ATI grants are *de jure* specific under section 771(5A)(D)(i) of the Act, because only the aerospace industry is eligible to receive these grants.
- Regarding the INI grants, the Department did not explain how Shorts received a disproportionate amount of the benefits and, therefore, it should not continue to find these grants *de facto* specific. In any event, the Department should take into account that Shorts is a large player in the economy of Northern Ireland and contributes a large part to the total gross domestic product (GDP) of Northern Ireland.

[317] These include SFA, Skills Growth, Apprenticeships, and Resource Efficiency.

- Additionally, the fact that three sectors are not eligible for support under INI grants does not result in these grants being *de facto* specific.[318]

The U.K.'s Case Brief

- The INI grants (SFA and Skills Growth) are not *de facto* specific and should not be countervailable based on the following:
    - The Department provided no evidence to support the determination that Shorts received a disproportionately large amount of SFA benefits.
    - The SFA and Skills Growth support provided to Shorts was in proportion with the size and significance of the company and its number of employees.
    - The Department, when making its *de facto* specificity determination, needs to take into account the extent of diversification of economic activities in Northern Ireland.[319]
    - The Department must consider that the INI grants have been given to many sectors other than the transport Equipment sector, and while the European Union State aid rules prohibit INI from providing SFA grants to certain sectors, some of these sectors are absent in Northern Ireland.[320]
    - Shorts was not a predominant user of the Skills Growth program assistance, and the assistance given under the Skills Growth program is eligible to any company that is able to meet the criteria that INI uses when evaluating applications.[321]
- Regarding the Resource Efficiency grant, the number of recipients are sufficiently broad and therefore not *de facto* specific.[322] Moreover, in its analysis of the INI Apprenticeship and Resource Efficiency programs, the Department erred by including service providers when analyzing the total number of tax filers. The inclusion of service providers is contrary to the SCM Agreement, which only applies to producers of goods.
- The Innovate UK and ATI are not *de jure* specific because ATI grants are a subset of Innovate UK grants, which are available to all industries and sectors. Innovate UK is a government entity that provides grants through a competitive process for a wide range of goods and services.[323] Moreover, these grants are not *de facto* specific because Innovate UK grants are distributed across a wide range of industries. Also, the reason that the number of grant recipients is limited compared to the number of manufacturing companies in the U.K. is because the U.K. determined that its limited available funds for this program should be disbursed to the most qualified, highest-ranking candidates.[324]
- The Apprenticeship program does not constitute a financial contribution because the funds provided by the U.K. were payment for training services received, not a grant.

The petitioner did not comment on this issue.

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[318] *See* European Commission's Case Brief at 3.
[319] *See* U.K.'s Case Brief at 65-66 (citing *Certain Cold-Rolled Carbon Steel Flat Products from Brazil, Final Affirmative Countervailing Duty Determination*, (September 23, 2002); and *Notice of Final Negative Countervailing Duty Determination: IQF Red Raspberries from Chile*, 67 FR 35961 (May 22, 2002).
[320] *Id*. at 66.
[321] *Id*. at 67-68.
[322] *Id.*
[323] *Id*. at 62-63.
[324] *Id*. at 63-64.

Department's Position:

We continue to find that the INI SFA grant is *de facto* specific under section 771(5A)(D)(iii)(III) of the Act because Shorts received a disproportionately large amount of SFA benefits when compared to other recipients.[325]

We disagree with the European Commission's and U.K.'s arguments that the extent of economic diversification in Northern Ireland, and Shorts' alleged status as a large player in the economy of Northern Ireland which contributes a large part to the total GDP of Northern Ireland, indicate that this program is not *de facto* specific. Neither the European Commission nor the U.K. cited any support for its position. Even assuming arguendo that Shorts is major player in Northern Ireland's economy, this does not mean that the economy lacks economic diversification. Further, even if a company contributes to a large part of a country's GDP, this should not insulate the company from a specificity finding. As a result, we continue to find that the SFA grant program constitutes a countervailable subsidy to Bombardier/Shorts.

However, as noted above in Comment 6, we find that the remaining U.K. programs which were not directly linked to Shorts' production of the C Series (*i.e.*, Skills Growth, Apprenticeships, Resource Efficiency Grant, and Innovate UK and ATI grants) are not relevant to the calculation of Bombardier's final subsidy rate. Therefore, the issues related to the specificity of these programs are moot and we have not addressed them here.

Scope Issues

Comment 21: Removal of Nautical Mile Range Criterion

Bombardier's Case Brief

- Due to significant administrability and circumvention concerns, the Department should remove both the 2,900 nautical mile range and the Federal Aviation Administration (FAA) type certificate requirements in the scope. Assessing range capabilities, even for airline industry experts, is complex as it involves sophisticated mathematical formulae, assumptions regarding a series of environmental variables, and only results in range estimates, all of which are difficult for U.S. Customs and Border Protection (CBP) to administer.[326]
- Contrary to the claims of the petitioner, FAA type and supplemental type certificates make no mention of nautical miles, and range capabilities cannot mathematically be extrapolated from the data contained on these certificates. Therefore, FAA type and supplemental type certificates cannot be used to determine whether an imported plane from Canada meets the range requirement of the current scope.[327]

[325] *See* U.K. July 25, 2017 IQR at Exhibits INI-3, INI-17, and the U.K.'s Verification Report at VE-3. The data regarding the recipients of SFA benefits are business proprietary information, and therefore, we cannot discuss them here. For additional information on the SFA grant analysis, *see* the Final Calculation Memorandum.
[326] *See* Bombardier's Case Brief at 77 (citing Bombardier's Letter, "Countervailing Duty Investigation of 100- To 150-Seat Large Civil Aircraft From Canada: Submission of New Scope Information," dated October 18, 2017 at Exhibit 4A (Bombardier's NSI)).
[327] *Id*. at 78 (citing Bombardier's NSI at Exhibit 1A).

- These concerns are not overcome by presuming that the C Series Bombardier planes are mechanically capable of flying more than 3,000 nautical miles (and, thus, subject to the scope), regardless of conditions such as headwinds or other variables. Based on the example provided in Bombardier's October 18, 2017 submission, the C Series mileage range would be inconsistent with the nautical mileage range requirement in the scope.[328]
- A nautical mileage range requirement is likely to encounter administrability issues because an aircraft's range can be mechanically altered. Aircraft can theoretically be taken out of scope if its range is reduced by altering thrust configurations, reducing fuel tank capacity, modifying fuel grade specifications, *etc*.[329]
- The C Series FAA type certificate lacks any data relevant to range. Promotional materials providing notional performance characteristics cannot serve as a basis for determining whether C Series aircraft meet the range requirement.[330]
- The 2,900 nautical mileage range requirement fails to serve its intended purpose (to exclude regional jets from the scope) because regional jets are not defined by nautical mile range. The existing seat requirements exclude regional jets. Therefore, there is no reason to include a nautical range requirement in the scope.[331]
- The FAA,[332] the petitioner, and Airbus,[333] classify aircraft based on seat configurations, not nautical miles. The Harmonized Tariff Schedule (HTS) subheadings used in the scope do not mention nautical mile range.[334] In proceedings before the World Trade Organization (WTO), the United States defined a large carrier using seating capacity and maximum take-off weight, not nautical mile range, to which parties to the counter-complaint agreed.[335]
- Removing the nautical mile range requirement would not impact the petitioner's stated intent of subjecting large carrier aircraft to this investigation, while excluding regional jets. Therefore, the range requirement can be removed without issue given the serious administrability and circumvention concerns listed above.[336]

Petitioner's Rebuttal Brief

- The Department should not eliminate the nautical mile range criterion from the scope. FAA type certificate No. T00008NY covers CS100 and CS300 aircraft, which possess nautical mile ranges over 3,000 nautical miles.[337]
- The Department addressed Bombardier's administrability concern in the preliminary scope memorandum by stating that the certificate need not reference the actual mileage range, but merely that it be a type of certificate which covers other aircraft with a 2,900 nautical mile range.[338]

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[328] *Id*. at 79 (citing Bombardier's NSI at Exhibit 4B).
[329] *Id*. at 82 (citing Bombardier's NSI at 9).
[330] *Id*.
[331] *Id*. at 84.
[332] *Id*. at 84 (citing Bombardier's NSI at Exhibit 2A).
[333] *Id*. (citing Boeing's Scope Comments at Exhibit E).
[334] *Id*. at 85 (citing Preliminary Scope Memorandum at 3).
[335] *Id*. at 87 (citing Bombardier's NSI at Exhibit 3A).
[336] *Id*. at 85.
[337] *See* Petitioner's Rebuttal Brief at 114 (citing Boeing 5/9/17 Scope Clarification at Exhibit Supp.-15).
[338] *Id*. at 115 (Citing Preliminary Scope Memorandum at 9).

- The only risk of circumvention may refer to Bombardier as it is the only Canadian manufacturer of 100- to 150- seat large civil aircraft. Therefore, no modification of the scope is necessary.[339]

Department's Position:

Although in most cases the Department will defer to the petitioner's proposed scope language, the Department will consider modifying that language when the proposed scope raises concerns regarding administrability or evasion with the Department and CBP.[340] During our review of the petition, we discussed the scope language with the petitioner and thoroughly considered the language to ensure that it did not present administrability or evasion issues with the Department or CBP.[341] We ultimately accepted the scope, as modified by the petitioner. We continue to find that the issues raised by Bombardier with respect to the 2,900 nautical mile range requirement are not sufficient to modify scope language specifically requested by the petitioner.

First, Bombardier continues to treat the nautical mile range requirement as an experiential figure which varies and is difficult to determine even for airline industry experts. However, as we found in the *Preliminary Determination*:

> "…the minimum 2,900 nautical mile range is a mechanical capability rather than an experiential one. Thus, if the nautical mile range is not 2,900 miles in certain cases based on headwinds or other variables, but the plane is mechanically capable of transporting 100 to 150 passengers with their luggage on routes equal to or longer than 2,900 nautical mile range, the aircraft is covered by the scope. Hence, changes in the actual range of an aircraft based on various conditions would not provide an avenue for circumvention if an aircraft is mechanically capable of transporting between 100 and 150 passengers with their luggage on routes equal to or longer than a 2,900 nautical mile range."[342]

Second, as we stated in the *Preliminary Determination*, the FAA certificate does not have to reference the actual mileage range of the aircraft, it merely needs to be a type certificate or supplemental type certificate that covers other aircraft with a minimum 2,900 nautical mile range.[343] This requirement is not subjective and can be applied based on facts regarding certificates and aircraft: specifications are available for the aircraft in various sources and websites.[344] Therefore, we do not view this as an administrability issue.

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[339] *Id*. at 116.
[340] *See, e.g., Narrow Woven Ribbons with Woven Selvedge from the People's Republic of China: Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination,* 75 FR 7244, 7247 (February 18, 2010), *unchanged in Notice of Final Determination of Sales at Less Than Fair Value: Narrow Woven Ribbons with Woven Selvedge from Taiwan,* 75 FR 41804 (July 19, 2010) (*Narrow Woven Ribbons*); *see also Notice of Final Determination of Sales at Less Than Fair Value: Certain Softwood Lumber Products from Canada*, 67 FR 15539 (April 2, 2002) (*Lumber IV Final Determination*), and accompanying IDM at "Scope Issues."
[341] *See* Memorandum, "Telephone conversation with the petitioner," dated May 17, 2017.
[342] *See* Preliminary Scope Memorandum at 8.
[343] *See* Preliminary Scope Memorandum at 9.
[344] *See e.g.,* Petitioner's Letter, "100- To 150-Seat Large Civil Aircraft from Canada – Proposed Scope Clarification," dated May 9, 2017 at Exhibit Supp.-15; Petition at Exhibit 68.

Third, notwithstanding any such difficulties claimed by Bombardier, its own website identifies a specific nautical mile range of 3,100 per 108 passengers for CS100 aircraft and a 3,300 nautical mile range for 130 passengers for CS300 aircraft.[345] While this may constitute promotional material, it is presumably accurate as it is the manufacturer that is making the claim, and thus it provides an indication that these aircraft are mechanically capable of flying these distances. Hence, the C Series mileage range is not inconsistent with the nautical mileage range requirement in the scope. Furthermore, despite Bombardier's claim that the FAA, the HTSUS, the petitioner, and Airbus do not classify aircraft based on mileage ranges, Bombardier's website demonstrates that mileage ranges are identified for aircraft and, therefore, the mileage range in the scope can be applied.

Fourth, Bombardier's example of administrability issues involves mechanically altering aircraft to take them out of the scope. This example does not demonstrate difficulties in applying the scope language (administering an order), rather it is a description of how one may attempt to avoid the order. The Department has specific statutory provisions to examine possible circumvention.

Fifth, we do not find that petitioner's description of the merchandise it seeks to have covered by this investigation need be bound by descriptions of large carriers at the WTO.

Finally, despite Bombardier's claim about the mileage range requirement not distinguishing regional jets, the petitioner provided detailed information as to why the mileage requirement was necessary to differentiate subject aircraft from non-subject regional aircraft. On page 29 of the petition, the petitioner stated that "{r}egional jets, such as those produced by Embraer of Brazil, do not have a minimum 2,900 nautical mile range, and therefore do not qualify as {subject merchandise}. … The greater range capability of {subject merchandise} is commercially significant, since it enables airlines to operate {subject merchandise} on routes between the U.S. East and West coasts that are beyond the range of regional jets."[346] Hence, regardless of whether regional jets are typically defined by a nautical mileage range, the range requirement, nevertheless, seeks to ensure that the regional jets will be excluded from the scope of the investigation. While Bombardier claims other characteristics of regional aircraft would

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[345] *See* Preliminary Scope Memorandum at 9.

[346] *See* Petition, FN 90 on page 29. The petitioner also provided the following details in the footnote: *Compare* Bombardier, "C Series," *available at* http://commercialaircraft.bombardier.com/content/dam/Websites/bca/literature/cseries/Bombardier-CommercialAircraft-CSeries-Brochure-en.pdf.pdf ("Both the CSIOO and the CS300 possess a range of over 3,000 nautical miles, meaning they can easily connect far-flung points."), attached as Exhibit 68, *with* Embraer website, "Specifications E 190", *available at* http://www.embraercommercialaviation.com/Pages/Ejets-190.aspx (last accessed Aug. 30, 2016) ("The Advanced Range (AR) version of the E 190 can carry a full load of passengers up to 2,400 nm (4,537 km)."), attached as Exhibit 69; Embraer website, "Specifications E 195", *available at* http://www.embraercommercialaviation.com/Pages/Ejets-J 95.aspx (last accessed Aug. 30, 2016) ("The Advanced Range (AR) version of the E 195 can carry a full load of passengers up to 2,300 nm (4,260 km)."), attached as Exhibit 70; Embraer website, "Specifications E 190-E2" & "Specifications E 195-E2" (showing that the maximum ranges of the E 190-E2 and E 195-E2 are 2,850 and 2,450 nautical miles, respectively), attached as Exhibit 71.

suffice to exclude them from the scope, it is not clear that is correct. Information provided in the petition indicates that the Embraer E 195-E2 has a multi-class seating capacity of 120 seats.[347]

For the reasons mentioned above, we have not eliminated the nautical mile requirement from the scope of the investigation for the final determination.

Comment 22: Revision of the Seating Capacity

Delta's Case Brief

- The Department should exclude single-aisle aircraft with a seating capacity of less than 125 seats (*i.e.*, CS100 aircraft) from the scope of the investigations. Delta specifically sought to purchase an aircraft with a seating capacity between 100 and 110 seats, not an aircraft with a capacity anywhere between 100 and 150 seats. If a carrier seeks to purchase a 100- to 110-seat aircraft to fill that niche within its fleet, larger aircraft are not viable alternative products.
- The petitioner acknowledged that it did not compete with Bombardier's offer of a CS100 aircraft and it does not produce such aircraft. The petitioner's smallest capacity 737-700 aircraft have 126 to 137 passenger seats whereas the maximum capacity of the CS100 is 124 seats. When comparing seating capacity, it is not appropriate to compare the minimum capacity of one type of aircraft (the 737-700 – 126 seats) with the maximum capacity of another aircraft (the CS100 124 seats) (the Department made this comparison in the preliminary determination).
- While the petitioner may have intended to include the CS100 aircraft in the scope, the petitioner's intention does not overrule the Department's authority to narrow[348] the scope of an investigation.
- 100-110 seat aircraft should be excluded from the scope of the investigation because the petitioner does not produce this aircraft, as evidenced by the fact that the petitioner did not enter a bid to supply Delta with aircraft which it ultimately purchased from Bombardier. While the petitioner does not need to produce every type of product encompassed by the scope of an investigation, the scope should not include something that does not compete with the petitioner's products; the petitioner does not compete in the 100- to 125-seat large carrier aircraft market.
- The scope offered by the petitioner is merely a proposed scope - not the final scope. The Department has the inherent authority to "define and clarify" the scope of its investigation.[349]
- Given the unusual nature of this case - where there is only one domestic purchaser, one foreign producer/exporter, no domestic producer of the purchaser's desired product and no sales or imports - the Department should consider the expectations of the ultimate purchaser in defining the scope of the investigation.
- The scope is currently defective because it includes a product that has different physical characteristics from products produced by the petitioner. The Department has used its

[347] *See* Petition at Exhibit 71.
[348] *See* Delta's Case Brief at 3-4 (citing *Torrington Co. v. United States*, 745 F. Supp. 718, 721 n.4 (CIT 1990)).
[349] *Id*. at 5 (citing *Ad Hoc Shrimp Trade Action Cmte. v. United States*, 637 F. Supp. 2d 1166, 1175 (CIT 2009) and *Ad Hoc Shrimp Trade Action Cmte. v. United States*, 637 F. Supp. 2d 1166, 1175 (CIT 2009)).

authority in the past to exclude certain products initially included in the petition,[350] and should modify the currently over-inclusive scope.

Petitioner's Rebuttal Brief

- The Department should not exclude CS100 aircraft from the scope of the investigation as the petition establishes that the petitioner intended to cover CS100 aircraft. The dumping margin calculated in the petition was based on Bombardier's sale of 75 CS100s to Delta.
- The Department's practice is to accept the scope, as defined by the petitioner, even when the petitioner does not produce every type of product that falls inside the scope of an investigation.[351] The Department and ITC have initially determined that all products described in the scope constitute a single like product.
- The Department has also considered and preliminarily rejected Delta's arguments regarding the petitioner's 737 aircraft competing against CS100 aircraft and the unusual nature of this case.

Department's Position:

In determining whether a product falls within the scope of an investigation, the Department considers the plain language of the scope. Furthermore, the Department normally grants "ample deference to the petitioners" in defining the scope of an investigation.[352] Absent an "overarching reason to modify the scope" in the petition, the Department will accept the scope proposed by the petitioner. While the Department has ultimate authority to determine the scope of an investigation it "must exercise this authority in a manner which reflects the intent of the petition, and the Department should not use its authority to define the scope of an investigation in a manner that would thwart the statutory mandate to provide relief requested in the petition."[353]

The record indicates that modifying the scope as suggested by Delta would thwart the statutory mandate to provide the relief requested in the petition. Regardless of whether Boeing produces aircraft with a 100-124 seat capacity, or produces a product identical to the aircraft that Delta sought to purchase (*e.g.*, with a seating capacity between 100 and 110 seats), Boeing was clear that CS100 and CS 300 aircraft compete with its products and it was seeking relief with respect to unfairly priced U.S. sales of those products.

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[350] *Id*. at 6 (citing *Certain Seamless Carbon and Alloy Steel Standard, Line, and Pressure Pipe from the People's Republic of China*: Initiation of Antidumping Duty Investigation, 74 FR 52744 (October 14, 2009) (*Seamless Pipe PRC Initiation*).

[351] *See* Petitioner's Rebuttal Brief at 118-119 (citing *Notice of Preliminary Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Affirmative Preliminary Determination of Critical Circumstances in Part: Prestressed Concrete Steel Wire Strand From Mexico,* 68 FR 42378 (July 17, 2003); *see also Notice of Final Determination of Sales at Less Than Fair Value: Circular Seamless Stainless Steel Hollow Products From Japan,* 65 FR 42985 (July 12, 2000), and accompanying IDM at Comment 1).

[352] *See Large Residential Washers From the People's Republic of China: Preliminary Determination of Sales at Less Than Fair Value, Affirmative Preliminary Determination of Critical Circumstances, in Part, and Postponement of Final Determination,* 81 FR 48741 (July 26, 2016) and accompanying PDM at 4, unchanged in the final determination *see Large Residential Washers From the People's Republic of China: Final Determination of Sales at Less Than Fair Value and Final Negative Determination of Critical Circumstances* 81 FR 90776 (December 15, 2016) and accompanying IDM at Comments 4 and 5.

[353] *See Notice of Final Determination of Sales at Less Than Fair Value: Certain Softwood Lumber Products From Canada,* 67 FR 15539 (April 2, 2002) and accompanying IDM at Comment 49.

In testimony at the ITC staff conference on May 18, 2017, Boeing reported the following:

> In the first place, Bombardier has been quite clear that the CSl00 and the CS300 compete with Boeing and Airbus in the 100-150 seat market. The CS300 is very close in seat count and range capabilities to Boeing's "737-700" and "MAX 7" and importantly the price for both the "C Series" models affect Boeing prices. This is not theoretical but fact. Bombardier competed the CSl00 against Boeing at United. We won that campaign but the confidential materials we have submitted clearly establish the direct price harm that the CSl00 caused to Boeing prices. Then there is a direct downward pull on Boeing prices from the close connection between the price of the CSl00 and the CS300. Because the CS300 is a larger sibling in the same market, the CS300's price is closely tied to that of the CSl00. Dropping the CSl00 price means dropping the CS300 price which in turn depresses the price for the "737-700" and "MAX 7". The Delta deal is a painful example of how this price transmission effect works.[354]

Hence, record information indicates that Boeing wishes to cover this aircraft in the scope, believes it is being injured by CS100 aircraft, and it is seeking relief with respect to this aircraft. Therefore, we find that despite possible differences outlined by Delta, including difference in the maximum seating capacity of the 737-700 aircraft (137 seats) and the CS100 aircraft (124 seats), CS100 aircraft are appropriately covered by the scope of this investigation.

Moreover, the Department, for initiation purposes, and the ITC, in its preliminary determination, have initially determined that all products described in the scope of the investigation constitute a single like product,[355]and that the petitioner manufactures products that fit into the like product description.[356] The statute does not require that the petitioner has to produce every type of product that is encompassed by the scope of the investigation.[357] Additionally, Delta has not

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[354] *See* Petitioner's Letter "100- To 150-Seat Large Civil Aircraft from Canada: Petitioner's Rebuttal Comments on Scope," dated June 29, 2017 (Petitioner Scope Rebuttal Comments) at Exhibit 2.

[355] *See 100- to 150-Seat Large Civil Aircraft From Canada: Initiation of Countervailing Duty Investigation,* 82 FR at 24292 (May 22, 2017) and *100- to 150-Seat Large Civil Aircraft from Canada*, Investigation Nos. 701-TA-578 and 731-TA-1368 (*ITC Preliminary Determination*) (June 2017) at I-8.

[356] Additionally, the scope of the investigation also covers CS300 aircraft, which has a standard configuration of up 135 seats and a high-density single class configuration of up 150 seats. Therefore, even if the scope covered 125- to 150-seat aircraft, CS300 would be covered by the scope. The scope of the investigation covers "standard 100- to 150-seat two-class seating capacity." Thus, CS300, also covered by the scope, fall within 125- to 150-seat capacity.

[357] *See Final Determination of Sales a Less Than Fair Value: Certain Activated Carbon from the People's Republic of China,* 72 FR 9508 (March 2, 2007) and accompanying IDM at Comment 2 (finding respondent's products to be in scope despite allegations that the domestic industry did not produce them because the products were included in plain language of the scope, which is dispositive); *see also Light-Walled Rectangular Pipe and Tube from Mexico: Notice of Final Determination of Sales at Less Than Fair Value,* 69 FR 53677 (September 2, 2004) and accompanying IDM at Comment 5 ("Although Prolamsa argues that pre-primed subject merchandise should be excluded because petitioners do not manufacture this product, the statute does not require that petitioners currently produce every type of product that is encompassed by the scope of the investigation."); *Notice of Final Determination of Sales at Less Than Far Value; Certain Hot-Rolled Carbon Steel Flat From The Netherlands,* 66 FR 50408 (October, 3, 2001) and accompanying IDM at Comment 6 (finding respondent's product within the plain language of the scope, and not accepting respondent's argument that Battery Quality Steel should be excluded from

argued, nor has it demonstrated, that aircraft with a seating capacity of less than 125 seats (*i.e.*, CS100 aircraft) are a different class or kind of merchandise.

Furthermore, we disagree that the scope of the investigation should be customized to exclude exactly the seating capacity that Delta specified. The ITC noted in its preliminary determination that the traditional definition of large civil aircraft are those aircraft having more than 100 seats.[358] Therefore, modifying the scope, as Delta proposes, to only cover aircraft with 125 or more seats is not consistent with the traditional definition of the class of products the petitioner intends to cover.

Delta relies on *Seamless Pipe PRC Initiation* to urge the Department to change the scope language regarding seating capacity. *Seamless Pipe PRC Initiation* is distinguishable from the instant investigation. In *Seamless Pipe PRC Initiation,* the Department explained that the change was due to an omission of one of the revisions that the petitioner in that investigation had suggested prior to the initiation.[359] Furthermore, the revision was to remove scope language related to end-use, which is the Department's preference. None of these circumstances are present in the instant investigation. The petition intended to cover aircraft with a seating capacity of 100-150 and the seating capacity language is not related to end-use. Therefore, we find that the facts are different in this case and in *Seamless Pipe PRC Initiation.*

Delta's claim regarding the unusual nature of this case - where there is only one domestic purchaser, one foreign producer/exporter, no domestic producer of the purchaser's desired product and no sales or imports is not persuasive. Limited market participants is not a factor considered in determining whether scope language is appropriate. Also, as noted above, the petitioner does not need to produce every product in the class or kind of products covered by the scope. Delta has not provided an "overarching reason to modify the scope" in the petition, and thus we have not modified the scope as advocated by Delta for the final determination.

Bombardier-Airbus Merger

Comment 23: Airbus-Bombardier Transaction

Bombardier's Case Brief

- It is improper for the Department to consider the proposed transaction in making determinations in this investigation. First, if the transaction does occur, it will take place after the POI for this investigation. Secondly, the proposed transaction has not been finalized and is still depended on regulatory approvals. It would be speculation to base any decision on it.[360]

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the scope because, inter alia, there was no qualified supplier of the Battery Quality Steel in the U.S. and only minimal interest in Battery Quality Steel by the U.S. producers) (*remanded on other grounds*, *Corus Staal* (CIT 2003)).

[358] *See ITC Preliminary Determination* at FN 23.

[359] *See Seamless Pipe PRC Initiation.*

[360] *See* Bombardier's Proposed Transaction Case Brief at 1-2.

- The Department's regulations direct the Department to conduct a retrospective analysis[361] limited to an established period. It is the Department's well-established practice to not consider events that occur after the POI or after the POR.[362] This practice has been affirmed by the US Court of Appeals for the Federal Circuit and CIT.[363] Accordingly, the Department should wait for an administrative review to evaluate the proposed transaction in order to avoid any speculative analysis.

GOC's Case Brief

- This proposed transaction was not announced until October 16, 2017 (after the POI), the deal has not been closed, and the operational aspects have not been finalized. There is nothing final or concrete for the Department to evaluate. The Department should take no action at this time and should address the proposed transaction in a subsequent administrative review.

Delta's Case Brief

- In light of the information that has been placed on the record by the Department and the parties, the Department should find there was no sale for importation during the POI and terminate this investigation.[364]
- In the aircraft industry, a purchase agreement does not finally establish the material terms of a sale. The Department's policy is long-standing; to reject the contract date as the date of sale where the material terms of sale were not "finally and firmly established on the contract date."[365]

Petitioner's Case Brief

- The proposed deal between Airbus and Bombardier has no bearing on the Department's current investigation. There is no finalized deal in place to evaluate at this time.[366]
- The only reason to conduct C Series assembly in the U.S. would be to circumvent any antidumping or countervailing duties that may be imposed. However, any orders resulting from this and the concurrent AD investigation would cover fully or partially assembled C

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[361] *Id.* at 3 (citing 19 CFR 351.212(a)).
[362] *Id.* at 12 (citing *Final Determination of Sales at Less Than Fair Value: Uranium from the Republic of Kazakhstan*, 64 FR 31179 (June 10, 1999); *see also Supercalendered Paper from Canada: Final Results of Countervailing Duty Expedited Review*, 82 FR 18896 and accompanying IDM at Comment 2 (April 24, 2017); *see also Polyethylene Terephthalate Film, Sheet, and Strip from India: Final Results of Countervailing Duty Administrative Review*, 73 FR 7708 and the accompanying IDM at 18 (February 11, 2008); *see also Final Negative Countervailing Duty Determinations: Standard Pipe, Line Pipe, Light-walled Rectangular Tubing and Heavy-walled Rectangular Tubing from Malaysia*, 53 FR 46904 (November 21, 1988); *see also Antidumping Duty Investigation of Low Enriched Uranium ("LEU") from Germany, Netherlands and the United Kingdom*, 66 FR 65886 (*LEU Investigation*) and accompanying IDM at Comment 6 (December 21, 2001); *see also Notice of Initiation of Antidumping Duty Investigations: Ferrovanadium from the People's Republic of China and the Republic of South Africa*, 66 FR 66398 (December 26, 2001)).
[363] *Id.* at 4 (citing *USEC Inc. v. U.S.*, 34 Fed.Appx. 725, 729 (Fed. Cir. 2002); *see also General Elec. Co. v. United States*, 17 CIT 268, 271 (CIT 1993), *aff'd* after remand by 18 CIT 245 (1994); *see also Helmerich & Payne, Inc. v. United States*, 24 F. Supp. 2d 304, 310 (CIT 1998); *Shandong Rongxin Import & Export Co., Ltd. v. United States*, 203 F. Supp. 3d 1327, 1339 (CIT 2017)).
[364] *See* Delta's Proposed Transaction Brief at 1.
[365] *Id.* at 2 (citing *e.g., Yieh Phui Enter. Co. v. United States*, 791 F. Supp. 2d 1319, 1326 (CIT 2011)).
[366] *See* Petitioner's Proposed Transaction Brief at 2.

series imported into the United States and should apply whether or not a second C Series assembly line is located in the United States. Nevertheless, this is not an issue the Department needs to address in this investigation, as no C Series assembly is currently taking place in the U.S.[367]

- However, for reference, in other cases, the Department has used the phrase "partially assembled" to refer to articles imported in the form of multiple large components or parts.[368] In all these cases, the partially assembled article was subject to the orders.

Bombardier's Rebuttal Brief

- There is broad agreement amongst parties that the proposed transaction should not impact this and the concurrent AD investigation, as the proposed transaction developed after the POI of these investigations.[369]
- However, the petitioner mischaracterizes, and unlawfully seeks to expand the scope by claiming it covers aircraft "articles" (components or parts) from Canada. The scope is specific to "aircraft from Canada" and the term "partially assembled" in the scope refers to aircraft, not "articles."[370]
- The Department's practice, as affirmed by the CIT, is not to expand the scope at such a late stage of an investigation.[371] There is insufficient evidence on the record to determine exactly what components or parts should be included within the scope of any eventual order.[372]
- Establishing a final assembly line for the manufacture of C Series aircraft in the United States does not constitute a form of circumvention; rather, it is motivated by significant business opportunities.[373]
- A production facility for aircraft in the U.S. does not meet the statutory definition of circumvention. Only one type of circumvention involves production in the U.S.; minor or insignificant assembly or completion in the U.S.[374] There is no question that a facility to produce aircraft is not minor or insignificant.[375]
- The scope of an AD or CVD order is determined during the investigation; it cannot be amended or expanded after the order is issued. As the petitioner has raised a question concerning the products covered by the scope, the Department must resolve these questions before any order might be established. Failing to resolve the issue will cause significant

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[367] *Id.* at 2-3.
[368] *Id.* at 10 (citing *Printing Presses from Japan,* 61 FR 38139 (July 23, 1996); *see also Notice of Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination: Engineered Process Gas Turbo-Compressor Systems, Whether Assembled or Unassembled, and Whether Complete or Incomplete From Japan,* 61 FR 65013 (December 10, 1996); *see also Notice of Final Determination of Sales at Less Than Fair Value: Engineered Process Gas Turbo-Compressor Systems, Whether Assembled or Unassembled, and Whether Complete or Incomplete, from Japan,* 62 FR 24394 (May 5, 1997)).
[369] *See* Bombardier's Proposed Transaction Rebuttal Brief at 2.
[370] *Id*. at 3 (citing Petitioner's Proposed Transaction Case Brief at 9).
[371] *See* Bombardier's Proposed Transaction Rebuttal Brief at 8 (citing *Smith Corona v. United States*, 796 F.Supp. 1532 (CIT 1992)).
[372] *Id*. at 9 (citing *Final Determination of Sales at Less Than Fair Value; Certain Internal-Combustion, Industrial Forklift Trucks from Japan*, 53 FR 12552 (April 15, 1988).
[373] *Id*. at 12.
[374] *Id.* (citing section 781(a) of the Act).
[375] *Id*.

uncertainty. It is crucial the Department make clear that these investigations and any resulting orders would not apply to articles, components, or parts from Canada.[376]
- No record evidence suggests that C Series aircraft have been produced or delivered for sale into the United States. Ample evidence on the record demonstrates that the purchase agreement between Delta and Bombardier does not constitute a sale.[377]

GOC's Rebuttal Brief
- There is consensus among all parties that any proposed transaction between Bombardier and Airbus is irrelevant to this proceeding. Such events should only be addressed in later subsequent administrative reviews.[378]
- Should the Department entertain the petitioner's comments on whether the arrangement would constitute circumvention, and whether any duties resulting from the investigations would cover components or parts imported into the U.S., the GOC incorporates by reference the rebuttal comments submitted by Bombardier.[379]

Delta's Rebuttal Brief
- The Department should ignore the petitioner's comments regarding circumvention and reject any attempt to expand the scope of these investigations.[380]
- Any circumvention allegation is premature. The petitioner has not cited the statutory criteria for finding circumvention, not demonstrated that the U.S. manufacture of C Series aircraft will be minor or insignificant, and not demonstrated that any other statutory circumvention applies. The petitioner cannot make a circumvention allegation during an investigation; circumvention is clearly defined by the statute.[381]
- The scope of this and the concurrent AD investigation is limited to aircraft; it does not include parts, components, or subassemblies. Furthermore, when a scope does include parts or components or subassemblies it does so expressly.[382] The scope does not explicitly include parts, components, or subassemblies. The Department should reject any attempt to expand the scope.[383]

Petitioner's Rebuttal Brief
- Bombardier, the GOC and the GOQ all agree that the proposed deal between Bombardier and Airbus has yet to be finalized and does not impact the Department's current AD and CVD

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[376] *Id*. at 17 (citing *Mitsubishi Elec. Corp. v. United States,* 898 F.2d 1577, 1582-83 (Fed. Cir. 1990); *Duferco Steel, Inc. v. United States,* 296 F.3d 1087, 1089 (Fed. Cir. 2002)).
[377] *Id*. at 19.
[378] *See* GOC's Proposed Transaction Rebuttal Brief at 2.
[379] *Id*.
[380] *See* Delta's Proposed Transaction Rebuttal Brief at 1.
[381] *See* Delta's Proposed Transaction Rebuttal Brief at 2 (citing Section 781 of the Act).
[382] *Id.* at 5 (citing *Notice of Final Determination of Sales at Less Than Fair Value: Large Newspaper Printing Presses and Components hereof, Whether Assembled or Unassembled from Germany*, 61 FR 38166 (July 23, 1996); *see also Large Residential Washers from the Republic of Korea: Amendment to the Scope of the Countervailing Duty Investigation*, 77 FR 46715 (August 6, 2012)).
[383] *Id*. at 5.

investigations. Delta alone argues that the proposed transaction has an implication for the Department's investigations.[384]

- Delta's contention that the proposed transaction confirms that no sale has occurred is false. Delta and Bombardier's argument for no sale has already been rebutted, as their April 2016 "firm agreement for the sale and purchase" of subject merchandise was described by Bombardier as a "watershed moment" and made Delta "the C Series aircraft's largest customer."[385]
- Furthermore, any attempt by Delta to make a no sale argument in the CVD investigation is wrong. Delta relies on the preamble to the Department's regulations concerning date of sale in AD investigations, not CVD investigations.[386] Additionally Delta relies on evidence that is not in the record of the CVD investigation.[387]
- Section 701(a)(1) of the Act requires the imposition of countervailing duties where subsidies have been provided with respect to merchandise imported, or sold (or likely to be sold) for importation, into the United States.[388] Record evidence in the CVD investigation compels the conclusion that C Series aircraft were sold (or likely to be sold) for importation into the United States when Bombardier and Delta completed their purchase agreement.[389]

Department's Position:

The Department agrees with interested parties that the information related to the planned partnership between Bombardier and Airbus does not impact the current investigation because it did not occur during the POI and has yet to be finalized. The press release details that the proposed transaction is subject to regulatory approvals and that there is no guarantee that the transaction will be completed, but that expectations are for completion in the second half of 2018.[390] Additionally, the record lacks detailed information regarding the production process that would result from the planned partnership between Bombardier and Airbus. In the absence of such information, the Department does not find it appropriate to make a scope or circumvention determination about whether activity conducted pursuant to the planned partnership, which has yet to be finalized, may render merchandise outside the scope of an order, should this investigation result in an order. A circumvention ruling under section 781(a) of the Act (merchandise completed or assembled in the United States), for example, requires an order (or a finding) and requires the Department to analyze the nature of the production process in the United States, processing in the United States, and patterns in trade, among other things. The record of this investigation lacks this information. Accordingly, it would be premature to conduct analysis or reach a determination where relevant information is not on the record and the planned partnership has yet to be finalized.

Finally, we disagree that the proposed transaction has any bearing on the conduct of this investigation. We are examining subsidies which Bombardier received during 2016, a period

[384] *See* Petitioner's Proposed Transaction Rebuttal Brief at 2.
[385] *Id*. at 7.
[386] *Id.* at 8 (citing Delta's Proposed Transaction Case Brief at 2).
[387] *Id*. at 8 (citing Delta's Proposed Transaction Case Brief at 2-3).
[388] *Id*. at 8 (citing section 701(a)(1) of the Act).
[389] *Id*. at 8-10.
[390] *See* Press Release Memorandum at Attachment I.

which precedes the date of the proposed transaction. Therefore, we have not considered the proposed Airbus-Bombardier partnership for purposes of the final determination.

Conclusion

Based on our analysis of the comments received, we recommend adopting all of the above positions. If this recommendation is accepted, we will publish this final determination of this investigation and the final subsidy rates in the *Federal Register*.

☒	☐
Agree	Disagree

12/18/2017

X

Signed by: PRENTISS SMITH

P. Lee Smith
Deputy Assistant Secretary
for Policy and Negotiations

EXHIBIT 38

BUSINESS INSIDER

Boeing just gave United a massive discount

BENJAMIN ZHANG
MAR. 9, 2016, 2:22 PM

United Airlines confirmed yesterday that it has ordered an additional 25 Boeing 737-700 airliners.

This is in addition to the 40 737-700s the Chicago-based airline ordered in January.

This marks the second time this year that United has turned down fresher models such as the Bombardier C-Series in favor of the 737-700 that will soon be discontinued.

One major driver may be the serious discount United got from Boeing. I'm talking about a Black Friday kind of discount.

United Airlines

The 737-700 is listed with a price tag of $80.6 million or roughly $5.24 billion for the 65 airplane deal.

United likely paid just $20 to $25 million per plane, Airways News senior business analyst Vinay Bhaskara told Business Insider. Forbes contributor Scott Hamilton reported that United signed on at $22 million. That's a whopping 73% discount!

Boeing declined to comment on the negotiated price of the deal, citing company policy. United wasn't immediately available to comment on the terms of the order.

Although airlines are generally able to negotiate price concessions on most airplane orders, they are usually in the order of 10% to 30%. A discount of 73% is not unprecedented, but it's exceedingly rare.

So why go that far? Well, the Boeing 737-700 has a new competitor in the form of Bombardier's critically acclaimed, but slow selling C-Series jets.

Beating Bombardier

Although Bombardier just landed an order with Air Canada, it still needs a big endorsement from an independent North American carrier like United to establish itself. The 73% discount is a great way to take that opportunity away from Bombardier because smaller manufacturers just can't compete with that level of discounting.

Boeing can make this kind of move because the 737-700 is near the end of its run and needs orders to sustain the production line between 2017 and 2019 until it switches over to the next generation 737Max. Since Boeing's 737-700 production line has long been fully amortized, the airplane maker is afforded some extra financial wiggle room due to lower overhead.

To be sure, its possible that Bombardier never stood a chance. Both sides of the merged United-Continental mega airline have long been steadfast Boeing loyalists. In fact, former Continental CEO Gordon Bethune, the man credited with saving the airline during the 1990s, once helped run Boeing's commercial airplane operation. The former Continental boss was known to personally take delivery of his airlines Boeing jets.

But even if it was never going to happen, this is a deal that – in Bombardier's Quebec headquarters – has got to hurt.

EXHIBIT 39

Egyptair signs for up to 24 CS300s at Dubai Air Show

leehamnews.com/2017/11/14/egyptair-signs-24-cs300s-dubai-air-show/

Nov. 14, 2017, © Leeham Co.: Despite the problems in the US over the Boeing trade complaint, or perhaps because of the resulting tie-up with Airbus, Bombardier has since landed two important deals for its C Series.

The first was an LOI for up to 61 (31 firm 30 option) from an unidentified European operator. Based on the announced list value, these are believed to be CS100s.

The latest comes from today's Dubai Air Show from Egyptair, which announced an LOI for 24 (12+12) CS300s. Delivery dates weren't announced.

Lengthy negotiations

Market intelligence revealed the negotiations with Egyptair had been underway all year. Despite the financial restructuring of Bombardier last year, which led to the Boeing trade complaint this year, potential customers for the C Series remained uncertain about BBD's long-term viability.

The tie up with Airbus, which will take a 50.01% share of the C Series program, appears to have given sufficient comfort to enable two quick, sizable orders. The Unidentified order should be firmed up by year end. The companies did not indicate when the Egyptair LOI will be firmed up.

The Unidentified customer has been speculated as the International Airline Group, Air France/KLM or Air Baltic. The latter publicly indicated plans to expand its C Series fleet, but the quantity disclosed is smaller than announced in the LOI. IAG's British Airways has 30 Airbus A319s and one A319.

Other orders

Boeing announced an order for 20 737 MAXes Monday from lessor ALAFCO. Airbus today announced an order for 20 A321neos from Wataniya Airways.

EXHIBIT 40

REUTERS

#TOP NEWS

NOVEMBER 14, 2017 / 10:32 AM / 23 DAYS AGO

EgyptAir signs $1.1 billion deal for 12 Bombardier CSeries jets

Alexander Cornwell, Allison Lampert

DUBAI/MONTREAL (Reuters) - State-owned EgyptAir signed an initial order for 12 Bombardier Inc CSeries jets on Tuesday, marking the Canadian planemaker's second deal for the aircraft this month after a 1-1/2-year-long sales drought.

The Bombardier logo is seen at the Bombardier factory in Belfast, Northern Ireland September 26, 2017. Picture taken September 26, 2017. REUTERS/Clodagh Kilcoyne

The two orders, the other for 31 planes from an undisclosed European buyer, are expected to be finalized by the end of 2017, a senior Bombardier executive said.

The agreements are expected to generate momentum for the narrowbody jets and follow an October decision by European planemaker Airbus SE to take a majority stake in the CSeries program, throwing its marketing and purchasing power behind the aircraft.

“We anticipate both of them by year end,” Fred Cromer, who heads Bombardier’s commercial aircraft division, told reporters of the new sales deals.

“We are respecting the customer’s wishes to not disclose the identity,” Cromer said from Dubai, referring to the European buyer.

He added that the two deals would bring Bombardier’s firm CSeries orders to a total of more than 400 jets.

changing deal with Airbus.

At the Dubai Airshow on Tuesday, Ethiopian Airlines' chief executive said he would decide next year whether to buy CSeries or Brazil-based Embraer's E-jet series as a replacement for its Boeing's 737-7.

Colin Bole, Bombardier's senior vice president of commercial aircraft, said there were no particular conditions or terms that needed to be met to finalize the two deals.

But the EgyptAir letter of intent to purchase the jets includes options for a further 12 CSeries that, if exercised, would increase the total list value of the deal to nearly $2.2 billion.

Bombardier is engaged in a trade dispute with Boeing, which complained that the CSeries had been subsidized and sold below cost in the United States. A U.S. trade commission will decide in early 2018 whether to impose duties of nearly 300 percent on the planes as urged by the U.S. Commerce Department.

As part of the Airbus venture, Bombardier has said it would invest $300 million to set up an Alabama assembly line for CSeries purchased by American carriers.

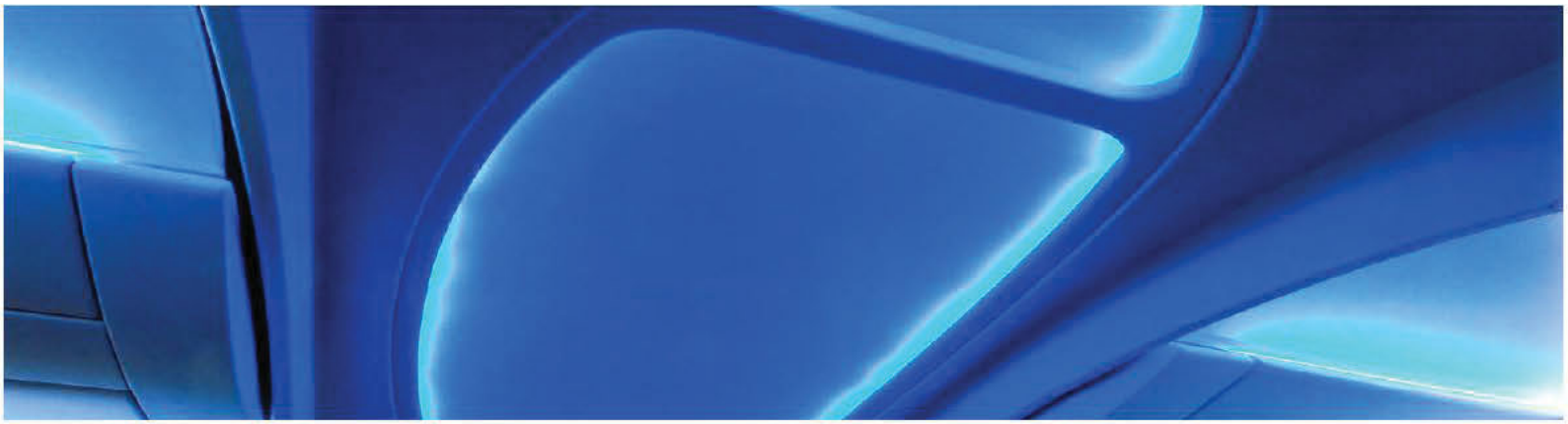
The Alabama facility will create 500 U.S. jobs and make the CSeries a "fully U.S. domestic product," Bombardier Chief Executive Officer Alain Bellemare said on Tuesday, at a Goldman Sachs conference in Boston.

Legal experts say Bombardier's strategy of performing final assembly in Alabama might allow the CSeries to avoid duties because the trade case targets partially and fully-assembled aircraft.

Bombardier and Airbus could argue they are importing parts, like the wing from Northern Ireland, to be assembled in the United States.

Bombardier shares were up 1.6 percent late on Tuesday, while the benchmark Canada share

EXHIBIT 41



Boeing, flydubai Sign Historic Deal for 225 737 MAX Airplanes

Valued at $27 billion, deal is largest single-aisle jet purchase by a Middle East airline

Airline commits to the newly launched 737 MAX 10, MAX 9s and more MAX 8s

DUBAI, United Arab Emirates, Nov. 15, 2017 /PRNewswire/ -- Boeing [NYSE: BA] and flydubai signed a landmark agreement today for 225 737 MAX airplanes with a list price value of $27 billion. The deal represents the largest-ever single-aisle jet order – by number of airplanes and total value – from a Middle East carrier.

Signed at the 2017 Dubai Airshow in flydubai's hometown, the agreement includes a commitment for 175 MAX airplanes, and purchase rights for 50 additional MAXs. When finalized, the purchase promises to sustain tens of thousands of direct and indirect jobs in Boeing's U.S. factories and network of suppliers.

More than 50 of the first 175 airplanes will be 737 MAX 10s, the newest and largest member of the 737 MAX family. The MAX 10 will have the lowest seat-mile cost of any single-aisle airplane ever produced. flydubai said the balance of the initial airplane order will be made up of the popular MAX 8 and MAX 9, giving the carrier a family of airplanes with high commonality and low operating costs.

This new deal surpasses the flydubai's previous record order of 75 MAXs and 11 Next-Generation 737-800s which was signed at the 2013 Dubai Airshow.

"We welcome the continuation of our long partnership with Boeing. Their airplanes have provided a foundation for the success of our business model, providing us with the operational flexibility and range to build a network of 95 destinations in 44 countries," said flydubai Chairman His Highness She kh Ahmed bin Saeed Al Maktoum. "Understanding the demand for travel across our network, our innovative approach to our cabin design and developing a product unique to our market has allowed us to exceed our passengers' expectations in their flying experience."

"We are extremely honored that flydubai has selected to be an all-Boeing operator for many years to come. This record-breaking agreement builds on our strong partnership with flydubai and the other leading carriers of this region," said Boeing Commercial Airplanes President & CEO Kevin McAllister. "With flydubai's proven business model and ambitious growth plans, we look forward to hundreds of flydubai 737 MAXs connecting Dubai with the rest of the world."

The 737 MAX is the fastest-selling airplane in Boeing history, having surpassed 4,000 total orders from 92 customers. The MAX family incorporates the latest technology CFM International LEAP-1B engines, Advanced Technology winglets and other improvements to deliver the highest efficiency, reliability and passenger comfort in the single-aisle market.

flydubai placed its first order for 50 Next-Generation 737-800s in 2008 and was the world's first airline to introduce the Boeing Sky Interior into service. To date, flydubai has taken delivery of 63 737-800s and three 737 MAX 8 airplanes.

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Photo and caption will be available here: http://boeing.mediaroom.com

SOURCE Boeing

EXHIBIT 42

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EXHIBIT 43

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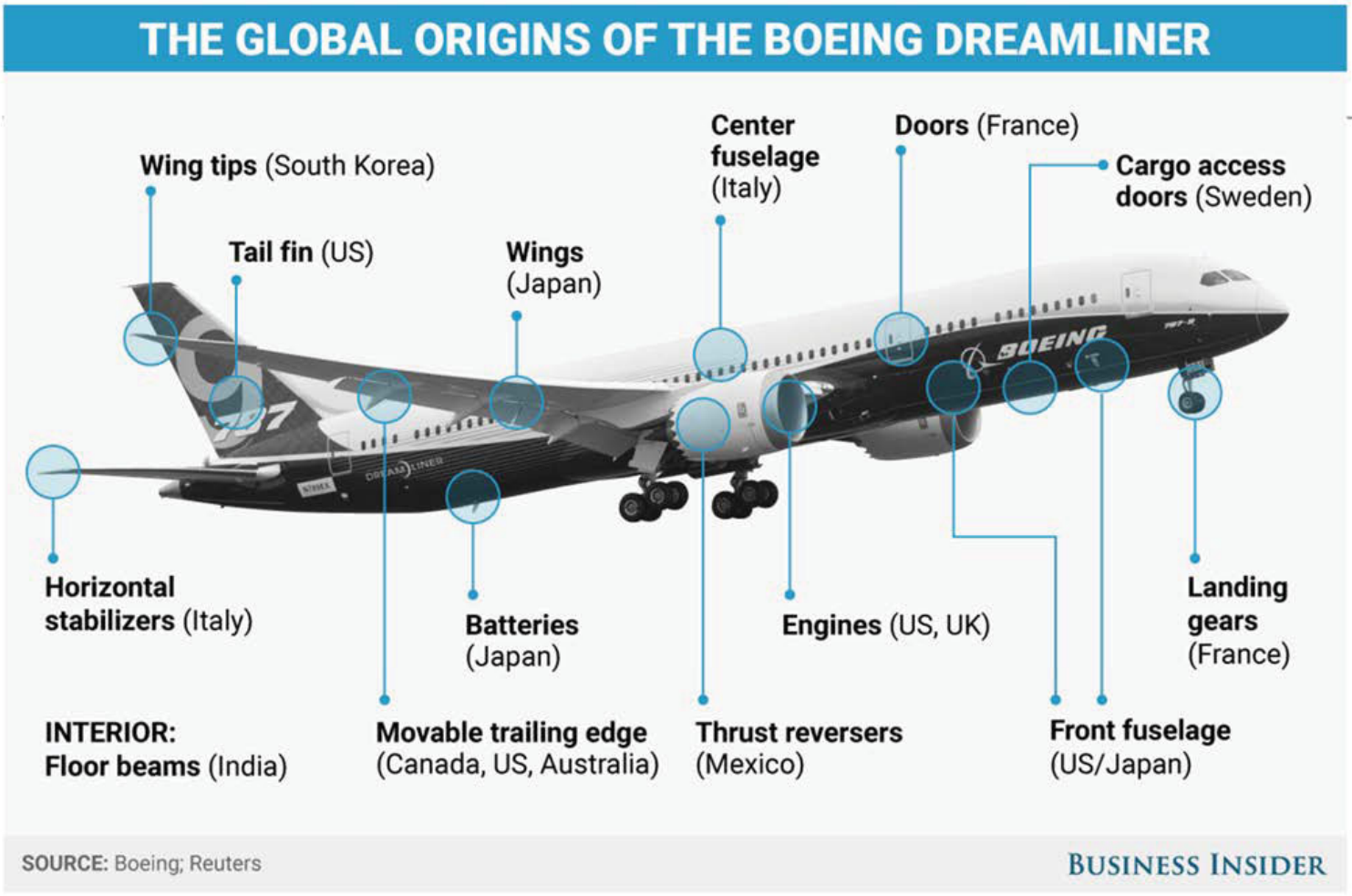
EXHIBIT 44



Benjamin Zhang, ***Trump just used Boeing's new global airliner to attack globalization***, **Business Insider** (Feb. 17, 2017)

EXHIBIT 45

#BUSINESS NEWS OCTOBER 5, 2017 / 4:36 PM / 3 MONTHS AGO

Bombardier spends $2.4 billion a year on aerospace in U.S.: document

Alwyn Scott

3 MIN READ

NEW YORK (Reuters) - Bombardier Inc's aerospace business spent $2.4 billion in the United States last year, tapping more than 800 suppliers in all but three U.S. states, according to a confidential Bombardier report seen by Reuters on Thursday.

A logo of jet manufacturer Bombardier is pictured on their booth during the European Business Aviation Convention & Exhibition (EBACE) in Geneva, Switzerland, May 22, 2017. REUTERS/Denis Balibouse

The report shows the potential impact on the U.S. economy and companies if the Canadian company's new CSeries jetliner is effectively kept out of the U.S. market by a trade row initiated by Boeing Co earlier this year.

Boeing has accused Bombardier of receiving taxpayer subsidies that allowed it to sell the CSeries in the United States at prices below cost. Last week, the U.S. Department of Commerce proposed a duty of nearly 220 percent to compensate for the subsidies, and the agency is due to issue a decision on potential additional duties for dumping later on Thursday.

The imposition of additional duties would effectively keep Bombardier out of the United States because it would make its planes too expensive to be competitive

The report said more than half of the materials Bombardier buys for the new CSeries plane come from U.S. suppliers, with the most spending in California, Connecticut, Illinois, Iowa and Kansas, the report said.

The duties, which would affect an order for 75 planes by Delta Air Lines, would not take effect unless approved by the U.S. International Trade Commission early next year.

Bombardier has already said that its spending supports 22,700 jobs in the United States, and it has identified major CSeries suppliers such as Connecticut-based engine maker Pratt & Whitney, a unit of United Technologies Corp, and Iowa-based avionics maker Rockwell Collins Inc. United Technologies is in the process of acquiring Rockwell Collins.

The report identifies the 10 largest CSeries suppliers, including French interiors supplier Zodiac Aerospace SA, through its operations in California; Honeywell International Inc, which makes auxiliary power units in Arizona; Spirit AeroSystems Holdings Inc in Kansas; and Parker Aerospace,

a unit of Parker-Hannifin Corp which has operations in Utah, California and Michigan.

Reporting by Alwyn Scott; Editing by Leslie Adler

Our Standards: *The Thomson Reuters Trust Principles.*

EXHIBIT 46

Boeing Reports Fourth-Quarter Results and Provides 2017 Guidance

Jan 25, 2017

CHICAGO , Jan. 25, 2017 /PRNewswire/ --

Fourth-Quarter 2016

- Operating cash flow of $2.8 billion driven by solid operating performance
- GAAP EPS of $2.59 and core EPS (non-GAAP)* of $2.47 on solid execution

Full-Year 2016

- Revenue of $94.6 billion reflecting 926 commercial and defense aircraft deliveries and services growth
- Record operating cash flow of $10.5 billion ; repurchased 55.1 million shares for $7.0 billion
- Backlog remains robust at $473 billion with more than 5,700 commercial airplane orders
- Cash and marketable securities of $10.0 billion provide strong liquidity

Outlook for 2017

- Operating cash flow expected to increase to approximately $10.75 billion
- 2017 GAAP EPS of between $10.25 and $10.45 ; core EPS (non-GAAP)* of between $9.10 and $9.30

Table 1. Summary Financial Results	Fourth Quarter			Full Year		
(Dollars in Millions, except per share data)	2016	2015	Change	2016	2015	Change
Revenues	**$23,286**	**$23,573**	(1)%	**$94,571**	**$96,114**	(2)%
GAAP						
Earnings From Operations	**$2,183**	**$1,161**	88%	**$5,834**	**$7,443**	(22)%
Operating Margin	**9.4%**	**4.9%**	4.5 Pts	**6.2%**	**7.7%**	(1.5) Pts
Net Earnings	**$1,631**	**$1,026**	59%	**$4,895**	**$5,176**	(5)%
Earnings Per Share	**$2.59**	**$1.51**	72%	**$7.61**	**$7.44**	2%
Operating Cash Flow	**$2,832**	**$3,119**	(9)%	**$10,499**	**$9,363**	12%
Non-GAAP*						
Core Operating Earnings	**$2,064**	**$1,259**	64%	**$5,464**	**$7,741**	(29)%
Core Operating Margin	**8.9%**	**5.3%**	3.6 Pts	**5.8%**	**8.1%**	(2.3) Pts
Core Earnings Per Share	**$2.47**	**$1.60**	54%	**$7.24**	**$7.72**	(6)%

* Non-GAAP measures. Complete definitions of Boeing's non-GAAP measures are on page 7, "Non-GAAP Measures Disclosures."

The Boeing Company [NYSE: BA] reported fourth-quarter revenue of $23.3 billion with GAAP earnings per share of $2.59 and core earnings per share (non-GAAP)* of $2.47 reflecting overall solid execution on production programs and services (Table 1).

Revenue was $94.6 billion for the full year reflecting strong commercial deliveries and services growth across the company. GAAP earnings per share totaled $7.61 and core earnings per share (non-GAAP)* totaled $7.24 .

Guidance for 2017 is set at between $10.25 and $10.45 for GAAP earnings per share and between $9.10 and $9.30 for core earnings per share (non-GAAP)*. Revenue guidance is between $90.5 and $92.5 billion , including increased commercial deliveries of between 760 and 765. Operating cash flow is expected to increase by approximately $250 million to $10.75 billion and capital expenditures are expected to decline by approximately $300 million to $2.3 billion .

"With solid fourth quarter operating performance and a sharp strategic focus, we extended our aerospace market leadership in our centennial year and positioned Boeing for continued growth and success in our second century," said Chairman, President and Chief Executive Officer Dennis Muilenburg .

"We led the industry in commercial airplane deliveries for the fifth consecutive year, achieved healthy sales in our defense, space and services segments, and produced record operating cash flow, which fueled investment in innovation and our people and generated significant returns to shareholders."

"Looking forward, our team is intent on accelerating productivity and program execution to deliver increasing cash and profitability from our large and diverse order backlog of nearly $500 billion , standing up our new integrated services business, and capturing an even greater share of the the growing global aerospace market to deliver superior value to our customers, shareholders and employees."

Table 2. Cash Flow	Fourth Quarter		Full Year	
(Millions)	2016	2015	2016	2015
Operating Cash Flow	**$2,832**	**$3,119**	**$10,499**	**$9,363**

Less Additions to Property, Plant & Equipment	($599)	($623)	($2,613)	($2,450)
Free Cash Flow*	**$2,233**	**$2,496**	**$7,886**	**$6,913**

* Non-GAAP measures. Complete definitions of Boeing's non-GAAP measures are on page 7, "Non-GAAP Measures Disclosures."

Operating cash flow in the quarter of $2.8 billion was driven by solid operating performance, disciplined cash management, and a slight impact from timing of receipts and expenditures (Table 2). During the quarter, the company repurchased 3.7 million shares for $500 million and paid $672 million in dividends. For the full year, the company repurchased 55.1 million shares for $7.0 billion and paid $2.8 billion in dividends. Based on strong cash generation and confidence in the company's outlook, the board of directors in December increased the quarterly dividend per share by 30 percent and renewed the share repurchase program to $14 billion . Share repurchases under the new authorization are expected to be made over the next 24 to 30 months.

Table 3. Cash, Marketable Securities and Debt Balances	**Quarter-End**	
(Billions)	**Q4 16**	**Q3 16**
Cash	**$8.8**	**$9.0**
Marketable Securities [1]	**$1.2**	**$0.7**
Total	**$10.0**	**$9.7**
Debt Balances:		
The Boeing Company, net of intercompany loans to BCC	**$7.1**	**$8.1**
Boeing Capital, including intercompany loans	**$2.9**	**$2.4**
Total Consolidated Debt	**$10.0**	**$10.5**

[1] Marketable securities consists primarily of time deposits due within one year classified as "short-term investments."

Cash and investments in marketable securities totaled $10.0 billion , up from $9.7 billion at the beginning of the quarter (Table 3). Debt was $10.0 billion , down from the beginning of the quarter, due to repayment of debt.

Total company backlog at quarter-end was $473 billion , up from $462 billion at the beginning of the quarter, and included net orders for the quarter of $32 billion .

Segment Results

Commercial Airplanes

Table 4. Commercial Airplanes	**Fourth Quarter**			**Full Year**		
(Dollars in Millions)	**2016**	**2015**	**Change**	**2016**	**2015**	**Change**
Commercial Airplanes Deliveries	**185**	**182**	2%	**748**	**762**	(2)%
Revenues	**$16,241**	**$16,098**	1%	**$65,069**	**$66,048**	(1)%
Earnings from Operations	**$1,473**	**$566**	160%	**$3,130**	**$5,157**	(39)%
Operating Margin	**9.1%**	**3.5%**	5.6 Pts	**4.8%**	**7.8%**	(3.0) Pts

Commercial Airplanes fourth-quarter revenue increased to $16.2 billion on higher planned delivery volume and mix (Table 4). Fourth-quarter operating margin was 9.1 percent, reflecting delivery mix, lower R&D and improved performance, partially offset by a $243 million pre-tax charge on the KC-46 Tanker program primarily related to additional effort to incorporate previously identified changes into initial production aircraft.

During the quarter, Boeing delivered the 500th 787 Dreamliner and began final assembly of the first 787-10 aircraft. The 737 program has captured more than 3,600 orders for the 737 MAX, including recent 737 MAX 8 orders from GE Capital Aviation Services for 75 airplanes and SpiceJet for 100 airplanes.

Commercial Airplanes booked 288 net orders during the quarter. Backlog remains strong with more than 5,700 airplanes valued at $416 billion .

Defense, Space & Security

Table 5. Defense, Space & Security	**Fourth Quarter**			**Full Year**		
(Dollars in Millions)	**2016**	**2015**	**Change**	**2016**	**2015**	**Change**
Revenues [1]						
Boeing Military Aircraft	**$2,617**	**$3,187**	(18)%	**$12,515**	**$13,424**	(7)%
Network & Space Systems	**$1,800**	**$1,954**	(8)%	**$7,046**	**$7,751**	(9)%
Global Services & Support	**$2,443**	**$2,644**	(8)%	**$9,937**	**$9,213**	8%
Total BDS Revenues	**$6,860**	**$7,785**	(12)%	**$29,498**	**$30,388**	(3)%
Earnings from Operations [1]						
Boeing Military Aircraft	**$288**	**$437**	(34)%	**$1,231**	**$1,311**	(6)%
Network & Space Systems	**$157**	**$163**	(4)%	**$493**	**$726**	(32)%
Global Services & Support	**$364**	**$363**	—	**$1,284**	**$1,237**	4%
Total BDS Earnings from Operations	**$809**	**$963**	(16)%	**$3,008**	**$3,274**	(8)%
Operating Margin	**11.8%**	**12.4%**	(0.6) Pts	**10.2%**	**10.8%**	(0.6) Pts

[1] During the first quarter of 2016, certain programs were realigned between Boeing Military Aircraft and Global Services & Support.

Defense, Space & Security's fourth-quarter revenue was $6.9 billion (Table 5). Fourth-quarter operating margin was 11.8 percent, reflecting a $69 million pre-tax charge on the KC-46 Tanker program at BMA, partially offset by solid execution.

Boeing Military Aircraft (BMA) fourth-quarter revenue was $2.6 billion , reflecting lower planned deliveries and mix, with operating margin of 11.0 percent. During the quarter, pending international sales of F-15 and F/A-18 fighter jets and Chinook and Apache helicopters were approved by the U.S. State Department , reaching the final stage of the U.S. foreign military sales process before contract negotiations.

Network & Space Systems (N&SS) fourth-quarter revenue was $1.8 billion , largely reflecting lower satellite volume, with an operating margin of 8.7 percent. During the quarter, the eighth Wideband Global SATCOM satellite was launched with an upgraded digital payload.

Global Services & Support (GS&S) fourth-quarter revenue was $2.4 billion , reflecting lower volume in Aircraft Modernization & Sustainment. Operating margin was 14.9 percent largely reflecting contract mix. During the quarter, GS&S completed digital flight deck upgrades to the first of 14 NATO Airborne Warnings and Control Systems (AWACS) aircraft.

Backlog at Defense, Space & Security was $57 billion , of which 37 percent represents orders from international customers.

Additional Financial Information

Table 6. Additional Financial Information	Fourth Quarter		Full Year	
(Dollars in Millions)	**2016**	**2015**	**2016**	**2015**
Revenues				
Boeing Capital	**$87**	**$98**	**$298**	**$413**
Unallocated items, eliminations and other	**$98**	**($408)**	**($294)**	**($735)**
Earnings from Operations				
Boeing Capital	**$23**	**$9**	**$59**	**$50**
Unallocated pension/postretirement	**$119**	**($98)**	**$370**	**($298)**
Other unallocated items and eliminations	**($241)**	**($279)**	**($733)**	**($740)**
Other (loss)/income, net	**($1)**	**$10**	**$40**	**($13)**
Interest and debt expense	**($79)**	**($72)**	**($306)**	**($275)**
Effective tax rate	**22.4%**	**6.6%**	**12.1%**	**27.7%**

At quarter-end, Boeing Capital's net portfolio balance was $4.1 billion . Total pension expense for the fourth quarter was $434 million , down from $529 million in the same period of the prior year. Unallocated items, eliminations and other revenue increased from the same period in the prior year primarily due to timing of eliminations for intercompany aircraft deliveries. The effective tax rate for the fourth quarter increased from the same period in the prior year primarily due to the reinstatement of the full year research tax credit recorded in the fourth quarter of 2015.

Outlook

The company's 2017 financial and delivery guidance (Table 7) reflects continued solid performance across the company.

Table 7. 2017 Financial Outlook	
(Dollars in Billions, except per share data)	**2017**
The Boeing Company	
Revenue	$90.5 - 92.5
GAAP Earnings Per Share	$10.25 - 10.45
Core Earnings Per Share*	$9.10 - 9.30
Operating Cash Flow	~$10.75
Commercial Airplanes	
Deliveries	760 - 765
Revenue	$62.5 - 63.5
Operating Margin	9.5% - 10.0
Defense, Space & Security	
Revenue	
Boeing Military Aircraft	~$11.5
Network & Space Systems	~$7.0
Global Services & Support	~$10.0
Total BDS Revenue	$28.0 - 29.0
Operating Margin	
Boeing Military Aircraft	~12.0%
Network & Space Systems	~9.0%
Global Services & Support	>12.5%
Total BDS Operating Margin	~11.5%
Boeing Capital	
Portfolio Size	Stable
Revenue	~$0.3

Pre-Tax Earnings	~$0.05
Research & Development	~ $3.6
Capital Expenditures	~ $2.3
Pension Expense [1]	~ $0.7
Effective Tax Rate	~ 32.0%

[1] Approximately ($0.9) billion is expected to be recorded in unallocated items and eliminations

* Non-GAAP measures. Complete definitions of Boeing's non-GAAP measures are on page 7, "Non-GAAP Measures Disclosures."

Non-GAAP Measures Disclosures

We supplement the reporting of our financial information determined under U.S. generally accepted accounting principles (GAAP) with certain non-GAAP financial information. The non-GAAP financial information presented excludes certain significant items that may not be indicative of, or are unrelated to, results from our ongoing business operations. We believe that these non-GAAP measures provide investors with additional insight into the company's ongoing business performance. These non-GAAP measures should not be considered in isolation or as a substitute for the related GAAP measures, and other companies may define such measures differently. We encourage investors to review our financial statements and publicly-filed reports in their entirety and not to rely on any single financial measure. The following definitions are provided:

Core Operating Earnings, Core Operating Margin and Core Earnings Per Share

Core operating earnings is defined as GAAP earnings from operations excluding unallocated pension and post-retirement expense . Core operating margin is defined as core operating earnings expressed as a percentage of revenue. Core earnings per share is defined as GAAP diluted earnings per share excluding the net earnings per share impact of unallocated pension and post-retirement expense . Unallocated pension and post-retirement expense represents the portion of pension and other post-retirement costs that are not recognized by business segments for segment reporting purposes. Pension costs, comprising service and prior service costs computed in accordance with Generally Accepted Accounting Principles in the United States of America (GAAP) are allocated to Commercial Airplanes. Pension costs allocated to BDS segments are computed in accordance with U.S. Government Cost Accounting Standards (CAS), which employ different actuarial assumptions and accounting conventions than GAAP. CAS costs are allocable to government contracts. Other postretirement benefit costs are allocated to all business segments based on CAS, which is generally based on benefits paid. Management uses core operating earnings, core operating margin and core earnings per share for purposes of evaluating and forecasting underlying business performance. Management believes these core earnings measures provide investors additional insights into operational performance as they exclude unallocated pension and post-retirement costs, which primarily represent costs driven by market factors and costs not allocable to government contracts. A reconciliation between the GAAP and non-GAAP measures is provided on page 14.

Free Cash Flow

Free cash flow is defined as GAAP operating cash flow without capital expenditures for property, plant and equipment additions . Management believes free cash flow provides investors with an important perspective on the cash available for shareholders, debt repayment, and acquisitions after making the capital investments required to support ongoing business operations and long term value creation. Free cash flow does not represent the residual cash flow available for discretionary expenditures as it excludes certain mandatory expenditures such as repayment of maturing debt. Management uses free cash flow as a measure to assess both business performance and overall liquidity. Table 2 provides a reconciliation between GAAP operating cash flow and free cash flow.

Caution Concerning Forward-Looking Statements

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "may," "should," "expects," "intends," "projects," "plans," "believes," "estimates," "targets," "anticipates," and similar expressions generally identify these forward-looking statements. Examples of forward-looking statements include statements relating to our future financial condition and operating results, as well as any other statement that does not directly relate to any historical or current fact. Forward-looking statements are based on expectations and assumptions that we believe to be reasonable when made, but that may not prove to be accurate. These statements are not guarantees and are subject to risks, uncertainties, and changes in circumstances that are difficult to predict. Many factors could cause actual results to differ materially and adversely from these forward-looking statements. Among these factors are risks related to: (1) general conditions in the economy and our industry, including those due to regulatory changes; (2) our reliance on our commercial airline customers; (3) the overall health of our aircraft production system, planned production rate increases across multiple commercial airline programs, our commercial development and derivative aircraft programs, and our aircraft being subject to stringent performance and reliability standards; (4) changing budget and appropriation levels and acquisition priorities of the U.S. government; (5) our dependence on U.S. government contracts; (6) our reliance on fixed-price contracts; (7) our reliance on cost-type contracts; (8) uncertainties concerning contracts that include in-orbit incentive payments; (9) our dependence on our subcontractors and suppliers, as well as the availability of raw materials, (10) changes in accounting estimates; (11) changes in the competitive landscape in our markets; (12) our non-U.S. operations, including sales to non-U.S. customers; (13) potential adverse developments in new or pending litigation and/or government investigations; (14) customer and aircraft concentration in Boeing Capital's customer financing portfolio; (15) changes in our ability to obtain debt on commercially reasonable terms and at competitive rates in order to fund our operations and contractual commitments; (16) realizing the anticipated benefits of mergers, acquisitions, joint ventures/strategic alliances or divestitures; (17) the adequacy of our insurance coverage to cover significant risk exposures; (18) potential business disruptions, including those related to physical security threats, information technology or cyber-attacks, epidemics, sanctions or natural disasters; (19) work stoppages or other labor disruptions; (20) significant changes in discount rates and actual investment return on pension assets; (21) potential environmental liabilities; and (22) threats to the security of our or our customers' information.

Additional information concerning these and other factors can be found in our filings with the Securities and Exchange Commission , including our most recent Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. Any forward-looking statement speaks only as of the date on which it is made, and we assume no obligation to update or revise any forward-looking statement, whether as a result of new information, future events, or otherwise, except as required by law.

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The Boeing Company and Subsidiaries
Consolidated Statements of Operations
(Unaudited)

	Twelve months ended December 31		Three months ended December 31	
(Dollars in millions, except per share data)	**2016**	2015	**2016**	2015

Sales of products	**$84,399**	$85,255	**$20,836**	$20,847
Sales of services	**10,172**	10,859	**2,450**	2,726
Total revenues	**94,571**	96,114	**23,286**	23,573
Cost of products	**(72,713)**	(73,446)	**(17,596)**	(18,426)
Cost of services	**(8,018)**	(8,578)	**(1,855)**	(2,201)
Boeing Capital interest expense	**(59)**	(64)	**(13)**	(15)
Total costs and expenses	**(80,790)**	(82,088)	**(19,464)**	(20,642)
	13,781	14,026	**3,822**	2,931
Income from operating investments, net	**303**	274	**83**	67
General and administrative expense	**(3,616)**	(3,525)	**(999)**	(931)
Research and development expense, net	**(4,627)**	(3,331)	**(726)**	(905)
(Loss)/gain on dispositions, net	**(7)**	(1)	**3**	(1)
Earnings from operations	**5,834**	7,443	**2,183**	1,161
Other income/(loss), net	**40**	(13)	**(1)**	10
Interest and debt expense	**(306)**	(275)	**(79)**	(72)
Earnings before income taxes	**5,568**	7,155	**2,103**	1,099
Income tax expense	**(673)**	(1,979)	**(472)**	(73)
Net earnings	**$4,895**	$5,176	**$1,631**	$1,026
Basic earnings per share	**$7.70**	$7.52	**$2.63**	$1.52
Diluted earnings per share	**$7.61**	$7.44	**$2.59**	$1.51
Cash dividends paid per share	**$4.36**	$3.64	**$1.09**	$0.91
Weighted average diluted shares (millions)	**643.8**	696.1	**630.3**	681.2

The Boeing Company and Subsidiaries
Consolidated Statements of Financial Position
(Unaudited)

(Dollars in millions, except per share data)	**December 31 2016**	December 31 2015
Assets		
Cash and cash equivalents	**$8,801**	$11,302
Short-term and other investments	**1,228**	750
Accounts receivable, net	**8,832**	8,713
Current portion of customer financing, net	**428**	212
Inventories, net of advances and progress billings	**43,199**	47,257
Total current assets	**62,488**	68,234
Customer financing, net	**3,773**	3,358
Property, plant and equipment, net of accumulated depreciation of $16,883 and $16,286	**12,807**	12,076
Goodwill	**5,324**	5,126
Acquired intangible assets, net	**2,540**	2,657
Deferred income taxes	**332**	265
Investments	**1,317**	1,284
Other assets, net of accumulated amortization of $497 and $451	**1,416**	1,408
Total assets	**$89,997**	$94,408
Liabilities and equity		
Accounts payable	**$11,190**	$10,800
Accrued liabilities	**14,691**	14,014
Advances and billings in excess of related costs	**23,869**	24,364
Short-term debt and current portion of long-term debt	**384**	1,234
Total current liabilities	**50,134**	50,412
Deferred income taxes	**1,338**	2,392
Accrued retiree health care	**5,916**	6,616
Accrued pension plan liability, net	**19,943**	17,783
Other long-term liabilities	**2,221**	2,078
Long-term debt	**9,568**	8,730
Shareholders' equity:		
Common stock, par value $5.00 – 1,200,000,000 shares authorized; 1,012,261,159 shares issued	**5,061**	5,061
Additional paid-in capital	**4,762**	4,834

Treasury stock, at cost - 395,109,568 and 345,637,354 shares	**(36,097)**	(29,568)
Retained earnings	**40,714**	38,756
Accumulated other comprehensive loss	**(13,623)**	(12,748)
Total shareholders' equity	**817**	6,335
Noncontrolling interests	**60**	62
Total equity	**877**	6,397
Total liabilities and equity	**$89,997**	$94,408

The Boeing Company and Subsidiaries
Consolidated Statements of Cash Flows
(Unaudited)

	Twelve months ended December 31	
(Dollars in millions)	**2016**	2015
Cash flows – operating activities:		
Net earnings	**$4,895**	$5,176
Adjustments to reconcile net earnings to net cash provided by operating activities:		
Non-cash items –		
Share-based plans expense	**190**	189
Depreciation and amortization	**1,910**	1,833
Investment/asset impairment charges, net	**90**	167
Customer financing valuation benefit	**(7)**	(5)
Loss on dispositions, net	**7**	1
Other charges and credits, net	**369**	364
Excess tax benefits from share-based payment arrangements		(157)
Changes in assets and liabilities –		
Accounts receivable	**112**	(1,069)
Inventories, net of advances and progress billings	**3,755**	(1,110)
Accounts payable	**622**	(238)
Accrued liabilities	**726**	2
Advances and billings in excess of related costs	**(493)**	1,192
Income taxes receivable, payable and deferred	**(810)**	477
Other long-term liabilities	**(68)**	46
Pension and other postretirement plans	**153**	2,470
Customer financing, net	**(696)**	167
Other	**(256)**	(142)
Net cash provided by operating activities	**10,499**	9,363
Cash flows – investing activities:		
Property, plant and equipment additions	**(2,613)**	(2,450)
Property, plant and equipment reductions	**38**	42
Acquisitions, net of cash acquired	**(297)**	(31)
Contributions to investments	**(1,719)**	(2,036)
Proceeds from investments	**1,209**	2,590
Other	**2**	39
Net cash used by investing activities	**(3,380)**	(1,846)
Cash flows – financing activities:		
New borrowings	**1,325**	1,746
Debt repayments	**(1,359)**	(885)
Repayments of distribution rights and other asset financing	**(24)**	
Stock options exercised	**321**	399
Excess tax benefits from share-based payment arrangements		157
Employee taxes on certain share-based payment arrangements	**(93)**	(96)
Common shares repurchased	**(7,001)**	(6,751)
Dividends paid	**(2,756)**	(2,490)
Net cash used by financing activities	**(9,587)**	(7,920)
Effect of exchange rate changes on cash and cash equivalents	**(33)**	(28)
Net decrease in cash and cash equivalents	**(2,501)**	(431)
Cash and cash equivalents at beginning of year	**11,302**	11,733
Cash and cash equivalents at end of period	**$8,801**	$11,302

The Boeing Company and Subsidiaries
Summary of Business Segment Data

(Unaudited)

(Dollars in millions)	Twelve months ended December 31 **2016**	2015	Three months ended December 31 **2016**	2015
Revenues:				
Commercial Airplanes	**$65,069**	$66,048	**$16,241**	$16,098
Defense, Space & Security:				
Boeing Military Aircraft	**12,515**	13,424	**2,617**	3,187
Network & Space Systems	**7,046**	7,751	**1,800**	1,954
Global Services & Support	**9,937**	9,213	**2,443**	2,644
Total Defense, Space & Security	**29,498**	30,388	**6,860**	7,785
Boeing Capital	**298**	413	**87**	98
Unallocated items, eliminations and other	**(294)**	(735)	**98**	(408)
Total revenues	**$94,571**	$96,114	**$23,286**	$23,573
Earnings from operations:				
Commercial Airplanes	**$3,130**	$5,157	**$1,473**	$566
Defense, Space & Security:				
Boeing Military Aircraft	**1,231**	1,311	**288**	437
Network & Space Systems	**493**	726	**157**	163
Global Services & Support	**1,284**	1,237	**364**	363
Total Defense, Space & Security	**3,008**	3,274	**809**	963
Boeing Capital	**59**	50	**23**	9
Segment operating profit	**6,197**	8,481	2,305	1,538
Unallocated items, eliminations and other	**(363)**	(1,038)	**(122)**	(377)
Earnings from operations	**5,834**	7,443	**2,183**	1,161
Other income/(loss), net	**40**	(13)	**(1)**	10
Interest and debt expense	**(306)**	(275)	**(79)**	(72)
Earnings before income taxes	**5,568**	7,155	**2,103**	1,099
Income tax expense	**(673)**	(1,979)	**(472)**	(73)
Net earnings	**$4,895**	$5,176	**$1,631**	$1,026
Research and development expense, net:				
Commercial Airplanes	**$3,755**	$2,340	**$561**	$627
Defense, Space & Security	**919**	986	**169**	271
Other	**(47)**	5	**(4)**	7
Total research and development expense, net	**$4,627**	$3,331	**$726**	$905
Unallocated items, eliminations and other				
Share-based plans	**($66)**	($76)	**($16)**	($19)
Deferred compensation	**(46)**	(63)	**(8)**	(53)
Amortization of previously capitalized interest	**(94)**	(90)	**(23)**	(20)
Eliminations and other unallocated items	**(527)**	(511)	**(194)**	(187)
Sub-total (included in core operating earnings)	**(733)**	(740)	**(241)**	(279)
Pension	**217**	(421)	**88**	(128)
Postretirement	**153**	123	**31**	30
Total unallocated items, eliminations and other	**($363)**	($1,038)	**($122)**	($377)

The Boeing Company and Subsidiaries
Operating and Financial Data
(Unaudited)

Deliveries	Twelve months ended December 31 **2016**		2015		Three months ended December 31 **2016**	2015	
Commercial Airplanes							
737	**490**		495		**122**	120	
747	**9**	(3)	18	(3)	**1**	5	(2)
767	**13**		16		**3**	2	
777	**99**		98		**26**	21	
787	**137**		135		**33**	34	
Total	**748**		762		**185**	182	

Note: Deliveries under operating lease are identified by parentheses.

Defense, Space & Security
Boeing Military Aircraft

AH-64 Apache (New)	**31**	23	**6**	5
AH-64 Apache (Remanufactured)	**34**	38	**7**	5
C-17 Globemaster III	**4**	5		
CH-47 Chinook (New)	**25**	41	**8**	6
CH-47 Chinook (Renewed)	**25**	16	**2**	10
F-15 Models	**15**	12	**4**	4
F/A-18 Models	**25**	35	**5**	7
P-8 Models	**18**	14	**5**	4
Global Services & Support				
AEW&C	**0**	1		1
C-40A	**1**	1	**1**	
Network & Space Systems				
Commercial and Civil Satellites	**5**	3	**2**	2
Military Satellites	**2**	1		

Contractual backlog (Dollars in billions)	**December 31 2016**	September 30 2016	December 31 2015
Commercial Airplanes	**$416.2**	$408.8	$431.4
Defense, Space & Security:			
Boeing Military Aircraft	**21.4**	20.8	19.9
Network & Space Systems	**5.1**	6.5	7.4
Global Services & Support	**15.6**	12.8	17.9
Total Defense, Space & Security**	**42.1**	40.1	45.2
Total contractual backlog	**$458.3**	$448.9	$476.6
Unobligated backlog	**$15.2**	$13.1	$12.7
Total backlog	**$473.5**	$462.0	$489.3
Workforce	**150,500**	154,700	161,400

** 2016 backlog includes adjustments related to prior periods.

The Boeing Company and Subsidiaries

Reconciliation of Non-GAAP Measures

(Unaudited)

The tables provided below reconcile the non-GAAP financial measures core operating earnings, core operating margin, and core earnings per share with the most directly comparable GAAP financial measures, earnings from operations, operating margin, and diluted earnings per share. See page 7 of this release for additional information on the use of these non-GAAP financial measures.

(Dollars in millions, except per share data)	**Fourth Quarter**		**Full Year**		**Guidance**
	2016	**2015**	**2016**	**2015**	**2017**
Revenues	**$23,286**	$23,573	**$94,571**	$96,114	
GAAP Earnings From Operations	**$2,183**	$1,161	**$5,834**	$7,443	
Increase/(Decrease) in GAAP Earnings From Operations	**88%**		**(22%)**		
GAAP Operating Margin	9.4%	4.9%	6.2%	7.7%	
Unallocated Pension (Income)/Expense	**($88)**	$128	**($217)**	$421	
Unallocated Other Postretirement Benefit Income	**($31)**	($30)	**($153)**	($123)	
Unallocated Pension and Other Postretirement Benefit (Income)/Expense	**($119)**	$98	**($370)**	$298	**~($1,075)**
Core Operating Earnings (non-GAAP)	**$2,064**	$1,259	**$5,464**	$7,741	
Increase/(Decrease) in Core Operating Earnings (non-GAAP)	**64%**		**(29%)**		
Core Operating Margin (non-GAAP)	8.9%	5.3%	5.8%	8.1%	
GAAP Diluted Earnings Per Share	**$2.59**	$1.51	**$7.61**	$7.44	**$10.25 - $10.45**
Unallocated Pension (Income)/Expense	**($0.14)**	$0.18	**($0.33)**	$0.61	
Unallocated Postretirement Benefit (Income)/Expense	**($0.05)**	($0.04)	**($0.24)**	($0.18)	**($1.15)**
Provision for deferred income taxes on adjustments [(1)]	**$0.07**	($0.05)	**$0.20**	($0.15)	
Core Earnings Per Share (non-GAAP)	**$2.47**	$1.60	**$7.24**	$7.72	**$9.10 - $9.30**
Weighted Average Diluted Shares (millions)	**630.3**	681.2	**643.8**	696.1	**605 - 610**
Increase/(Decrease) in GAAP Earnings Per Share	**72%**		**2%**		
Increase/(Decrease) in Core Earnings Per Share (non-GAAP)	**54%**		**(6%)**		

[1] The income tax impact is calculated using the tax rate in effect for the non-GAAP adjustments.

SOURCE The Boeing Company