

Time is up for Developing countries to sue the US agricultural domestic subsidies

Jacques Berthelot (jacques.berthelot4@wanadoo.fr),

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Given the inflexible stance taken by the developed countries, and particularly the US and EU, to denounce the alleged unrealistic proposals of the WTO REV4 agricultural modalities of December 2008, the developing countries have already many robust arguments to sue the US and EU for their recurrent violation of the Agreement on Agriculture's rules. What good is adopting new Doha Round's rules if developing countries continue to remain blind and insensitive to the violations of the existing rules by the US and EU?

Far from exhausting all the issues linked to the US recurrent violations of the Agreement on Agriculture's rules, the present analysis focuses mainly on the US feed subsidies which have reached an average of \$5.3 bn or of 14.4% of the feed costs of livestock producers from 1995 to 2014, even if the percentage has dropped to 7% in 2014 in a context of feed costs increasing more than the subsidies. In relation to the livestock producers' cash receipts the feed subsidies have exceeded the 5% *de minimis* product-specific AMS (aggregate measurement of support or amber box of domestic trade-distorting subsidies) for hogs from 2011 to 2013 and for poultry

in 2011 and 2012 but we can expect that they will also exceed the *de minimis* level in the future for both meats with the large reduction in the expected pursuit of the reduction in cereals and oilseeds prices observed in 2015 and the corresponding increase in the level of offsetting subsidies.

However, given that the farm gate value of the unprocessed animal products is much lower than the export value of the processed products at FOB level, the average dumping rate of the exported animal products has been low, at 4.8% on average from 1995 to 2014, having decreased from 6.6% in the base period 1995-2000 to only 2.5% in 2014, of which respectively from 13.4% to 0.1% for dairy (given high export subsidies in 1995-2000), from 4.3% to 1.5% for beef, from 4.2% to 3.7% for pork and from 9.3% to 4.3% for poultry and eggs.

However, given that the prospects for the export prices of animal products are not much better than for feed grains we can expect than the dumping rate would increase in the next years with higher feed subsidies.

If the WTO Members of developing countries denounce the violation of the AoA rules concerning the product-specific *de minimis* in the REV4 Modalities, the combined impact with the feed subsidies would reduced the US allowed overall trade-distorting domestic support (OTDS) at the end of the Doha Round implementation period, once cut by the 70% foreseen by the REV4, to \$12.698 bn, instead of the \$14.467 bn assumed by Canada's simulations.

The analysis brings also new lights on the US domestic food aid, its irrigation subsidies and the large under-notification of its US dairy market price support even if it has been deleted in the 2014 Farm Bill.

Introduction

After the setback suffered by the developing countries (DCs) at the WTO MC10 in Nairobi and the difficulty to pursue the negotiations in Geneva on the basis of the REV4 Agricultural modalities text of 6 December 2008, at least, "*as Glauber and Westhoff point out, already under existing disciplines, there is a significant risk that US budgetary outlays will exceed the US reduction commitments for trade-distorting amber box domestic support for agriculture, suggesting that the current rules are of some relevance to limit trade distortions caused by US farm subsidies*"¹. The same could even more be said of the EU agricultural subsidies.

Indeed the DCs' defeat in Nairobi only prolongs their recurrent defensive stance towards the developed countries, which denies the alleged claim that the WTO is a "*rules-based global trading system*". Indeed, despite the huge permanent violation of the WTO rules, particularly of the Agreement on Agriculture (AoA), by the US and EU, they felt free to increase instead their offensive attacks against the DCs' agricultural subsidies. As Chakravarthi Raghavan reminds us, "*A reading of the report from the DSB [Dispute Settlement Body of the WTO] to the Bali Ministerial Conference (WT/DSB/61) brings out that the US has not implemented any ruling and DSM recommendation where changes to US statutes are required*"². It is as if the US is still considering that the exceptional waiver that it obtained from the GATT on 5 March 1955 was still in force, knowing that this waiver allowed the US to erect protections on all its

¹ <http://www.ictsd.org/themes/agriculture/research/the-2014-us-farm-bill-and-its-effects-on-the-world-market-for-cotton>

² Chakravarthi Raghavan, *The Third World in the Third Millenium CE. The WTO- Towards Multilaterla Trade or Global Corporatism?*, Third World Network, 2014

agricultural products under section 22 of the Agricultural Adjustment Act (AAA) of 1933 which *"requires that restrictions in the form either of fees or of quantitative limitations must be imposed on imports whenever the President of the United States finds, after investigation, that such products are being or are practically certain to be imported in such quantities and under such conditions as to render ineffective or materially interfere with any programme or operation undertaken by the United States Department of Agriculture or any agency under its direction with respect to any agricultural commodity or product thereof, or to reduce substantially the amount of any product processed in the United States from any agricultural commodity or product thereof, with respect to which such a programme is being undertaken, and has required the President not to accept any international obligation which would be inconsistent with the requirements of the Section"*.

It is only Brazil which dared to sue in 2002 the US subsidies in the cotton case and the EU subsidies in the sugar case (together with Thailand and Australia) but, now that its cotton has been subsidized by the US and that it has chosen to join the developed countries camp and not to prejudice their compatriot, the WTO Director-General Roberto Azevedo, it is a pity to see that no DC, not even China or India, seems prepared to adopt an offensive stance against the US and EU agricultural subsidies. And here we target domestic subsidies as the export subsidies, the only ones discussed in Nairobi, are no longer used in the US and EU, so that Roberto Azevedo's speech, at the MC10 closing ceremony, was off the point and deceptive: *"The elimination of agricultural export subsidies is particularly significant... due to the enormous distorting potential of these subsidies for domestic production and trade. Today's decision tackles the issue once and for all. It removes the distortions that these subsidies cause in agriculture markets, thereby helping to level the playing field for the benefit of farmers and exporters in developing and least-developed countries"*³.

Yet the WTO Appellate Body has ruled four times – precisely in the US Cotton case in March 2005 and the EU Sugar case in April 2005 and twice in the Dairy products of Canada case in December 2001 and December 2002 – that domestic subsidies, including the alleged "decoupled" ones, should be considered as export subsidies in assessing dumping. Thus, on 3 December 2001 in the Dairy products of Canada case: *"The distinction between the domestic support and export subsidies disciplines in the Agreement on Agriculture would also be eroded if a WTO Member were entitled to use domestic support, without limit, to provide support for exports of agricultural products. Broadly stated, domestic support provisions of that Agreement, coupled with high levels of tariff protection, allow extensive support to producers, as compared with the limitations imposed through the export subsidies disciplines. Consequently, if domestic support could be used, without limit, to provide support for exports, It would undermine the benefits intended to accrue through a WTO Member's export subsidy commitments"* (paragraph 91). The Appellate Body confirmed the 20 December 2002, in the same case, that *"If governmental action in support of the domestic market could be applied to subsidize export sales, without respecting the commitments Members made to limit the level of export subsidies, the value of these commitments would be undermined. Article 9.1(c) addresses this possibility by bringing, in some circumstances, governmental action in the domestic market within the scope of the "export subsidies" disciplines of Article 3.3."* (paragraph 148).

The Appellate Body confirmed the 3 March 2005, in the cotton case, that the effect of all US direct payments to its cotton producers – marketing loans, fixed direct payments, contracyclical payments – *"is significant price suppression within the meaning of Article 6.3(c) of the SCM Agreement"*, in other words that these domestic subsidies have had a dumping effect. And the panel report stated that all types of subsidies should be considered as a whole when appraising

³ https://www.wto.org/english/news_e/spra_e/spra108_e.htm

their impact on prices: *"Thus, in our price suppression analysis under Article 6.3(c), we examine one effects-related variable – prices – and one subsidized product – upland cotton. To the extent a sufficient nexus with these exists among the subsidies at issue so that their effects manifest themselves collectively, we believe that we may legitimately treat them as a "subsidy" and group them and their effects together. We derive contextual support for this view from Article 6.1 and Annex IV, which referred to the concept of total ad valorem subsidization and envisaged that, "[i]n determining the overall rate of subsidization in a given year, subsidies given under different programmes and by different authorities in the territory of a Member shall be aggregated" (paragraph 7.1192)⁴. Daniel Sumner concluded: "As the first WTO dispute over domestic farm subsidy programs, the rulings in the upland cotton case have clarified the agreement provisions for current and future negotiations. The rulings also suggest that other subsidy policies of the United States and other WTO members may also be out of compliance, and that additional cases may be brought"⁵.*

In the EU sugar case, the Appellate Body observed that *"C sugar is being exported at below its total average cost of production and that this occurs due to the subsidies provided under the EC sugar regime for C sugar, which subsidies arise from the profits made by sugar producers on sales of A and B sugar" and "upholds the Panel's findings... that... the production of C sugar receives a "payment on the export financed by virtue of governmental action", within the meaning of Article 9.1(c) of the Agreement on Agriculture, in the form of transfers of financial resources through cross-subsidization resulting from the operation of the EC sugar regime"⁶.*

Let us add at this stage that the WTO Members do not recognize a legal weight of precedent to the panels' and Appellate Body's rulings when they adjudicate on similar cases. Otherwise the EU Sugar case would not have been necessary since it was almost the same, albeit for a different product, that the Dairy products of Canada case. During the plenary session of the WTO Public Forum of 30 October 2015 J. Berthelot asked to the Representative of the Appellate Body, Ms Yuejiao Chang, one of the contributors, if she could confirm these Appellate Body's rulings. She confirmed them implicitly stating that the WTO Members are not obliged to recognize a value of legal precedent to the panels' and Appellate Body's rulings but that the members of the panels and Appellate Body are obliged to consider these rulings when they adjudicate on similar cases⁷.

The present paper Now let us mention several important rules of the AoA violated by the US and EU agricultural subsidies for which DCs could still sue the US and EU with a large chance of success. First let us look at the US applied AMS (Aggregate Measurement of Support or Amber box of trade-distorting domestic support) from 1995 to 2014, deriving from the USDA data, which relate to the marketing years, for example 2014 is for the 2013-14 marketing year. To not overload the tables we have given the averages of the 6 years 1995-2000 (concerning the period for the AMS reduction commitments of developed countries which is also the base period for the Doha Round reduction commitments) and of the 4 years 2001 to 2004.

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[https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?Query=\(@Symbol=%20wt/ds267/ab/r*%20not%20rw*\)&Language=ENGLISH&Context=FomerScriptedSearch&languageUIChanged=true#](https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?Query=(@Symbol=%20wt/ds267/ab/r*%20not%20rw*)&Language=ENGLISH&Context=FomerScriptedSearch&languageUIChanged=true#)

⁵ Daniel A. Sumner, *U.S. Farm Policy and WTO Compliance*,

http://aic.ucdavis.edu/research/farmbill07/aeibriefs/20070515_sumnerWTOfinal.pdf

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[https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?Query=\(@Symbol=%20wt/ds266/ab/r*%20not%20rw*\)&Language=ENGLISH&Context=FomerScriptedSearch&languageUIChanged=true#](https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?Query=(@Symbol=%20wt/ds266/ab/r*%20not%20rw*)&Language=ENGLISH&Context=FomerScriptedSearch&languageUIChanged=true#)

⁷ https://www.wto.org/english/forums_e/public_forum15_e/webcasting_e.htm

I – The US applied AMS from 1995 to 2014, particularly to feed crops

In its last notification for 2012 the US notified an AMS of \$6.863 billion (bn) (table 8 below shows the notified AMS from 1995). The US agricultural domestic subsidies are collected by two institutions: the Commodity Credit Corporation (CCC) for most subsidies and the Risk Management Agency (RMA) for those to crop insurances. Then, to get the AMS, we must add the "market price supports" (MPS) notified to the WTO, which are not actual subsidies paid by taxpayers. Besides the total subsidies and MPS, we will present those to the main crops, particularly cereals and soybean.

1.1 – The Commodity Credit Corporations' subsidies

They take into account the WTO Appellate Body's ruling of 3 March 2005 that the flexibility contract payments and then the fixed direct payments should have been notified in the AMS and not in the green box. Let us underline that, contrary to the EU, and even if farmers are not obliged to produce the crop for which they have received the fixed decoupled payments, the US has allocated them to the various crops. But we do not count the subsidies to exports programmes and rightly notified in the green box: conservation and decoupled payments to tobacco buyout. Further on we will add the trade-distorting domestic subsidies to domestic food aid. But we must stress that these subsidies are highly conservative as we did not take into account those of the non-product specific (NPS) AMS which were furthermore largely under-notified. We will present more specifically the data on feed products, of which cereals (excluding rice) and soybeans.

Table 1 – CCC subsidies to the 5 main cereals, 1995-2014

\$ million	1995-00	2000-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total*	11784	16716	18840	17949	7947	6012	8227	8648	7379	6509	5844	11051
Corn	4185	3802	6243	8804	3195	1856	2175	1965	1863	1571	1916	2093
Wheat	2428	1631	1232	1080	729	869	1224	1280	1378	905	1116	1089
Barley	162,3	119,5	188,6	159	57,7	69,6	83,5	79,5	80,6	64,7	76,8	73,8
Sorghum	412,5	251,3	376,2	578,3	150,5	182,7	197,2	182,2	195,8	143,7	74,4	99,5
Oats	25,7	13	3,3	1,6	1,6	2,6	3,2	2,4	4,4	3	2,8	3,1
5 cereals	7213,5	5816,8	8043,1	10622,9	4133,8	2979,9	3682,9	3509,1	3521,8	2687,4	3186	3358,4
% Total	61,2%	34,8%	42,7%	59,2%	52%	49,6%	44,8%	40,6%	47,7%	41,3%	54,5%	30,4%

Source: Commodity estimates books and reports (<http://www.fsa.usda.gov/about-fsa/budget-and-performance-management/budget/commodity-estimates-book-and-reports/index>)

<https://www.fsa.usda.gov/FSA/webapp?area=about&subject=landing&topic=bap-bu-cc>

https://www.fsa.usda.gov/Internet/FSA_File/pb08_book3.pdf; http://www.fsa.usda.gov/Assets/USDA-FSA-Public/usdafiles/AboutFSA/Budget/pdf/pb16_commodity_estimates.pdf

* Total minus exports programmes and decoupled payments to tobacco buyout and conservation

1.2 – The crop insurance subsidies

We have rectified the fact that the US has only notified in the AMS the premium subsidies but neither the payments to insurance companies (reimbursements to deliver the policies and payments of underwriting gains) nor the administrative costs which were notified in the green box. This was criticized by a CRS (Congressional Research Service)'s report of April 2007⁸ and a GAO (Government Accounting Office)' report of 2009⁹. Above all the AoA Annex 3 paragraph 2 states clearly that the AMS "*shall include both budgetary outlays and revenue foregone by governments or their agents*".

⁸ Randy Schnepf and Jasper Womach, *Potential Challenges to U.S. Farm Subsidies in the WTO*, CRS Report for Congress, Updated April 26, 2007.

⁹ www.gao.gov/products/GAO-09-445

The data are for crop years, not fiscal years. Table 2 applies this average ratio of the total costs to the premium subsidies of each cereal to get its total costs.

For the first time the premium subsidies of crop insurances were no longer notified in 2012 in the non-product specific (NPS) AMS but in the PS AMS to benefit of the PS *de minimis* (PSdm) for many crops: on a total of \$7.074 bn of premium subsidies \$4.886 bn were notified in PSdm so that the net PS AMS of crop insurances subsidies was limited to \$2.188 bn, or of \$4.210 bn for total crop insurance costs. But the boomerang effect of this change is that the US recognized that the premium subsidies were improperly notified in the past in the NPS AMS, justifying to rectify its past notifications made in the NPS AMS and to transfer them to the PS AMS.

Furthermore, as we are assessing here the total level of amber box subsidies, we do not deduct the level of them notified as *de minimis*. The more so as the concept of OTDS (overall trade-distorting domestic support) created by the WTO General Council on 31 July 2004 ("Framework Agreement") considered the PSdm and NPSdm as trade-distorting and subject to reductions, and incorporates them together with the current total AMS and the blue box¹⁰.

Let us underscore that the notified crop insurance subsidies were largely underestimated before 2008 as attested by the analysis made in 2006 by Joe Glauber, the present Chief economist of the USDA and Chairman of the Board of Directors of the Federal Crop Insurance Corporation, who was also the Special Doha Agricultural Envoy at the office of the U.S. Trade Representative where he served as Chief agricultural negotiator in the Doha talks until January 2009. He stated in 2006: "*Subsidies for crop insurance have averaged more than \$3 billion a year since 2002, and annual disaster payments have averaged more than \$2 billion. Moreover, much of the disaster assistance goes to producers who also are receiving crop insurance indemnity payments. The result, as the title of this paper suggests, is "double indemnity". For many producers, disaster assistance allows them to collect twice on the same loss to "help fill the hole in the safety net" ... Far from substituting for crop insurance, disaster assistance outlays have been highly correlated with insurance indemnities. This suggests that much of the disaster assistance goes to producers who also are receiving crop insurance indemnity payments*"¹¹. And it took the case of 2001 where "*An insured producer with 85 percent yield coverage is effectively made whole (that is, crop revenue plus crop insurance indemnity plus disaster payment are equal to the expected value of the crop at planting) at a crop loss of 59 percent. At a 100 percent loss, a producer could receive 127 percent of the expected value of the crop*". It follows that this double-counting was clearly contradicting the AoA Annex 2 paragraph 7.b requirement that "*The amount of such payments shall compensate for less than 70 per cent of the producer's income loss in the year the producer becomes eligible to receive this assistance*" and particularly the paragraph 7.d, repeated in paragraph 8.e on payments for natural disasters stating that "*Where a producer receives in the same year payments under this paragraph and under paragraph 7 (income insurance and income safety-net programmes), the total of such payments shall be less than 100 per cent of the producer's total loss*".

¹⁰ https://www.wto.org/english/tratop_e/dda_e/draft_text_gc_dg_31july04_e.htm

¹¹ Joseph W. Glauber, *Double Indemnity: Crop Insurance and the Failure of U.S. Agricultural Disaster Policy*, in Bruce L. Gardner and Daniel A. Sumner, *The 2007 Farm Bill and Beyond*, 2007 (http://aic.ucdavis.edu/research/farbill07/aeibriefs/20070516_Summary.pdf).

Table 2 – Evolution of US disaster payments notified in the WTO green box

\$ million	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012
Disaster payments	1388	1792	169	1068	926	65	98	62	264	344
Crop disaster payments	1332	1382	3	798	730			60		
Non insured crop disaster		112	59	137	66	62	95		262	342
Livestock	53	172	22	13	125					
Details for 1995-2004	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Disaster payments	1380	1388	1388	1388	1388	1388	1388	2121	1694	1964
Crop disaster payments	1332	1332	1332	1332	1332	1332	1332	1741	1295	1160
Non insured crop disaster								226	111	109
Livestock	53	53	53	53	53	53	53	100	267	267

Source: US notifications to the WTO

However table 3 shows that the disaster payments established by the Environment Working Group were 75% higher from 2001 to 2012 and 8.2 times higher from 2008 to 2012 than those notified at the WTO (table 2). This can largely be explained by the SURE (Supplemental Revenue Assistance Payments) programme established by the 2008 Farm Bill but which expired after crop year 2011. According to the US Farm Service Agency, "FSA expects that payments from the Supplemental Revenue Assistance Payments Program (SURE) for 2008 through 2011 will total \$3.4 billion, an average of \$0.85 billion per crop year, which represents both the cost of the program and the benefit to the participants. FSA states that this is less than the average of \$1.14 billion per year for previous ad hoc crop disaster programs from 1998 to 2007"¹². What is strange is that the SURE payments were notified to the WTO in the non-product specific (NPS) AMS for a total of only \$1.086 bn from 2009 to 2011: \$166.5 million in 2009, \$395 million in 2010 and \$524.6 million for 2011. Where are the true figures?

Table 3 – Evolution of US disaster payments according to the Environment Working Group

\$ million	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012
Disaster payments	776	1815	3074	166	462	2064	246	2533	1215	795
Gap with the US notification	-612	+23	+2905	-902	-464	+1999	+148	+2471	+941	+451

Source: http://farm.ewg.org/progdetail.php?fips=00000&progcode=total_dis

Table 4 – Crop insurance subsidies: total and to the 5 main cereals: 1995-2014

\$ million	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total costs	1582	3336	2593	3461	3791	7716	5687	4729	9469	13451	9718	7687
Premium subsi.	938	2007	2342	2687	3828	5696	5431	4715	7478	6991	7307	6218
Cost/premium	1,6866	1,6622	1,1072	1,2881	0,9903	1,3546	1,0471	1,0030	1,2662	1,9240	1,33	1,2362
Premium subsidies to cereals												
Corn	209,4	604,1	713	871	1739	2116	2038	1749	2916	2689	2827	2188
Wheat	134,7	280,7	337	364	525	937	1092	686	1121	1115	1249	919
Barley	9,8	17,6	17,4	15,6	23,4	45	31,4	20,5	41,2	54,4	50,9	33
Sorghum	24,7	50,8	40,3	43,2	91,5	120,3	88	83,4	130,5	138,4	177,3	134,5
Oats	2,5	3,4	4,2	3,7	4,9	5,8	5,7	4,1	3,6	5,2	6,2	5,6
5 cereals	381,1	956,6	1111,9	1297,5	2383,8	3224,1	3255,1	2543	4212,3	4002	4310,4	3280,1
Total costs of insurance subsidies to cereals												
Corn.	353,2	1004,1	789,4	1121,9	1722,2	2866,4	2134,1	1754,2	3692,4	5173,8	3759,8	2704,8
Wheat	227,2	466,6	373,1	468,9	519,9	1269,3	1143,5	688	1419,5	2145,3	1661,1	1136,1
Barley	15	32,1	19,3	20,1	23,2	61	32,9	20,5	52,2	104,6	67,7	40,8
Sorghum	37,8	93	44,6	55,7	90,6	163	92,1	83,4	165,2	266,3	235,9	166,2
Oats	3,8	6,4	4,7	4,8	4,8	7,8	6	4,1	4,5	10	8,2	6,9
5 cereals	637	1602,2	1231,1	1671,4	2360,7	4367,5	3408,6	2550,2	5333,8	7700	5732,7	4054,8
5 crops/tot.cost	70,6%	74,7%	66%	78,9%	80,6%	75,5%	68,9%	82,2%	87%	84,1%	83,5%	81,2%

Source: <http://www.rma.usda.gov/data/sob.html>; crop year government cost of federal crop insurance

(file:///C:/Users/berth/Desktop/Documents2/Etats-Unis/CRS-

Crop%20insurance%20and%20disaster%20assistance,%202007%20FB%20issues,%2015%20October%2007-2.pdf)

Besides table 5 shows the large under-notification to the WTO of premium subsidies compared to RMA data from 2005 to 2008. If the figures are almost the same from 2009 to 2012, the

¹² <http://www.gao.gov/assets/90/86036.pdf>

notifications for 2012 incorporate premium subsidies to animals for \$10.2 million, not published by the RMA. And the notifications do not take into account total government costs.

Table 5 – Gaps between the notified premium subsidies and those published by the RMA

\$ million	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Notifications	888	1911	756	1613	801	4509	5426	4712	7460	6974		
RMA	938	2007	2342	2687	3828	5696	5431	4715	7464	6991	7307	6218
RMA-notificat°	50	96	1586	1074	3027	1187	5	3	4	17		
Detailed annual notifications and RMA data between 1995 and 2004												
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004		
Notifications	913	636	119	747	1514	1396	1770	2889	1862	1123		
RMA	889	982	903	946	955	951	1771	1741	2042	2472		
RMA-notificat°	-24	346	784	199	-559	-445	1	-1148	180	1349		

1.3 – Total CCC and crop insurance subsidies and to feed crops

1.3.1 – To feed cereals

Table 6 shows the total CCC plus crop insurance subsidies, including to the 5 cereals. Table 7 presents the total production of these cereals, from which table 8 deducts the average domestic subsidy per tonne of each cereal.

Table 6 – Total US agricultural domestic subsidies to the 5 cereals

\$ million	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total subsidies	13366	20052	21433	21410	11738	13728	13914	13377	16848	19960	15562	18738
Corn	4538	4806	7032	9926	4917	4722	4309	3719	5555	6745	5676	4798
Wheat	2655	2098	1605	1549	1249	2138	2368	1968	2798	3050	2777	2225
Barley	177,1	151,6	207,8	179,1	80,9	130,6	116,4	100	132,7	169,3	144,4	114,6
Sorghum	450,3	344,2	420,9	634	241,1	345,6	289,3	265,9	361	410	310,3	265,7
Oats	29,5	19,4	7,9	6,4	6,5	10,4	9,2	6,6	8,9	13	11	10
5 cereals	7849,9	7419,2	9273,6	12294,5	6494,5	7346,6	7091,9	6059,5	8855,6	10387,3	8918,7	7413,3
5 cereals/total	58,7%	37%	43,3%	57,4%	55,3%	53,5%	51%	45,3%	52,6%	52%	57,3%	39,6%

Table 7 – Total production of the 5 US main cereals

Million tonnes	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Corn	233,2	244,3	299,9	282,2	267,5	311,2	305,9	331,9	312,8	273,2	351,3	361,1
Wheat	63,9	55,3	58,7	57,2	49,2	55,8	68,3	60,1	58,8	54,2	61,3	58,1
Barley	7,7	5,8	6,1	4,6	3,9	4,6	5,2	4,9	3,9	3,4	4,8	4,7
Sorghum	15,4	11,2	11,5	10	7	12,6	9,7	8,8	5,4	6,3	10	11
Oats	2,3	1,8	1,7	1,4	1,3	1,3	1,3	1,2	0,7	0,9	1	1,3
5 cereals	322,5	318,4	377,9	355,4	328,9	385,5	390,4	406,9	381,6	338	428,4	436,2

Table 8 – Average domestic subsidy per tonne of US cereals

\$ per tonne	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Corn	19,46	19,67	23,45	35,17	18,38	15,17	14,09	11,21	17,76	24,70	16,16	13,29
Wheat	41,55	37,94	27,34	27,08	25,39	38,32	34,67	32,75	47,59	56,27	45,30	38,30
Barley	23	26,14	34,07	38,93	20,74	28,39	22,38	20,41	34,03	49,79	30,08	24,38
Sorghum	29,24	30,73	36,60	63,40	34,44	27,43	29,82	30,22	66,85	65,08	31,03	24,1
Oats	12,83	10,78	4,65	4,57	5	8	7,08	5,50	12,71	14,44	11	7,69
5 cereals	24,34	23,30	24,54	34,59	19,75	19,06	18,17	14,89	23,21	30,73	20,82	17

1.3.2 – Total CCC and crop insurance subsidies to soybeans

Table 9 shows all the components of domestic subsidies to soybeans.

Table 9 – US domestic subsidies to soybeans, 1995-2014

\$ million	1995-00	2000-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total subsidies	13366	20052	21433	21410	11738	13728	13914	13377	16848	19960	15562	18738
CCC	714	2309	1149	604	2125	988	596	550	521	431	539	591
Insur. premium	146,2	366,2	269	585	606	973	350	1069	1608	1473	1535	1392
Tot insurance	246,6	608,7	297,8	753,5	600,1	1318,1	366,5	1072,2	2036,1	2834,1	2041,5	1720,8
Soybeans subsidies	961	2918	1447	1358	2725	2306	963	1622	2557	3265	2581	2312
% of total	7,2%	14,6%	6,8%	6,3%	23,2%	16,8%	6,9%	12,1%	15,2%	16,4%	16,6%	12,3%
Total production of soybean and domestic subsidy per tonne												
Production: Mt	69,8	76,3	83,5	87	72,8	80,7	91,4	90,6	84,2	82,7	91,3	108
Subsidy: \$/tonne	13,77	38,24	17,33	15,61	37,43	28,57	10,54	17,90	30,37	39,48	28,27	21,41

1.4 – Market price support

Table 10 shows the market price support (MPS) notified to the WTO which concern only 3 products: dairy, sugar and peanuts (notified only till 2001). These MPS are notified according to the specific (and absurd) methodology of the AoA: the gap between the present administered price and the 1986-88 border price times the present eligible production.

Table 10 – US agricultural market price supports notified to the WTO: 1995-2012

\$ million	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Dairy	4495	4538	4794	4882	5011	2925	2827	2845	2835	2923		
Sugar	1083	1189	1114	1272	1227	1134	1241	1258	1406	1406		
Peanuts	337	78										
Total MPS	5914	5805	5908	6154	6238	4060	4068	4103	4241	4329		
Details of MPS from 1995 to 2004												
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004		
Dairy	4693	4674	4455	4332	4437	4378	4483	4509	4515	4646		
Sugar	1108	937	1046	1093	1180	1133	1032	1262	1242	1220		
Peanuts	413	308	315	350	303	330	311	-	-			
Total MPS	6213	5919	5816	5776	5921	5840	5826	5771	5757	5866		

Source: US notifications to the WTO

1.5 – Total trade-distorting domestic support

Finally table 11 presents the total AMS of agricultural trade-distorting supports. It shows that the US total AMS has exceeded the allowed Final Bound Total AMS of \$19.103 bn for all years up to 2012 (last notified year) except from 2007 to 2010, at least when we do not take into account the allowed PSdm and NPSdm of crop insurances.

Table 11 – Total US agricultural subsidies and market price support (MPS): 1995-2014

\$ million	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Notified AMS to the WTO												
	10401	10504	12938	7742	6260	6255	4267	4119	4654	6863		
Actual AMS and its broad components												
CCC subsidies	11784	16716	18840	17949	7947	6012	8227	8648	7379	6509	5844	11051
Insurance subsidies	1582	3336	2593	3461	3791	7716	5687	4729	9469	13451	9718	7687
Total subsidies	13366	20052	21433	21410	11738	13728	13914	13377	16848	19960	15562	18738
MPS	5914	5805	5908	6154	6238	4060	4068	4103	4241	4329		
Total agri. support	19250	25857	27341	27564	17976	17788	17982	17480	21089	24289		

<http://www.rma.usda.gov/aboutrma/budget/14costtable1.pdf>

* Total minus exports programmes and decoupled payments to tobacco buyout and conservation

1.6 – The US AMS for cotton and rice

We add in table 12 the AMS subsidies for cotton and rice as they are among the crops receiving the largest domestic subsidies, two crops which are of special interest for the developing countries. As the USDA data on rice refer to rough (paddy) rice, we have converted them in milled rice equivalent taking into account the annual milling rate. Let us add that cotton has received export subsidies from 2003 to 2007 – average of \$120 million in 2000-04 – plus \$266.5 million in 2005, and \$9.4 million in 2006 and 2007) but they are not part of the AMS.

Table 12 – US AMS subsidies to cotton and rice, 1995-2014

\$ million	1995-00	2000-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
CCC subsidies												
Cotton	1361	2594	4444	3405	2592	1604	2320	1663	768	662	733	721
Rice	825	1333	473	605	336	301	411	535	364	396	292	350
Crop insurance subsidies												
Cotton premium	161,8	234,8	212	284	199	253	220	320	819	561	451	490
Cotton subsid.	272,9	390,3	234,7	365,8	197,1	342,7	230,4	321	1037,1	1079,4	599,8	605,7
Rice premium	9,9	12,9	13,9	14,7	17,2	22,8	41,6	50,1	44,7	38,3	42,2	57,2
Rice subsidies	16,7	21,4	15,4	18,9	17	30,9	43,6	50,2	56,6	73,7	56,1	70,7
Total AMS subsidies												
Cotton	1634	2984	4679	3771	2789	1947	2550	1984	1805	1741	1333	1327
Rice	842	1354	488	624	353	332	455	585	421	470	348	421
Total production in 1000 tonnes of cotton lint and of paddy rice, converted into milled rice												
Cotton	3866	4445	5375	4857	4322	2886	2741	4073	3504	3896	2905	3672
Rice paddy	8442	9265	10540	10108	8826	8999	9241	9972	11027	8389	9069	8616
Milling rate (%)	70,12	69,12	70,80	70,29	69,88	70,83	71,53	68,86	69,93	70	71	70,50
Milled equivalent	5920	6404	7462	7105	6168	6374	6610	6867	7711	5872	6439	6074
Subsidy per tonne of cotton lint, paddy rice and milled rice												
Cotton	422,7	671,3	870,5	776,4	645,3	674,6	930,3	487,1	515,1	446,9	458,9	361,4
Rice paddy	99,7	146,1	46,3	61,7	40	36,9	49,2	58,7	38,2	56	38,4	48,9
Milled equivalent	142,2	211,4	65,4	87,8	57,2	52,1	68,8	85,2	54,6	80	54	69,3

II – The AMS subsidies component of the US domestic food aid

In 2012 the US domestic food aid was of about \$110 bn (net of administration costs)¹³. Over a total US food and beverages bill of \$1445.211 bn in 2012, 87.25% or \$1260.895 bn were of domestic origin, of which 14.61% or \$184.226 bn represented the value of US agricultural products at farm gate¹⁴. However, as the domestic food aid forbids alcoholic beverages, the total food bill without alcoholic beverages was of \$1111.137 bn of which \$1047.710 bn were of domestic origin, of which 17.43% or \$193.680 bn represented the value of domestic agricultural products at the farm gate. We assume that this percentage works also for the value of domestic farm products in the domestic food aid, which was then of 19.173 bn. Given that the total agricultural trade-distorting subsidies were of \$19.960 bn (table 8) before those to domestic food aid in 2012, accounting for 5.033% of the total agricultural production value of \$396.606 bn, we assume that the subsidies attributable to domestic food aid were of about \$1.005 bn, which are much more conservative than other estimates of at least \$6 bn, but the present one is more accurate.

In 2013 the domestic food aid was of about \$106 bn (net of administration costs)¹⁵. Over a total US food and beverages bill of \$1482.455 bn in 2013, 87.39% or \$1295.582 bn were of domestic origin, of which 14.61% or \$189.266 bn represented the value of US agricultural products at farm gate¹⁶. However the total food bill without alcoholic beverages was of \$1308.141 bn of

¹³ <http://www.obpa.usda.gov/budsum/FY15budsum.pdf>

¹⁴ <http://www.ers.usda.gov/data-products/food-dollar-series/download-the-data.aspx>

¹⁵ <http://www.obpa.usda.gov/budsum/FY15budsum.pdf>

¹⁶ <http://www.ers.usda.gov/data-products/food-dollar-series/download-the-data.aspx>

which \$1143.242 bn were of domestic origin, of which 15.91% or \$181.842 bn represented the value of domestic agricultural products at the farm gate. We assume that this percentage works also for the value of domestic farm products in the domestic food aid, which was of 16.865 bn. Given that the total agricultural trade-distorting subsidies were of \$15.562 bn (table 8, before those to domestic food aid) in 2013, accounting for 3.974% of the total agricultural production value of \$391.580 bn, we will also assume that the subsidies attributable to domestic food aid were of about \$670 million, raising the total trade-distorting subsidies of table 1 for 2013 at \$16.232 bn. But these \$670 million are the lowest of several estimates of these subsidies which were of at least \$6 bn but the present one is more accurate.

The food consumption data are not available for 2014 but, given that the total agricultural production value was almost unchanged (99.831% of the 2013 level and 98.566% of the 2012 level) whereas the US subsidies in 2014 were 6.12% lower than in 2012 but 20.41% higher than in 2013, they could range in 2014 between \$807 million and \$943 million.

Above all there is no reason to differentiate between the "administered price" paid to farmers in DCs and the so-called "market price" paid to those in developed countries (paragraph 4 of Annex 2 of the AoA) as the latter are not actual market prices, being heavily subsidized¹⁷. To know what a "market price" is, the best source comes from the US and EU provisions on countries "without market economies", considered to be using prices different from their "normal values". Thus, according to the US Anti-Dumping Manual, "*For the merchandise under investigation or review [anti-dumping], there should be virtually no government involvement in setting prices*". Therefore DCs could sue the US and EU at the WTO with the best chance of success, based on their own laws showing that their agricultural prices are established outside the rules of "market economies". Indeed the US agricultural products processed into domestic food aid are purchased at "administered prices" like the Indian rice and wheat, the only difference being that, in the US case, the subsidy is not granted at the purchasing time and incorporated in the price but is granted along the year according to the types of direct payments (fixed direct payments, crop insurances subsidies, marketing loan benefits).

Several US and international reports have underlined the usefulness or necessity to internalize in domestic agricultural market prices the subsidies allocated to the corresponding products:

- The OECD has done it in a report of 2011 where the concept of domestic prices is defined as "*producer prices plus payments linked to the production of a specific commodity*"¹⁸.
- In the US cotton case, the Appellate Body's report underlined that "*During the oral hearing, the United States accepted that farmers decide what to plant based on expected market prices as well as expected subsidies*" (paragraph 440)¹⁹.
- A FAPRI Report of October 2013²⁰ assessing the two Farm Bills adopted in 2013 by the House of Representatives and the Senate presents tables of the expected "*average crop revenue in*

¹⁷ For an extensive analysis of the concepts of "market price", "administered price", "food security stock", etc., see *Comments to the "U.S. Question to India" at the WTO Committee on agriculture of 29 January 2014*, Solidarité, March 4, 2014 (http://www.solidarite.asso.fr/Papers-2014?debut_documents_joints=30#pagination_documents_joints)

¹⁸ Jean-Pierre Butault, *Evolution of Agricultural Support in Real Terms in OECD Countries and Emerging Economies*, OECD, 2011, <http://www.oecd-ilibrary.org/docserver/download/5kgkdgf25x20.pdf?expires=1385386110&id=id&accname=guest&checksum=476FE82E1A92E7409C7AAE4E85F48958>

¹⁹ WT/DS267/AB/R, 3 March 2005

²⁰ US Research Center dependent from the US government.

dollars per acre"²¹ for several crops for the period 2014-18. In these tables the expected subsidies are added to market sales, which, divided by the yield per acre, give the *comprehensive price* or *full price* per crop, although FAPRI does not use this concept but that of "revenue per acre".

- A World Bank paper of November 2008 written by Kim Anderson and Signe Nelgen incorporates also the decoupled subsidies in their indicator of agricultural prices distortion – the NRA [*nominal rate of assistance*] – when they write: "*With this dollar value of decoupled payments, the NRA can be calculated by dividing the result by the value of production at undistorted prices. Since the decoupled part of support in agriculture is steadily increasing in high-income countries, it is of particular importance to integrate this part of support, even though it is less market- and resource-distorting than other distortion measures*"²².

- Finally USDA has used extensively the concept of "Net Budgetary Expenditures per Commodity"²³ incorporating the subsidies with the farm price.

All these facts underscore that the "current market prices" at farm gate are not real market prices without "*virtually no government involvement in setting prices*". They should therefore be corrected by adding the direct payments to get the *comprehensive price* or *full price* comparable to prices of countries, mainly DCs like India, which cannot grant such payments by lack of resources.

Consequently we must apply to the US food aid the same rule applied to the DCs food aid by the AoA Annex 2 paragraph 3 footnote 5 where the AMS is defined as the gap between the present administered price – equal in the US to the farm gate price per tonne + the direct payments per tonne – and the average FOB price in 1986-88. In a previous paper of November 2013²⁴ we have calculated that 14.594 million tonnes of cereals were incorporated in the US domestic food aid in 2012 (including in the animal feed incorporated in the animal products of domestic food aid), of which 8.972 million tonnes of corn at an average farm price of 244.88 \$/t and 5.310 million tonnes of wheat at an average farm price of 266.18 \$/t. Table 3 shows that corn subsidies were of \$6.745 bn in 2012 for a production of 273.2 million tonnes, implying a subsidy per tonne of \$24.70 (table 5), which gives an administered price equivalent of 295.93 \$/t (table 13). Given an average FOB price at farm gate of 78.47 \$/t in 1986-88 the AMS/t was of \$217.46, which, for the US domestic food aid alone, would imply an AMS of \$1.951 bn. The same calculation can be extended to other products in the US domestic food aid, among which to wheat for which the AMS in the domestic food aid of 2012 was of \$1.299 bn.

But there is no reason to confine the AMS to the only farm products incorporated in the domestic food aid, so that the AMS for the whole production of corn would be of an amazing

²¹ http://www.fapri.missouri.edu/outreach/publications/2013/FAPRI_MU_Report_06_13.pdf

²² Kim Anderson and Signe Nelgen, "*Estimates of Distortions to Agricultural Incentives, 1955-2011*", updated in June 2013, http://siteresources.worldbank.org/INTRES/Resources/469232-1107449512766/Note_summarizing_core_updated_database_0613.pdf; *Distortions to agricultural incentives in Asia*,

<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/0,,contentMDK:21960058~pagePK:64214825~piPK:64214943~theSitePK:469382,00.html>

²³ http://www.fsa.usda.gov/Internet/FSA_File/pb12_tbl35.pdf;

<http://www.fsa.usda.gov/FSA/webapp?area=about&subject=landing&topic=bap-bu-cc>

²⁴ *Analysis of the G-33's proposal to change the AoA provision on Public stockholding for food security*, Solidarité, Nov ember 23, 2013, http://www.solidarite.asso.fr/Papers-2013?debut_documents_joints=10#pagination_documents_joints

\$59.409 bn and the AMS for the whole production of wheat would be of \$14.995 bn, or of \$74.4 bn for the two crops. So that the absurd methodology based on administered prices gives a subsidy 7.6 times larger for these two crops than their actual current subsidies.

Table 13 – The AMS subsidy to the US domestic food aid in 2012

	Corn	Wheat
Subsidies: \$ million	6745	3050
Production: million tonnes	273.195	61.298
Food aid: "	8.972	5.310
Farm price: \$ per tonne	271.24	285.50
Subsidy: "	24.70	49.76
Administered price: farm price+sub	295.93	335.26
1986-88 FOB price	78.47	90.64
Food aid AMS: \$ per tonne	217.46	244.62
Total food aid AMS: \$ million	1951	1299
Total production AMS: "	59409	14995

Sources: USDA and OECD

Table 14 extends the calculation to the total production of soybeans, cotton and rice for the same year 2012, so that the AMS for the total production of these five products get to \$108.6 bn when we apply the absurd methodology of the AoA for the administered prices, an amount 7.1 times larger than their current subsidies.

Table 14 – The AMS subsidy to the total US production of soybean, cotton rice in 2012

	Soybean	Cotton	Rice (paddy)
Subsidies: \$ million	3265	1741	470
Production: million tonnes	82.790	3.774	8.389
Farm price: \$ per tonne	529.41	1668.87	319.66
Subsidy: "	39.46	461.31	56
Administered price: "	568.87	2130.18	375.66
1986-88 FOB price: "	221.43	1273.53	129.84
AMS: "	347.44	856.65	245.82
Total AMS: \$ million	28748	3233	2062

Source: OECD

And table 15 makes the calculation for 2014 in a context of lower prices and subsidies, which gives nevertheless a total AMS of \$61.548 bn for these five crops, an amount 5.6 times larger than their current subsidies.

Table 15 – The AMS subsidy to the US production of corn, wheat, soybean, cotton & rice in 2014

	Corn	Wheat	Soybean	Cotton	Rice (raw)
Subsidies: \$ million	4798	2225	2312	1327	421
Production: million tonnes	361.094	55.131	108.018	3.570	8.616
Farm price: \$ per tonne	143.69	220.46	374.79	1730.63	315.26
Subsidy: "	13.29	40.36	21.40	371.71	41.99
Administered price: "	156.98	260.82	396.19	2102.34	359.35
1986-88 FOB price: "	78.47	90.64	221.43	1273.53	129.84
AMS: "	78.51	170.18	174.76	828.81	229.94
Total AMS: \$ million	28349	9382	18877	2959	1981

Source: OECD

III – The huge under-notifications of the US market price support of dairy

These huge under-notifications have occurred in two periods and under different forms: from 1986-88 to 2007 and from 2008 up to now.

2.1 – The huge under-notified US milk AMS for 1986-88 and from 1995 to 2007

The US has used a world reference price of milk of 159.826 \$/t in its Schedules of commitments for 1986-88 against 113.333 \$/t recorded in the OECD PSE data base. The US claims that this 159.826 \$/t was derived from the average CIF international prices of butter and non-fat dry milk for 1986 (\$98.6069), 1987 (\$156.439) and 1988 (\$224.432), but this was contradictory to the international prices used by the other countries. And this 159.826 \$/t price of milk was largely the result of using the CIF price of butter, 64% higher than its FOB price it should have used as it was a net exporter of butter. For an average US production of milk of 65.151 million tonnes (Mt) in 1986-88 the under-notified milk AMS was of \$3.029 bn. As this under-notification has continued up to 2007 (before the US Farm Bill of 2008 limited the market price support to butter, non-fat dry milk and cheddar cheese), the total under-notified AMS has reached an amazing \$46.413 bn from 1995 to 2007, and an average annual AMS of \$3.570 bn as shown in table 16!

Table 16 – The US under-notified milk AMS from 1995 to 2007

	1995	1996	1997	1998	1999	2000	2001
Production: Mt	70.074	70.955	71.208	73.109	75.940	74.916	76.726
Notified FERP: \$/t	159.826	159.826	159.826	159.826	159.826	159.826	159.826
Administered price: \$/t	226.800	225.698	222.391	219.084	218.258	218.258	218.258
Adm. price-FERP: \$/t	66.974	65.872	62.565	59.258	58.432	58.432	58.432
Total AMS: \$ bn	4.693	4.674	4.455	4.332	4.437	4.377	4.483
Actual FERP: \$/t	113.333	113.333	113.333	113.333	113.333	113.333	113.333
Adm. price-actual FERP	113.467	112.365	109.058	105.751	104.925	104.925	104.925
Actual tot AMS: \$bn	7.951	7.973	7.766	7.731	7.968	7.861	8.050
Under-not tot AMS \$bn	3.258	3.299	3.311	3.399	3.531	3.484	3.567
	2002	2003	2004	2005	2006	2007	Average
Production: Mt	77.166	77.271	79.514	82.037	83.551	85.759	76.787
Notified FERP: \$/t	159.826	159.826	159.826	159.826	159.826	159.826	159.826
Administered price: \$/t	218.258	218.258	218.258	218.258	218.258	218.258	219.869
Adm. price-FERP: \$/t	58.432	58.432	58.432	58.432	58.432	58.432	60.043
Total AMS: \$ bn	4.509	4.515	4.646	4.794	4.882	5.011	4.601
Actual FERP: \$/t	113333	113333	113333	113333	113333	113333	113333
Adm. price-actual FERP	104925	104925	104925	104925	104925	104925	106.536
Actual tot AMS: \$bn	8097	8108	8343	8608	8767	8998	8.171
Under-not tot AMS \$bn	3588	3593	3697	3814	3885	3987	3.570

Source: US notifications to the WTO; FERP: fixed external reference price of 1986-88.

However we do not understand why the OECD has changed the US reference price of milk of 113.33 \$/t for 1986-88 – which stayed at that level from 1995 to 2003 – to 171.333 \$/t in 2004 and then to 176 \$/t up to 2014.

2.1 – The under-notified US milk AMS from 2008 to 2014

The US has under-notified its dairy market price support (MPS) since 2008 because the AoA rules do not permit to change the way to compute the dairy AMS from the administered price of the whole milk production made in the US Schedule of commitments to the GATT for 1986-88²⁵ to the sum of the administered prices of butter, cheddar cheese and non-fat dry milk decided by the 2008 Farm Bill. Thus the US notification for the dairy MPS fell from \$5.011 bn in 2007 to \$2.871 bn on average from 2008 to 2012, implying a total under-notification of \$10.700 bn, of which of \$2.088 bn in 2012, and likely the same for 2013 and 2014.

Table 17 – Under-notification of the US dairy market price support (MPS) from 2008 to 2012

\$ million	1995-00	1995-04	2005	2006	2007	2008	2009	2010	2011	2012	2008-12
Notified MPS	4495	4512	4794	4882	5011	2925	2827	2845	2835	2923	2871
Actual MPS	4495	4512	4794	4882	5011	5011	5011	5011	5011	5011	5011
Additional MPS	0	0	0	0	0	2086	2184	2166	2176	2088	2140

Indeed:

- Article 1 of the AoA states that "*Support provided during any year of the implementation period and thereafter*" must be "*calculated in accordance with the provisions of Annex 3 of this Agreement and taking into account the constituent data and methodology used in the tables of supporting material incorporated by reference in Part IV of the Member's Schedule*".
- Paragraph 1 of article 3 states: "*The domestic support and export subsidy commitments in Part IV of each Member's Schedule constitute commitments limiting subsidization and are hereby made an integral part of GATT 1994*".
- Paragraph 5 of Annex 3 states: "*5. The AMS calculated as outlined below for the base period shall constitute the base level for the implementation of the reduction commitment on domestic support*".

Not only the US was not allowed to change its methodology to compute its dairy AMS from 2008, but, to cap it all, it has continued to notify the same allowed total AMS – the final bound total AMS (FBTA) of \$19.103 bn – incorporating a dairy MPS calculated on the basis of the whole milk production. It has the cake and eats it. So that we could have expected that the US would have reduced accordingly its total bound AMS for 1986-88 from \$23.879 bn to \$20.784 bn and the final bound total AMS (FBTA), at the end of the Uruguay Round implementation period in 2000, from \$19.103 bn (80% of 23.879) to \$16.627 bn (80% of 20.784). In that case the US would have exceeded its allowed AMS not only in 2012 but also in 2011 and 2014. And, since the 2014 Farm Bill has deleted the dairy market price support altogether, the total bound AMS for 1986-88 should have been reduced to \$18.113 bn²⁶ and the FBTA to \$14.490 bn. So that the applied AMS of 2013 would have also exceeded the FBTA.

Unfortunately the AoA rules are not working that logical way: the bound AMS and the corresponding FBTA are considered intangible and can only be reduced by WTO negotiations, even if the applied AMS is reduced formally, essentially through massive box shiftings in the US and EU, without changing the actual trade-distortions of these subsidies. And this box shifting did already take place in the first year of US and EU notifications, in 1995, when the US total AMS collapsed from \$23.879 bn notified in its Schedules of commitments for 1986-88 to only \$6.214 bn in 1995 because the Blair House agreement between the US and EU created the "blue box" in which could be placed the \$9.706 bn of US "deficiency payments"

²⁵ "Eligible production is total production" is written on page 36 of the US Schedule devoted to dairy (file:///C:/Users/berth/Documents/Etats-Unis/usa%20shedule%20of%20commitments%20part%20IV.pdf).

²⁶ Page 8 of the US Schedule.

implying production reduction programmes which were notified in the US Schedules. At the same time the EU total AMS fell from €78.672 bn notified in its Schedules of commitments to €50.026 bn because the CAP reform of 1992 permitted to notify in 1995-96 €21.146 bn in the blue box.

Furthermore the US and EU were able to decide for themselves a "credit" to increase their total bound AMS of 1986-88, a credit equal to the reduction in their total applied AMS from 1986 to 1988, which increased the US bound AMS by \$3.228 bn (of which \$460 million for the dairy AMS), and of about the same amount for the EU.

2.3 – The under-notified EU milk AMS for 1986-88 and from 1995 up to now

Legally the EU complied with the AoA rules as they do not specify which type of production should be notified. It notified only in its Schedules of commitments and ever since the market price support (MPS) of the total production of butter and skimmed milk powder (SMP), using as reference prices for 1986-88 the average minimal prices of the GATT international arrangement on milk of 1040 \$/t for butter and of 761.8 \$/t for SMP. The implicit reference price of milk derived from these reference prices of butter and SMP was of 115.6 \$/t, very close to the 113,3 \$/t used by OECD for the US reference price of milk.

However it is clear that the whole production of milk was supported by the MPS of butter and SMP, beyond the action of the other efficient means of support which were high import duties and export subsidies and milk production quotas. Given that the EU milk production in 1986-88 was more than double the milk represented by the notified butter and SMP the under-valuation of the EU milk AMS was of 10.815 bn for 1986, an amount almost three times larger than the US under-notified milk AMS, and this under-notification has continued up to now.

Two conclusions should already be drawn by DCs:

- Given that the US did not comply with the AoA rules to notify its milk AMS already for 1986-88 and thereafter, it is all the less in a position to criticize India (and other DCs) for its minor change in the currency used to notify its AMS from its schedules to the annual notifications from 1995 onwards.
- The EU is also not in a good position to criticize the DCs, like India and many others, that have notified the cereals procured for their public stockholding programmes instead of their whole production as it has done the same for its notification of dairy AMS.

IV – The US feed subsidies

The US and EU have largely under-notified their Final bound total AMS (FBTA) on 31 December 2000 for the US and on 30 June 2001 for the EU as they have refused to take into account the feed subsidies. They have also considered since 2006 that the product-specific de minimis (PSdm) was the same as the non-product-specific de minimis (NPSdm), contradicting the AoA rule that the PSdm is of only 5% of the production value of each specific product AMS while the NPSdm is of 5% of the whole agricultural production value. However we will concentrate here on the current WTO rules and not on the proposed rules of the REV4 Agricultural modalities text of 6 December 2008. Furthermore, to limit the length of the present paper, we will treat only the US case.

4.1 – The tortuous treatment of feed subsidies by OECD

The WTO Agreement on agriculture (AoA) article 6.2 is extremely important by its implications on the developed countries' subsidies when it states: "*Investment subsidies which are generally available to agriculture in developing country Members and agricultural input subsidies generally available to low-income or resource poor producers in developing country Members shall be exempt from domestic support reduction commitments that would otherwise be applicable to such measures [not underlined in the AoA]*". Which means clearly that, to the contrary, input subsidies granted to rich countries' farmers (and to large farmers in middle-income DCs) have to be included in the AMS.

The developed countries continue to deny that their huge subsidies to feedstuffs (cereals, oilseeds cakes and pulses, so-called COPs) are input subsidies to be notified in the PS AMS of their animal products (meats, eggs and milk) having consumed them. Yet the Congressional Research Service (CRS) has acknowledged that "*program commodities²⁷ such as corn are feed inputs for livestock²⁸*". For OECD also, "*Input subsidies are typically explicit or implicit payments reducing the price paid by farmers for variable inputs (for example... feed)²⁹*". Besides the fact that the US and the EU notify in their AMS some secondary feed subsidies – those to grazing fees on public lands and forage insurance subsidies in the US and those to dried fodder and skimmed-milk fed to calves in the EU (even inside the farm which produces the milk and the calves) – attest clearly that they are aware that feed subsidies are coupled input subsidies but they refused to notify their huge subsidies to feed COPs.

Their huge cheating in that area has been largely promoted by the OECD tortuous concept of "excess feed cost" used to assess its other ambiguous concept of PSE (producer's support estimate). In an e-mail of 2004 Catherine Moreddu of OECD replied to me: "*The excess feed cost due to the price support of cereals is deducted from the price support of animal products. Therefore it is not possible to take it into account a second time in input subsidies*". This statement could have been at best debated when the world prices of COPs were low so that this alleged "excess feed cost" – represented by the gap between domestic prices and world prices – was large, for an average of €2.854 bn in the EU from 1986 to 2007, but after that the world prices of cereals have skyrocketed since 2008 so that the "excess feed cost" has almost disappeared in the EU PSE. Yet the feed subsidies are still there, hidden for the EU in its alleged fully decoupled SPS (single payment scheme) and SAPS (single area payment scheme), which is the best refutation of this mystifying OECD concept of "excess feed cost". Indeed if the US "excess feed cost" has been very low, at \$122 million on average since 1986 – the beginning of OECD calculations – because the US prices of grains have been considered as the "world reference prices", the US being price maker for grains (including cotton but not rice), the story is quite different for all the other countries, particularly the EU as shown in table 18.

Table 18 – The US and EU average "excess feed cost" from 1986 to 2014, in \$ and € million

	1986-94	1995-98	1999-2007	1986-2007	2008-14
US: \$M	294.5	7.9	0	121.9	0
EU: €M	5344.6	1735.4	879.8	2853.8	87

<http://www.oecd.org/tad/agricultural-policies/producerandconsumersupportestimatesdatabase.htm#browsers>

²⁷ For USDA the "program crops" are those benefitting from a federal support: wheat, corn, barley, grain sorghum, oats, rice, cotton, oilseeds, peanut and sugar.

²⁸

http://wikileaks.org/wiki/CRS:_Potential_Challenges_to_U.S._Farm_Subsidies_in_the_WTO:_A_Brief_Overview,_June_1,_2007

²⁹ <http://www.oecd.org/agriculture/agricultural-policies/1937457.pdf>

If the direct payments to COPs are fully received by the COPs' producers, the producers of animal products get the implicit but real subsidies corresponding to the lower prices they pay for the COPs of US or EU origin, prices that would be much higher in the absence of the subsidies granted to COPs' producers in compensation for the reduction in their administered prices.

We can clearly invoke here the concept of "cross-subsidization" which has been central in the panels and WTO Appellate Body's rulings in the cases of Dairy products of Canada in December 2001 and December 2002 and in the EU sugar case in April 2005. Here the "cross-subsidization" "financed by virtue of governmental action" can be invoked by the fact that the US (and EU) producers of animal products have been purchasing their feed at below its full production cost in the absence of the feed subsidies received by the producers of feed crops. The OCDE Manual states also that "*Implicit support to agricultural producers may also be provided through concessions on taxes, interest rates, or input prices. Such support usually involves no flow from government funds, but nevertheless represents real transfers*" (not underlined in the text).

So that the part of the COPs devoted to animal feed confers PS AMSs to the animal products having consumed this subsidized feed. Clearly however the notification of this part of crops devoted to feed has reduced their amount notified for other purposes.

4.2 – The US subsidies to cereals feed and soybean meals

Table 19 shows in greater details the subsidies to the domestic use of corn feed and of DDGS (distillers dried grains with solubles) resulting from the production of corn ethanol through dry mills which produce about 82% of US ethanol, the co-products of wet mills for ethanol producing corn gluten feed and corn gluten meal. By lack of data easy to find for them, we will present only the DDGS. We did not take into account silage corn either.

Table 19 – US subsidies to raw corn and to DDGS used as feed domestically, in \$M

	Subsidies to raw corn			Subsidies to domestic use of DDGS from corn processed into ethanol								Total feed subs
	All corn	% dom. feed	Feed Subs.	Com to ethanol 1000t	% com prod°	Sub/DDGS +ethanol.	DDGS/DDGS+ ethanol	DDGS subsidy	DDGS Mt	% US use	Sub./ US use	
1995	2422	54,32	1315,6	13500	5,29	128,1	10,20	13,1	1,8	100	13,1	1329
1996	2380	63,41	1509,2	10100	5,37	127,8	10,20	13	1,9	100	13	1522
1997	2837	57,15	1621,3	10900	4,65	131,9	10,20	13,5	2,1	100	13,5	1635
1998	3212	59,20	1901,5	12200	5,22	167,7	10,20	17,1	2,4	100	17,1	1919
1999	5775	55,87	3226,5	13400	5,41	312,4	10,20	31,9	2,5	100	31,9	3258
2000	10580	59,83	6330	14400	6,01	635,9	10,20	64,9	3,0	100	64,9	6395
2001	7070	58,72	4151,5	15900	6,31	446,1	10,20	45,5	3,1	100	45,5	4197
2002	4005	61,55	2465,1	17900	7,42	297,2	10,20	30,3	3,6	100	30,3	2495
2003	2352	61,87	1455,2	25298	11,11	261,3	10,20	26,7	5,3	100	26,7	1482
2004	3530	57,31	2023	29667	11,58	408,8	10,20	41,7	6,6	100	41,7	2065
2005	7032	51,97	3654,5	33604	11,21	788,3	10,20	80,4	7,9	100	80,4	3735
2006	9926	55,03	5462,3	40716	14,43	1432,3	12,58	180,2	10,1	100	180,2	5643
2007	4917	52,61	2586,8	53823	20,12	989,3	17,38	171,9	11,7	88,01	151,3	2738
2008	4722	44,93	2121,6	77445	23,39	1104,5	18,67	206,2	16,9	81,63	168,3	2290
2009	4309	42,63	1836,9	94209	30,80	1327,2	15,51	205,8	22,2	82,53	169,8	2007
2010	3719	39,04	1451,9	116611	35,13	1306,5	18,32	239,4	25,4	76,28	182,6	1635
2011	5555	38,79	2154,8	127533	40,77	2264,8	20,31	460	28,6	78,37	360,5	2515
2012	6745	42,01	2833,6	127279	46,59	3142,5	24,70	776,2	29,1	80,17	622,3	3456
2013	5676	31,20	1770,9	117881	33,56	1904,9	21,97	418,5	25,7	76,72	321,1	2092
2014	4798	35,45	1700,1	130150	36,04	1729,2	20,58	355,9	25,0	68,50	243,8	1944
Total	101562	50,78	51572,3	1082516		18906,7	17,94	3392	234,9	81,89	2778	54350
Average	5078	50,78	2578,6	54125,8	18,02	945,3	17,94	169,6	11,7	81,89	138,9	2717,5

Source: <https://www.extension.iastate.edu/agdm/articles/hof/HofJan08.html>

As DDGS are a co-product of ethanol dry milling and as the revenue of ethanol per bushel of corn processed into ethanol is much higher than the revenue from the DDGS, and as furthermore an increasing share of them are exported, the share of subsidies to DDGS fed in the US has accounted for only 18% from 1995 to 2014.

The subsidies to feed corn used domestically have reached a total of \$54.350 bn from 1995 to 2014, with an annual average of \$2.718 bn. On average the subsidies to corn feed have represented 53.5% of the total subsidies to corn, of which 50.8% from raw corn and 2,7% from DDGS.

Starting from table 6 table 20 shows the subsidies to the domestic use of the three secondary cereals: barley, grain sorghum and oats. The subsidies to their domestic use is much lower than their production level for sorghum and barley and their share has collapsed over time. To the contrary for oats we take the production level as the US is a net importer. Finally the subsidies to the domestic use as feed of these three cereals are modest: \$102 million in 2014, only 26% of the subsidies to their total production.

Table 20 – Total subsidies to the three secondary cereals: barley, grain sorghum and oats

	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Barley	91,7	56,4	76,5	40,5	22	18,7	32,1	20,7	36,9	40,5	43,5	34,8
Sorghum	265	187,3	194,9	437,1	67,9	82	124,9	181,9	239	203,4	54,6	57,1
Oats	29,5	19,4	7,9	6,4	6,5	10,4	9,2	6,6	8,9	13	11	10
Total	386,3	263,1	279,3	484	96,4	111,1	166,3	209,2	284,8	256,8	109,1	101,9

Table 21 shows the subsidies to the domestic use of feed wheat and soybean meals, but does not include those to the residues of milling industries (of which bran), here too by lack of time to search them. The percentage of soybean meals subsidies represent the share of the value of soybean meals in the total value of soybean meals plus soybean oil. The subsidies to soybean meals for domestic use have reached a total of \$30.186 bn from 1995 to 2014, with an annual average of \$1.509 bn. The corresponding figures for feed wheat have been of \$4.586 bn and \$229 million. On average the subsidies to soybean meal used domestically have accounted for 65.5% of the subsidies to total soybean, but the subsidies to feed wheat used domestically have accounted for only 10% of total subsidies to wheat.

Table 21 – US subsidies to feed wheat and soybean meals for domestic use

\$ million	Subsidies to feed wheat			Subsidies to soybeans meals		
	To all wheat	% domestic feed	Feed subsidies	To all soybean	% feed	To domestic meals
1995	1020	14,86	151,6	324	67,09	217,4
1996	1745	7,05	123	544	72,33	393,5
1997	1516	13,53	205,1	303	60,15	182,3
1998	2371	10,12	239,9	893	59,40	530,4
1999	3664	15,35	562,4	1889	69,41	1311,2
2000	5596	12,15	679,9	4158	72,49	3014,1
2001	3298	13,47	444,2	5317	68,48	3641,1
2002	1696	9,35	158,6	6281	63,06	3960,8
2003	1588	7,22	114,7	2949	64,50	1902,1
2004	1594	8,66	138	2316	62,57	1449,1
2005	1605	8,39	134,7	1447	60,08	869,4
2006	1549	7,47	115,7	1358	58,18	790,1
2007	1249	6,47	80,8	2725	57,02	1553,8
2008	2138	0,78	16,7	2306	68,23	1573,4
2009	2368	10,67	252,7	963	64,80	624
2010	1968	6,43	126,5	1622	57,44	931,7
2011	2798	3,93	110	2557	61,30	1567,4
2012	3050	7,98	243,4	3265	66,65	2176,1
2013	2777	16,21	450,2	2581	72,15	1862,2
2014	2225	10,68	237,6	2312	70,77	1636,2
Total	45815	10%	4585,7	46110	65,46	30186
Average	2290,8	10%	229,3	2305,5	65,46	1509,3

Table 22 recapitulates the domestic feed subsidies to cereals and soybean meals.

Table 22 – Domestic feed subsidies to the 5 cereals and soybean meals

\$ million	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Corn	2678,3	2901,9	3734,7	5642,9	2737,8	2290,2	2007,1	1634,9	2514,7	3456,1	2092,2	1944,1
Wheat	325,2	206,9	134,7	115,6	80,8	166,8	252,7	126,5	259,9	616,7	520,4	237,6
Barley	91,7	56,3	76,4	40,5	22	18,7	32,1	20,7	36,9	40,4	43,5	34,8
Sorghum	259,1	157,5	177,1	308,1	121,9	78,6	100,3	164,3	147,5	236,8	86,3	63
Oats*	29,5	19,4	7,9	6,4	6,5	10,4	9,2	6,6	8,9	13	11	10
Total 5 cereals	3383,8	3342	4130,8	6113,5	2969	2564,7	2401,4	1953	2967,9	4363	2753,4	2289,5
Soybean meals	941,5	2738,3	869,4	790,1	1553,8	1573,4	624	931,7	1567,4	2176,1	1862,2	1636,2
Total	4325,3	6080,3	5000,2	6903,6	4522,8	4138,1	3025,4	2884,7	4535,3	6539,1	4615,6	3925,7

* As oats production is lower than domestic use as feed, we take the subsidy to total production

The feed subsidies to the domestic use of these crops (corn, wheat, barley, sorghum, oats, soybean meals) have reached \$96.364 bn over the past 20 years, at an annual average of \$4.818 bn.

4.3 – The case of subsidies to hay through irrigation subsidies

However we should not forget the most important feed whose tonnage is even larger than that of raw corn feed even if its value is a little lower: hay, of which alfalfa. But USDA hardly takes it into account as it does not receive direct payments. Nevertheless crop insurance subsidies have always been available under several programmes: "forage production", "forage seeding", "pasture rangeland forage" ("rangeland" from 1995 to 2006), "alfalfa seed" since 2002, "grass seed" since 2011 and "annual forage" since 2014. They have reached \$210.7 million in 2014. Crop insurance subsidies are also available in some States, as South Dakota (\$4.9 million subsidy in 2014)³⁰. USDA has notified \$126.2 million in premium subsidies in PS AMS in 2012, but counted them as *de minimis*.

Table 23 – US crop insurances subsidies to forage production

\$ 1000	95-00	01-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Premium subsidies to forage												
Alfalfa seed		147	268	385	442	428	853	778	726	927	1258	1685
Annual forage												2734
Forage production	6920	14282	21480	22446	22107	21128	32075	32519	31884	33682	43885	55476
Forage seeding	453	1148	1748	1641	1643	1664	2156	1951	1330	2381	2485	2053
Pasture forage	79	1423	10105	8850	41453	40622	50816	44044	60304	88937	105239	107966
Grass seed									316	279	321	548
Total	7452	17000	33601	33322	65645	63842	85900	79292	94560	126206	153188	170462
Total costs of insurance subsidies to forage												
Cost/premium	1,6866	1,6622	1,1072	1,2881	0,9903	1,3546	1,0471	1,0030	1,2662	1,9240	1,3300	1,2362
Forage insurance	12569	28257	37203	42922	65008	86480	89946	79530	119732	242820	203740	210725

4.3.1 – The huge under-notification of irrigation subsidies

But the overwhelming subsidies to hay come from irrigation, a highly politically sensitive issue despite the so many reports having denounced them for more than fifty years, including from the General Accounting Office (GAO) and the Congressional Budget Office (CBO). Among all this abundant literature the most interesting are the CBO report of 2006 (*How Federal Policies Affect the Allocation of Water*)³¹ and Paul Stanton Kibel's report (*WTO Recourse for Reclamation Irrigation Subsidies: Undermarket Water Prices as Foregone Revenue*) of 2014³². In her chapter in the Oxford University Press book on "Fresh Water and International Economic Law",

³⁰ <https://igrow.org/up/resources/03-1023-2014.pdf>

³¹ <http://www.cbo.gov/sites/default/files/08-07-waterallocation.pdf>

³² <http://digitalcommons.law.ggu.edu/cgi/viewcontent.cgi?article=1648&context=pubs>

Bernasconi-Osterwalder, based on many previous studies, writes that "*The annual irrigation subsidies for the United States from such underpricing have been estimated at between \$2 billion and \$2.5 billion*"³³, a figure repeated several times by many other studies, including of .

Farm and Ranch Irrigation Survey (FRIS)' reports were made in 1994, 1998, 2003, 2008 and 2013, with data on total irrigated acres per crop, acre-feet per acre, yield, number of irrigating farms. Table 24 shows the example for 2013.

Table 24 – Characteristics of US irrigated farms per crop in 2013 and their irrigation subsidies

	Irrigated (1000 acres)	Irrigated (1000 ha)	Acre-feet per acre*	Total acre-feet (1000)	Yield	Farms	Subsidy \$M
All US	55319.4	13669.2	1.6	88510.8		229237	2000
Alfalfa	5512.9	1362.2	2.3	12679.7	12.355 t (dry)/ha	46181	286.6
Other hay	3300.9	815.6	1.8	5941.6	9.143 t (dry)/ha	28142	134.3
Total hay	8813.8	2177.9		18621.3		74323	420.8
Corn grain	13289.2	3283.7	1.1	14618.1	12.301 t/ha	37247	330.4
Corn silage	1729.4	427.3	1.9	3285.9	61.8 t/ha (green)	8382	74.3
Total corn	15018.6	3711		17904		45629	404.7
Wheat	3197.5	790	1.4	4476.5	5.242 t/ha	12974	101.2
Sorghum	809.6	327.6	1.1		6.088 t/ha	3923	
Barley+oats	1209.5		1.4			6258	
Soybean	7413.3	1831.8	0.9	6672	3.629 t/ha	21755	150.8
Rice	3132.8	774.1	2.9	9085.1	8.820 t/ha	5613	205.3
Cotton	2954.5	730	1.3	3840.9	1.314 t/ha	6804	86.8
The 6 crops	40530.5	10014.9		60599.8		167098	1369.6
% of all US	73.3%	73.3%		68.5%		72.9%	68.5%

Source: http://www.agcensus.usda.gov/Publications/2012/Online_Resources/Farm_and_Ranch_Irrigation_Survey/

* acre-foot: volume of water that would cover one acre (0.4047 ha) of land to a depth of one foot (0,305 meter), equivalent to 1136 litres of water.

To get the likely annual data we have intrapolated the data between two FRIS surveys. The data for 2014 are also extrapolated according to the growth rate observed between 2008 and 2013 but it is not sure that the same trend will continue. Table 25 shows that on average over these 20 years hay ranks first for the irrigated water consumed, 22.5% larger than for corn (including silage corn) and hay has consumed 20.8% of all US irrigated water.

Table 25 – Irrigation water consumption of all crops and feed crops in 1000 acre-feet: 1995-2014

	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
All crops	85825	87698	88606	89474	90351	91235	90691	90141	89594	89051	88511	87971
Total hay	21225	14887	20252	20460	20671	20885	20411	19948	19496	19053	18621	18189
Corn	15242	14446	14910	15078	15248	15422	15889	16371	16867	17378	17904	19185
Wheat	5523	4912	5226	5395	5570	5751	5470	5203	4949	4707	4477	4247
Barley	1813	1470	1339	1270	1205	1143	1180	1218	1258	1299	1341	1385
Sorghum	712	1005	990	936	885	837	847	858	869	880	891	902
Oats, rye	285	343	388	417	448	482	453	426	400	376	353	331
Soybean	3004	4158	4528	4658	4792	4931	5238	5564	5911	6279	6672	7088
Details of annual water consumption from 1995 to 2004												
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
All crops	79627	82231	84920	87697	90564	89913	89173	88439	87711	86894	87746	
Total hay	15779	16648	17566	18534	19552	19609	19666	19723	19780	19841.1	20045	
Corn	12135	12449	12771	13102	13443	13663	13887	14115	14346	14579	14743	
Wheat	4755	4740	4724	4708	4693	4737	4779	4821	4863	4903	5062	
Barley	1650	1612	1575	1539	1504	1499	1496	1493	1490	1487	1411	
Sorghum	836.5	778	722	670	622	698	783	879	987	1108	1047	
Oats, rye	341	341.5	342	342.5	343	341	340	339	337	336	361	
Soybean	1813.1	2114	2465	2875	3353	3520	3696	3880	4074	4278	4401	

The total US consumption of irrigated water has hardly changed with an average of 88.546 bn of acre-feet over these 20 years, and the tendency has been rather a reduction between 2005 and 2013. As the \$2 bn of irrigation subsidies have been estimated since several decades, there is no reason to

³³ <http://www.gbv.de/dms/spk/sbb/toc/487559800.pdf>

change it from one year to the other so that the subsidy per acre-foot results from the total annual irrigated water.

Naturally all irrigated products do not benefit of the same subsidy, depending of the area, the source of water, the type of project... Table 26 presents the subsidies for the main feed crops, with annual averages of \$439 million for hay, \$340 million for corn, \$112 million for wheat, \$102 million for soybean, \$31 million for barley, \$19 million for sorghum and 8 million for oats and rye.

Table 26 – Subsidies to irrigated water consumption in \$ million: 1995-2014

	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Average subsidy in \$ per acre-foot												
All crops	23,30	22,81	22,57	22,35	22,14	21,92	22,05	22,19	22,32	22,46	22,60	22,73
Irrigation subsidies in \$ million per crop												
Total hay	494,6	339,5	457,1	457,3	457,6	457,8	450,1	442,6	435,2	427,9	420,8	413,5
Corn	355,2	329,4	336,5	337	337,5	338,1	350,4	363,2	376,5	390,3	404,6	436,2
Wheat	128,7	112	118	120,6	123,3	126,1	120,6	115,4	110,5	105,7	101,2	96,6
Barley	42,2	33,5	30,2	28,4	26,7	25,1	26	27	28,1	29,2	30,3	31,5
Sorghum	16,6	22,9	22,3	20,9	19,6	18,3	18,7	19	19,4	19,8	20,1	20,5
Oats, rye	6,6	7,8	8,8	9,3	9,9	10,6	10	9,5	8,9	8,4	8	7,5
Soybean	70	94,8	102,2	104,1	106,1	108,1	115,5	123,5	132	141	150,8	161,1
Details of annual water consumption from 1995 to 2004												
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	
Average subsidy in \$ per acre-foot												
	25,12	24,32	23,55	22,81	22,08	22,24	22,43	22,61	22,80	23,02	22,79	
Irrigation subsidies in \$ million per crop												
Total hay	396,3	404,9	413,7	422,7	431,8	436,2	441,1	446	451	456,7	456,9	
Corn	304,8	302,8	300,8	298,8	296,9	303,9	311,5	319,2	327,1	335,6	336	
Wheat	119,4	115,3	111,3	107,4	103,6	105,4	107,2	109	110,9	112,9	115,4	
Barley	38,5	36,8	35,6	34,4	33,3	32,9	33	33,1	33,3	33,4	31,9	
Sorghum	21	18,9	17	15,3	13,7	15,5	17,6	19,9	22,5	25,5	23,9	
Oats, rye	7,9	7,8	7,7	7,7	7,6	7,5	7,5	7,5	7,5	7,5	8,2	
Soybean	45,5	51,4	58,1	65,6	74	78,3	82,9	87,7	92,9	98,5	100,3	

Table 27 adds these irrigation subsidies to the data of tables 6 for cereals, 9 for soybean and 23 for hay to get the whole subsidies to these crops, for a total of \$138.7 bn over 20 years or of \$6.937 bn per year.

Table 26 – Total US agricultural domestic subsidies to the feed crops

\$ million	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Corn	4893,2	5135,4	7368,5	10263	5254,5	5060,1	4659,4	4082,2	5931,5	7135,3	6080,6	5234,2
Wheat	2783,7	2210	1723	1669,6	1372,3	2264,1	2488,6	2083,4	2908,5	3155,7	2878,2	2321,6
Barley	219,3	185,1	238	207,5	107,6	155,7	142,4	127	160,8	198,5	174,7	146,1
Sorghum	466,9	367,1	443,2	654,9	260,7	363,9	308	284,9	380,4	429,8	330,4	286,2
Oats	36,1	27,2	16,7	15,7	16,4	21	19,2	16,1	17,8	21,4	19	17,5
Soybean	1031	3012,8	1549,2	1462,1	2831,1	2414,1	1078,5	1745,5	2689	3406	2731,8	2473,1
Hay	507,2	367,8	494,3	500,2	522,6	544,3	540	522,1	554,9	670,7	624,5	624,2
Total	9937,4	11305,4	11832,9	14773	10365,2	10823,2	9236,1	8861,2	12642,9	15017,4	12839,2	11102,9

Table 27 shows that 97.6% of hay production was used in the US on average from 1995 to 2014 despite growing exports to Japan, China and the Emirates in recent years.

Table 27 – Subsidies to hay use in the US

\$ million	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total subsidies	507,2	367,8	494,3	500,2	522,6	544,3	540	522,1	554,9	670,7	624,5	624,2
% domestic use	98,45	98,37	98,32	98,29	98,11	97,99	97,55	97,48	97,31	96,83	96,22	97,16
Subs/dom use	499,3	361,8	486	491,6	512,7	533,4	526,8	508,9	540	649,4	600,9	606,5

4.3.2 – The obscure US response to India's questions on the US irrigation subsidies

The US irrigation subsidies notified to the WTO appear ridiculous, all the more as they have diminished over the years, from an average of \$351 million from 1995 to 2004 to an average of \$214.6 million from 2005 to 2012, with a reduction of 38% from 2005 to 2012 at the same time as the total irrigated water has increased by 0.5%!

Table 30 – Average NPS AMS notified for irrigation subsidies in \$ million

1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012
376	313	269	240	240	204	204	204	189	167

It is very interesting to analyze the responses that the US Representative to the WTO has given to India's questions in the WTO Committee on agriculture meeting of 5 February 2015. He tried to drown the fish by a highly technical and particularly obscure speech. Furthermore his explanation does not correspond to the justification made in the US notifications: *"Based on a "debt financing method." A long term interest rate is applied to the outstanding unpaid balance of capital investment by the Government in irrigation facilities to obtain the subsidy. Irrigators repay the principal but not the interest on the project debt"*. Yet a GAO report of 1981 stressed the necessity to compute the subsidy on the basis of compound interests. We have made the corresponding calculus for the \$7.102 bn in principal repayment owed by all 133 projects to the BoR (Bureau of Reclamation, in charge of the management of most irrigated projects) as of 30 September 1994, when only \$945 million had been paid, knowing that the largest irrigation works were built in the 50s and 60s. Let us assume that the principal to reimburse in 50 years was a conservative \$6 bn and let us use a conservative 4.5% interest rate for that period. The irrigators should have paid an annuity of \$303.61 million during 50 years to reimburse the principal and interest, meaning they would have paid \$15 bn, of which \$9 bn in interests. But, as they did not pay the annuities, the unpaid interests have been added to the principal and, on a compound basis, they would have to pay the last year \$54.20 bn, of which \$48.20 bn in interests! As most irrigation contracts are 50 years old, this amount was already due.

At the question b (*Could the United States provide details of the amounts of financial assistance provided to irrigators by shifting the repayment of part or all of their obligations to other beneficiaries of water projects ("irrigation assistance")?*), the response was: *"BoR estimates the total value of scheduled irrigation assistance at about USD 3 billion. However, BoR has determined that the value of irrigation assistance has long been built into the value of farmland served by these projects. Any benefit provided by irrigation assistance was realized by the original land owners as the value of that benefit was capitalized when these lands were sold. Most BoR project lands have changed ownership since their initial development, and the current landowners have paid the capitalized value for the land, which has already captured and eliminated the assistance provided to original project landowners"*. This answer is very interesting, first because of the estimates of \$3 bn in the *"scheduled irrigation assistance"* which was capitalized in the land value paid by the new farmers having purchased the land. Maybe but if they purchased this irrigated land it was because they were expecting benefits so that this transfer has not at all *"eliminated the assistance provided to original project landowners"*, the more so as this does not take into account the current subsidies due to the permanent underpriced irrigation water!

According to the GAO report of 1996 on the BoR, *"The federal government has spent \$21.8 billion to construct 133 water projects in the western United States that provide water for*

*various purposes, including irrigation... As of September 30, 1994, irrigators had been allocated \$7.1 billion of the \$16.9 billion federal investment in water projects considered reimbursable. However, as a result of adjustments made after analyzing the irrigators' ability to pay and relief granted through specific legislation, that amount was reduced to \$3.4 billion – or 47 percent of the irrigators' allocated share of the construction costs... In addition, irrigators generally have 40 years or more to repay their share of these costs, often after a period of up to 10 years in which the irrigators receive water to develop their land but are not required to begin payments... For example...the irrigation component of the Tualatin project [Oregon] represented \$31.5 million... However, because of interest-free financing and a 64-year repayment period, which began in 1976, the federal subsidy provided to the irrigators amounted to \$30.6 million, or 97 percent of the construction costs allocated to irrigators"*³⁴.

The US Representative's response that "*BoR charges to individual water districts are set to cover all operating and maintenance (O&M) and capital costs*" is not at all credible. For instance, in the Central Valley Project (CVP) – the US largest irrigation project covering 3/4 of the irrigated land in California... on more than 3 million acres of farmland – on \$1.124 bn in construction costs allocated to irrigators, as of 30 September 1998, they had repaid only \$63 M (5.6%) since the beginning of the construction in 1937 and total repayment, after the renewing of water contracts in 2005, is due for 2030! In 1985 already "*Irrigation water users pay an average of \$6.15 per acre foot*³⁵; *the cost to the Federal Government is \$72.99, resulting in a 91 percent subsidy*"³⁶. The water rates do not even cover the operation and maintenance (O&M) costs of water facilities since "*the rates were established under the assumption that operation and maintenance costs would remain stable over time*".

The US Representative's statement that "*Generally, the net result is that project purposes with higher economic benefits, such as M&I [municipal and industrial] uses, are allocated a greater share of the costs on a per acre-foot basis than a project purpose with lower economic benefits*" is not more credible in suggesting that the agricultural benefits of irrigation are much lower than those of M&I uses. This is particularly untrue in California where "*the main beneficiaries are large agribusinesses rather than small farmers. The EWG report shows that in 2002 10% of CVP irrigators got 67% of the water, for an average subsidy of \$349,000 at market rates for replacement water, 27 farms receiving \$1 million or more compared to a median subsidy of \$7,076, one farm getting \$4.2 million which used more water than 70 water user districts*"³⁷. Besides, the water rates are as much subsidized in the California State Water Project³⁸, the US largest State water project which delivers 3 million acre-feet, where large agribusinesses are the main beneficiaries. This was already the case in 1984 as attested by two researchers of the University of California: "*Big landowners are the norm in Kern County... Eight corporations own more than 50 percent of the land in the KCWA service area, and most of the rest is held in parcels of over 2,000 acres... For more than 50 years California agribusiness, operating with probably the most concentrated agricultural land ownership pattern in the nation, has been remarkably resourceful in securing highly favorable irrigation policies from both the federal and state governments*".

³⁴ United States General Accounting Office, *Bureau of Reclamation. Information on Allocation and Repayment of Costs of Constructing Water Projects*, July 1996.

³⁵ An acre-foot is the volume of water of one foot height over one acre.

³⁶ <http://www.nemw.org/nrsub.htm>

³⁷ <http://archive.ewg.org/reports/Watersubsidies/execsumm.php>

³⁸ http://oldweb.geog.berkeley.edu/PeopleHistory/faculty/R_Walker/Walker_35_Storper.pdf

4.4 – The total subsidies to the domestic feed use

Table 28 recapitulates the total subsidies to the domestic feed use of these 7 crops, with a total of \$138.7 bn over 20 years, or of \$6937 bn per year.

Table 28 – Total domestic subsidies to feed from cereals, soybean and hay

\$ million	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Corn	2678,3	2901,9	3734,7	5642,9	2737,8	2290,2	2007,1	1634,9	2514,7	3456,1	2092,2	1944,1
Wheat	325,2	206,9	134,7	115,6	80,8	166,8	252,7	126,5	259,9	616,7	520,4	237,6
Barley	91,7	56,3	76,4	40,5	22	18,7	32,1	20,7	36,9	40,4	43,5	34,8
Sorghum	259,1	157,5	177,1	308,1	121,9	78,6	100,3	164,3	147,5	236,8	86,3	63
Oats*	29,5	19,4	7,9	6,4	6,5	10,4	9,2	6,6	8,9	13	11	10
Total 5 cereals	3383,8	3342	4130,8	6113,5	2969	2564,7	2401,4	1953	2967,9	4363	2753,4	2289,5
Soybean meals	941,5	2738,3	869,4	790,1	1553,8	1573,4	624	931,7	1567,4	2176,1	1862,2	1636,2
Hay	499,3	361,8	486	491,6	512,7	533,4	526,8	508,9	540	649,4	600,9	606,5
Total	4824,6	6442,1	5486,2	7395,2	5035,5	4671,5	3552,2	3393,6	5075,3	7188,5	5216,5	4532,2

* As oats production is lower than domestic use as feed, we take the subsidy to total production

And table 29 deducts the percentage of the subsidies to these crops going to domestic feed, an average percentage of 45% over the past 20 years.

Table 29 – % of domestic feed production and subsidies to total subsidies of these feed crops

\$ million	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Corn	54,74	56,51	50,68	54,98	52,10	45,26	43,08	40,05	42,40	48,44	34,41	37,14
Wheat	11,68	9,36	7,82	6,92	5,89	7,37	10,15	6,07	8,94	19,54	18,08	10,23
Barley	41,81	30,42	32,10	19,52	20,45	12,01	22,54	16,30	22,95	20,35	24,90	23,82
Sorghum	55,49	42,90	39,96	47,05	46,76	21,60	32,56	57,67	38,77	55,10	26,12	22,01
Oats	81,72	71,32	47,31	40,76	39,63	49,52	47,92	40,99	50	60,75	57,89	57,14
Soybean meal	91,32	90,89	56,12	54,04	54,88	65,18	57,86	53,38	58,29	63,89	68,17	66,16
Hay	98,44	98,37	98,32	98,28	98,11	98	97,56	97,47	97,31	96,82	96,22	97,16
Total	48,55	56,98	46,36	50,06	48,58	43,16	38,46	38,30	40,14	47,87	40,63	40,82

V – Attributing the feed subsidies to the animal products having consumed the feed

USDA keeps comprehensive data on the feed consumed by each type of animal products, in two tables (29 and 30), based on the concept of "grain consuming animal unit": a 1,000-pound beef cow is the standard measure of an animal unit. The dry matter forage requirement of one animal unit is 26 pounds per day. Animal unit equivalents are calculated for the other animals, reflecting estimated feed use by each species relative to the consumption of a dairy cow.

USDA table 29 presents the distribution of cereals feed and their subsidies per year according to 5 categories of feed: grains (corn, barley, sorghum, oats, wheat), oilseeds meals (soybean, cottonseed, rapeseed, linseed, peanut, sunflower), animal protein feeds (from meat, fish and dairy), corn gluten feed and meal, other by-product feed (wheat and rice millfeeds, fats and oils, miscellaneous by-product feeds). Grain feed accounts for 74% of the total weight in 2014 and for 87.8% if we add soybean meals. By lack of time we limit ourselves to these products for which we have already assessed the domestic subsidies. Apparently hay is classified as a roughage.

USDA table 30 presents the evolution of the indexes of feed consuming animal units of six categories of animals – dairy, cattle on feed, other cattle (we have grouped them as they concern bovine cattle), hogs, poultry, other livestock –, differentiating the indexes according to three categories of feed: grain (cereals), high protein (regrouping oilseeds meals, corn gluten meal and animal protein feeds) and roughage.

Our tables 31, 32 and 33 present the distribution of feed subsidies of cereals, soybean meals and hay to the 5 categories of animals. For soybean meals we assume that their distribution among the five

categories of animals is the same as the distribution of all high protein feeds (which includes oilseeds meals, animal protein feeds, and corn gluten feed and meal), given that the share of soybean meals among all high protein feeds has been of 72.3% on average from 1994-95 to 2013-14, and of 84,5% of oilseed meals. The fact to ignore canola (rapeseed) meals, which have accounted for 6,1% of oilseeds meals, does not change much as 74% of domestic meals have been imported so that they did not receive subsidies. If we have time later we could add the cotton meals which have accounted for 7,5% of oilseeds meals consumption.

Table 31 – Distribution of US feed cereals among the animal products 1995-2014

	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Distribution of feed cereals among cereals in million tonnes												
Corn	135,4	146,1	155,8	140,7	148,8	130,4	129,6	121,3	114,8	109,6	128	135
Barley	3,9	2,1	1,4	1	1,4	1	0,9	0,9	1,2	1,8	1,2	0,7
Sorghum	8,9	5,1	4,9	2,9	4,2	6	3,6	3,1	1,8	2,4	2,4	2
Oats	3	2,5	2,1	2,1	2	1,9	1,8	1,5	1,5	1,6	1,6	1,6
Wheat	7,6	5,1	4,9	4,6	4,5	3,1	2,9	1,9	9,8	10,5	1,7	4,3
Total grain	158,7	160,8	169,2	151,6	160,4	142,4	138,8	128,8	129	125,8	134,8	143,7
Distribution of all feed cereals in % among types of animal												
Corn	12,06	11,50	11,27	11,25	11,15	11,02	11,35	11,26	11,26	11,34	11,49	11,33
Barley	28,13	28,05	27,80	28,20	28,23	27,80	26,87	26,93	27,29	26,47	25,53	25,11
Sorghum	26,41	25,93	26,17	26,15	26,42	27,60	28,28	28,18	28,12	28,74	28,28	29,21
Oats	32,64	33,83	33,47	33,70	33,51	32,91	32,82	32,95	32,67	32,80	34,02	33,68
Wheat	0,76	0,73	0,71	0,70	0,69	0,66	0,68	0,68	0,68	0,68	0,68	0,67
Total grain	100	100	100	100	100	100	100	100	100	100	100	100
Distribution of all feed cereals by type of animal												
Dairy	19,14	18,5	19,07	17,05	17,88	15,69	15,76	14,50	14,52	14,26	15,49	16,28
Beef	44,64	45,1	47,04	42,75	45,28	39,59	37,29	34,68	35,20	33,30	34,42	36,08
Hogs	41,92	41,7	44,28	39,65	42,37	39,30	39,25	36,29	36,27	36,15	38,12	41,98
Poultry	51,80	54,4	56,63	51,09	53,75	46,87	45,56	42,44	42,14	41,26	45,86	48,40
Others	1,21	1,17	1,20	1,06	1,11	0,94	0,94	0,88	0,88	0,85	0,92	0,96
Total	158,7	160,8	169,2	151,6	160,4	142,4	138,8	128,8	129	125,8	134,8	143,7
Distribution of the feed subsidies to cereals by type of animals having consumed the cereals feed												
Dairy	408,1	384,5	465,6	687,6	331	282,6	272,7	219,9	334,1	494,6	316,4	259,4
Beef	951,8	937,3	1148,4	1724	838,1	713	645,2	525,9	809,8	1154,9	703,1	574,8
Hogs	893,8	866,7	1081	1598,9	784,3	707,8	679,1	550,3	834,5	1253,8	778,6	668,8
Poultry	1104,5	1130,6	1382,5	2060,3	994,9	844,2	788,2	643,5	969,5	1431	936,7	771,1
Others	25,8	24,3	29,3	42,7	20,5	16,9	16,3	13,3	20,2	29,5	18,8	15,3
Total	3383,8	3342	4130,8	6113,5	2969	2564,7	2401,4	1953	2967,9	4363	2753,4	2289,5

Source: <http://www.ers.usda.gov/data-products/feed-grains-database/feed-grains-yearbook-tables.aspx>, tables 29 and 30n, December 2015

Table 32 – Distribution of soybean meal by type of animal having consumed the meal

	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Soybean meal	25,6	28,9	30,4	30,1	31,2	30,1	27,9	27,8	27,5	28,6	26,3	26,8
Dairy	2	2,2	2,3	2,2	2,3	2,2	2,1	2,1	2,1	2,2	2	2
Beef	3,5	3,9	4,1	4,1	4,2	4	3,6	3,6	3,6	3,7	3,3	3,3
Hogs	5,5	6,1	6,5	6,5	6,8	6,8	6,5	6,4	6,4	6,8	6,2	6,2
Poultry	14,3	16,6	17,5	17,2	17,8	17	15,6	15,6	15,3	15,8	14,7	15,3
Others	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1
Total	25,6	28,9	30,4	30,1	31,2	30,1	27,9	27,8	27,5	28,6	26,3	26,8
Distribution of the soybean meals by type of animal in%												
Dairy	7,81	7,61	7,57	7,31	7,37	7,31	7,53	7,55	7,64	76,92	7,60	7,46
Beef	13,67	13,49	13,49	13,62	13,46	13,29	12,90	12,95	13,09	12,94	12,55	12,31
Hogs	21,48	21,11	21,38	21,59	21,79	22,59	23,30	23,02	23,27	23,78	23,57	23,13
Poultry	55,86	57,44	57,57	57,14	57,05	56,48	55,91	56,12	55,64	55,24	55,89	57,09
Others	0,39	0,35	0,33	0,33	0,32	0,33	0,36	0,36	0,36	0,35	0,38	0,37
Total	100	100	100	100	100	100	100	100	100	100	100	100
Distribution of the soybean meals subsidies by type of animals having consumed the meals												
Dairy	73,6	208,5	65,8	57,7	114,5	115	47	70,4	119,7	167,4	141,6	122,1
Beef	128,7	369,5	117,3	107,6	209,2	209,1	80,5	120,7	205,2	281,5	233,7	201,5
Hogs	202,3	578	185,9	170,6	338,6	355,5	145,4	214,5	364,8	517,4	439	378,5
Poultry	525,9	1572,9	500,5	451,5	886,5	888,6	348,9	522,8	872	1202,2	1040,8	934,1
Others	3,7	9,5	2,9	2,6	5	5,2	2,2	3,4	5,7	7,6	7,1	6,1
Total	941,5	2738,3	792,7	714,6	1389,8	1448,6	553,6	827,7	1404,3	1933,2	1684,1	1460

Table 33 – Distribution of the hay subsidies by type of animals having consumed the hay

\$ million	1995-00	2001-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
% of distribution of hay by type of animals having consumed the hay												
Dairy cows	17,04	17,75	17,90	18,05	18,10	18,44	18,68	18,62	19,04	19,59	19,60	19,83
Beef	74,78	73,97	73,73	73,58	73,43	72,82	72,6	72,75	72,18	71,39	71,37	71,2
Hogs	3,88	4,15	4,29	4,30	4,39	4,72	4,76	4,71	4,81	5,01	5,04	4,96
Poultry	0,74	0,79	0,78	0,78	0,79	0,80	0,77	0,77	0,78	0,81	0,80	0,82
Others	3,57	3,35	0,33	3,29	3,28	3,22	3,17	3,15	3,17	3,15	3,18	3,19
Distribution of the hay subsidies by type of animals having consumed the hay												
Total hay subsi	499,3	361,8	486	491,6	512,7	533,4	526,8	508,9	540	649,4	600,9	606,5
Dairy cows	85,1	64,2	87	88,7	92,87	98,4	98,4	94,8	102,8	127,2	117,8	120,3
Beef	373,7	267,6	358,3	361,7	376,5	388,4	382,5	370,2	389,8	463,6	428,9	431,8
Hogs	19,4	15	20,8	21,1	22,5	25,2	25,1	24	26	32,5	30,3	30,1
Poultry	3,7	2,9	3,8	3,8	4,1	4,3	4,1	3,9	4,2	5,3	4,8	5
Others	17,8	12,1	16	16,2	16,8	17,2	16,7	16	17,1	20,5	19,1	19,3

Finally table 34 recapitulates all feed subsidies by type of animals having consumed the feeds.

Table 34 – Distribution of all feed subsidies (cereals, soybean, hay) by type of animal

\$M	95-00	01-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average	%
Dairy	566,8	657,2	618,4	834	538,37	496	418,1	385,1	556,6	789,2	575,8	501,8	587,1	11,1%
Beef	1454,2	1574,4	1624	2193,3	1423,8	1310,5	1108,2	1016,8	1404,8	1900	1365,7	1208,1	1478,9	27,8%
Hogs	1115,5	1459,7	1287,7	1790,6	1145,4	1088,5	849,6	788,8	1225,3	1803,7	1247,9	1077,4	1241,8	23,4%
Poultry	1634,1	2706,4	1886,8	2515,6	1885,5	1737,1	1141,2	1170,2	1845,7	2638,5	1982,3	1710,2	1957,2	36,9%
Others	47,3	45,9	48,2	61,5	42,3	39,3	35,2	32,7	43	57,6	45	40,7	45,6	0,9%
Total	4817,9	6443,6	5465,1	7395	5035,37	4671,4	3552,3	3393,6	5075,4	7189	5216,7	4538,2	5310,7	100%

Now table 35 shows the percentage of feed subsidies in relation to the feed costs of all US farmers, with an average of 14.4% from 1995 to 2014, a percentage which has fallen since 2007 given that feed costs have increased more than feed subsidies.

Table 35 – Feed subsidies in % of feed costs of US livestock farmers

\$ million	95-00	01-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average
Feed costs	24904	26739	28026	31423	41924	46928	45027	45428	54633	60540	62441	63749	36825
Feed subsid	4817,9	6443,6	5465,1	7395	5035,37	4671,4	3552,3	3393,6	5075,4	7189	5216,7	4538,2	5310,7
% subsidies	19,35	24,10	19,50	23,53	12,01	9,95	7,89	7,47	9,29	11,87	8,35	7,12	14,42

<http://www.ers.usda.gov/data-products/farm-income-and-wealth-statistics/production-expenses.aspx>

Table 36 shows the farmers' cash receipts for this four animal products and table 37 deducts the percentage of feed subsidies in relation to cash receipts.

Table 36 – US farmers' cash receipts

\$ mn	95-00	01-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average
Milk	21914	23467	26705	23413	35453	34846	24321	31372	39531	37065	40277	49349	28384
Beef	35303	42852	49283	49110	49843	48394	43720	51246	62321	66090	67457	81251	47597
Hogs	10957	11737	14970	14106	14750	16028	14641	17898	21632	22092	23761	26420	14949
Poultry	21972	24750	28834	26644	33113	35976	321653	34690	35412	38288	44368	48292	43905
Total	90146	102806	119792	113273	133159	135244	404335	135206	158896	163535	175863	205312	134835

Source: <http://www.ers.usda.gov/data-products/farm-income-and-wealth-statistics/annual-cash-receipts-by-commodity.aspx>

Table 37 – Feed subsidies in % of US livestock farmers cash receipts

	95-00	01-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average
Milk	2,59	2,80	2,32	3,56	1,52	1,42	1,72	1,23	1,41	2,13	1,43	1,02	2,07
Beef	4,12	3,67	3,30	4,47	2,86	2,71	2,53	1,98	2,25	2,87	2,02	1,49	3,11
Hogs	10,18	12,44	8,60	12,69	7,77	6,79	5,80	4,41	5,66	8,16	5,25	4,08	8,31
Poultry	7,44	10,93	6,54	9,44	5,69	4,83	3,55	3,37	5,21	6,89	4,47	3,54	4,46
Total	5,29	6,22	4,52	6,47	3,75	3,42	3,08	2,49	3,17	4,36	2,94	2,19	3,9

We could be tempted to conclude that finally the feed subsidies appear insignificant in relation to the farmers' cash receipts for these four animal products – 3.9% on average from 1995 to 2014 and only 2.2% in 2014 – even if they are quite significant in relation to livestock farmers'

total feed costs: 14.4% on average of which still of 7.1% in 2014. However actual feed subsidies are higher by about 15% if we remember that we did not take into account a number of feeds: corn gluten feed, corn gluten meal, oilseeds meals other than of soybean, milling by-products (bran, other milfeeds), dairy by-products (non-fat dry milk), sugarcane and sugar beet by-products, etc.

Furthermore, as the USDA data allow to calculate precisely the feed subsidies per type of animal they should be notified in the PS AMS of these animal products, not in the NPS AMS, at the same level as in table 34. This would imply that they would exceed the 5% *de minimis* exemption level at least for hogs and poultry, as they have done already from 2011 to 2013.

In 2012 the notified calculated PS AMS of the US animal products were only made of the livestock insurance premium subsidies almost nil and clearly *de minimis* if we except the dairy market price support of \$2.923 bn: \$625,000 for cattle, \$403,500 for dairy, \$37,000 for hogs and \$640,000 for sheep and lamb. Unfortunately, as these premium subsidies were notified in the NPS AMS and as these premium subsidies to animals are not available on the RMA's reports for crop insurances we have no idea of their level before 2012.

Let us be clear: the transfer to the PS AMS of animal products (dairy, beef, hogs and poultry) of the notifications made previously to the feed crops and to the crop insurance and irrigation subsidies notified in the NPS AMS will not increase per se the total PS AMS + NPS AMS but will be accompanied by a corresponding reduction of their notifications for their other uses than domestic feed.

Let us add again that our calculations have minimized the US domestic subsidies, not only on feed crops but also on other products since we did not take into account other under-notifications made to the WTO in comparison to those published by OECD or by other official US bodies:

- Agricultural fuel: although the US did not notify any subsidy, the OECD has reported the same €2.385 bn for all years since 1986 under the label of "energy subsidy" (line PIV3) described as "*Value of Federal and State exemptions or reductions in excise and sales taxes on diesel fuel for farmers relative to the standard rate taxes on fuel*". Indeed article 1 of the WTO Agreement on subsidies and countervailing measures considers that a subsidy exists when "*government revenue that is otherwise due is foregone or not collected (e.g. fiscal incentives such as tax credits)*". Besides the US farmers have benefited from additional tax reductions since the economic crisis of 2008³⁹.

- Ethanol subsidies: as ethanol is an agricultural product for the WTO, ethanol subsidies must be added to the specific AMS. The main subsidy was the volumetric ethanol excise tax credit (VEETC) of \$0.51 per gallon (reduced to \$0.45 from 2009), deleted in 2012. Some have objected that VEETC has mainly benefitted to blenders and not so much to farmers. Maybe but the ethanol mandate, together with VEETC and tariffs on imports (also deleted in 2012), have led to the spike in corn prices (not to speak of other grains and food). Without adopting the figures of international institutions that US corn ethanol boom was responsible for the spike in international food prices from 2005-06 to 2007-08 – by more than 50% for FAO and OECD, 65% for the World Bank and 70% for IMF –, we can at least take the much modest 13% increase estimated by FAPRI: "*With no tax credits, tariffs or mandates supporting corn ethanol use, average ethanol production declines by 5.5 billion gallons and corn prices fall by 13.1%*"⁴⁰.

³⁹ http://www.agweb.com/article/five_tax_changes_affecting_farmers/

⁴⁰ Jane Earley, *US Trade Policies on Biofuels and Sustainable Development*, ICTSD, June 2009.

Besides we have shown in table 19 that on average from 1995 to 2014 82% (\$776 million) of the subsidies to corn processed into ethanol have benefitted to ethanol and only 18% (\$170 million) to DDGS.

- **Grazing fees on public lands:** the subsidies to grazing fees on public lands have been notified for an average of \$42 M from 2005 to 2011 after \$50 M from 1995 to 2004. However, according to a GAO report of September 2005, the net US expenditures on grazing amounted to \$123 million in 2004⁴¹. Without adopting the estimate of the Center for Biological Diversity of an actual annual subsidies of between \$500 million to \$1 bn, we can at least keep the GAO estimate⁴² and, as these subsidies are granted only to bovine and ovine cattle, they are clearly PS subsidies.

- **Interest on farm loans:** besides the fact that the notified subsidies do not match the actual government costs given by an USDA report to Congress of 2006⁴³ showing that, beyond the operational costs (subsidy plus administration expenses) we should not forget the write-offs, i.e. the losses net of recoveries, the notification made in the green box was not justified as a GAO report casts some doubt on the socially-disadvantaged status of the benefitting farmers⁴⁴ as well as an another report by the Farmers' Legal Action Group⁴⁵.

Table 38 – Notified subsidies to interest on farm loans from 1995 to 2011

\$ billion	1995-00	1995-04	2005	2006	2007	2008	2009	2010	2011	2012	2005-12
Not. NPS AMS	49	49	49	49	49	0	0	0	0	0	18
Not. Green box	101	103	75	132	120	119	120	221	150	135	134
Total notified	150	152	124	181	169	119	120	221	150	135	152

Source: notifications to the WTO

VI – The US dumping of its dairy and meats

Table 39 presents the total exports of dairy and meats (and eggs with poultry meat), including the preparations of class 16. They have been multiplied 3.2 times from 1995-00 to 2014 and even 10.8 times for dairy.

Table 39 – US exports of dairy and meats

\$ M	95-00	01-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average	%
Dairy	513,4	695,8	1105,2	1292,1	2217,6	2995	1600,8	2852,4	3691,6	3750,4	5144,5	5549,1	1876	15,1
Beef	3469,4	2879,1	1343,4	1980,2	2532,6	3772,8	3454,8	4619,8	6303	6503,9	7057,4	7887	3911	31,6
Pork	1593,8	1856	2648,7	2871,9	3238,8	4564,7	4049,7	4610,8	5900,4	6010,3	5661,3	6105,9	3213	25,9
Poultry	2252,3	2103,7	2790,1	2583,3	3687,4	4621,3	4358,1	4337,8	5101,9	5702	5802,1	5749	3390	27,4
Total	7829	7535	7887	8728	11676	15954	13463	16421	20997	21967	23665	25291	12391	100

Source: USITC detailed exports

To facilitate the comparison with the subsidies, we copy here table 34, but without the other products which are not significant and precise.

⁴¹ Government Accountability Office (GAO)'s report of September 2005 (<http://www.gao.gov/new.items/d05869.pdf>).

⁴² http://www.biologicaldiversity.org/publications/papers/assessing_the_full_cost.pdf

⁴³ Charles Dodson and Steven Konig, USDA, *Evaluating the Relative Cost Effectiveness of the Farm Service Agency's Farm Loan Programs*, USDA, Farm Service Agency, August 2006, <http://www.fsa.usda.gov/FSA/webapp?area=home&subject=ecpa&topic=fla>

⁴⁴ GAO, *Additional Steps Needed to Demonstrate the Effectiveness of USDA Beginning Farmer Programs*, September 2007 (<http://www.gao.gov/new.items/d071130.pdf>)

⁴⁵ Farmers' legal action group, Inc, *FLAG Testimony*, Senate Committee Hearing on USDA Farmer Loan Programs, June 13, 2006 (<http://www.flaginc.org/topics/news/Testimony20060613.pdf>)

Table 34 bis – Distribution of all feed subsidies by type of animal product

\$M	95-00	01-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Average	%
Dairy	566,8	657,2	618,4	834	538,37	496	418,1	385,1	556,6	789,2	575,8	501,8	587,1	11,2
Beef	1454,2	1574,4	1624	2193,3	1423,8	1310,5	1108,2	1016,8	1404,8	1900	1365,7	1208,1	1478,9	28,1
Hogs	1115,5	1459,7	1287,7	1790,6	1145,4	1088,5	849,6	788,8	1225,3	1803,7	1247,9	1077,4	1241,8	23,6
Poultry	1634,1	2706,4	1886,8	2515,6	1885,5	1737,1	1141,2	1170,2	1845,7	2638,5	1982,3	1710,2	1957,2	37,2
Total	4771	6398	5417	7334	4993	4632	3517	3361	5032	7131	5172	4498	5265	100

Table 40 presents the production of milk and exports in milk equivalent (based on milk fat), the milk production value per tonne at farm gate. To the feed subsidies we add the explicit export subsidies which were important up to 2003 but then almost disappeared, except in 2008 and 2009. Finally the dumping rate measured by the ratio of subsidies to the export value of dairy products has been very low, of 0.2% from 2005 to 2014, except in 1995-200 (13.4%) and from 2001 to 2004 (3.8%), as the value of exports incorporates processing and transport to FOB.

Table 40 – Dumping rate of the US exports of dairy products

\$ mn	95-00	01-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Production in milk tonnes and value at farm gate												
Prod° 1000 t	72019	76724	80256	82456	84213	86174	85822	87489	89021	91011	91278	93462
Farm value \$M	21972	24750	28834	26644	33113	35976	321653	34690	35412	38288	44368	48292
\$/t milk	305,1	322,6	359,3	323,1	393,2	417,5	374,8	396,5	397,88	420,7	486,1	516,7
Exports in 1000 tonnes of milk fat milk equivalent, in % of production												
X: 1000 t	1328,3	1240	1278,4	1397,2	2464,4	4983,7	2213,3	3924,7	4421,6	3996,1	5606	5644,4
X/P in %	1,84	1,62	1,59	1,69	2,93	5,78	2,58	4,46	4,97	4,39	6,14	6,03
Total subsidies and to X and per tonne of milk												
Total subs \$M	566,8	657,2	618,4	834	538,37	496	418,1	385,1	556,6	789,2	575,8	501,8
Feed subs to X \$M	10,5	10,6	9,9	14,1	15,8	28,7	10,8	17,3	27,6	34,7	35,4	30,3
X subsidies to dairy	80,7	22,2				18,9	2,4					
Total X subs to dairy	91,2	32,8	9,9	14,1	15,8	47,6	13,2	17,3	27,6	34,7	35,4	30,3
Subs \$/t X milk	68,7	26,5	7,7	10,1	6,4	9,6	6	4,4	6,2	8,7	6,3	5,4
Subsidies to exports and dumping rate												
X value \$M	513,4	695,8	1105,2	1292,1	2217,6	2995	1600,8	2852,4	3691,6	3750,4	5144,5	5549,1
Dumping rate: %	13,4	3,8	0,7	0,3	0,3	0,3	0,4	0,2	0,2	0,2	0,1	0,1

Table 41 presents the total feed subsidies to exports of beef (and calves) and the dumping rate which is very low – of 3.3% on average from 1995 to 2014, and only 0.1% in 2014 – given that exports have represented only 8.6% of total production in carcass weight from 1995 to 2014 and that the export value is much higher than the production value at farm gate for carcass weight as it incorporates processing and transport to FOB.

Table 41 – Dumping rate of the US exports of beef (and calf) meat and preparations)

\$ mn	95-00	01-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Production in carcass tonnes and value at farm gate												
Prod° 1000 t	9866,9	11876,5	11266,7	11929	12046,6	12113,1	11840,7	11992,5	11940,9	11807,5	11717	11043,2
Farm value \$M	35303	42852	49283	49110	49843	48394	43720	51246	62321	66090	67457	81251
\$/t carcass	3577,9	3608,1	4374,2	4116,9	4137,5	3995,2	3692,37	4273,1	5219,1	5597,3	5757,2	7357,6
Exports in 1000 tonnes of carcass, in % of production and in farm gate value												
X: 1000 t	1008	872,7	519,3	650,4	905,5	877,6	1043,1	1263,3	1112,5	1174,1	1167	1070,7
X/P in %	10,22	7,35	4,61	5,45	7,52	7,25	8,81	10,53	9,32	9,94	9,96	9,70
Total subsidies and to X and per tonne of carcass												
Total subs \$M	1454,2	1574,4	1624	2193,3	1423,8	1310,5	1108,2	1016,8	1404,8	1900	1365,7	1208,1
Subs to X \$M	148,6	115,7	74,9	119,6	107	94,9	97,6	107,1	130,9	188,9	136	117,1
Subs \$/t carcass	147,4	132,6	144,1	183,9	118,2	108,2	93,6	84,8	117,6	160,9	116,6	109,4
Subsidies to exports and dumping rate												
X value \$M	3469,4	2879,1	1343,4	1980,2	2532,6	3772,8	3454,8	4619,8	6303	6503,9	7057,4	7887
Dumping rate: %	4,3	4	5,6	6	4,2	2,5	2,8	2,3	2,1	2,9	1,9	1,5

Table 42 on the exports of pork shows an average dumping rate significantly higher than beef but still low: 5.1% on average from 1995 to 2014 and only 1.5% in 2014.

Table 42 – Dumping rate of the US exports of pork and preparations

\$ mn	95-00	01-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Production in carcass tonnes and value at farm gate												
Prod° 1000 t	8265	8987,6	9382,7	9550	9953,1	10590,2	10432,4	10177,2	10323,1	10547,3	10517,7	10,367,1
Farm value \$M	10957	11737	14970	14106	14750	16028	14641	17898	21632	22092	23761	26420
\$/t carcass	1325,7	1305,9	1595,5	1477,1	1482	1513,5	1403,4	1758,6	2095,5	2094,6	2259,1	2548,4
Exports in 1000 tonnes of carcass, in % of production and in farm gate value												
X: 1000 t	498,6	801,6	1209,4	1358,6	1424,8	2109,9	1857,1	1915,3	2356,9	2440,1	2262,4	2203
X/P in %	6,03	8,92	12,89	14,23	14,32	19,92	17,80	18,82	22,83	23,13	21,5	21,25
Total subsidies and to X and per tonne of carcass												
Total subs \$M	1115,5	1459,7	1287,7	1790,6	1145,4	1088,5	849,6	788,8	1225,3	1803,7	1247,9	1077,4
Subs to X \$M	67,3	130,2	166	254,7	164	216,9	151,2	148,4	279,8	417,3	268,4	228,9
Subs \$/t carcass	135	162,4	137,2	187,5	115,1	102,8	81,4	77,5	118,7	171	118,6	103,9
Subsidies to exports and dumping rate												
X value \$M	1593,8	1856	2648,7	2871,9	3238,8	4564,7	4049,7	4610,8	5900,4	6010,3	5661,3	6105,9
Dumping rate: %	4,2	7	6,3	8,9	5,1	4,8	3,7	3,2	4,7	6,9	4,7	3,7

Table 43 on exports of poultry and eggs shows a dumping rate higher than for pork but still low: of 7.4% on average, of which of 4.3% in 2014.

Table 43 – Dumping rate of the US exports of poultry and eggs and preparations

\$ mn	95-00	01-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Production in tonnes of carcass (and shell eggs) and value at farm gate												
Prod° 1000 t	15279	17609	18836	18971	19388	19882	18955	19585	19794	19797	200876	20394
Pr° egg 1000 t	4239	4726	5101	5178	5136	5105,3	5244	5187	5208	5290	5531	56578
Poul&egg 1000t	19518	22335	23937	24149	24523,6	24987,3	18955	24772	25002	25087	25618	26051
Farm value \$M	21972	24750	28834	26644	33113	35976	321653	34690	35412	38288	44368	48292
\$/tcarcass&eggs	1125,8	1108,1	1204,6	1103,3	1350,3	1439,8	1697	1400,3	1416,4	1526,2	1731,9	1853,8
Exports in 1000 tonnes of carcass (and in shell), in % of production												
X: meat 1000 t	2349,6	2556,1	2439,7	2494	2467,5	2677,1	2681,4	3002,1	3530,9	3380,3	3366,9	3525,8
X eggs 1000 t	140,8	129,2	138,3	137,5	170,3	140,4	164,8	175,9	188,1	205,3	253	268
X meat+egg "	2490,4	2685,3	2578	2631,5	2637,8	2817,5	2846,2	3178	3719	3585,6	3619,9	3793,8
X/P in %	12,76	12,02	10,77	10,90	10,76	11,28	15,02	12,83	14,87	14,29	14,13	14,56
Total subsidies and to X and per tonne of carcass												
Total subs \$M	1634,1	2706,4	1886,8	2515,6	1885,5	1737,1	1141,2	1170,2	1845,7	2638,5	1982,3	1710,2
Subs to X \$M	208,5	325,4	203,2	274,1	202,8	195,9	171,4	150,1	274,5	377,1	280,1	249,1
Subs \$/t carcass												
Subsidies to exports and dumping rate												
X value \$M	2252,3	2103,7	2790,1	2583,3	3687,4	4621,3	4358,1	4337,8	5101,9	5702	5802,1	5749
Dumping rate: %	9,3	15,5	7,3	10,6	5,5	4,2	3,9	3,5	5,4	6,6	4,8	4,3

Finally table 44 deducts the average dumping rates for the 4 animal products, with an average of 4.8% from 1995 to 2014 and only of 2.5% in 2014. However, given that the prospects for the export prices of animal products are not much better than for feed grains we can expect than the dumping rate would increase in the next years with higher feed subsidies.

Table 44 – The average dumping rates of US exports of dairy and meats: 1995 to 2014

\$ million	95-00	01-04	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total X value	7829	7535	7887	8728	11676	15954	13463	16421	20997	21967	23665	25291
Total X subsidies	515,6	604,1	454	662,5	489,6	555,3	433,4	422,9	712,8	1018	719,9	625,4
Dumping rate	6,6	8	5,8	7,6	4,2	3,5	3,2	2,6	3,3	4,6	3	2,5

VII – Resuming the WTO negotiations on the basis of REV4 modalities of December 2008

Despite the disappointing outcome of the Nairobi MC10 for the developing countries, if they are able to impose the resumption of the agricultural negotiations in Geneva based on the REV4 Agricultural modalities of 6 December 2008, what would be the consequence of our findings on the US feed subsidies? To answer this question, we need to incorporate another huge cheating in the REV4 text about the level of the product-specific *de minimis* (PSdm) AMS.

6.1 – The PSdm AMS is not 5% of the whole agricultural production value

The origin on this cheating comes from the Canada's report of 22 May 2006 on "Agriculture domestic support simulations" (JOB(06)/151), then embodied in the following Agricultural Modalities Drafts, up to that of 6 December 2008, according to which the bound PSdm would be of 5% of the whole agricultural production value (VOP) as this is the case for the NPSdm. But, according to the AoA article 6.4, it is only of 5% of the production value of each specific product having a product-specific (PS) AMS. In other words, as soon as a PS AMS reaches 5% of the production value of a given product, this product loses its PSdm exemption and the support is counted in the AMS, which is added to the total applied AMS, and the production value of that product is added to the production value of all the products with PS AMSs.

The last CRS report of 10 October 2014 on "WTO Doha Round: Implications for U.S. Agriculture" shares the same lie when writing about "*the two de minimis exclusions (product- and non-product) of \$4.9 billion each*"⁴⁶. This lie is also shared by Joseph W. Glauber and Patrick Westhof: "*Both product specific and non-product specific amber support are subject to de minimis tests. Under the URAA, if support is less than 5 percent of the value of current production, support is considered de minimis*"⁴⁷.

6.2 – The implications of the feed subsidies and the level of PSdm on the level of allowed FBTA and OTDS

As the feed subsidies are conferring PS AMSs to all animal products having consumed the feed, this has increased the production value of products having PS AMSs and has reduced consequently the production value of products without PS AMSs.

The US average feed subsidies of \$4.818 bn during the 1995-2000 base period⁴⁸ – implementation period of the Uruguay Round which is also the base period for the Doha Round reduction commitments – have conferred PS AMSs to at least hogs and poultry meats (tables 34 to 37) which had a production value of \$32.929 bn – and maybe also to beef cattle with a production value of \$35.303 bn if we take into account the subsidies to all feeds so that they will also exceed the 5% *de minimis* exemption level. Therefore the production value of products with PS AMSs rises from \$49.734 bn to at least \$82.663 bn and likely to \$117.966 bn. And, given an average total agricultural production value of \$194.139 bn in 1995-2000, the production value of products without PS AMSs falls to at least \$111.476 bn and likely to \$76.173 bn so that the allowed PSdm, being 5% of that value, falls at least to \$5.574 bn and likely to \$3.809 bn, instead of \$9.707 bn for the NPSdm.

And, if the developing countries can impose to pursue the WTO negotiations on the basis of the REV4 Agricultural modalities, the US allowed OTDS (overall trade distorting subsidies encompassing the FBTA+ PSdm+NPSdm+the blue box) in the base period 1995-200 falls from \$48.224 bn – in Canada's simulations: 19.103 (FBTA) + 9.707 (PSdm) + 9.707 (NPSdm) + 9.707 (BB) – to at least \$44.091 bn and likely to 42.326 bn. Thus the US allowed OTDS at the end of the Doha Round implementation period, once cut by the 70% foreseen by the Doha Draft for the US, will fall to at least \$13.227 bn and likely to \$12.698 bn, instead of the \$14.467 bn

⁴⁶ <https://www.hsd1.org/?view&did=759014>

⁴⁷ <http://ageconsearch.umn.edu/bitstream/197159/2/Session%203%20-%20Glauber%20Westhoff.pdf>

⁴⁸ *Comments to David Orden, David Blandford and Tim Josling, WTO disciplines on agricultural support, Solidarité,* September 15, 2011, http://www.solidarite.asso.fr/IMG/pdf/WTO_disciplines_on_agricultural_support_J-_Berthelot_comments-3.pdf

assumed by Canada's simulations. And the allowed PSdm should be halved on the first day of the implementation period to at least \$2.787 bn or likely to \$1.905bn and the NPSdm should be halved to \$4.854 bn.

Conclusion

Clearly the present analysis is far from having exhausted the arguments that the WTO developing countries Members could use to impose the necessary rebuilding of agricultural trade rules. Interestingly ROPPA – the regional network of West African farmers' organisations – had circulated in Nairobi a booklet on how to change five WTO rules to rebuild agricultural trade policies of all countries on food sovereignty and the right to food⁴⁹.

But given the inflexible stance taken by the developed countries, and particularly the US and EU, to denounce the alleged unrealistic proposals of the REV4 agricultural modalities now that the global context of trade relations has changed, the developing countries have already many robust arguments to sue the US and EU for their recurrent violation of the Agreement on Agriculture's rules. What good is adopting new Doha Round's rules if developing countries continue to remain blind and insensitive to the violations of the existing rules by the US and EU?

⁴⁹ ROPPA, *Let us dare to reform the WTO for an equitable development* (https://www.wto.org/english/thewto_e/minist_e/mc10_e/roppappmc10_e.pdf) and "*Osons réformer l'OMC pour un développement équitable*" (https://www.wto.org/french/thewto_f/minist_f/mc10_f/roppappmc10_f.pdf).