



**The Maize Trust: Core Drafting Team - Version 22  
CONFIDENTIAL**



**The United States WTO Domestic Support Measures  
Third Party Submission by the Republic of South Africa**

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**THE CLAIM BY SOUTH AFRICA**

We note from the claims of both Canada and Brazil<sup>1</sup> that the essence of the claim presently at issue is grounded in the Agreement on Agriculture (AoA). The relevant text is couched as follows by Canada:

“Pursuant to Article 3.2 of the *Agreement on Agriculture*, the United States committed to limit its Current Total Aggregate Measurement of Support to the annual levels specified in section I of Part IV of its Schedule: for the year 1999, USD 19,899.264 million and for each subsequent year, USD 19,103.294 million. Despite this, the United States’ Current Total Aggregate Measurement of Support provided by the measures at issue, when properly calculated in accordance with the provisions of the *Agreement on Agriculture*, has exceeded its commitment levels in each of the years 1999, 2000, 2001, 2002, 2004 and 2005, in violation of Article 3.2 of this agreement.”<sup>2</sup>

We note that in *Korea - Various Measures on Beef*<sup>3</sup>, examining whether Korea's domestic support to its cattle industry was consistent with inter alia Article 3, 6 and 7 of the Agreement on Agriculture, the Panel indicated at paragraph 803 that:

“803. It is, therefore, clear that Article 3 provides that support in favour of domestic producers (and here explicit reference is made to "subject to Article 6") cannot exceed the level of support provided for in a Member's schedule. So, when assessing the WTO compatibility of domestic support, two parameters are indicated: first the provisions of Article 6 which refer to the object of those same "commitments" on domestic support; and second,

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<sup>1</sup> WT/DS357/12 (Canada) & WT/DS365/13 (Brazil) of 9 November 2007.

<sup>2</sup> In this submission, “year” in relation to the specific commitments of the United States refers to the calendar, financial or marketing year specified in the Schedule relating to the United States. (See: Article 1(i) of the Agreement on Agriculture).

Section I of Part IV of a Member's schedule. Therefore, the Panel considers that its terms of reference require it to examine Korea's Schedule LX to assess whether its domestic support in 1997 and 1998 exceeded the reduction commitments contained in its Schedule.”

This statement was not subsequently reviewed by the Appellate Body. We thus agree with the Canada and Brazil that Article 3.2 read with Articles 6, 7 and Annex 2 of the Agreement on Agriculture is the appropriate parameter from which to evaluate the domestic support notifications of the United States.

South Africa has both a commercial and systemic interest in the issues under consideration in this dispute. As the United States' largest trading partner in Africa and as a significant exporter of agricultural products, particularly maize, South Africa has a 'substantial interest'<sup>4</sup> in these panel proceedings. Moreover, South Africa has a significant systemic interest in the proper interpretation of WTO disciplines applicable to agricultural domestic support as cited by the Canada and Brazil in their requests for the establishment of this panel.

To this end South Africa respectfully submits the following submission in support of Canada and Brazil. South Africa's submission will commence with a description of the relevance of the outcome of these panel proceedings on the agricultural sector, particularly as regards maize in South Africa. South Africa will then put forward arguments in support of Canada and Brazil as regards the following measures identified in their claims and elaborated upon in their submissions: production flexibility contract payments (PFC), Direct Payments (DP), Crop Market Loss Assistance Payments (MLA), Countercyclical Payments (CCP), Crop Disaster Payments and Crop and Revenue Insurance (CRI). :

## **THE EXPOSITION OF SOUTH AFRICA'S INTEREST**

### **A. SOUTH AFRICA AND THE UNITED STATES SUBSIDY PROGRAM**

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<sup>3</sup> Korea – Measures affecting imports of fresh, chilled and frozen beef. WTO document WT/DS161/R.

<sup>4</sup> As set forth in the Understanding on Rules and Procedures Governing the Settlement of Disputes, Article 10 paragraph 2. South Africa declared its 3<sup>rd</sup> part participation on 17 December 2007, as indicated in document WT/DSB/M/243 dated 15 February 2008 at paragraph 50.

Agriculture has always been and currently remains an important sector in the South African economy. In 2007 primary agriculture contributed 2.3 percent to total GDP, while accounting for 8.8 percent of all reported employment<sup>5</sup>.

The grain industry is one of the largest industries within the agricultural sector and contributed 14 percent to the total gross value of agricultural production between 1999 – 2005 marketing years. In 2006/07 maize contributed 12.4 percent to the total gross value of agricultural production; making it the third largest contributing agricultural commodity (second to the poultry industry); while wheat contributed approximately 3.5 percent<sup>6</sup>.

International trade has taken on an increasingly important role in the South African economy. The maize sub-sector contributed approximately 85 percent to the total value of cereal exports between 1999 and 2005. This amounted to approximately \$1 billion, (R7.5 billion) in nominal terms.

**In term of regional food security, South Africa is the most consistent, and for most years, the only significant exporter of maize into the Southern African Region.**

In order to achieve the sector-level development goals of creating a food-secure, open and market-orientated economy which redresses the injustices of the Apartheid era, both domestic and trade policy interventions within the maize industry have undergone extensive reform.

A strong indicator of the extent to which the reform policies have impacted the agricultural sector is a declining level of Producer Support Estimates (PSE) since 1994, relative to other countries. The Organization for Economic Co-operation and Development (OECD) estimates show that between 2000 and 2003, South Africa's PSE was approximately 5 percent, which is well below both the 31percent average for OECD countries<sup>7</sup> and the 20 percent level for the United States. In terms of

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<sup>5</sup> Statistics South Africa, 'Labour Force Survey Release P0210', March 2008 at page vi; & 'Gross Domestic Product Release P0441', February 2008 at page 7.

<sup>6</sup> National department of Agriculture (NDA), 2008. Abstracts of Agriculture. Government of South Africa, Pretoria.

<sup>7</sup> Organization for Economic Co-operation and Development (OECD), 2006. African Economic Outlook 2005-2006. [www.oecd.org/dev/publications/africanoutlook](http://www.oecd.org/dev/publications/africanoutlook), Paris, France.

maize, between 2000 and 2003, the PSE was 7.6 percent<sup>8</sup>. This measure indicates a moderate degree of policy intervention at the producer level within this industry.

Despite the growing trend towards trade liberalization, many developed economies continue to maintain some degree of protectionist measures. Basic economic theory<sup>9</sup> dictates that countries, engaged in international trade without barriers, can realize mutual benefits in terms of positive net welfare gains. However, many OECD countries, the United States in particular, opt for trade protection policies in order to support their domestic prices, particularly within their agricultural sectors. The objectives of these policies are to hold domestic prices above world prices, decrease consumption, and raise United States exports which will ultimately depress world prices.

South Africa contends that like Canada and Brazil, its benefits under the covered agreements have been nullified or impaired<sup>10</sup>. In identifying what the essence of this nullification and impairment represents South Africa contends that it has been denied the position in the world markets for agricultural commodities that it expected based upon the United States undertakings to limit their levels of Total Aggregate Measure of Support to the levels bound in the schedule of commitments, for which the United States has secured a myriad of negotiated benefits encompassed in the single undertaking embodying the results of the Uruguay Round of multilateral trade negotiations. In this regard South Africa retains a particular trade interest in the corn (maize) market<sup>11</sup>. South Africa contends that the following factors, inter alia, represent the underlying nature of the nullification of expected returns from the maize market: **DRAFTING NOTE: We may need to reconsider the wording of this paragraph once we have had a response to Question 6 of our draft list of Questions.**

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<sup>8</sup> It should be noted, that when calculating the Direct Rate of Assistance (DRA), which accounts for the impact of input price distortions as well as generally applied taxes, this measure indicates a slight tax on maize sub-sector. For instance, between 1999 and 2003, the annual average DRA estimate was - 4.4 for the maize sub-sector (Kirsten et. al., 2006).

<sup>9</sup> Houck, J.P. (1987). "Elements of Agricultural Trade Policies", Waveland Press, Inc. Illinois, 1987.

<sup>10</sup> Brazil see WT/DS365/13 at paragraph 3 'These violations nullify or impair the benefits accruing to Brazil under this agreement'. Canada see WT/DS/357/12 (un-paragraphed) 'These violations nullify or impair the benefits accruing to Canada under the Agreement on Agriculture'.

<sup>11</sup> In this regard South Africa notes that the title of the Canadian request for the establishment of the panel WT/DS/357/12 is entitled: 'United States – Subsidies and other domestic support for corn and other agricultural commodities'.

In the first instance, the United States dominates the world maize market by its own admission. According to the USDA's Economic Research Service (ERS)<sup>12</sup>:

“The United States dominates world corn trade, ..... and the rest of the world must adjust to prevailing United States prices. This makes world corn trade and prices very dependent on weather in the United States corn belt. ....Argentina, the second-largest corn exporter in most years, is in the Southern Hemisphere. Farmers there plant their corn after the size of the U.S. crop is known, providing a quick, market-oriented supply response to short U.S. crops..... Several countries including Brazil, Ukraine, Romania, and **South Africa**—have had significant corn exports when crops were large or international prices attractive.” [Emphasis and omission added].

The United States accounts for 41 percent of the world production of maize and more than 60 percent of world exports.

Professor Daniel Sumner, makes the following observations based on recent United States maize crop years<sup>13</sup>:

“The fact remains that: price contingent subsidies alone for corn, wheat, and rice are still sizable relative to the total value of production. To put matters in perspective price-contingent subsidies for cotton during 2004–06 ranged from about 12 percent to 64 percent of production. By way of comparison, in 2006 price-contingent subsidies for corn will amount to about 33 percent of production, similar subsidies for wheat will amount to about 29 percent of production, and those for rice will amount to about 42 percent of production. In other words, the magnitude of price-contingent subsidies for these crops is comparable to that of the subsidies found to cause significant price suppression in the cotton case.”

Sumner<sup>14</sup> concludes that United States subsidies depress world maize prices by 9 percent to 10 percent. This in turn causes downward pressure on domestic maize

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<sup>12</sup> See: <http://www.ers.usda.gov/Briefing/Corn/trade.htm> .

<sup>13</sup> Sumner DA, 'Boxed in: Conflicts between U.S. farm policies and WTO obligations' The CATO Institute December 2005 at page 19.

<sup>14</sup> Ibid. footnote 13.

prices within South Africa since the South African maize industry is fully integrated with world markets.

## **B. EMPIRICAL EVIDENCE**

In order to obtain an indicative sense of the nullification and impairment experienced by South Africa, South Africa has determined the impact of United States subsidies on the South African maize industry. A world price shock (increase of 10 percent) was introduced in the BFAP<sup>15</sup> sector model to measure the difference in the revenue earned by the industry over the period under review by the Panel assuming the removal of United States maize subsidies. This quantification was done in order to indicate why it is of concern to South Africa that the United States remains within its agreed limits in providing trade distorting domestic support. **The net result indicted a loss of \$600 million (R4.4 billion) to South Africa.**

The depression of world maize prices due to United States subsidies has an effect on the South Africa maize industry under all market regimes. The South Africa markets were more affected in the years where the local industries were either trading at import parity (e.g. 1999) or at export parity (e.g. 2005) than when markets were trading at autarky where local demand and supply conditions determine the equilibrium prices. **On average a 10 percent increase in the world price of maize would have increased white maize prices by 6.15 percent and yellow maize prices by 6.52 percent. The increase in prices would have simulated production and as a consequence exports would have grown and imports decreased.**

The model assumes world prices for both yellow and white maize to be 10 percent higher than the actual levels. **The results suggest that South Africa would have increased maize production by 1.29 million tons, over the period under review. This translates into an annual average increase of 2.02 percent in production and as a consequence a 17.54 percent increase in exports of white and yellow maize.**

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<sup>15</sup> Bureau for Food and Agricultural Policy (BFAP) is housed at the Department of Agricultural Economics at the Universities of Pretoria and Stellenbosch and the Department of Agriculture Western Cape.

Finally, to determine the impact on total revenue the model then multiplied the respective maize prices by the tons produced. Not only does the net revenue increase due to increased production, but the actual crop would have been sold at a higher price. Therefore, the revenue calculation is split in two parts; first, the increase in revenue of the existing crop due to higher market prices and second, the increase in total revenue due to increased production at a higher market price. **Over the period 1999 – 2005 (excluding 2003) United States subsidies have cost the South African maize industry \$600 million (R4.4 billion) in terms of unrealized revenue.**

## **LEGAL ANALYSIS**

Having provided a description of the economic relevance of the outcome of these panel proceedings on the South African maize industry, South Africa hereafter presents its legal arguments in support of Canada and Brazil as regards the following measures identified in their respective claims and elaborated upon in their respective submissions: production flexibility contract payments (PFC), Direct Payments (DP), Crop Market Loss Assistance Payments (MLA), Countercyclical Payments (CCP), Crop Disaster Payments and Crop and Revenue Insurance (CRI).

### **Production Flexibility Contract Payments (PFC) and Direct Payments (DP)**

We observe that the United States notifications<sup>16</sup> indicate that PFC payments and DP are so-called green box measures and hence excluded from the United States' Total Aggregate Measure of Support (AMS) calculation. The United States labels these measures as 'Decoupled income support' on its green box notifications. South Africa submits that this categorization by the United States of these measures as so-called green box measures is incorrect. As a result payments made in terms of these measures should be included in the calculation of the Total Aggregate Measure of Support (TAMS) of the United States.

#### *Production flexibility contract payments*

Production flexibility contract payments were only made by the United States under the FAIR Act of 1996 (Public Law 104-127). The last payment was authorised to be

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<sup>16</sup> Notifications G/AG/N/USA/43 of 5 February 2003 for year 1999, G/AG/N/USA/51 of 17 March 2004 for years 2000 and 2001, and G/AG/N/USA/60 of 8 October 2007 for years 2002 to 2005. G/AG/N/USA/5 of 16 September 1996, G/AG/N/USA/25 of 11 March 1999, G/AG/N/USA/28 of 16

made not later than 30 September 2002. The programme provided support to producers based on historical acreage and yields for seven commodities, including maize<sup>17</sup>. Its stated purpose was to support farming certainty and flexibility while ensuring continued compliance with farm conservation and wetland protection requirements. A producer fulfilling the requirements for eligibility could enter into a PFC for the 1996 through 2002 crops during a one-time enrolment period that ended on 1 August 1996. Cropland was eligible for coverage under a PFC if at least a portion of it had been enrolled in the deficiency payments programme under the previous farm bill for at least one of the 1991 through 1995 years. The payment allocation for a commodity was distributed among the PFC contracts according to the acreage and yield for the particular commodity which each PFC contract covered. That acreage was not the amount of acres currently planted to that commodity, referred to as 'planted acres'. Rather, it was the average of the plantings of each commodity in the 1993 through 1995 years according to the method of calculation that would have applied to the 1996 crop under the previous farm bill (referred to as 'base acres'). The payment yield for a particular commodity covered by a PFC was the yield established for the 1995 crop of that commodity. The payment rate for the 1999, 2000 and 2001 crops were set for each of the seven covered commodities. PFC payments were made on 85 per cent of the base acreage for each commodity multiplied by the corresponding payment rate multiplied by the applicable payment yield. Importantly, producers were permitted to plant any of the approved commodities on base acres, subject to certain limitations and exceptions concerning the planting of fruits and vegetables. In other words, the PFC payments were either eliminated or reduced if producers planted fruits and vegetables on base acres, unless they satisfied a special eligibility criterion. Additionally, producers had to use the land for an agricultural or related activity and not for a non-agricultural commercial or industrial use and comply with certain conservation requirements<sup>18</sup>.

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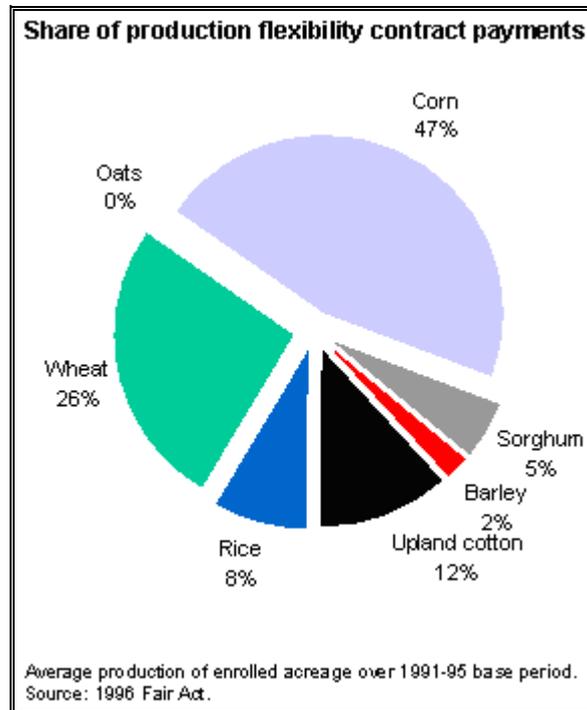
November 1999, G/AG/N/USA/37 of 5 October 2001, G/AG/N/USA/58 of 9 October 2007, and G/AG/N/USA/59 of 9 October 2007.

<sup>17</sup> The seven approved products in terms of the legislation are: corn, wheat, rice, upland cotton, oats, grain sorghum and barley.

<sup>18</sup> Measure as described in Panel Report, United States – Subsidies on Upland Cotton ("US – Upland Cotton") at paragraphs 7.212 – 7.215.

The relevant WTO document references are as follows: Report of the Panel US Upland Cotton WT/DS 267/R 8 September 2004. Report of the Appellate Body US Upland Cotton WT/DS 267/AB/R 3 March 2005.

We observe that almost half of the PFC payments were allocated to maize, as indicated in the following USDA exposition<sup>19</sup>:



### *Direct Payments*

In terms of the Farm Security and Rural Investment Act of 2002 (PL107 -171) ("2002 Farm Bill"), Direct Payments (DP) replaced production flexibility contract (PFC) payments. Payment rates for wheat, corn, barley, grain sorghum, oats, upland cotton, and rice were fixed in the said Bill. Soybeans, other oilseeds, and peanuts are also covered under new rules established in the 2002 Farm Bill. Under the DP producers<sup>20</sup> receive annual DPs. The amount of the payment is equal to the product of the payment rate of the applicable base crop, the payment acres (85 percent of base acres), and the 1995 payment yield for the farm for the covered base crop. For example, the payment for an individual corn (maize) farmer would be:

$$DP_{\text{corn}} = (\text{payment rate})_{\text{corn}} \times (\text{payment yield})_{\text{corn}} \times ([\text{Base acres}]_{\text{corn}} \times 0.85)$$

<sup>19</sup> See: <<http://www.ers.usda.gov/Briefing/FarmPolicy/1996pfc.htm>>

<sup>20</sup> The term "producer" means an owner, operator, landlord, tenant, or sharecropper that shares in the risk of producing a crop and is entitled to share in the crop available for marketing from the farm, or would have shared had the crop been produced.(See Section 1001 (12) of the 2002 Farm Bill.

To receive payments on crops covered by the program (wheat, corn, grain sorghum, barley, oats, rice, upland cotton, soybeans, other oilseeds, and peanuts), a producer enters into annual agreements with the United States Department of Agriculture (USDA) for years 2002-2007. Each producer must select one of two alternate methods to apply to all covered commodities for both DP and counter-cyclical payments (CCP)<sup>21</sup>. Payment acres are equal to 85 percent of the base acres<sup>22</sup>. Producers had a one-time opportunity to select one of the two methods for determining base acres. A producer who failed to make an election was considered to have selected 2002 PFC base acres<sup>23</sup>. Producers are permitted to allocate all cropland acreage on the farm to any of the designated crops, except for limitations imposed on planting fruits and vegetables. The land must be kept in agricultural uses (which includes lying fallow), and farmers must comply with certain conservation and wetland provisions<sup>24</sup>.

#### *Relationship between PFC and DP payments*

In *US – Upland Cotton* the Panel found it ‘clear’ that the DP programme was the successor to the PFC programme<sup>25</sup>. In particular the programmes were established by successive farm bills, the latter of which provided that DP payments in the 2002 marketing year should be adjusted to take account of the PFC payments for the same fiscal year. The Panel noted that the base acreage used for the 2002 PFC payment could be used to calculate base acreage for the DP programme. The Panel identified certain common ‘structural elements’ in the two measures<sup>26</sup>. These were:

- Eligible recipients were the same;

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<sup>21</sup> Countercyclical payments are discussed separately in this submission.

<sup>22</sup> Note for South African readers: Despite the use of an ‘85%’ limitation, these measures should not be confused with so-called production limiting ‘blue box’ payments under Article 6.5(a) of the Agreement on Agriculture. Recall that the blue box text refers to ‘such payments are made on 85 per cent or less of the base level of production’, with the ‘85 %’ wording, being the standard ‘marker’ used to recognise the blue box.

<sup>23</sup> Note for South African readers: Under the DP programme, producers had to establish base acres and programme yields for all commodities covered by the programme before enrolling. ‘Base acres’ are the quantity of acreage on which payments are calculated. The ‘base acres’ are called ‘contract acreage’ in the PFC programme. ‘Payment acres’ are equal to 85% of a recipient’s contract or base acres in both the PFC and DP programmes respectively. [As set forth in the panel report *US – Upland Cotton* at paragraph 7.394 and footnote 521].

<sup>24</sup> Description of the measure cleaned from United States government sources, see: <http://www.ers.usda.gov/Features/farmbill/analysis/DirectPayments2002act.htm>

<sup>25</sup> See Panel Report, *US - Upland Cotton*, paragraph 7.397.

<sup>26</sup> See Panel Report, *US - Upland Cotton*, paragraph 7.398.

- The payment formula was the same; being: 85 per cent of the recipient's base acres, multiplied by payment yields multiplied by the payment rate for each commodity;
- Payments were made by reference to historical acreage and historical yields, not current production<sup>27</sup>;
- The base acres for the same commodities could be the same at the producer's election<sup>28</sup>;
- The payment yields for commodities covered by both programmes were the same;
- The payment rates are fixed for each commodity and unaffected by current market prices in both instances;
- The land usage requirements were essentially the same;
- Planting flexibility and planting flexibility limitations were the same;
- Payment limitations were the same.

The Panel also identified certain elements that were both common to the two measures but concurrently had certain differences. These were:

- Commodity coverage was wider for the DP programme. The DP programme included all commodities covered by the PFC programme, plus soybeans, other oilseeds and peanuts;
- The method of calculating payment rates differed. The DP payment rates were spelled out individually in the legislation and fixed on a per unit basis for the duration of the Act. The PFC payment rates are derived from the share of funds allocated to each contract commodity according to percentages specified in the Act;
- The time period of contract differed. The DP contracts were annual but PFC contracts ran for up to the entire life of the Act. Payments were however annual under both measures;

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<sup>27</sup> Section 114(a) of the FAIR Act of 1996 and Section 1103(b) of the FSRI Act of 2002.

<sup>28</sup> The Panel observed that: Section 1101(a)(B)(i) of the FSRI Act of 2002, which refers to the "contract acreage (as defined in Section 102 of the [FAIR Act of 1996] used by the Secretary to calculate the fiscal year 2002 payment authorized under section 114 of such Act for the covered commodities on the farm".

- The actual payment rates differed. In that instance for example, the DP payment rates for upland cotton were higher than PFC payment rates for 2001 and 2002, but lower than the average PFC rates throughout the life of the PFC programme.

We hence note that PFC payments and Direct Payments are very similar in nature and in this regard the PFC payments were the forerunner of the current DPs, both in nature and legislatively. There is a distinct linkage between the 'old' PFC and the 'new' DPs in that at a technical level current direct payment yields for corn (maize), wheat, cotton and rice on a farm are the same as those established under the prior PFC payment yields for the applicable crops on the farm. For covered commodities without PFC program payment yields, a direct payment yield was assigned using the PFC yield of similar farms. In addition, it is notable that even though the legal authority for PFC payments (i.e. the 1996 Farm Bill) has expired at the end of 2001, there was a built-in carry-over effect into 2002 for reason that PFC payments were authorised to be paid until September 2002. The United States did in fact continue to make PFC payments to the amount of almost \$3.7 billion as reported in their notification for 2002.<sup>29</sup> Remaining small payments for 2003 and 2004 are residuals and adjustments from prior years. These payments are not reflected in the United States notifications for those years respectively.<sup>30</sup>

Furthermore we observe that in *US Upland Cotton*<sup>31</sup> the United States objected to the inclusion of PFC and market loss assistance payments (MLA)<sup>32</sup> payments into the terms of reference of the panel as they had 'expired'<sup>33</sup>. In its ruling the Appellate Body confirmed the Panel's decision to allow these measures to be included in its terms of reference<sup>34</sup>.

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<sup>29</sup> Document G/AG/N/USA/60 on Table DS:1 at page5.

<sup>30</sup> See: 'Statement of Professor Sumner. Canadian International Trade Tribunal. NQ-2005-001. Grain Corn From the United States. Public Exhibit A-6' on page 38 in its footnote 2'. Document as referred to in the Request for Consultations by Canada - WTO document WT/DS357/1 at page 8.

<sup>31</sup> 'Upland Cotton': Report of the Panel in United States – Subsidies on Upland Cotton WT/DS 267/R 8 September 2004. 'Upland Cotton': Report of the Appellate Body in United States – Subsidies on Upland Cotton WT/DS 267/AB/R 3 March 2005.

<sup>32</sup> MLA payments are discussed separately in this submission.

<sup>33</sup> See Panel Report, US - Upland Cotton, paragraph 7.104; See also Appellate Body Report, United States – Subsidies on Upland Cotton, ("US – Upland Cotton") paragraphs 10 – 13.

<sup>34</sup> See Panel Report, US - Upland Cotton, para.7.128; See also Appellate Body Report, US – Upland Cotton, para.763 (a)(i)

**DRAFTING NOTE: TO ELABORATE ON THE ISSUE OF EXPIRED MEASURES IN SIDE PAPER TO BE INSERTED HERE IN THE EVENT THAT THE UNITED STATES RAISES THIS AS A PROCEDURAL DEFENCE**

*Categorisation of PFC and DP payments*

We note that under the Agreement on Agriculture to determine whether a so-called green box measure is exempt from counting towards the AMS scheduled limitation, it must be assessed under the criteria of Annex 2. Annex 2 of the Agreement on Agriculture read with Articles 3.2, 6 and 7 of that Agreement conditionally exempts domestic support measures from reduction commitments. Paragraph 1 of Annex 2 reads as follows:

“Domestic support measures for which exemption from the reduction commitments is claimed shall meet the fundamental requirement that they have no, or at most minimal, trade-distorting effects or effects on production. Accordingly, all measures for which exemption is claimed shall conform to the following basic criteria:

- (a) the support in question shall be provided through a publicly-funded government programme (including government revenue foregone) not involving transfers from consumers; and,
- (b) the support in question shall not have the effect of providing price support to producers;

plus policy-specific criteria and conditions as set out below.”

Paragraphs 2-13 then list various types of domestic support measures for which exemption from the reduction commitments can be claimed, each with its own policy-specific criteria and conditions to which reference was made in paragraph 1. Paragraphs 6-13 all deal with individual types of direct payments, including decoupled income support. Paragraph 5 provides that direct payments to producers are exempt only if they meet the basic criteria in paragraph 1 of Annex 2 and the “specific criteria applying to individual types of direct payment as set out in paragraphs 6 through 13...”. Paragraph 5 continues to specify that, to be exempt, any existing or new type of direct payment that does not constitute a type of direct

payment covered by paragraphs 6 through 13 must conform to the criteria in paragraph 6(b) through (e) as well as the basic criteria listed in paragraph 1.

Paragraph 6 of Annex 2 reads:

“Decoupled income support

- (a) Eligibility for such payments shall be determined by clearly-defined criteria such as income, status as a producer or landowner, factor use or production level in a defined and fixed base period.
- (b) The amount of such payments in any given year shall not be related to, or based on, the type or volume of production (including livestock units) undertaken by the producer in any year after the base period.
- (c) The amount of such payments in any given year shall not be related to, or based on, the prices, domestic or international, applying to any production undertaken in any year after the base period.
- (d) The amount of such payments in any given year shall not be related to, or based on, the factors of production employed in any year after the base period.
- (e) No production shall be required in order to receive such payments.”

For direct payments under the Agreement on Agriculture, which in the present instance include both United States notified DP’s and PFC’s, to qualify as decoupled income support, paragraph 6(b) requires that the amount of the payments not be “related to, or based on, the type... of production... undertaken by the producer in any year after the base period.” The ordinary meaning of “production” is “something which is produced by an action, process, etc.; a product”.<sup>35</sup> Nothing in the context or in the object and purpose of this subparagraph, of Annex 2, or of the *Agriculture Agreement* as a whole detracts from this ordinary meaning. Accordingly, under paragraph 6(b), the amount of the payment must not be linked to the type of product that is produced.

We recall that in *United States – Upland Cotton* these considerations were deliberated in some detail, both by the Panel and the Appellate Body. We note that

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<sup>35</sup> The New Shorter Oxford English Dictionary (1993).

'Production Flexibility Contract payments' (1996 Act) and the 'Direct Payments' (2002 Act) did not qualify for WTO exemptions from reduction commitments as fully decoupled income support. Decoupling is an express requirement of income support within the meaning of paragraph 6. of Annex 2 to the Agreement on Agriculture. The Panel makes the following statement in paragraph 7.413:

"the Panel concludes that PFC payments, DP payments, and the legislative and regulatory provisions which establish and maintain the DP programme, do not fully conform with paragraph 6(b) of Annex 2 of the Agreement on Agriculture. They are not green box measures."

Short thereafter the Appellate Body ruled in an unambiguous fashion as follows at paragraphs 341 and 342:

"For all these reasons, we uphold the Panel's finding in paragraphs 7.388, 7.413, 7.414 and 8.1(b) of the Panel Report that conditioning production flexibility contract payments and direct payments on a producer's compliance with planting flexibility limitations regarding certain products, coupled with the flexibility to produce certain other products, means that the amount of payments under those measures is related to the type of production undertaken by a producer after the base period, within the meaning of paragraph 6(b) of Annex 2 of the Agreement on Agriculture."

"Accordingly, we also uphold the Panel's finding, in paragraphs 7.413 and 7.414 of the Panel Report, that production flexibility contract payments and direct payments are not "decoupled income support" within the meaning of paragraph 6, are not green box measures exempt from the reduction commitments by virtue of Annex 2 of the *Agreement on Agriculture*."

In essence in *United States – Upland Cotton* the United States' argument that direct payment recipients are not required to engage in any particular type or volume of production (or any current agricultural production at all) to receive direct payments was contradicted by evidence indicating that the amount of the payment may change based on whether base acreage is used for current production of fruits, vegetables, or wild rice. For both measures, the amount of the payment is based on

the type of production: payments are full, nil, or some amount in between where base acres are used for current fruit, vegetable or wild rice production.

**DRAFTING NOTE: DRAFTERS TO ANTICIPATE UNITED STATES DEFENCE THAT UPLAND COTTON IS NO BASIS TO RELY ON AS THESE MEASURES WHERE DISCUSSED WITHIN THE CONTEXT OF THE PEACE CLAUSE.**

The finding that these direct payments do not qualify for Annex 2 exemptions from reduction commitments as fully decoupled income support (i.e. they are not green box compliant) had no further consequences within the context of that case. When the impact of the measures were examined under the 'serious prejudice' criteria of the Agreement on Subsidies and Countervailing Measures (SCM) actionable category<sup>36</sup> the reasoning was that subsidies that support producer prices would cause serious prejudice, while subsidies that support producer income (although still amber light in nature) would not cause serious prejudice. Note that this does not affect the Agreement on Agriculture amber box (See Article 3.2 of the Agreement on Agriculture), on the contrary, the presence of any coupling (whether on a price or income support measure) unambiguously makes the subsidy amber box under reading the Agreement on Agriculture.

The consideration of the green box compatibility of these measures by the Appellate Body in *US – Upland Cotton* occurred within the context of its deliberation in assessing Agreement on Agriculture Article 13 'Peace Clause' limits. We find no contradiction between the evaluation of the green box criteria under the Peace Clause and under the present circumstances. In South Africa's assessment, the Appellate Body's confirmation that these measures do not comply with the green box criteria of Annex 2 is unaffected by the purpose for which the non-compliance is evaluated. In the *US – Upland Cotton* case the measures failed to meet the so-called green box criteria, these subsidies could then be evaluated under the Agreement on Subsidies and Countervailing Measures (the SCM) 'actionable' category. Likewise in the present instance it follows that as a logical consequence of the existing case law that PFC payments and direct payments that are not green box compliant are by default counted against the AMS limitation in Article 3.2 of the

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<sup>36</sup> Agreement on Subsidies & Countervailing Measures Part III and article 5(c).

Agreement on Agriculture. We find support for this contention in the text of Article 7.2(a) of the Agreement on Agriculture which states that:

“Any domestic support measure in favour of agricultural producers, including any modification to such measure, and any measure that is subsequently introduced that cannot be shown to satisfy the criteria in Annex 2 to this Agreement or to be exempt from reduction by reason of any other provision of this Agreement shall be included in the Member's calculation of its Current Total AMS.”

The specific logic of the Panel in the *US – Upland Cotton* was that the payments made under the PFC and DP programmes, do not qualify for the WTO's green box category of domestic spending because of the prohibition on planting fruits, vegetables, and wild rice on covered direct payment program acreage. This is because the green box's direct payment criteria indicates that there can be no instruction to produce i.e. making a production linkage, and so the payments need to be 'decoupled' (not linked) to planting decisions.

In light of the above South Africa contends that the United States incorrectly claimed that its Production Flexibility Contract payments and Direct Payments conform to the criteria for decoupled income support (paragraph 6 of Annex 2 of the Agreement on Agriculture).

Having found that PFC and Direct Payments are not 'green box' measures, they automatically resort to the 'amber box' category. For purposes of calculating the AMS a distinction is made between product-specific and non-product specific support. South Africa contends that DP and PFC payments are allocable to specific commodities. This would imply that these payments have to be considered against the product specific *de minimis* calculation in terms of Article 6 paragraph 4.(a)(i) of the Agreement on Agriculture. We note that the relevant legislation identified by the United States in their notification of Direct Payments (Public Law 107-171) provides specific authority for the calculation of Direct Payments based upon payment rates for specific commodities. Sections 1103 (a) & (b) of the said Act, which provides the basis for this contention, read as follows:

“AVAILABILITY OF DIRECT PAYMENTS

(a) PAYMENT REQUIRED.—For each of the 2002 through 2007 crop years of each covered commodity, the Secretary shall make direct payments to producers on farms for which payment yields and base acres are established.

(b) PAYMENT RATE.—The payment rates used to make direct payments with respect to covered commodities for a crop year are as follows:

- (1) Wheat, \$0.52 per bushel.
- (2) Corn, \$0.28 per bushel.
- (3) Grain sorghum, \$0.35 per bushel.
- (4) Barley, \$0.24 per bushel.
- (5) Oats, \$0.024 per bushel.
- (6) Upland cotton, \$0.0667 per pound.
- (7) Rice, \$2.35 per hundredweight.
- (8) Soybeans, \$0.44 per bushel.
- (9) Other oilseeds, \$0.0080 per pound.”

In the same fashion the former PFC payments under Public Law 104-127 are also identified against specific commodities in the legislation. This legislation sets forth the budgetary amount allocated to each year and then determines the percentages that each crop will be eligible to receive. The text reads as follows at Section 113(a) & (b):

“AMOUNTS AVAILABLE FOR CONTRACT PAYMENTS

(a) FISCAL YEAR AMOUNTS.—

The Secretary shall, to the maximum extent practicable, expend the following amounts to satisfy the obligations of the Secretary under all contracts:

- (1) For fiscal year 1996, \$5,570,000,000.
- (2) For fiscal year 1997, \$5,385,000,000.
- (3) For fiscal year 1998, \$5,800,000,000.
- (4) For fiscal year 1999, \$5,603,000,000.
- (5) For fiscal year 2000, \$5,130,000,000.
- (6) For fiscal year 2001, \$4,130,000,000.
- (7) For fiscal year 2002, \$4,008,000,000.

(b) ALLOCATION.—

The amount made available for a fiscal year under subsection (a) shall be allocated as follows:

- (1) For wheat, 26.26 %.
- (2) For corn, 46.22 %.
- (3) For grain sorghum, 5.11 %.
- (4) For barley, 2.16 %.
- (5) For oats, 0.15 %.
- (6) For upland cotton, 11.63 %.
- (7) For rice, 8.47 %.”

This again would imply that after being classified under the AMS these PFC payments also have to be considered against the product specific *de minimis* calculation in terms of Article 6 paragraph 4(a)(i) of the Agreement on Agriculture.

Finally, supporting evidence in corroboration of South Africa’s contention that PFC’s and DP’s are product specific is provided by the USDA. According to the USDA, PFC’s and DP’s are not intended to be product specific as the recipients *‘could receive a payment for corn, but in any given year, for example, plant soybeans on the acres in which they are receiving corn payments. Thus, farmers’ planting decisions are based on expected market prices and variable costs of production.’* None the less the UDSA expands upon this contention and qualifies it by actually confirming that by providing for an opportunity to update base acres, there is an inherent incentive for a producer to expand upon the type of production that was cropped on the land in determining the base acres for a specific product. The USDA describes the position as follows: *‘since producers have the option of updating base payment acres in 2002 from 1996 levels, and since new crops have been added to the program, farmers may have an incentive to continue producing crops and/or to expand production in order to maintain a production history in anticipation of future opportunities to expand payment acres.’*<sup>37</sup> This statement would support both South Africa’s claim of a contravention of the Annex 2 requirement that base acres should be unchanging, and its argument that PFC’s and DP’s are product specific.

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<sup>37</sup> Description of the measure cleaned from United States government sources, see: <http://www.ers.usda.gov/Features/farbill/analysis/DirectPayments2002act.htm>

Hence the overall implication of the arguments indicating a product specific categorization is that when the PFC payments and Direct Payments are correctly allocated, the amounts are not counted as non-product-specific *de minimis* amounts, but are counted against the individual product specific *de minimis* limits. For this reason PFC payments and Direct Payments together with the other disputed measures under this claim, causes the AMS amounts on a product specific basis to exceed the product specific *de minimis* exemptions, accordingly counting such product specific AMS spending towards the Total Aggregate Measure of Support scheduled limit. In quantifying this allocation South Africa supports and concurs with the numerical evidence as submitted by Canada and Brazil.

### **Market Loss Assistance (MLA) Payments**

For purposes of this analysis we note that the United States has notified MLA payments (referred to as crop market loss assistance payments) as part of its AMS notification.

South Africa concurs with this categorisation of MLA Payments as an amber box measure. South Africa reasons that the said notification reflects the United State's own characterization of the measure by way of official notification as required as a legal obligation under Article 18 of the Agreement on Agriculture. The status of the notification and concomitant categorization of the measure serves to confirm that the United States has itself amber painted this measure as being part of the AMS in accordance with the definition for the Total AMS in Article 1(h) of the Agreement on Agriculture, the relevant part of which states that:

"Total Aggregate Measurement of Support' and 'Total AMS' mean the sum of all domestic support provided in favour of agricultural producers, calculated as the sum of all aggregate measurements of support for basic agricultural products, all non-product-specific aggregate measurements of support and all equivalent measurements of support for agricultural products."

However, South Africa submits that the United States has improperly and incorrectly included its MLA payments in its non-product-specific Aggregate Measurement of Support instead of under its product-specific Aggregate Measurements of Support.

Moreover if correctly categorised, the inclusion of MLA payments under product-specific *de minimis* support causes the *de minimis* threshold for the respective commodities to be exceeded. In this regard South Africa concurs with the calculations as presented in the submissions of Canada and Brazil.

The Agreement on Agriculture indicates that both product specific and non-product specific payments qualify as amber in colour. The questions then arise as to whether the amber subsidy is specific to a product or non-product-specific and more importantly whether the United States has categorised the subsidy correctly. This distinction is necessary to evaluate whether the amount may be excluded from the Total AMS under the authority of Article 6 paragraph 4 (a)(i) or 4(a)(ii) under the so-called *de minimis* exclusion to the Total Aggregate Measure of Support. Article 6(4)(a) reads as follows –

- “(a) A Member shall not be required to include in the calculation of its Current Total AMS and shall not be required to reduce:
  - (i) product-specific domestic support which would otherwise be required to be included in a Member's calculation of its Current AMS where such support does not exceed 5 per cent of that Member's total value of production of a basic agricultural product during the relevant year; and
  - (ii) non-product-specific domestic support which would otherwise be required to be included in a Member's calculation of its Current AMS where such support does not exceed 5 per cent of the value of that Member's total agricultural production.”

The reason for the United States opting for the non-product specific categorisation on MLA payments relates to its ability to use the *de minimis* exemption provided for in Article 6(4)(a)(ii). While the MLA payment is called ‘amber’ by listing it as AMS, we find that it is immediately excluded in the calculation of the Total Aggregate Measure of Support for reason that the MLA payments fall below the *de minimis* limit for non-product-specific support. If the United States had declared the MLA payments as product specific support, which according to South Africa it should

have done, then they would more readily have breached the *de minimis* amounts as calculated for the individual products, as can be gleaned from the table DS:4 figures on the various United States notifications. Concomitantly then these amounts count toward the applicable Total Aggregate Measure of Support ceiling for the year in question, as they would not have qualified for the product specific *de minimis* exclusion in most instances when taken together with the correct allocation of other disputed measures. Such amounts would then count towards the Total Aggregate Measure of Support ceiling, contributing to the overall eventual breach of that Total Aggregate Measure of Support ceiling<sup>38</sup>.

South Africa is of the opinion that the ordinary meaning of “non-product-specific” taken within the context of the Agreement on Agriculture, means that the measure cannot be allocated towards or matched against any individual product, but rather would be available to agricultural producers in general irrespective of any relationship to an individual product. In South Africa’s view the determinative factor as to whether the measure is factually ‘product specific’ or ‘non-product-specific’ would thus be whether the United States legislative measure at issue for MLA payments limits payments based on specific product criteria or not, that is whether the MLA payment spend can be readily assigned or allocated to an individual agricultural product. An example would be where specific reference is made in the legislation to payment rates for particular commodities.

According to the United States Department of Agriculture (USDA)<sup>39</sup> MLA payments were authorized by emergency legislation in the period 1998-2001. The MLA payments were made to recipients of the production flexibility contract payments. Similar payments were apparently also authorized for oilseed and dairy producers for selected years.

In *US - Upland Cotton*<sup>40</sup> it was reported that MLA payments were made under the authority of four separate pieces of legislation, one each for the years 1998 through

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<sup>38</sup> The United States committed to limit its Current Total Aggregate Measurement of Support to the annual levels specified in section I of Part IV of its Schedule: for the year 1999, USD 19,899.264 million and for each subsequent year, USD 19,103.294 million.

<sup>39</sup> See: <http://www.ers.usda.gov/Features/Farmbill/2002glossary.htm#mlap>

<sup>40</sup> Report of the Panel: US Upland Cotton at paragraphs 7.216-7.217.

2001<sup>41</sup>. These payments represent *ad hoc* emergency and supplementary assistance provided to producers in order to make up for losses sustained as a result of low commodity prices. The 1998, 1999 and 2001 legislation each appropriated a dollar amount to assistance which was divided among PFC payment recipients proportionately to their respective previous PFC payment. The 2000 Act provided for payments at the same contract payment rates as the 1999 Act. MLA payments were thus only made to recipients enrolled in the PFC programmes. The immediate intuitive conclusion would be that as the MLA payments are directly based upon the PFC payments, the conclusions reached as regards the PFC payments would likewise apply to MLA payments. However, we recall that in its notifications the United States has itself evaluated MLA payments as being more trade distorting than PFC payments by notifying them as AMS, whereas we recall from our earlier analysis that the United States notified PFC payments under the 'green box'.

The analysis thus indicates that the determinative question is as to whether MLA payments are made to specific crops (product specific AMS), as opposed to payments made to agricultural producers generally (non-product-specific AMS).

In scheduling MLA payments the United States uses the following descriptor for 1999:

“Producers who received fiscal year 1999 production flexibility contract payments (PFC) received additional market loss payments (MLP) in proportion to the amount of their PFC payments. This was required by Section 802, Subtitle A, Title VIII of Public Law 106-78 (October 22, 1999), Emergency and Disaster Assistance for Producers.”

In scheduling MLA payments the United States uses the following descriptor for 2000 & 2001:

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<sup>41</sup> According to WT/DS/267/R at footnote 303, market loss assistance payments were provided pursuant to the following Acts: the Agriculture, Rural Development, Food and Drug Administration and Related Agencies Appropriation Act of 1999 for the 1998 crop; the Agriculture, Rural Development, Food and Drug Administration and Related Agencies Appropriation Act of 2000 for the 1999 crop; the Agriculture Risk Protection Act of 2000 for the 2000 crop; and the Crop Year 2001 Agriculture Economic Assistance Act for the 2001 crop.

“Producers who received fiscal year 2000 production flexibility contract payments (PFC) received additional market loss payments (MLA) in proportion to the amount of their PFC payments. This was required by the Agricultural Risk Protection Act of 2000 (Public Law 106-224)”.

However this could be viewed as evidence of the link between MLA payments in proportion to the total amount of PFC payments for a specific farm and not necessarily evidence of a link between the allocation of MLA payments and the allocation of PFC payments to specific commodities. To establish this link calls for an examination of the Public Law 106-78 and Public Law 106-224 in order to determine whether the MLA payment programme can be attributed to particular individual products.

PL 106-78 authorises \$5,544 billion of funds of the Commodity Credit Corporation to provide assistance to owners and producers on a farm that are eligible for final payments for fiscal year 1999 under a production flexibility contract for the farm under the Agricultural Market Transition Act (7 U.S.C. 7201 *et seq.*). The amount of the payment is determined to be in proportion to the amount of the contract payment received by the recipients of a production flexibility contract payment. This means that receipt of a MLA payment is directly tied to the receipt of a PFC payment. In this sense a MLA payment can be viewed as an addition to the payments already granted to producers under PFC payments. Recall that our earlier analysis is of PFC is supported by this discussion of MLA payments in the sense that the contended ‘amber’ status of PFC payments is bolstered by the factual position that the United States has notified the top-up mechanism for PFC payments, namely MLA payments as part of the AMS, hence ‘amber’ in status.

The subsequent legislation (Public Law 106-224) does not make more detailed reference to the legal basis for MLA’s. In the absence of a more specific reference from the United States, from a reading of the said text, it seems likely and evident that Title II, subtitle A, sections 201 to 206 are the relevant parts to consider. The text refers directly to the previous law (Public Law 106-78) and states that the MLA payments to be made under PL 106-224 will mirror the MLA payments made in PL 106-78. In section 201(b)(1)&(2) the following is stated:

“AMOUNT AND MANNER.—In providing payments under this section, the Secretary shall—

(1) use the same contract payment rates as are used under section 802(b) of the Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act, 2000 (7 U.S.C. 1421 note; Public Law 106–78); and

(2) provide the payments in a manner that is consistent with section 802(c) of that Act.”

For completeness the section 802 of PL 106-78 reads as follows:

“SEC. 802. MARKET LOSS ASSISTANCE.

(a) ASSISTANCE AUTHORIZED.—The Secretary shall use not more than \$5,544,453,000 of funds of the Commodity Credit Corporation to provide assistance to owners and producers on a farm that are eligible for final payments for fiscal year 1999 under a production flexibility contract for the farm under the Agricultural Market Transition Act (7 U.S.C. 7201 et seq.).

(b) AMOUNT.—The amount of assistance made available to owners and producers on a farm under this section shall be proportionate to the amount of the contract payment received by the owners and producers for fiscal year 1999 under a production flexibility contract for the farm under the Agricultural Market Transition Act.

(c) ...”

Essentially the above quoted legislation again creates a nexus with the PFC payments under Public Law 104-127, through a 3- link chained string of cross referencing from the original PFC payment, through to the initial MLA authorisation for MLA payments made in PL 106-78, then through to the later PL 106-224 incarnation. This nexus is confirmed by the Panel in *US – Upland Cotton* where they state<sup>42</sup>:

“The 1998 MLA payments were intended essentially as a 50 per cent additional PFC payment. The 1998, 1999 and 2001 Acts each appropriated a dollar amount to assistance which was divided among PFC payment recipients proportionately to their respective previous PFC payment. The

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<sup>42</sup> Report of the Panel: US - Upland Cotton at paragraph 7.217.

2000 Act provided for payments at the same contract payment rates as the 1999 Act. MLA payments were only made to recipients enrolled in the PFC programmes.”

The existence of this nexus would hence entail a similar evaluation of all these payments as regards product specificity under the present consideration. Such evaluation thus follows.

The question that then arises for evaluation is as to whether MLA payments can be considered as being specific to a particular commodity. It is recalled that PFC payments as authorised under the Public Law 104-127 were applicable to 7 named commodities being corn, wheat, rice, upland cotton, oats, grain sorghum and barley. South Africa’s analysis of PFC payments found that these were specifically allocable to these commodities by using specific payment rates as provided for in that legislation. It thus follows as a logical consequence that MLA payments linked to PFC payments would likewise be allocated to the same products in the same proportions.

Furthermore South Africa notes that in *US – Upland Cotton* the Appellate Body ruled at paragraph 384 that:

“payments with respect to upland cotton base acres to producers currently growing upland cotton under the production flexibility contract, market loss assistance, direct payment and counter-cyclical payment measures, calculated in accordance with the 'cotton to cotton' methodology, are support granted to the specific commodity upland cotton “

This indicates that the 4 identified measures were specifically allocable to upland cotton, being one of 7 products to which PFC and MLA payments could be made. This provides South Africa with a persuasive sense that this would be equally applicable to the other 6 products which resort under precisely the same set of legislative conditions, including specific provision being made for contract payment rates for each of the six products.

In further support of this contention South Africa has consulted the United States government's official budget documentation. In this regard for 2001 and 2002<sup>43</sup> we find that MLA payments are listed for each of corn (maize), sorghum, barley, oats, wheat, rice, upland cotton and dairy. This indicates that official expenditures are conducted on a product by product basis under the United State's own accounting system.

Based upon the legislation and the USDA's own interpretation of such legislation it is evident that MLA payments are made to specific commodities. In terms of the Agreement on Agriculture this means that for purposes of allocating the payments to the appropriate AMS category, MLA payments are 'product specific' domestic support and not 'non-product-specific' domestic support.

In light of the above South Africa contends that the United States has incorrectly included its MLA payments in its non-product-specific Aggregate Measurement of Support instead of in its product-specific Aggregate Measurement of Support.

The implication of this categorization is that when MLA payments are correctly allocated, the amounts are not counted as non-product-specific *de minimis* amounts, but are counted against the individual product specific *de minimis* limits. For this reason MLA's together with the other disputed measures under this claim, causes the AMS amounts on a product-specific basis to exceed the product specific *de minimis* exemptions, accordingly counting such product-specific AMS spending towards the Total Aggregate Measure of Support scheduled limit. In quantifying this allocation South Africa supports and concurs with the numerical evidence as submitted by Canada and Brazil.

### **Countercyclical Payments (CCP)**

For purposes of this analysis we note that the United States has notified Countercyclical Payments as part of its AMS notification<sup>44</sup>.

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<sup>43</sup> USDA Commodity Credit Corporation, History of Budgetary Expenditures of the CCC Fiscal Years 2001 – 2003 Actual, January 30 2004. See from page 10 onwards.

<sup>44</sup> Payments made for the years 2002-2005 see United States notification G/AG/N/USA/60 on Table DS:9.

South Africa concurs with this categorisation of Countercyclical Payments as an amber box measure. South Africa reasons that the said notification reflects the United State's own characterization of the measure by way of official notification as required as a legal obligation under Article 18 of the Agreement on Agriculture. The status of the notification and concomitant categorization of the measure serves to confirm that the United States has itself amber painted this measure as being part of the AMS in accordance with the definition for the Total AMS in Article 1(h) of the Agreement on Agriculture, the relevant part of which states that:

"Total Aggregate Measurement of Support" and "Total AMS" mean the sum of all domestic support provided in favour of agricultural producers, calculated as the sum of all aggregate measurements of support for basic agricultural products, all non-product-specific aggregate measurements of support and all equivalent measurements of support for agricultural products."

However, South Africa submits that the United States has improperly and incorrectly included its CCP's in its non-product-specific Aggregate Measurement of Support instead of under its product-specific Aggregate Measurements of Support.

Moreover if correctly categorised, the inclusion of CCP's under product-specific *de minimis* support causes the *de minimis* threshold for the respective commodities to be exceeded. In this regard South Africa concurs with the calculations as presented in the submissions of Canada and Brazil.

The Agreement on Agriculture indicates that both product specific and non-product specific payments qualify as amber in colour. The questions then arise as to whether the amber subsidy is specific to a product or non-product-specific and more importantly whether the United States has categorised the subsidy correctly. This distinction is necessary to evaluate whether the amount may be excluded from the Total AMS under the authority of Article 6 paragraph 4 (a)(i) or 4(a)(ii) under the so-called *de minimis* exclusion to the Total Aggregate Measure of Support. Article 6(4)(a) reads as follows –

“(a) A Member shall not be required to include in the calculation of its Current Total AMS and shall not be required to reduce:

- (i) product-specific domestic support which would otherwise be required to be included in a Member's calculation of its Current AMS where such support does not exceed 5 per cent of that Member's total value of production of a basic agricultural product during the relevant year; and
- (ii) non-product-specific domestic support which would otherwise be required to be included in a Member's calculation of its Current AMS where such support does not exceed 5 per cent of the value of that Member's total agricultural production.”

The reason for the United States opting for the non-product specific categorisation on CCP's relates to its ability to use the *de minimis* exemption provided for in Article 6(4)(a)(ii).. While the CCP is called 'amber' by listing it as AMS, we find that it is immediately excluded in the calculation of the Total Aggregate Measure of Support for reason that the CCP's fall below the *de minimis* limit for non-product-specific support. If the United States had declared the CCP's as product specific support, which according to South Africa it should have done, then they would more readily have breached the *de minimis* amounts as calculated for the individual products, as can be gleaned from the table DS:4 figures on the various United States notifications. Concomitantly then these amounts count toward the applicable Total Aggregate Measure of Support ceiling for the year in question, as they would not have qualified for the product specific *de minimis* exclusion in most instances when taken together with the correct allocation of other disputed measures. Such amounts would then count towards the Total Aggregate Measure of Support ceiling, contributing to the overall eventual breach of that Total Aggregate Measure of Support ceiling<sup>45</sup>.

South Africa is of the opinion that the ordinary meaning of "non-product-specific" taken within the context of the Agreement on Agriculture, means that the measure cannot be allocated towards or matched against any individual product, but rather would be available to agricultural producers in general irrespective of any

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<sup>45</sup> The United States committed to limit its Current Total Aggregate Measurement of Support to the annual levels specified in section I of Part IV of its Schedule: for the year 1999, USD 19,899.264 million and for each subsequent year, USD 19,103.294 million.

relationship to an individual product. In South Africa's view the determinative factor as to whether the measure is factually 'product specific' or 'non-product-specific' would thus be whether the United States legislative measure at issue for CCP's limits payments based on specific product criteria or not, that is whether the CCP spend can be readily assigned or allocated to an individual agricultural product. An example would be where specific reference is made in the legislation to payment rates for particular commodities

According to the USDA<sup>46</sup> countercyclical payments are available for covered commodities whenever the effective price is less than the target price. The payment amount is equal to the product of the payment rate, the payment acres (85 percent of base acres), and the payment yield. It is stated that this program was developed to provide an improved countercyclical income safety net to replace most ad hoc market loss assistance payments that were provided to farmers during 1998-2001. The USDA says that in order to receive payments on crops covered by the program (wheat, corn, grain sorghum, barley, oats, rice, upland cotton, soybeans, other oilseeds, and peanuts) a producer enters into annual agreements for crop years 2002-2007. At enrolment, producers must select between two options for determining base acres and between three options for determining payment yield. The USDA then provides a specific example describing how the countercyclical payment will be calculated in the case of a corn (maize) farmer. The example of the calculation so provided looks as follows:

$\text{Payment rate}_{\text{corn}} = (\text{target price})_{\text{corn}} - (\text{direct payment rate})_{\text{corn}} - (\text{higher of commodity price or loan rate})_{\text{corn}}$ $\text{CCP}_{\text{corn}} = ([\text{Base acres}]_{\text{corn}} \times 0.85) \times (\text{payment yield})_{\text{corn}} \times (\text{payment rate})_{\text{corn}}$
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This description by the USDA clearly indicates that countercyclical payments are made to specific crops – namely wheat, corn, grain sorghum, barley, oats, rice, upland cotton, soybeans, other oilseeds, and peanuts; and furthermore that the example provided for the calculation of such payment is conducted for a specific product, pertinently corn.

In scheduling countercyclical payments the United States uses the following descriptor:

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<sup>46</sup> See: <http://www.ers.usda.gov/Features/Farmbill/analysis/countercyclicalpayments2002act.htm>

“Provides payments when prices of program commodities fall below a target price. Payments are based on historical acres and yields and do not require current production of the historically produced commodity. Authorized by the Farm Security and Rural Investment Act of 2002 (PL107-171).”

South Africa thus examines the ‘Farm Security and Rural Investment Act of 2002 (PL107-171) in order to determine whether the countercyclical payment programme can be attributed to particular individual products. Subtitle A, sections 1101 through 1108 are relevant in conducting such an analysis.

The legislation indicates that the countercyclical payments are applicable for ‘all covered commodities’. Covered commodities are described under the legislation as being wheat, corn, grain sorghum, barley, oats, upland cotton, rice, soybeans, and other oilseeds<sup>47</sup>. The said legislation<sup>48</sup> states that countercyclical payments can be made if:

“the Secretary determines that the effective price for the covered commodity is less than the target price for the covered commodity”.

This indicates that the calculation of the payments needs to be conducted on a product by product basis. Furthermore the legislation then provides for a specific set of target prices per individual covered commodity that must be used to calculate the countercyclical payments. The following table summarises the target payments rates that are to be applied<sup>49</sup>:

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<sup>47</sup> PL 107-171 at section 1001 Definitions.

<sup>48</sup> PL 107-171 at section 1104 (a).

<sup>49</sup> PL 107-171 at sections 1104 (c)(1)&(2).

<b>Target Prices</b>			
<b>Commodity</b>	<b>Unit</b>	<b>2002-03</b>	<b>2004-07</b>
Wheat	Bushel	\$3.86	\$3.92
Corn	Bushel	\$2.60	\$2.63
Grain sorghum	Bushel	\$2.54	\$2.57
Barley	Bushel	\$2.21	\$2.24
Oats	Bushel	\$1.40	\$1.44
Upland cotton	Pound	\$0.724	\$0.724
Rice	Hundredweight	\$10.50	\$10.50
Soybeans	Bushel	\$5.80	\$5.80
Other oilseeds	Pound	\$0.098	\$0.101

In addition, in further support of this contention South Africa has consulted the United States government's official budget documentation. In this regard for 2002, 2004 and 2005 we find that countercyclical payments are listed for each of corn (maize), sorghum, barley, oats, wheat, rice, upland cotton, peanuts and soya beans. This indicates that official expenditures are conducted on a product by product basis under the United State's own accounting system<sup>50</sup>.

Finally South Africa notes that this product specificity for CCP's was also observed by Panel in *US – Upland Cotton*<sup>51</sup>. The relevant paragraph indicates the following:

"DP and CCP payments are available in respect of acreage planted on a farm which has to satisfy very specific eligibility criteria, which begin with the criterion that it was planted to one of nine covered commodities for the 1998 through 2001 crop years. Upland cotton is one of the covered commodities. The legislation provides for a DP payment rate as follows: "upland cotton, \$0.0667 per pound". The legislation provides that CCP payments are paid when the effective price for the covered commodity is less than the target price for the covered commodity and provides for a target price in the 2002 and 2003 crop years, as well as subsequent crop years as follows: "upland cotton, \$0.7240 per pound".

<sup>50</sup> USDA Commodity Credit Corporation, Commodity Estimates Book FY2007, Mid-season review. See 'Output 50A – Total Cash Commodity Payments'.

<sup>51</sup> Report of the Panel: US - Upland Cotton at paragraph 7.516.

Based upon the legislation, case law and the USDA's own interpretation of such legislation it is evident that CCPs are made to specific commodities. In terms of the Agreement on Agriculture this means that for purposes of allocating the payments to the appropriate AMS category, countercyclical payments are 'product specific' domestic support and not 'non-product-specific' domestic support.

In light of the above South Africa contends that the United States has incorrectly included its countercyclical payments in its non-product-specific Aggregate Measurement of Support instead of in its product-specific Aggregate Measurement of Support.

The implication of this categorization is that when CCPs are correctly allocated, the amounts are not counted as non-product-specific *de minimis* amounts, but are counted against the individual product specific *de minimis* limits. For this reason CCP's together with the other disputed measures under this claim, causes the AMS amounts on a product-specific basis to exceed the product specific *de minimis* exemptions, accordingly counting such product-specific AMS spending towards the Total Aggregate Measure of Support scheduled limit. In quantifying this allocation South Africa supports and concurs with the numerical evidence as submitted by Canada and Brazil.

### **Crop Disaster Payments (CDPs)**

**DRAFTING NOTE: COMPLETION TO FOLLOW ON CONSULTATION WITH BRAZIL & CANADA**

The United States measures applicable to CDPs were consistently reflected on the United States notifications as payments for relief from natural disasters under the 'green box' category on notification schedule DS: 1. The contention by Canada and Brazil is that these payments have been incorrectly listed as payments that conform to paragraph 8 of Annex 2 of the Agreement on Agriculture, and thus qualify for exemption from the Total Aggregate Measure of Support. The relevant text of the Agreement on Agriculture reads as follows in this regard:

“Payments (made either directly or by way of government financial participation in crop insurance schemes) for relief from natural disasters

- (a) Eligibility for such payments shall arise only following a formal recognition by government authorities that a natural or like disaster (including disease outbreaks, pest infestations, nuclear accidents, and war on the territory of the Member concerned) has occurred or is occurring; and shall be determined by a production loss which exceeds 30 per cent of the average of production in the preceding three-year period or a three-year average based on the preceding five-year period, excluding the highest and the lowest entry.
- (b) Payments made following a disaster shall be applied only in respect of losses of income, livestock (including payments in connection with the veterinary treatment of animals), land or other production factors due to the natural disaster in question.
- (c) Payments shall compensate for not more than the total cost of replacing such losses and shall not require or specify the type or quantity of future production.
- (d) Payments made during a disaster shall not exceed the level required to prevent or alleviate further loss as defined in criterion (b) above.
- (e) 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.”

**DRAFTING NOTE:** We are unsure as to what the grounds for the attack of these payments are when considered against the legislation (which is of the more complicated variety of the United States law examined). Ideally we would benefit from insight as to the approach adopted by the complainants in this regard. It is worth noting that on enquiry from the United States guru on agricultural trade economics – Prof. [...] the following is gleaned in e-mail correspondence (not for official quotation):

“I have not heard any specific reason why Brazil or other countries are unhappy with the disaster payments notification. My feeling; and that is all it is, is that the disaster payments given in the United States are political reactions to low incomes in particular regions and from particular crops. Para 8 of Annex 2 is fairly specific that the extent of the payments should be just enough to compensate for the natural disaster. I don't know the precise criteria that USDA uses when allocating such funds, but it may well be that overcompensation can occur. The United States could also have in mind that Para 7 covers the compensation over and above the disaster relief. Once again, one would have to check as to how the payments to individual farmers are calculated.”

My sense is that this would be a lengthy calculation and hence time consuming. We would have to decide whether to proceed with such a calculation or adopt the stance taken by the complainants when the 1<sup>st</sup> submissions are made available.

Inputs of the core drafting group are appreciated on this point.

It is further noted that the United States has responded to questions posed to it at the ordinary session of the WTO Committee on Agriculture on 21 November 2007. As regards Crop Disaster Payments Australia posed a question and the United States responded as follows:

“Supporting Table DS:1 – Payments for Relief from Natural Disasters, Crop Disaster Payments

Assistance to crop producers suffering production losses of at least 30 per cent was \$1.741 billion in 2002 (p 7), \$1.295 billion in 2003 (p 34) and \$1.160 billion in 2004 (p 59). In 2005 the level of expenditure for this assistance was \$3 million (p 87).

Can the US please describe the reason for the sustained high level of expenditure under this programme prior to 2005?

Answer: Payments simply reflect a series of on-going weather-related disasters in different parts of the United States – floods, blizzards, drought, tornadoes, hurricanes, etc. “

This response from the US unfortunately, but not unexpectedly, sheds no further light on the matter.]

**By way of information these 'Crop Disaster Programmes' are described as follows by the USDA:<sup>52</sup>**

The 2003/2004/2005 Crop Disaster Program (CDP), as provided for by the Military Construction and Emergency Hurricane Supplemental Appropriations Act of 2005, reimburses producers for qualifying losses to agricultural commodities (other than sugar cane or cotton seed) due to damaging weather or related conditions. The damages must be in excess of 35 % for the loss of production or 20 % for quality losses. The program, administered by the United States Department of Agriculture's (USDA) Farm Service Agency (FSA), has no set funding limitation.

In addition to the assistance provided under the 2003/2004/2005 CDP, the legislation also authorized \$3 million for 2003 fruit and vegetable losses in North Carolina and \$50 million for 2003 crop losses in Virginia.

**Eligibility**

CDP covers all crops as follows:

- Insured Crops - Crops insured by either catastrophic (CAT) or buy-up (coverage of 50/100 or greater) crop insurance;
- Uninsured Crops - Crops for which crop insurance was available but not purchased;
- Noninsurable Crops - Crops for which crop insurance was not available.

Producers must be in compliance with the Highly Erodible Land Conservation and Wetland conservation provisions (sod & swampbuster).

Qualifying crop losses for the 2005 crop are limited to only those losses caused by hurricane or tropical storms of the 2004 hurricane season in counties declared disaster areas by the President of the United States.

Producers who received payments from Section 32 of the Act of August 24, 1935, with respect to 2004 hurricane crop losses are not eligible for payments under this crop disaster program.

**Payment Calculation**

As required by statute, crop disaster payments will be calculated using the same manner used under the 2000 crop disaster program. This means the prices used to calculate disaster payments for crops insured by Federal Crop Insurance Coverage (FCIC) will be the Actual Production History (APH)

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<sup>52</sup> See USDA Fact Sheet on:  
[http://www.fsa.usda.gov/FSA/printapp?fileName=pf\\_20050301\\_distr\\_en\\_cdp05.html&newsType=prfactsheet](http://www.fsa.usda.gov/FSA/printapp?fileName=pf_20050301_distr_en_cdp05.html&newsType=prfactsheet)

prices. For crops not insured by FCIC, 5-year average market prices will be used

Like the 2001/2002 crop disaster program, crop disaster payments will be reduced, as required by statute, if the sum of the: 1) disaster payment; 2) the net crop insurance indemnity; and 3) the value of the crop harvested exceeds 95 % of what the value of the crop would have been in the absence of a loss.

For crops insured by FCIC, the value of the crop harvested and the value of the crop in absence of a loss will both be valued at the higher of the APH price election or the USDA National Agricultural Statistics Service season average price.

CDP provisions are similar to disaster programs authorized for 1998 through 2002 crops, but with a few changes. Producers will have a choice of receiving payments for the 2003, 2004 or 2005 crops (but not more than one year), and the payment rates will be higher than for the previous crop loss program.

Payments will be issued to producers for losses in excess of 35 % at:

- 65 % of the established price for insured crops;
- 65 % of the established price for noninsurable crops; and
- 60 % of the established price for uninsured crops.

#### **Linkage Requirement**

Any producer who elected not to obtain federal crop insurance on an insurable crop for which the producer receives crop loss assistance or for non insurable crops, elected not to participate in FSA's Noninsured Crop Disaster Assistance Program (NAP) for the year in which benefits will be received, must purchase crop insurance at a level greater than the catastrophic for insurable crops or NAP coverage for uninsurable crops by the final deadline and complete all program requirements including yearly acreage reports for the next two crop years in the administrative county in which the crop was produced or prevented from being produced. If at the time the producer applies for CDP the sales closing date for insurable crops, or for non-insurable crops for which the producer sought benefits has passed, the producer must purchase crop insurance and/or NAP, as applicable, for the following two crop years.

As a condition of receiving benefits under CDP, any producer who fails to purchase crop insurance and/or NAP coverage, shall be required to refund the full amount of the CDP payment for the crop, plus interest. [End of quote]

### **Crop and Revenue Insurance (CRI)**

The United States notifications describe this measure as paid in the 2002 – 2005 reporting periods as follows:

“Crop and revenue insurance subsidized by the Federal Crop Insurance Corporation. Producers may choose one of the various types of crop yield or revenue insurance plans made available each year. The contracted-for insurance premiums are subsidized. The value of the subsidy is reflected in the net value of the indemnities paid to producers for losses less the amount of the producer-paid premium. Indemnities are paid whenever actual yield or revenue falls below the guarantee level.”

The notification does not list a specific legislative provision as part of this description. In this regard South Africa relies of the legislative provisions identified by Canada and Brazil<sup>53</sup> in their panel establishment requests<sup>54</sup>.

For reasons to follow, South Africa contends that the United States has incorrectly included its crop and revenue insurance payments in its non-product-specific Aggregate Measurement of Support instead of in its product-specific Aggregate Measurement of Support. Moreover, if correctly categorised, the inclusion of crop and revenue insurance payments under product-specific de minimis, causes the de minimis threshold for the respective commodities to be exceeded.

According to the United States Government sources<sup>55</sup> support of crop insurance has expanded greatly in the past decade and is currently available to all crops grown in the United States. As a result, federal crop insurance subsidies have greatly expanded the pool of subsidized commodities in the United States. Crop insurance support is administered by USDA’s Risk Management Agency (RMA) and funded through the Federal Crop Insurance Fund rather than from the CCC. Since 2002 outlays (including premium subsidies and government loss-sharing) have averaged over \$3 billion annually, with projections for continued future growth. It is thus the quantum of these measures that make it important that they are correctly notified.

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<sup>53</sup> The so identified legislation: PL 96-365; PL 103 354; PL 106-224; PL 109-97; and Title 7 U.S.C., Chapter 36, § 1516.

<sup>54</sup> WTO documents WT/DS365/13 (Brazil) and WT/DS357/12 (Canada).

<sup>55</sup> Congressional Research Service: Report RL 33697, October 2006, at page 17.

In each of the four marketing years covered by the notification, the United States has notified subsidised crop and revenue insurance as non-product-specific AMS support. The indicated value of the subsidy is reflected in the net value of the indemnities paid to producers for losses less the amount of the producer-paid premiums, with there being a net under recovery by the government. If insurance plans such as those here identified are only available for a limited number of crops as in the present instance, the United States should have classified these measures as product-specific *de minimis* support rather than non-product specific support.

The AMS 'non-product specific' sub-classification distinction thus relates to whether the CRI payments can in fact correctly be classified as 'non-product-specific' as the United States has notified the measure. South Africa is of the opinion that the ordinary meaning of 'non-product specific' taken within the context of the Agreement on Agriculture, means that the measure cannot be allocated towards or matched against any individual product, but rather would be available to agricultural producers in general irrespective of any relationship to an individual product. In South Africa's view the determinative factor as to whether the measure is factually 'product specific' or 'non-product-specific' would thus be whether the United States legislative measure at issue for CRI payments allocates payments based on specific product criteria or not, that is whether the CRI payment spend can be readily assigned or allocated to an individual agricultural product.

According to the USDA's website listed information, producers of specific crops can purchase insurance policies at a subsidized rate, under Federal crop insurance programs. These insurance policies make indemnity payments to producers based on current losses related to either below-average yields (crop yield insurance) or below-average revenue (revenue insurance). Policies are sold through private insurance companies, but the USDA's Risk Management Agency (RMA) subsidizes the insurance premiums, subsidizes a portion of the companies' administrative and operating expenses, and shares underwriting gains and losses with the companies under the Standard Reinsurance Agreement. Premium subsidy rates were raised under the Agricultural Risk Protection Act of 2000, so that most farmers pay approximately only 40-50 percent of the premiums. Insurance is widely available, though coverage is not available for all crops in all areas, and all types of insurance are not available for all crops. Farmers sign up for insurance prior to planting, but

usually pay premiums after harvest. Several types of crop yield and revenue insurance are available<sup>56</sup>.

The cited legislation certainly contains textual provisions that indicate that these measures are tied to particular crops. By nature an insured agricultural loss has to be tied to a defined physical loss, which in turn has to be determined from the crop that is lost or negatively affected. The following examples regarding the product specific nature of the measures are cited from the legislation:

“7 USC Sec. 1508 Title 7 – AGRICULTURE CHAPTER 36 - CROP INSURANCE:

Commodity-by-commodity basis -

A producer may choose between individual yield or area yield coverage or combined coverage, if available, on a commodity-by-commodity basis.

Public Law 106-224 [Title I section 101]:

‘EXPECTED MARKET PRICE.—

(A) ESTABLISHMENT OR APPROVAL.—For the purposes of this title, the corporation shall establish or approve the price level (referred to in this title as the ‘expected market price’) of each agricultural commodity for which insurance is offered.

(B) GENERAL RULE.—Except as otherwise provided in subparagraph (C), the expected market price of an agricultural commodity shall be not less than the projected market price of the agricultural commodity, as determined by the Corporation.”

In addition United States Government analysis<sup>57</sup> supports the product specific nature of the legislation examined and has revealed that payments are directly assignable to specific crops:

“While crop insurance is available widely, 68% of the subsidy over the FY2002- FY2006 period went to five crops — corn (20%), wheat (18%),

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<sup>56</sup> See the USDA description at: [http://www.usda.gov/wps/portal/!ut/p/\\_s.7\\_0\\_A/7\\_0\\_1OB?navid=SEARCH&q=crop+and+revenue+insurance&site=usda&Go\\_button.x=15&Go\\_button.y=9](http://www.usda.gov/wps/portal/!ut/p/_s.7_0_A/7_0_1OB?navid=SEARCH&q=crop+and+revenue+insurance&site=usda&Go_button.x=15&Go_button.y=9)

<sup>57</sup> Congressional Research Service: Report RL 22522, June 2007, at page 4.

soybeans (16%), cotton (9%), and sorghum (6%) — and fully 75% of the total crop insurance coverage went to the program crops, while the remaining 25% went to the non-program crops. When total premiums (including farmer and federal contributions) are compared to indemnity payments, the loss ratio was 1.09, giving the overall appearance of being actuarially sound. However, if the federal premium subsidy is excluded, the loss ratio is 2.70 (indemnities were 2.7 times higher than farmer premium payments).”

The implication of this categorization is that when these crop and revenue insurance payments are correctly allocated, the amounts are not counted as non-product-specific *de minimis* amounts, but are counted against the individual product specific *de minimis* limits. For the this reason crop and revenue insurance payments together with the other disputed measures under this claim, causes the AMS amounts on a product-specific basis to exceed the product-specific *de minimis* exemptions, accordingly counting such product-specific AMS spending towards the Total Aggregate Measure of Support scheduled limit. In quantifying this allocation South Africa supports and concurs with the numerical evidence as submitted by Canada and Brazil.

## ANNEX A-1

### DISAGGREGATED SUBSIDY PAYMENTS<sup>58</sup>

#### Total Cash Payments by Crop Year: Production Flexibility Contract Payment (Thousands of Dollars)

Commodity	1999	2000	2001	2002	2004	2005
Corn	2,546,844	2,350,331	1,894,709	1,741	-	-
Wheat	1,446,875	1,337,332	1,076,048	942,000	-	-
Upland Cotton	616,012	574,934	473,516	436,000	-	-
Rice	465,901	433,134	352,293	322,000	-	-
Sorghum	277,056	256,625	209,201	167,000	-	-
Barley	115,087	106,812	87,909	65,000	-	-
Oats	8,318	7,769	6,062	2,000	-	-

#### Total Cash Payments by Crop Year: Direct Payments (Thousands of Dollars)

Commodity	1999	2000	2001	2002	2004	2005
Corn	-	-	-	391,000	2,108,000	2,094,000
Wheat	-	-	-	213,000	1,140,000	1,131,000
Upland Cotton	-	-	-	182,000	616,000	608,000
Rice	-	-	-	100,000	426,000	424,000
Sorghum	-	-	-	35,000	198,000	196,000
Barley	-	-	-	19,000	82,000	81,000
Oats	-	-	-	1,000	3,000	3,000
Soybeans	-	-	-	591,000	598,000	593,000
Sunflower	-	-	-	12,810,000	13,254,000	13,136,000
Seed Oil	-	-	-	4,856,000	4,979,000	4,928,000
Canola	-	-	-	817,000	821,000	814,000
Flax Seed	-	-	-	120,000	121,000	120,000
Mustard Seed	-	-	-	12,000	12,000	12,000
Rapeseed	-	-	-	67,156,000	69,000	69,000
Peanuts	-	-	-	524,000	565,000	530,000
Safflower	-	-	-	134,000	-	-
Crambe	-	-	-	-	-	-

#### Total Cash Payments by Crop Year: Marketing Loss Assistance (Thousands of Dollars)

Commodity	1999	2000	2001	2002	2004	2005
Corn	2,543,804	2,544,000	2,156,000	-	-	-
Wheat	1,445,038	1,445,000	1,223,000	-	-	-
Upland Cotton	613,251	612,000	524,000	-	-	-
Rice	464,544	-	-	-	-	-
Sorghum	276,556	276,000	236,000	-	-	-
Barley	114,672	114,000	97,000	-	-	-
Oats	6,407	8,000	7,000	-	-	-

<sup>58</sup> Commodity Estimates Book: FY 2004 President's Budget and Commodity Estimates Book: FY 2006 President's Budget as published by the Commodity Credit Corporation.

**Total Cash Payments by Crop Year: Counter Cyclical Payments  
(Thousands of Dollars)**

Commodity	1999	2000	2001	2002	2004	2005
Corn	-	-	-	-	2,448,000	2,948,000
Wheat	-	-	-	-	-	-
Upland Cotton	-	-	-	1,312,000	1,376,000	1,301,000
Rice	-	-	-	323,000	160,000	103,000
Sorghum	-	-	-	-	157,000	156,000
Barley	-	-	-	-	53,000	45,000
Peanuts	-	-	-	169,884,000	156,000	201,000

## ANNEX A-2

### DESCRIPTIVE NOTE ON SOUTH AFRICAN MAIZE SECTOR

#### A. BACKGROUND

The South African national development goal has two long-term objectives. The first is to reduce poverty and unemployment by fifty percent by the year 2014<sup>59</sup>. The second objective is to create an inclusive economy through Black Economic Empowerment<sup>60</sup> (BEE)<sup>61</sup>. Given its importance as a staple food commodity as well as its overall contribution to economy-wide growth, the maize sub-sector is positioned to be integral in achieving South Africa's national development goal.

Agriculture has always been and currently remains an important sector in the South African economy. In 2007 primary agriculture contributed 2.3 percent to total GDP, while accounting for 8.8 percent of all reported employment<sup>62</sup>.

Due to the integration with upstream and downstream markets, the agricultural industry actually contributes far more than the official direct contribution of 3 percent to the country's GDP. Taking the upstream and downstream linkages with other markets into account, agriculture contributes 14 percent to the country's GDP<sup>63</sup>.

The agricultural sector also plays a very important developmental role in rural economies. Agriculture is the main driving forces of many rural settlements and towns in South Africa.

There are approximately 50 000 large-scale commercial farmers who are predominantly, but not exclusively, drawn from the white population. In 2000 they exported about R16 billion (\$2.3 billion) worth of products, or nearly 10 percent of

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<sup>59</sup> This South African policy goal is deduced from the UN Millennium Development Goals, the first of which seeks to reduce by half the proportion of people living on less than a dollar a day by 2015. See <http://www.un.org/millenniumgoals/#>.

<sup>60</sup> BEE is a program launched by the South African government aimed at redressing the inequalities of the Apartheid era. To do this, economic opportunities, such as employment equity, skills development, ownership, management, socio-economic development and preferential procurement, are given to previously disadvantaged groups.

<sup>61</sup> Mlambo-Ngcuka, P., 2006. A Catalyst for Accelerated and Shared Growth-South Africa (ASGISA). Media Briefing by Deputy President, Pretoria, South Africa.

<sup>62</sup> Statistics South Africa, 'Labour Force Survey Release P0210', March 2008 at page vi; & 'Gross Domestic Product Release P0441', February 2008 at page 7.

South Africa's total exports. They employ approximately 1 million workers, which is 11 percent of total formal sector employment in the country. Many of these workers live on-farm, thus commercial farms provide livelihoods, housing, and education to approximately 6 million family members<sup>64</sup>.

There are also 240 000 small farmers who provide a livelihood to more than 1 million of their family members, and occasional employment to another 500 000 people. These farmers supply local and regional markets where large numbers of informal traders make a living. Furthermore, there are an estimated 3 million subsistence farmers who are located mainly in the communal areas of the former Apartheid racial segregated homelands.

Finally, almost all the productive and social activities of rural towns and service centres are dependent on primary agriculture and related activities. More than half of the provinces and about 40 percent of the country's total population are therefore dependent mainly on agriculture and related industries<sup>64</sup>.

The grain industry is one of the largest industries within the agricultural sector and contributed 14 percent to the total gross value of agricultural production between 1999 – 2005 marketing years. In 2006/07 maize contributed 12.4 percent to the total gross value of agricultural production; making it the third largest contributing agricultural commodity (second to the poultry industry); while wheat contributed approximately 3.5 percent<sup>65</sup>.

Maize is the dominant staple food and a crucial component to one of the largest and strategic industries within the country. Maize and wheat are considered primary staple commodities given their importance in promoting and ensuring food security. According to the Food Security Survey conducted in August of 2002; starches were the second most frequently available food found in households second only to salt and/or other food-flavour enhancers. In particular maize grain was available for 20 days a month compared to other starches such as potatoes and bread which were

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<sup>63</sup> National Department of Agriculture (NDA), 2001. Strategic Plan for Agriculture. Government of South Africa, Pretoria.

<sup>64</sup> Ibid. footnote 63.

<sup>65</sup> National department of Agriculture (NDA), 2005. abstracts of Agriculture. Government of South Africa, Pretoria.

present only on 12 days within a month<sup>66</sup>. Furthermore, according to the National Labour and Economic Development Institute (NALEDI) in 2000 the ultra-poor (approximately 3.6 million people) spent over 50 percent of their income on food, of which up to 20 percent of their income was spent on maize meal alone<sup>67</sup>.

South African grain production is dualistic in nature; comprised of both commercial and subsistent producers. In 2005, there were approximately 18,000 commercial grain producers, who accounted for 90 percent of all grains produced, while approximately 3 million subsistence farmers accounted for the remaining 10 percent<sup>62</sup>. Of the 18,000 commercial grain producers, approximately 9,000 are maize farmers while 4,000 are wheat farmers<sup>68</sup>. However, production of both these commodities is not mutually exclusive; in some of the main production regions, including the irrigation areas; producers grow both maize and wheat.

International trade has taken on an increasingly important role in the South African economy. Over the past two decades, both imports and exports have grown faster than the overall economy. For instance, between 2005 and 2006, Exports and Imports percentage share of GDP increased from 26.8 percent to 29.1 percent and 28.3 percent to 33.0 percent; respectively<sup>69</sup>.

Of this share, the maize industry is the largest contributing sub-sector. Figure A-2.1 below illustrates the disaggregated percentage share of total cereal export values. When disaggregated the maize sub-sector contributed approximately 85 percent to the total value of cereal exports between 1999 and 2005. This amounted to approximately \$ 1 billion (R7.5 billion), in nominal terms.

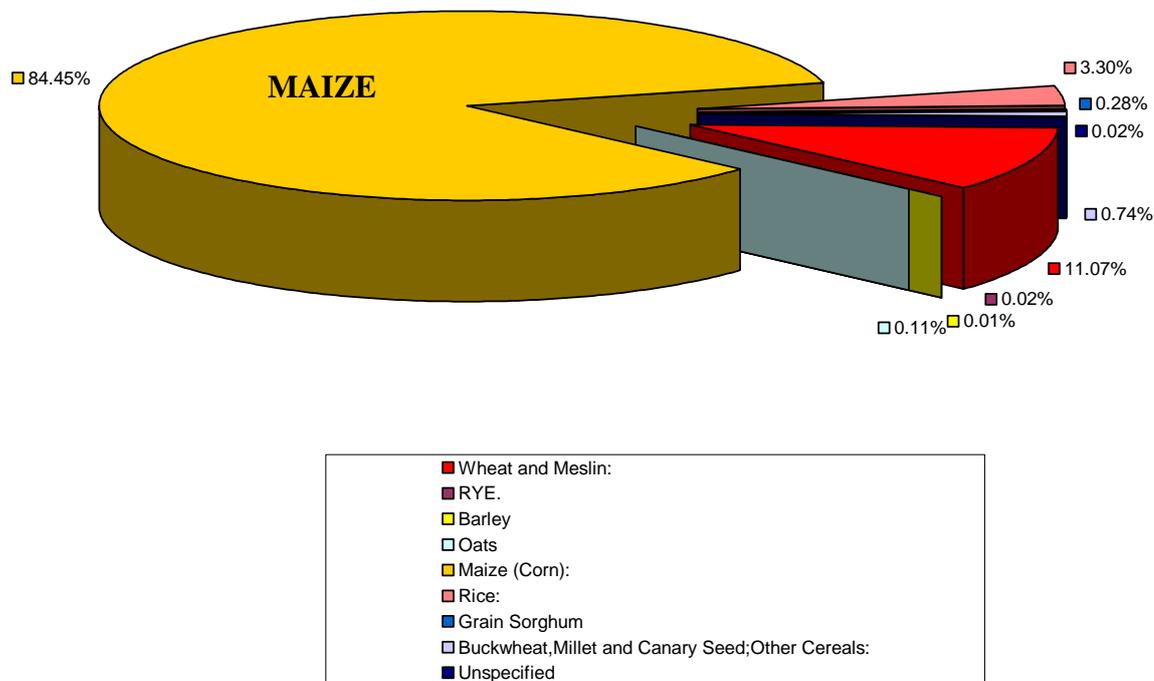
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<sup>66</sup> De Swardt, C., 2003. Unraveling Chronic Poverty in South Africa: Food for Thought. Conference Paper, chronic Poverty and Research Center, University of Manchester, United Kingdom.

<sup>67</sup> Watkinson, E., Makgetla, N., 2002. South Africa's Food Security Crisis. National Labour & Economic Development Institute (NALEDI), Pretoria, South Africa.

<sup>68</sup> Business Day, 2005. Foreign Wheat Entering South Africa Threatens Local Producers. Trade Law Centre for South Africa, Stellenbosch, South Africa.

<sup>69</sup> South African Reserve Bank (SARB), 2005 and 2006. Quarterly Bulletin, Pretoria, South Africa.



**Figure A-2.1: Contribution of Maize Grain to Total Cereal Export Values: 1999 to 2005**

## B. SOUTH AFRICA’S CURRENT POLICY ENVIRONMENT

In order to achieve the sector-level development goals of creating a food-secure, open and market-orientated economy which redresses the injustices of the Apartheid era, both domestic and trade policy interventions within the maize industry have undergone extensive reform. The resultant set of policy interventions affecting the grain sector have successfully managed to achieve the goal of a market-orientated system, while making significant strides in achieving a more open grain sector in term of Black Economic Empowerment. However, despite an extensive reform process the grain industry is unable to compete to its full potential within the global market given the existence of trade distorting policies.

One method of complying with the goal of a market-oriented agricultural sector was to reduce government fiscal support. This was achieved by removal of direct government subsidies to the sector and reducing the tax concession available to commercial producers.

Table A-2.1 below lists the direct agricultural subsidies paid out to the maize sub-sectors. From this table it is clear that most, if not all direct subsidies paid out were removed or reduced by the early 1990's. It was in the 1991/92 production season that maize farmers received a final direct subsidy in the form of a drought relief payment.

**Table A-2.1: Average Agricultural Subsidies, 1980 to 2000**  
(Millions of ZAR)<sup>70</sup>

Commodity	Description	1980s	1990s	2000s
Maize	Stabilization of maize price	1443.9	692.5	0
	Rail rates: maize and maize products	0	0	0
	Handling/Storage of maize	0	0	0

In the maize sub-sector, all non-tariff measures applied were abolished in favour of tariff protection based on a tariff band formula which delivers a tariff only when world prices fall below a reference price set at a level of US \$110/ton based on free-on-board United States Gulf ports. Table A-2.2 below summarizes the existing tariff sub-heading and rate of duty for maize and maize products.

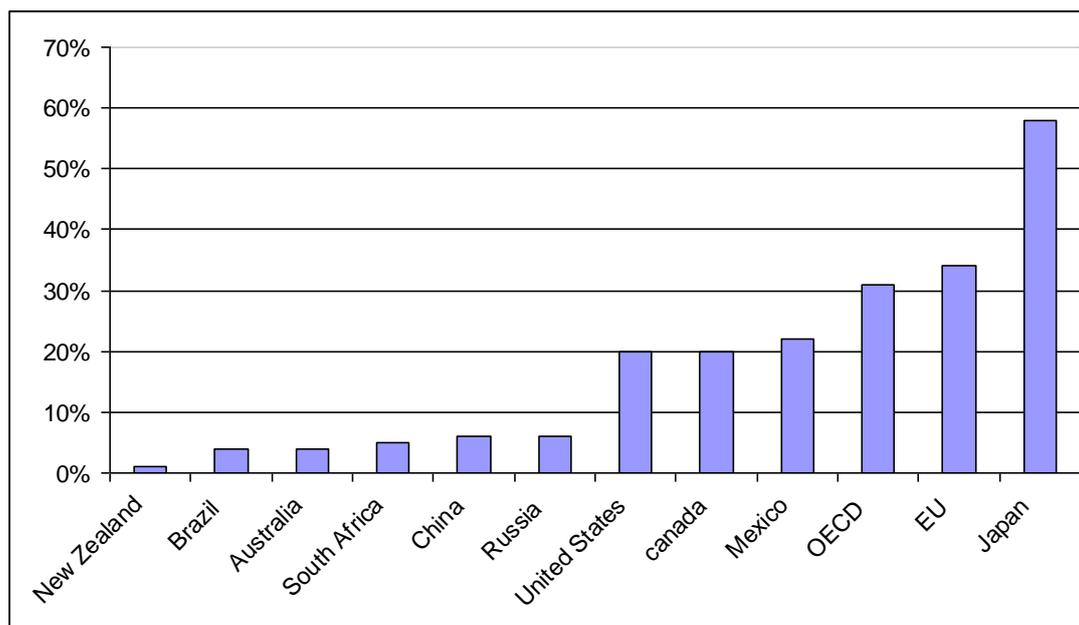
**Table A-2.2: Current Tariff Position for Maize<sup>71</sup>**

Tariff Heading	Sub-heading	Article Description	Rates of Duty
			General
10.05		<b>Maize (Corn):</b>	
	1005.10	Seed	Free
	1005.90	Other	Free
11.02		<b>Cereal Flours (excluding wheat or meslin)</b>	
	1102.20	Maize (corn) flour	Free

<sup>70</sup> Kirsten, J., Edwards, L., and Vink, N., (2006). Distortions to Agricultural Incentives in South Africa. World Bank Agricultural Distortions Research Project Working Paper.

<sup>71</sup> International Trade Administration Commission of South Africa, 2007. "Report No. 235:

Overall, a strong indicator of the extent to which the reform policies have impacted the agricultural sector is a declining level of Producer Support Estimates (PSE) since 1994, relative to other countries. The Organization for Economic Co-operation and Development (OECD) estimates show that between 2000 and 2003, South Africa's PSE was approximately 5 percent, which is well below the 31 percent average for OECD countries<sup>72</sup> and 20 percent for the United States.



**Figure A-2.2: PSE by country, 2000 – 2003 average<sup>72</sup>**

In terms of maize, between 2000 and 2003, the PSE was 7.6 percent<sup>73</sup>. This measure indicates a moderate degree of policy intervention at the producer level within this industry.

### **C. SOUTH AFRICA AND THE UNITED STATES SUBSIDY PROGRAM**

Despite the growing trend towards trade liberalization, many developed economies continue to maintain some degree of protectionist measures. Basic economic

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Review of the customs tariff dispensation on maize, maize flour and downstream products thereof". ITAC, Pretoria

<sup>72</sup> Organization for Economic Co-operation and Development (OECD), 2006. African Economic Outlook 2005-2006. [www.oecd.org/dev/publications/africanoutlook](http://www.oecd.org/dev/publications/africanoutlook), Paris, France.

<sup>73</sup> It should be noted, that when calculating the Direct Rate of Assistance (DRA), which accounts for the impact of input price distortions as well as generally applied taxes, this measure indicates a slight tax on maize sub-sector. For instance, between 1999 and 2003, the annual average DRA estimate was - 4.4 for the maize sub-sector (Kirsten et. al., 2006 – footnote 68).

theory dictates that countries, engaged in international trade without barriers, can realize mutual benefits in terms of positive net welfare gains. However, many OECD countries, and the United States in particular, opt for trade protection policies in order to support their domestic prices, particularly within their agricultural sectors. The objectives of these policies are to hold domestic prices above world prices, decrease consumption, and raise United States exports which will ultimately depress world prices.

**In term of regional food security, South Africa is the most consistent, and for most years, the only significant exporter of maize into the Southern African Region.** For the SADC region, particularly during periods of drought, the South African grain market serves as an important source for maize grain and meal. For instance, during the periods of drought caused by the El Nino effect within the region (1991/92; 1997/98, and 1998/99 marketing years), South Africa's percentage share of total maize grain and meal exported to the SADC region ranged from 48 percent in 1992, to 90 percent in 1998.

By way of example, the World Food Programme's (WFP) operations in South Africa are substantial. WFP purchases are relatively frequent at a total of 453 transactions over the four years between 2001 and 2004, or almost 10 transactions per month. These have involved almost 700 000 metric tons of food aid, valued at some \$134m (\$33.5m per year), or close to R1bn (R250m per year)<sup>74</sup>.

Therefore, given its position within the regional market, any surplus dumping or export subsidization in the form of non-essential food aid into the region will have a direct effect on South Africa's access to markets within the region.

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<sup>74</sup> *Food Aid Procurement in South Africa: An analytical review of WFP activities*, Vink *et al* 2005 (unpublished paper) - A report submitted to the Economic Analysis Unit (PSPE) in the Strategy, Policy and Program Support Division (PSP) of the World Food Program.

South Africa contends that like Canada and Brazil, its benefits under the covered agreements have been nullified or impaired<sup>75</sup>. In identifying what the essence of this nullification and impairment represents South Africa contends that it has been denied the position in the world markets for agricultural commodities that it expected based upon the United States undertakings to limit their levels of Total Aggregate Measure of Support to the levels bound in the schedule of commitments, for which the United States has secured a myriad of negotiated benefits encompassed in the single undertaking embodying the results of the Uruguay Round of multilateral trade negotiations. In this regard South Africa retains a particular trade interest in the corn (maize) market<sup>76</sup>. South Africa contends that the following factors, inter alia, represent the underlying nature of the nullification of expected returns from the maize market:

In the first instance, the United States dominates the world maize market by its own admission. According to the USDA's Economic Research Service (ERS)<sup>77</sup>:

"The United States dominates world corn trade, ..... and the rest of the world must adjust to prevailing United States prices. This makes world corn trade and prices very dependent on weather in the United States corn belt. ....Argentina, the second-largest corn exporter in most years, is in the Southern Hemisphere. Farmers there plant their corn after the size of the United States crop is known, providing a quick, market-oriented supply response to short U.S. crops..... Several countries including Brazil, Ukraine, Romania, and **South Africa**—have had significant corn exports when crops were large or international prices attractive." [Emphasis and omission added].

The United States accounts for 41 percent of the world production of maize and more than 60 percent of world exports. The following graphical representation

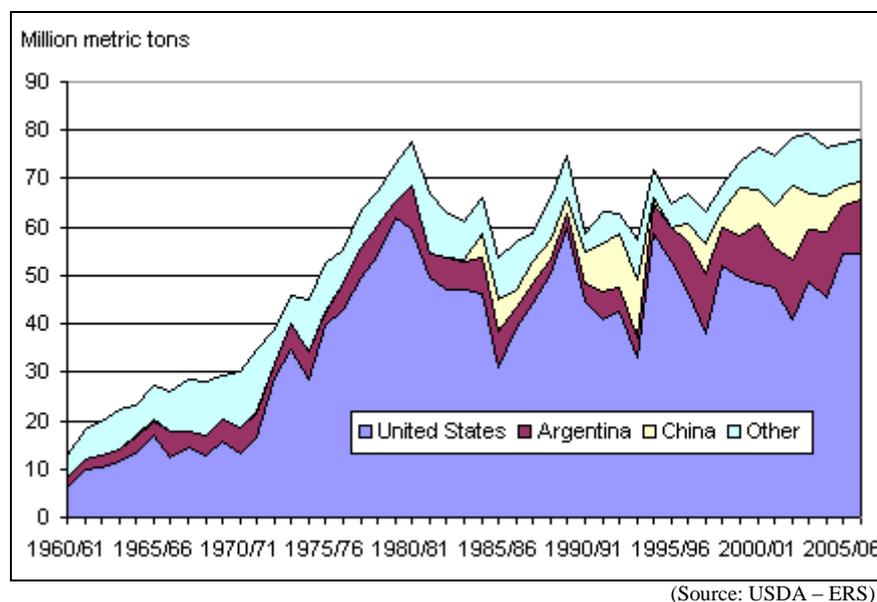
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<sup>75</sup> Brazil see WT/DS365/13 at paragraph 3 'These violations nullify or impair the benefits accruing to Brazil under this agreement'. Canada see WT/DS/357/12 (un-paragraphed) 'These violations nullify or impair the benefits accruing to Canada under the Agreement on Agriculture'.

<sup>76</sup> In this regard South Africa notes that the title of the Canadian request for the establishment of the panel WT/DS/357/12 is entitled: 'United States – Subsidies and other domestic support for corn and other agricultural commodities'.

<sup>77</sup> See: <http://www.ers.usda.gov/Briefing/Corn/trade.htm> .

visually describes the notion that United States activity dominates the global maize market.

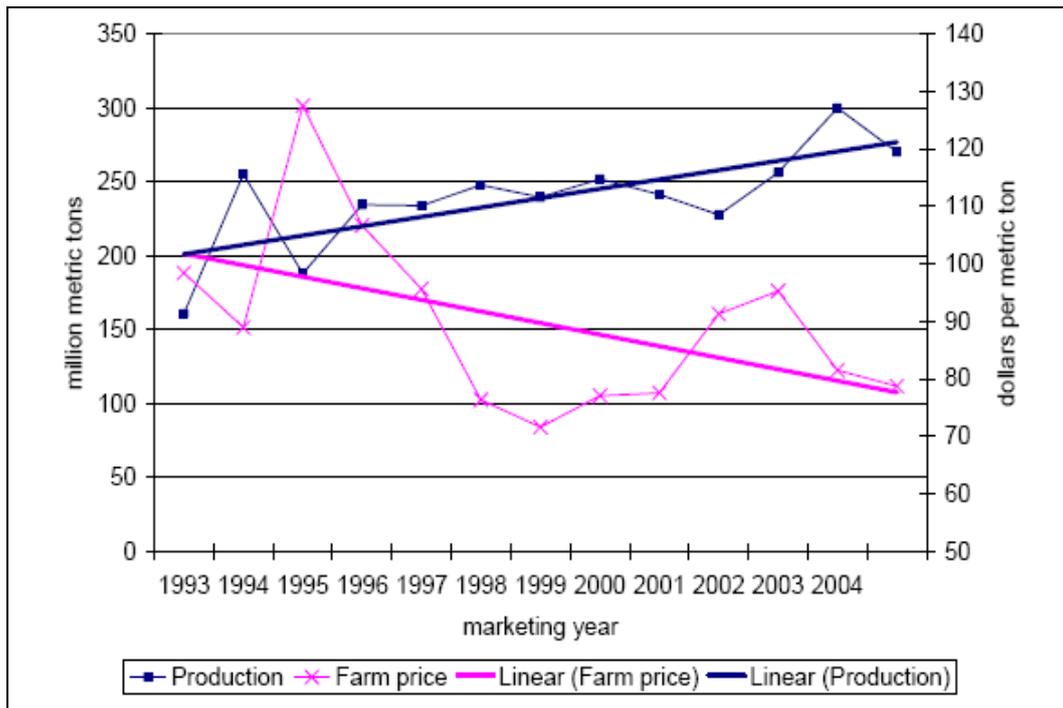


**Figure A-2.3: World Exporters of Maize 1960 - 2006**

While enjoying this self recognised dominant position in the world market for maize, United States subsidy programmes ensure certain predetermined returns independent of world market returns. It is for this reason that South Africa has a legitimate expectation that the United States remains within the TAMS curtailment levels that it committed to during the Uruguay Round. An Oxfam study<sup>78</sup> makes a compelling point in this regard, showing that United States maize production trends behave exactly opposite to what world maize price trends would suggest. The United States increases production as prices fall, whereas the rational economic response to declining prices is declining production.

This is a self sustaining suppression mechanism, for the lower the market price is suppressed by the subsidies, the greater the subsidy that is needed to meet the predetermined price-floor. The legislative mechanisms and budgetary outlays from the United States Treasury have a temporal coincidence to the market effects observed. The graphical representation is as follows:

<sup>78</sup> 'Truth or Consequences: Why the EU and the USA Must Reform Their Subsidies, Or Pay the Price' Oxfam Briefing Paper 81. Oxfam International, November 2005.



(Source: Oxfam based on USDA figures)

**Figure A-2.4: United States Corn Price and Market Signal Trends**

In the case of corn (maize) in the absence of subsidies United States maize farmers would produce maize at a loss i.e. in the face of unencumbered market conditions they would cease production. The United States would move from the world’s largest maize exporter to being a net importer of maize.

The United States agricultural economics doyen, Professor Daniel Sumner, makes the following observations based on recent United States maize crop years<sup>79</sup>:

‘The fact remains that: price contingent subsidies alone for corn, wheat, and rice are still sizable relative to the total value of production. To put matters in perspective price-contingent subsidies for cotton during 2004–06 ranged from about 12 percent to 64 percent of production. By way of comparison, in 2006 price-contingent subsidies for corn will amount to about 33 percent of production, similar subsidies for wheat will amount to about 29 percent of production, and those for rice will amount to about 42 percent of production. In other words, the magnitude of price-contingent subsidies for these crops

<sup>79</sup> Sumner DA, ‘Boxed in: Conflicts between U.S. farm policies and WTO obligations’ The CATO Institute December 2005 at page 19.

is comparable to that of the subsidies found to cause significant price suppression in the cotton case.’

Professor Sumner<sup>80</sup> concludes that United States subsidies depress world maize prices by 9 percent to 10 percent. This in turn causes downward pressure on domestic maize prices within South Africa since the South African maize industry is integrated with world markets.

#### **D. EMPIRICAL EVIDENCE**

**In order to obtain an indicative sense of the nullification and impairment experienced by South Africa, South Africa has determined the impact of United States subsidies on the South African maize industry. A world price shock (increase of 10 percent) was introduced in the BFAP<sup>81</sup> sector model to measure the difference in the revenue earned by the industry over the period under review by the Panel assuming the removal of U.S. maize subsidies. This quantification was done in order to indicate why it is of concern to South Africa that the United States remains within its agreed limits in providing trade distorting domestic support. The result indicted a loss of \$600 million (R4.4 billion) to the South African maize industry.**

The BFAP model is a regime switching partial equilibrium model for 26 commodities in the grain, livestock, dairy and horticultural industries. The incorporation of features of regime switching in a multi-sector commodity level model ensures that the model has the ability to capture salient features of the South African market and therefore is able to produce more reliable projections of the evolution of the sector under alternative shocks.

The model switches between various techniques of model closure in order to simulate the most realistic formation of equilibrium prices under different market

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<sup>80</sup> Sumner DA, ‘Boxed in: Conflicts between U.S. farm policies and WTO obligations’ The CATO Institute December 2005 at page 19.

regimes. It uses a different set of elasticities as the South Africa maize market switches between import parity, export parity and autarky regimes.

**Important to note that contrary to economic theory, some level of integration exists between domestic and world markets when domestic markets are trading under, what can be described as, near-autarky<sup>82</sup>. Therefore, the depression of world maize prices due to United States subsidies has an effect on the South Africa maize industry under all market regimes.**

Table A-2.4 summarises the impact of a 10 percent increase in parity prices on the domestic prices of white and yellow maize under various trade regimes in the BFAP model. Important to note is that table A-2.4 only represents the static shocks under each of the regimes and not the dynamic shocks of a typical multi-commodity model. The dynamic shocks are presented in tables A-2.9, A-2.10 and A-2.11, to follow.

**Table A-2.4: Price transmission elasticities under alternative market regimes**

	Trade Regimes		
	Near-Autarky	Import parity	Export parity
<b>White maize</b>	6.50%	10.10%	13.40%
<b>Yellow maize</b>	3.40%	9.80%	10.30%

Results show that there exists a higher level of integration between domestic and world maize markets under the import/ export parity regimes than under near-autarky. This clearly illustrates how a shift in equilibrium pricing conditions changes the correlation between domestic and world prices and, therefore, produces different impact multipliers in response to a 10 percent shift in the parity price generated under the various trade regimes. In the case of the white maize producer price an impact multiplier of 6.5 percent was simulated under near-autarky compared to an impact multiplier of 10.1 percent and 13.4 percent simulated for import and export parity; respectively. Similar estimates were calculated for yellow maize.

Important to note is that there is a significant difference between the movement of parity prices and world prices in the sense that a number of logistical realities and exchange rate movements have to be taken into consideration when one moves

<sup>81</sup> Bureau for Food and Agricultural Policy (BFAP) is housed at the Department of Agricultural Economics at the Universities of Pretoria and Stellenbosch and the Department of Agriculture Western Cape.

from a world price shock to a parity price shock. For the purpose of this analyses, the world price (United States no 2 yellow maize price, FOB gulf) is increased by 10 percent. The model incorporates this 10 percent increase in the world price in a parity price calculation and then feeds the higher parity prices to establish new market equilibrium in the white and yellow maize markets.

**In order to provide an accurate estimate of the impact of United States subsidies on the South Africa maize industry, the model automatically selects the appropriate market regimes for the period under review based on the level of domestic prices relative to import and export parity prices. The various market regimes for the relevant production seasons can be summarized as follows:**

**Table A-2.5: The South Africa Maize Market Parity Regimes**

Maize	1999	2000	2001	2002	2003	2004	2005
White	Import	Export	Autarky	Import	Autarky	Autarky	Export
Yellow	Import	Autarky	Import	Import	Import	Import	Export

Apart from market integration and price transmission, supply and demand response parameters also play a decisive role in determining external price shocks on the local market place. Table A-2.6 presents a supply elasticity matrix that is generated in the BFAP model. The calculated supply elasticity matrix complies with *a priori* expectations, capturing the own price effect and the substitution between the alternative crops in the form of the cross-price elasticities. White and yellow maize are both relatively price inelastic.

**Table A-2.6: Area harvested own and cross price elasticity matrix**

Area harvested	Price						
	Wh. maize	Yel. maize	Wheat	Sunflower	Sorghum	Soybean	All 6 prices
White maize	<b>0.428</b>	-0.057	-0.043	-0.216	-0.004	0.0083	<b>0.142</b>
Yellow maize	-0.114	<b>0.369</b>	-0.061	-0.028	-0.005	-0.007	<b>0.142</b>
Summer wheat	-0.305	-0.165	<b>0.744</b>	-0.073	-0.014	-0.019	<b>0.142</b>
Winter wheat	-0.006	-0.004	<b>0.160</b>	-0.002	-0.0004	-0.001	<b>0.142</b>
Sunflower	-0.268	-0.145	-0.142	<b>0.747</b>	-0.013	-0.016	<b>0.142</b>
Sorghum	-0.087	-0.047	-0.047	-0.021	<b>0.359</b>	-0.005	<b>0.142</b>

<sup>82</sup> Meyer, F.H, P.Westhoff, J.Binfield and J.F. Kirsten (2006). "Model closure and price formation under switching grain market regimes in South Africa", *Agrekon*, Vol 45, No 4, December 2006.

Soybean	-0.033	-0.018	-0.018	-0.008	-0.002	<b>0.225</b>	<b>0.142</b>
<b>Total area</b>	<b>0.060</b>	<b>0.031</b>	<b>0.031</b>	<b>0.014</b>	<b>0.003</b>	<b>0.003</b>	<b>0.142</b>

Table A-2.7 presents the elasticities for the human consumption response of white maize and yellow maize to a 10 percent increase in domestic prices and table A-2.8 presents the elasticities for the feed grain consumption response to a 10 percent increase in the domestic price.

**Table A-2.7: Human grain consumption own and cross-price elasticity matrix**

<b>Human Consumption</b>	<b>Prices</b>	
	White maize	Yellow maize
White maize	<b>-0.137</b>	0.000
Yellow maize	0.000	<b>-0.173</b>

The system elasticities of human consumption stress the importance of maize as a staple food and is, therefore, price inelastic.

**Table A-2.8: Feed grain consumption cross-price elasticity matrix**

<b>Feed Consumption</b>	<b>Prices</b>	
	White maize	Yellow maize
White maize	<b>-0.95</b>	0.74
Yellow maize	0.15	<b>-0.45</b>

System elasticities of domestic feed consumption comply with *a priori* expectations. The white maize feed market is very small compared to the yellow maize feed market, and therefore the own price elasticities for white maize is high compared to the own price elasticity of yellow maize. Whereas white maize has a very small cross-effect on yellow maize, a shift in the yellow maize price results in a relatively large shift in the white maize feed market.

## II. Empirical Evidence

The estimates that are provided in tables A-2.9, A-2.10, A-2.11 and A-2.12 are the result of applying a 10 percent increase in the world price (United States no. 2

yellow maize price, FOB gulf) to the model with the set of parameter values as presented in tables A-2.4, A-2.6, A-2.7 and A-2.8. The 10 percent increase in the world price is applied to represent a scenario under which the United States does not subsidize its maize farmers. Tables A-2.9 and A-2.10 present the percentage changes from the baseline for each of the categories in the balance sheets of white and yellow maize. The actual figures for each of the industries form the baseline from where the impacts of a scenario are measured and compared.

**Table A-2.9: Effects of U.S. maize subsidies on South African white maize industry**

<b>White Maize</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Area harvested	1.9%	1.5%	4.9%	0.2%	1.8%	-0.5%	0.3%
Yield	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Production	1.9%	1.5%	4.9%	0.2%	1.8%	-0.5%	0.3%
Feed consumption	-1.8%	-8.2%	10.7%	-10.5%	4.0%	0.4%	-2.5%
Human consumption	-1.1%	-1.2%	-0.3%	-1.4%	-0.4%	-0.6%	-0.9%
Domestic use	-1.1%	-2.1%	0.8%	-1.6%	0.2%	-0.4%	-1.1%
Stocks	1.1%	0.2%	12.2%	1.8%	1.8%	-0.7%	-1.9%
Imports	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Exports	21.4%	23.6%	15.3%	13.7%	9.1%	6.3%	5.1%
Domestic price	7.5%	10.1%	1.6%	6.6%	3.1%	5.2%	8.9%

**Table A-2.10: Effects of U.S. maize subsidies on South African yellow maize industry**

<b>Yellow Maize</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
Area harvested	3.4%	3.4%	-2.5%	4.3%	4.7%	5.0%	3.6%
Yield	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Production	3.4%	3.4%	-2.5%	4.3%	4.7%	5.0%	3.6%
Feed consumption	-3.4%	2.6%	-5.7%	-3.4%	-3.7%	-2.2%	-1.5%
Human consumption	-1.5%	0.2%	-1.8%	-2.1%	-1.7%	-1.2%	-1.3%
Domestic use	-2.9%	2.2%	-5.3%	-3.3%	-3.1%	-2.0%	-1.5%
Stocks	-6.8%	3.7%	-11.8%	-4.8%	-5.4%	0.8%	0.6%
Exports	59.6%	0.7%	6.4%	11.3%	34.1%	30.9%	8.1%
Imports	-30.4%	100.0%	-48.1%	-32.4%	-48.8%	-85.4%	-46.0%
Exports	59.6%	0.7%	6.4%	11.3%	34.1%	30.9%	8.1%
Domestic price	7.6%	-1.0%	8.3%	7.9%	7.9%	7.0%	7.8%

The South Africa markets are clearly more affected in the years where the local industries are either trading at import parity (e.g. 1999) or at export parity (e.g. 2005) than when markets are trading at autarky (e.g. WM in 2001 and YM in 2000) where local demand and supply conditions determine the equilibrium prices. **On average a 10 percent increase in the world price of maize would have increased white**

**maize prices by 6.15 percent and yellow maize prices by 6.52 percent.** The increase in prices would have simulated production and as a consequence exports would have grown and imports decreased. The dynamic interaction between white and yellow maize produces interesting results as cross substitution takes place. For example, in 2004 the area under yellow maize expanded as the white maize hectares under production declined.

Table A-2.11 provides the absolute changes in production from the baseline. The baseline for white and yellow maize is the actual quantity produced in each of the production seasons and the scenario represents the quantity that would have been produced if world prices had been 10 percent higher than the actual levels. **The results suggest that South Africa would have increased maize production by 1.29 million tons, over the period under observation. This translates into an annual average increase of 2.8 percent in the production of white and yellow maize.**

**Table A-2.11: Effects of U.S. subsidies on South Africa maize production**

	1999	2000	2001	2002	2003	2004	2005	SUM
White Maize Production	<b>thousand tons</b>							
Baseline	4660.5	6440.5	4639.2	5577.6	6368.0	5805.1	6541.8	
Scenario	4747.0	6534.4	4865.2	5589.0	6483.5	5776.7	6559.7	
Absolute Change	86.6	93.9	226.0	11.4	115.5	-28.5	17.9	<b>522.9</b>
Yellow Maize Production								
Baseline	2641.5	3970.1	3299.5	3734.4	3026.5	3677.8	3947.7	
Scenario	2731.0	4106.6	3216.9	3893.9	3167.7	3863.2	4088.6	
Absolute Change	89.5	136.5	-82.7	159.4	141.2	185.4	140.9	<b>770.2</b>
<b>TOTAL CHANGE</b>	<b>176.1</b>	<b>230.4</b>	<b>143.4</b>	<b>170.8</b>	<b>256.8</b>	<b>156.9</b>	<b>158.8</b>	<b>1293.1</b>

Finally, to determine the impact on total revenue the respective maize prices are multiplied by the tons produced. Not only does the net revenue increase due to increased production, but the actual crop would have been sold at a higher price. Therefore, the revenue calculation is split in two parts; first, the increase in revenue of the existing crop due to higher market prices and second, the increase in total revenue due to increased production at a higher market price. **Over the period 1999 – 2005 (excluding 2003) United States subsidies have cost the South**

**African maize industry \$600 million (R4.4 billion) in terms of unrealized revenue.**

**Table A-2.12: Increase in South African maize industry revenue if U.S. subsidies were abolished**

		<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>
<b>White Maize</b>	R millions	352.84	514.76	374.46	585.81	306.09	236.45	516.77
<b>Yellow Maize</b>	R millions	237.91	70.71	208.83	610.83	411.17	387.51	365.95
<b>Total increase in revenue</b>	<b>R millions</b>	<b>590.75</b>	<b>585.46</b>	<b>583.28</b>	<b>1196.64</b>	<b>717.27</b>	<b>623.96</b>	<b>882.72</b>
<b>Total revenue increase 1999 - 2005 (excluding 2003) = R 4 462 810 000</b>								