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Agricultural Subsidies and the Doha Round: A Historic Breakthrough?

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Agricultural Subsidies and the *Doha Round*:
A Historic Breakthrough?

Case Study Analysis of the WTO Framework Agreement and the Cotton Dispute Settlement on Cotton and Maize Farmers in the United States, Mali and South Africa

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Abstract

The international community witnessed a self-proclaimed ‘historical breakthrough’ at the World Trade Organization (WTO) in late Summer 2004 as a framework was created to eliminate all export subsidies and reduce domestic subsidies and tariffs respectively. While many hailed this step as a major victory for developing nations, others have been cautious on the ‘success’ of this agreement.

This honor thesis evaluates the short- and long-term effects of this framework agreement on the agricultural sectors of the US, South Africa and Mali. The paper first undertakes a historical analysis of what led to this ‘victory’ for developing nations at the WTO. The paper then focuses on two major crops, cotton and maize, in order to explore the impact of the agreement on poverty alleviation, food security and ecological and economic sustainability. Ultimately, the thesis proposes several policy considerations in order to harvest the ‘potential’ historical breakthrough in the long-run.
1. Introduction

In a July 11th, 2003 editorial in the New York Times, the presidents of Mali and Burkina Faso, Toumani Toure and Blaise Compaore, gave a compassionate plea to the US public to end its unfair subsidizing of cotton. With their title “Your farm subsidies are strangling us”, they argued that $3 billion annual farm subsidies in 2001-2002 to “relatively well-off farmers has the unintended but nevertheless real effect of impoverishing some 10 million rural poor people in West and Central Africa” (Toure and Compaore, 2003). They subsequently appealed to the World Trade Organization (WTO), the world’s consensus-based ruling body on free trade, to “apply free trade rules not only to those products that are of interest to the rich and powerful, but also to those products [, cotton,] where poor countries have a proven comparative advantage.” (ibid.) Together with Brazil, Benin and Ivory Coast, they filed a complaint to the WTO claiming that an elimination of US export subsidies would result in increased earnings for African cotton farmers of $250 million annually (Smith and Rice, 2004).

As of early September 2004, the WTO has ruled and affirmed their ruling in its landmark case that US cotton subsidies and export credits, along with EU trade-distorting sugar support, have been found to “contravene WTO rules” of free trade (Oxfam, 2004). Furthermore, the WTO and its 147 members revitalized talks on the Doha Development Agenda focusing on all agricultural subsidies which were doomed for failure through “round-the-clock meetings produc[ed a] historic breakthrough” on August 1st 2004 (WTO News, 2004). The result of this “grueling session”, which included major concession of the US and EU, was a ground-breaking Framework on agriculture and manufactured goods to eliminate all export
subsidies and the limitation of other subsidies, trade-distorting support and tariff barriers (WTO News, 2004).

In order to understand the story of the 'historic breakthrough', as proclaimed by WTO Director-General Supachai Panitchpakdi, I first examine the various power-players and other actors that have shaped this particular outcome. This chronological grounding of the 'historical' breakthrough will be based in an analysis of the power-struggles that went hand-in-hand with the creation of the General Agreements on Tariffs and Trade (GATT) in 1947 and the subsequent birth of the WTO in 1995. This analysis, while by no means exhaustive, presents a succinct overview of the more than fifty years of liberal forces that have attempted to increase free trade based on the widespread wisdoms and lessons learned and applied during the post-Second World War era.

Secondly, I present and analyze the most important and significant agricultural negotiations and treaties, especially the Uruguay Agreement on Agriculture that have emerged during the post- World War II era. It is within this context that I present the July 31st 2004 'breakthrough', the Geneva Accord, or Agricultural Framework Agreement and the recent Cotton Dispute Settlement that was achieved at the WTO in order to assess whether or not they constitute historic breakthroughs.

Third, I provide an in-depth analysis of the agricultural sectors in the United States, Mali and South Africa, focusing on cotton and maize within each economy. This Fourth, I analyze the prospects of the WTO Framework agreement and the Cotton Dispute Settlement for the maize and cotton sectors in the US, Mali and South Africa. This analysis answers the research question on the potential impact on food security for these small- and large-scale farmers. Fifth, this analysis of the
2. Methodology

The primary methodology applied in this paper is the case study method, which investigates three countries on the impact of the WTO Framework agreement. The three countries, United States, South Africa and Mali, were chosen concerning their respective situation on the developmental ladder. While the United States is clearly situated at its top, South Africa has already past the first major steps and Mali is currently in the process of gaining a strong foothold on the ladder's first steps.

In terms of research methods, this case study analysis is built upon an in-depth literature review, which includes extensive analysis of statistical sources and empirical studies. These analyses of statistical data include both the usage of tertiary data sets, such as Environmental Working Group, as well as the evaluation of secondary sets, such as the FAO STATS homepage.

Furthermore, the case study analysis is severely limited by financial and time constraints, as I have been unable to undertake necessary field work within the three countries myself and am indebted to fellow scholars having undertaken this hard and insightful work. Last, but not least, as becomes evident when critiquing this work, its scope is limited by the fast-moving developments and works published and released in this field of international agricultural policies. Consequently, while certain parts will be outdated as more information, such as the modalities by the end of 2005 at the Hong Kong summit, will be released, its findings nevertheless should create an accurate account of current agricultural developmental progress up to this stage.
3. From 19th Century Liberalism to GATT
While the Western hemisphere has been dominated for more than 500 years by mercantilist capitalism and protectionism, it was as early as in the mid 19th century that the leading world power, Great Britain, took a major step towards the freeing of agricultural trade. Facing pressure from its industrial bourgeoisie, it repealed the protectionist Corn Laws in 1846 and opened up their markets in favor of cheaper imported food and increased market-access for industrial products and textiles. As Lekachman, biographer of Keynes, commentates, “the nation had finally settled the issue of free trade versus protection” and its success inspired in the third-quarter other European nations to follow suit (1966). International trade increased dramatically, reaching its highest level during what Polanyi has termed the Hundred Years’ Peace, a balance-of-power system that was based upon a self-regulating market supported by a stable international gold standard. It was during this period that the idea was founded that “trade had become linked with peace”, a doctrine well established in the present context of global capitalism and reminiscent of Clintonian policies (Polanyi, 1944, p.3ff).

With the unraveling of the gold standard and the subsequent breakdown resulting in World War I, “most leading capitalist countries reverted to mercantilist-type protectionism” (Peet, 2003, p.147). These sentiments were especially well-founded in the 1930s during the periods of the Great Depression, in which countries resorted to unilateral tariff increases given the unstable and volatile international trade environment and the lack of exchange rate stability.

Having reached the ultimate climax of protectionism in the Second World War, countries were eager to establish multilateral trade organizations that would
reconnect formerly dislocated war-nations. In addition to the International Monetary Fund (IMF) and the World Bank (WB), an International Trade Organization (ITO) was proposed in order to “oversee the operation of a multilateral code of trade conduct” (Ingco and Nash, 2004, p.25). However, this code of trade conduct was contingent upon the United Nations’ (UN) approval of multilateral treaties, which as Peet proclaims, was “a large fly in the international ointment” from a US perspective (2003, p. 148). As US control of the UN was limited, the US Congress subsequently rejected in 1948 the Charter of the International Trade Organization, fearing its newly gained hegemonic status would be undermined by a communist trade scheme. As a matter of fact, the ability for the UN to impose sanctions on the US in case of non-compliance would have involved “a sacrifice of sovereignty unprecedented in the history of [the US]” (Loree qtd. in Peet, 2003, p.149).

It is within this context that the 23 post-World War II countries¹ involved in the negotiations consequently resorted back to the earlier agreed on General Agreement on Tariffs and Trade (GATT) in October 1947 in Geneva. While lacking the institutional capacity and a strong enforcement mechanism of the ITO, its main features, “limited mandate, qualified legal obligations, rudimentary dispute settlement mechanism, improvised institutional arrangement in Geneva, and unsatisfactory arrangements for agricultural trade”, became the foundation of more than forty years of trade liberalization (Ingco and Nash, 2004, p.25). As Jagdish Bhagwati has argued, “the GATT trading system has achieved unprecedented trade expansion and world prosperity” (Bhagwati qtd. in Mandle, 2003).

¹ These founding nations were: Australia, Belgium, Brazil, Burma, Canada, Ceylon, Chile, China, Cuba, Czechoslovakia, France, India, Lebanon, Luxembourg, Netherlands, New Zealand, Norway, Pakistan, Southern Rhodesia, Syria, South Africa, United Kingdom and the United States. (http://www.wto.org/english/thewto_e/minist_e/min96_e/chrono.htm)
The initial rounds of multilateral trade talks were a great success. While ignoring the larger issues of subsidies and import licensing, by 1950, the third GATT round resulted in 8700 tariff concessions, which amounted to a 25% cut of the 1948 tariff levels ("Timeline," BBC News, 2004). These results were based upon the principles of "liberalization, equal market access, reciprocity, non-discrimination and transparency" (Peet, 2003, p. 150). One of the most important arrangements was the 'non-discrimination' principle, which created the *most favored nation* (MFN) status that claimed a universal application of tariff reductions or increases to all signatory countries, so that every nation receives the 'same' treatment as the 'most favored' nation (World Bank, 2002, p. 197ff). While these and subsequent tariff cuts, such as during the Kennedy Round in 1963-67, resulted in significant reductions worth approximately around $50 billion dollars of world trade, the agricultural sector largely remained a taboo ("Timeline," BBC News, 2004).
4. Breaking a *Taboo*: The Agricultural Sector

The reasoning behind the lack of liberalization in the agricultural sector prior to 1980s has been attributed largely to the political, social and economical context of the post-War period. Politically, entering the Cold War era and having witnessed the deadliest wars of mankind, countries retreated to a practice of self-sufficient agriculture as a ‘security’ concern. Consequently, while manufactured goods covered under the GATT were freely traded, agricultural goods were still heavily protected and internally supported. This action was socially supported by the widespread experiences of food stamps and shortages during the interwar years and consequently food security and food sovereignty2 received a very high priority among policy makers (Ingco and Nash, 2004, p.25).

In terms of political economic reasoning, agricultural trade was explicitly excluded, as demanded by the US, from consideration in the GATT, as stated in Article XI:2c on import and Article XVI:3 on export exceptions. These articles allowed for using nontariff border measures and agricultural export subsidies to exist “provided they were not used to gain ‘more than an equitable share of the world trade’” (ibid., p.25).

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2 The term *food sovereignty* was coined first by members of *Via Campesina*, an international coalition of peasant farm groups who raised of awareness for the adverse consequences of economic globalization at the World Food Summit +5 in Rome in 2002. "Food sovereignty emphasizes the right of each nation to protect and regulate domestic agricultural production and trade to achieve sustainability, guarantee a livelihood for farmers, and assure its citizens are fed. Food sovereignty does not negate trade, states *Via Campesina*; “it promotes the formulation of trade policies and practices that serve the rights of peoples to safe, healthy and ecologically sustainable production.” (http://www.ncrlc.com/food_sovereignty.html)
On a broader scale, protectionist policies were rising as developed nations increasingly focused on creating a stable export-focused agricultural sector. As a matter of fact, the European Economic Community (EEC) devised the now famous protectionist and trade-distorting Common Agricultural Policy (CAP) in 1958 (ibid., p.25). Its counterpart, the US and its agricultural industry on the other hand, greatly benefited from increased demand in a post-war Europe in the process of modernization and reconstruction. Supportive of domestic production conditions, a major policy shift occurred during the 1970s in the US with the introduction of the 1973 Farm Bill. This bill, which similar to its successors was highly vested by powerful agro-industry lobbyists, “removed production constraints on American farmers and encourage commercial exports, [...] fundamentally alter[ing] the relation of American agriculture to the world economy” (McMichael, 1998, p.3). In summary, given the increasing importance of international development, such as food aid, and the chorological limited, yet powerful reach of the Green Revolution, the 1970s was a period characterized by vast global demand and an increase in yield and ‘green production’ (Ledermann, 2003).

However, with vast increases in production output, the global markets in the 1980s proved to be unable to sustain this demand as overproduction occurred and prices for agricultural goods collapsed, putting great strain on the feasibility of protectionist agricultural policies (Ingco and Nash, 2004, p.26). This increased stress on farmers’ incomes occurred simultaneously with a vast increase of the numbers of nations having joined the GATT and the increasing importance of developing nations as food import markets. As McMichael points out, while the developing nations only accounted for ten % of all wheat imports, this figure increased to 57 % by 1980, accounting for vast market-opportunities that were ‘to be explored’ by the
industrialized First World (1998, p.3). Thus, by the 1980s, the agricultural world market "became a battlefield in which countries fought with export subsidies [and other methods] for market shares" (Rieger qtd. in Rieger and Leibfried, 2004, p.88).

It was within this context of rising agricultural production, toughening international competition and the increasing interests of industrialized countries to seek export markets that the GATT trade ministers, under the leadership of the United States, launched the Uruguay Round, the "most ambitious and far-reaching trade round so far" ("Trade," BBC News, 2004).
5. Setting the Stage: The Uruguay Round

The Uruguay Round, which was named after Punta del Este, Uruguay where the initial meeting took place, was established in 1986 and lasted until its successful conclusion in Marrakesh in 1994, which marked the establishing of the WTO as predecessor to the GATT and created an enforcement arm. While characterized by failure and upsets, such as the walkout by delegations of agricultural exporting countries in 1990 in Brussels, its grandest achievement, the Uruguay Round Agreement on Agriculture (URAA), has carried on its influence as the founding document far into the post-Uruguay, WTO setting. As Richard Peet states, “the Uruguay Round [...] represented not a swan song but a phoenix for international trade agreements” (2003, p.153).

Accompanied with major new trade agreements, such as the Agreement on Textiles and Clothing, this multilateral trade round was marked by the successful integration of agriculture into the free-trade complex. Furthermore, the Uruguay Round has been successful in “brin[ing] the United States back into the fold of GATT rules and procedures” after it has largely frustrated its trading partners with erosive use of unilateral trade retaliation, justified as ‘leveling the playing field’ (Tussie and Glover, 1993, p.22-23).

While major agreements regulating trade, such as the well-critiqued Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS), the Trade-related Investment Measures (TRIMS) and the General Agreement on Trade in Services (GATS), have often taken center-stage (Shiva, 2000; Wade, 2003), I
intend to focus in the following section on the major achievements in reducing tariffs and subsidies provided in the 21 articles and the annexes of the URRAA.

As mentioned earlier, agricultural products were largely exempt from previous tariff negotiations. Consequently, countries often applied tariffs and non-tariff measures (NTMs), such as "quotas, import bans and embargoes" to regulate and protect their vulnerable domestic agricultural sector (Ingco and Nash, 2004, p.27).

5.1 URRA: Tariff Reductions

The URRA laid the groundwork for several rules on market access, export subsidies and domestic support levels in the agricultural sector. The first step undertaken by negotiators was an agreement to align agricultural trade rules with those applying to trade in manufacturing goods. In addition, they also called for increased transparency through a process called ‘tariffication’ (ibid., p.28). Under Article 4, Market Access, tariffication involved the merging of NTMs into tariffs, through a calculation of the difference between domestic and world market price. Upholding the most-favored nation and non-discriminatory principle, developed countries then subsequently devoted themselves to a reduction in tariff equivalents by an “average of 36% and a minimum of 15% over six years and developing countries by an average of 20% and a minimum of 10% over 10 years” (ibid., p.28). Furthermore, tariff bindings were put in place meaning that nations, having lowered their tariffs, "agreed to hold the tariffs at the new lower level" (Mandle, 2003, p.12).

However this commitment to agricultural tariff reductions contained two major flaws. First, the cuts were not weighted for the volume of trade, meaning that it

3 NTMs (Non-tariff measures) are policy or practices that alters the conditions of international trade besides tariffs. Most prominently, used interchangeably with tariff barriers, these include import and export quotas.
heavily favored larger agricultural export nations. Second, and even more gravely, as Ingco and Nash accurately point out, "the reduction commitments were based on 'average cuts' rather than cuts in the average tariff", resulting in the strange situation that if a tariff of 1% was cut to 0.5%, a 50% reduction had taken place (2004, p.28). Subsequently, the tariff cuts agreement was flawed in that it allowed a nation to cut lower, lesser-important tariffs while protecting their most viable crops with minimum-tariff cuts.

This issue was further aggravated with the creation of Special Safeguard (SSG) Provisions in Article 5, which reserved the right to any WTO member who undertook tariffication, to declare additional tariffs if import prices fluctuate heavily. As an example, a price-based SSG provision allows for the tariff to rise in case the cost of the imported commodity falls. Consequently, the SSG tariff would act as a compensatory mechanism "for the fixed tariff and reduces or eliminates the effect of falling prices on the domestic market" (ibid., p.30). These safeguard mechanisms were further supported by provisions which allowed for limitations and exceptions to the earlier mentioned bound tariffs.

However, while certain loopholes clearly favored the developed world, under Article 15 of the URAA, special and differential treatment (S&D) has been put in place to allow an expansion of 'development space' to developing nations' agricultural sector. Being conscious of the particular needs and conditions of developing countries in the implementation of market access commitments, negotiators accepted that "least-developed countries did not have to make any

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4 As it should become obvious to the reader, an evaluation of the prospects of an agreement on trade involves a lawyer-like analysis, trying to get past vague and imprecise language.
5 For example, Article XX of the GATT 1994 allows for import restrictions based upon a variety of concerns, including the "protection of human, animal, or plant life for health, reasons of public morals and protection of national treasures" (Ingco and Nash, 2004., p. 29).
reduction commitments on tariffs, domestic support, or export competition" (ibid., p.35). Furthermore, reduction commitment in export and domestic subsidies for developing countries were fairly lower. However due to their general monetary constraints in providing subsidies in the first place, they were of little importance and effect.

5.2 URAA: Domestic Support

While tariff reductions have been a key component, the most contentious and ambitious point of argument at the negotiations focused on the domestic support farmers received. Covered under Article 6, reduction commitments for subsidies were singled out as a major goal towards reducing trade distortion, as it was generally perceived that domestic support of agricultural production has led in the past to overproduction, resulting in decoupling agricultural production from the dynamics of supply and demand of the market. This overproduction in turn has led to excess stockpiles of commodities that were 'looking' for a purchaser. In order to create demand, as world market prices were much lower than domestic prices, export subsidies were consequently put in place in addition to the domestic subsidies, in order to sell their goods on the global market.

For this purpose, and to increase visibility, distorting agricultural subsidies were classified into boxes “using the traffic light approach, with red for prohibited subsidies, amber for subsidies that had to slow down, and green for nontrade-distorting subsidies” (ibid., p.31). While negotiators decided to deal with the red box, which covered export subsidies, separately, a new blue box, which figures as a transitional 'box' between the amber and green box, was created and "considered to
be less-trade distorting than market price supports (see Appendix I for overall chart of the boxes and Appendix II for US examples of boxes).

Applying these classifications and delving into the details, Article 6 calls for a reduction in domestic subsidies in the most trade-distorting amber box in excess of de minimis levels of 5% for developed and 10% for developing countries of the total value of agricultural production. Based upon the 1986 – 1988 base periods, developed and developing countries made reduction commitments of 20% by 2000 and 13.3% respectively by 2004 (ibid., p. 31).

An example on how these reductions were calculated is based upon the calculation of the total Aggregate Measurement of Support, as outlined in Article 6, Annex 3 and Annex 4. Analyzing the below example provided for by the WTO (see below), the only product- and non-product specific support measures that were included are the ones in excess of the 5% de minimis threshold of developed country x in year y. Based upon these calculations, a nation x would have had to cut its total AMS by 20% until 2000.

<table>
<thead>
<tr>
<th>Example: Calculation of the current total AMS for</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member X (developed country), year Y</td>
</tr>
</tbody>
</table>

Wheat:
- Intervention price for wheat = $255 per tonne
- Fixed external reference price (world market price) = $110 per tonne
- Domestic production of wheat = 2,000,000 tonnes
- Value of wheat production = $510,000,000
- Wheat AMS (AMS - 1) = ($255–$110) x 2,000,000 tonnes = $290,000,000
  \[\text{de minimis level} = 25,500,000\]

Barley:
- Deficiency payments for barley = $3,000,000
- Value of barley production = $100,000,000
- Barley AMS (AMS - 2) = $3,000,000
  \[\text{de minimis level} = 5,000,000\]
However, due to several exemptions and loopholes mentioned earlier, such as input subsidies provided for low-income, resource poor farmers or measures taken in order to strengthen domestic food security, and the fact that the 1986-1988 base period on which cuts were based was marked by historically high support levels resulted in few actual reductions of domestic subsidies and cuts. While several governments have simply shifted their support levels from the amber to the lesser-distorting blue box, a practice commonly known as “box-shifting”, other countries, such as the US, did not have to undertake any reductions, as “reforms undertaken prior to the negotiations were adequate to fulfill the new rules on reducing domestic support” (ibid., p.36).

5.3 URAA: Export Subsidies

The third major issue was reduction in export subsidies, the former red box. These export reductions, as stated in Article 9.2, “require that members reduce export subsidies by 21 % in volume and 36 % in value over the six-year period from 1995 to 2000” (ibid., p.33). These figures were again spatially differentiated for
developing countries, for which the reduction commitments were “14 % in volume and 24 % in value over a 10-year period from 1995 to 2004” (ibid., p.33).

These exemptions were not universal in application, as developing country members did not have to reduce subsidies that are geared towards “marketing exports of agricultural products [...] and internal transport and freight charges on export shipments [...]” (Article 9.4, WTO, AoA) Furthermore, WTO members agreed to “prohibit the introduction of new export subsidies for agricultural products” in a similar feat of export subsidies binding (Economic Research Service, 2004).

While export subsidies have been reduced since 1995, “high levels of export subsidies remain and continue to distort world markets” (Ingco and Nash, 2004, p.36). While the Agreement’s main achievement has been hailed as to eliminate “all export subsidies for agricultural products over six year for developed countries, ten for less developed countries, with the least-developed countries being exempted”, only little progress has been achieved so far (Peet, 2003, p.153). The EU is still accounting for 90 % of all OECD export subsidies, which have been found most commonly among diary and sugar products as opposed to grains, oilseeds and cotton (Economic Research Service, 2001). [See Appendix III]

In summary, as illustrated in the table below, the Agreement on Agriculture reached at the end of the Uruguay Round resulted in the following required reductions and opened the road for the founding of the WTO and the start of the Doha negotiation Round. It is important to note, that these final details of the AoA were largely “decided bilaterally between the USA and the EC in the now infamous Blair House Accord in 1992” (Jawara and Kwa, 2003, p.26ff). it should come as no surprise then that the US was largely able to ‘fine-tune’ the modalities of the
agreement and established legal loopholes, such as the *Green* and *Blue Boxes* and the earlier mentioned 'box-shifting.' Nevertheless, successful completion of the URAA and the transition from the GATT to the WTO marked an important stepping-stone for the developing nations into the international trade regime and the first major WTO trade round, Doha (Tussie and Lengyel).

### Reduction Commitments in AoA

|---------------------|----------------------------------|----------------------------------|--------------------------
| **Tariffs**         |                                  |                                  |                          |
| Average cut for all agricultural products | 36 %                             | 24 %                             | None                     |
| Minimum cut per product (base period 1986-88) | 15%                              | 10%                              |                          |
| **Domestic support**|                                  |                                  |                          |
| Total agriculture support cut (base period 1986-88) | 20%                              | 13%                              | None                     |
| **Export Subsidies**|                                  |                                  |                          |
| Value of subsidies  | 36 %                             | 24 %                             | None                     |
| Subsidized quantities (base period 1986 – 90) | 21 %                             | 14 %                             |                          |

Source: Economic Research Service, "WTO:...", 2004

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6 The Least Developed Countries, LCDs, are: Angola, Bangladesh, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Democratic Republic of Congo, Djibouti, The Gambia, Guinea, Guinea Bissau, Haiti, Lesotho, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Niger, Rwanda, Senegal, Sierra Leone, Solomon Islands, Tanzania, Togo, Uganda, Zambia (Source: WTO)
6. Entering the Doha Round

After the collapse of the Seattle WTO summit in 1999, the inability to reach consensus on such diverse issues as trade in services, operations of development and liberalization of agriculture painted a dark picture of future trade negotiations. However, while we best remember the more than 30,000 anti-WTO protestors and the police force as the reason for the summit’s failure, Jeffrey J. Schott argues that ultimately, “the WTO meeting fell victim no to protests outside in the streets, but rather to serious substantive disagreements inside the convention center” (2000, p.5). Thus, while a vast majority of countries were eager to “expand the WTO agenda beyond the issues mandated by the Uruguay Round accords”, conflicts of interests existed on how to proceed with them (ibid., p.6).

Given the mandate in Article 20 in the URAA for continued negotiations on agriculture starting in 2000, the potential of these talks was controversial when the WTO launched the broader Doha Round and its Doha Development Agenda in November 2001 in Doha, Qatar. While some regarded this newest trade round launch as a “positive development”, others painted a starkly different picture (Ingco and Nash, 2004, p.37). As Jawara and Kwa point out, developing countries “were bullied and coerced into acquiescing with an ‘agreement’ with which most of them profoundly disagreed. […] all that the developing countries achieved for their strenuous efforts was the label ‘The Doha Development Agenda’ [, a Ministerial declaration on TRIPs and Public Health, and agreement that negotiations on the ‘Singapore issues’ would begin on the basis of ‘explicit consensus’ on the modalities of negotiations at Cancun” (Jawara and Kwa, 2003, p.xv).

6.1 The Failure of Cancun
Meeting in Cancun, this later topic proved to be the most contentious, as the Singapore issues foresaw the expansion of the rights of foreign investors, the establishment of a competition policy, which would regulate cartels and increase competition between local and foreign firms, including for government contracts (Africa Renewal, 2004, p.24). Failing to reach a consensus among its 147 members body again, the Doha Development Round negotiations came to an abrupt halt in Cancun, Mexico, in September 2003 over a series of disagreements concerning the details of the agricultural agreements and the extent of non-agricultural agreements, such as the Singapore issues. Ultimately, it was conference chair, Mexican Foreign Minister Luis Ernest Derbez, who closed the meeting and the conference, resulting in a widespread blame-game of which countries’ delegates were at fault and signs of jubilation and frustration on both sides. These mixed reactions ranged from “civil society representatives [that] broke out in song and dance in the convention centre” to US Trade Representative Robert Zoellick “clearly sulking, [throwing] a tantrum in his final press conference” (Jawara and Kwa, 2003, p.xxi).

While many factors certainly have contributed to the collapse of the trade talks, the common main factor that has been attributed with it is the fact that developing countries were able for a first successful time to maintain their high level of cohesion, such as displayed in their powerful creation of the G20, in face of strong efforts by the US and the EU to “divide and rule” and use “arm-twisting and bullying” in order to achieve their preferred outcomes (Jawara and Kwa, 2003, p.xxxvi ff.; Narlikar and Tussie, 2004, p.947ff). Consequently, while previous efforts to apply development aid and bilateral free trade agreements as sticks and carrots have been
able to coerce developing nations into a less favorable outcome, they have failed to bear fruits as the G20, under the leadership of Brazil and India, still consists presently of 19 members\textsuperscript{7}. As Narlikar and Tussie point out, this historical achievement seems to "suggest that the G20 is a product of almost two decades of learning by developing countries" (ibid., p.948).

6.2 The Threat of the Demise of the WTO

Having failed to reach an agreement in the Doha Round and having fallen behind the timetable, many trade analysts put the WTO's 'constitutional' head on the chopping-block and argued that another failure to resolve the key issue of agriculture could result in the total collapse of the WTO. Given this bleak outlook, intense backroom negotiations developed which involved continued 'green-room' power-political negotiations between the developed and developing agricultural exporters. While "developing country delegates formally registered their disappointment at a missed opportunity", behind closed doors they "were jubilant" (Jawara and Kwa, 2003, p.xxii). This spirit of having achieved a milestone in the process of multilateral negotiations carried on even to previous supporters of developed countries, such as South African Trade Minister Alec Erwin, who stated that "this is the first time we have experienced a situation where, by combining our technical expertise, we can sit as equals at the table. This is a change in the quality of negotiations between developing and developed countries" (Elliot et al., qtd. in Jawara and Kwa, 2003, p.xxiii).

\textsuperscript{7} Members include Argentina, Bolivia, Brazil, Chile, China, Cuba, Egypt, India, Indonesia, Mexico, Nigeria, Pakistan, Paraguay, Philippines, South Africa, Tanzania, Thailand, Venezuela and Zimbabwe. (lxv)

In the night of July 31st, WTO negotiators came out of their closed doors negotiations and announced that a “breakthrough agreement” had been reached that would keep the previously doomed Doha Development Round alive (WTO News, 2004). While the evaluation of its content might be controversial, it is generally agreed that this Geneva Framework Agreement marks a major step towards the continued discussion on trade liberalization in agriculture, as it proposes new and more precise commitments on the three pillars of domestic support, export competition and market access. While it contains hardly any quantifications and it is still a ‘diamond in the rough’, it nevertheless presents itself as a key-document with great interest for further empirical and structural analysis.

In the following sections, I will evaluate the Framework agreements achievements in two steps: First, I evaluate the institutional break that occurred at the meeting as a departure point from previously failed negotiations. Second, I will investigate the Framework’s major achievements and its perceived winners and losers.

7.1 Bypassing the Ministers

First, from an institutional perspective, as Kwa and Bello point out, the meeting marked a significant break from the earlier meetings in the Doha Round which had resulted in a near collapse of the WTO. Because these previous ministerial meetings in Cancun in 2003 and Seattle 1999 had resulted ultimately in stalemate, the General Council meeting of the Summer 2004 established itself as “de facto the supreme institution for decision making” (Bello and Kwa, 2004). As the previous ministerial meeting included NGOs and popular protesters, as well as
increasing media attention, the leading nations came to the realization that trade negotiators, which were largely partisan politicians, were more “determined to stand up for their country’s interests” (ibid.). It was this sense of increased scrutiny and transparency that was attributed with the failure of these negotiations.

Learning from this past backfire, the main negotiators, under the leadership of the FIPS (Five interested Parties), which included the US, EU, Australia, Brazil and India, pushed for a new decision to be made within a smaller gathering of only 40 trade ministers during their July General Council meeting. Moving swiftly and often without giving other countries the chance and needed time for review, they produced shortly after midnight on 1st of August 2004 the Framework agreement, “which Director-General Supachai Panitchpakdi said will greatly enhance members’ chance for successfully completing the important Doha negotiations” (WTO News, 2004).

7.2 ‘Progress’ on Agricultural Liberalization?

This apparent lack of transparency and system of exclusion seems to greatly coincide with the practice of the “Green Room”, which “had traditionally provided a way to expedite consultations” through the inclusion of only a few core countries and thus “underpinning the claims of a ‘democratic deficit’” (Tussie and Lengyel, p.7).

In addition, this process of bypassing other state actors has also included a further inclusion of non-governmental organizations and WTO critics in general. Consequently, strengthening the role of state actors, the WTO has purposefully channeled and filtered any opposition that could occur on a national basis by
accepting only a single voice per nation as a trade representative. As was the case, this ultimately resulted in the silencing of critical voices within the US of the Framework agreement while large agribusiness and lobbying groups have lauded United States Trade Representative (USTR) Zoellick on their positive and close discussions through all processes.

Finally, this process of creating an 'arbitrary' core group is aggravated by the fact that few developing countries hold the resources and expertise necessary to delegate a permanent representative to those meetings. As one is unsure of whether or not they will result in a 'constructive' Framework, they often have to take a gamble on how to allocate their limited time and funding. Confronted with these constraints, many developing countries find it difficult to find a balance between "crafting a consistent proposal with due attention [and] the equally relevant requirements of efficiency and legitimacy" (ibid., p.7). The evaluation of the 'consensus-based' Framework agreement is thus still up in the air, as both analysts and developing nations are trying to ascertain its implications.

The Framework agreements major achievement, building onto the URAA, can be divided into three subsections in a similar fashion as the Agreement on Agriculture during the Uruguay Round: export competition, domestic support and market access. First, export competition has been hailed as the negotiators' greatest achievements in furthering trade liberalization, as "all forms of export subsidies are to be eliminated in parallel", and disciplines on all export measures established, with

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8 As a matter of fact, more than 100 nations were absent during the negotiations of the Framework agreement.
9 It is important to note, as Christian Haeberli points out, that the phasing-out of the complete armory of export competition instruments is more likely to look like a "disarmament treaty:
equivalent effect, "by a credible end date" (Haeberli, 2004, p.4ff). The measures to be eliminated include export credits and insurance programs, trade distorting practices of state trading enterprises, and food aid leading to commercial displacement" (ibid.). While no clear timeline does yet exist, the modalities will result in significant cutbacks and changes in the US, in terms of export credits and food aid. However, because a final date is yet to be determined, French Agriculture Minister Herve Gaymard is on record as stating that it could be “2015 to 2017 before European export subsidies are finally eliminated” (Africa Renewal, 2004, p.3). As a matter of fact, as Christian Haeberli points out, “they finally accepted it only on the understanding that the phase-in of these disciplines would likely last for up to 10 years” (ibid., p.6).

Secondly, while the export competition issue is by no means written in stone, the domestic support pillar is by far more complex both in terms of lack of quantitative data as well as ambiguous definitions. In general, the Framework agreement requires all subsidizing members to “reduce the overall sum of their trade-distortive subsidies”. This reduction will have to occur with a tiered approach, meaning that higher subsidies levels would get cut more than lower. A reduction of at least 20% has been agreed on for the first year of implementation, which should be at the latest December 2005, which has been set as the extended “deadline for concluding the round” (Africa Renewal, 2004). This cut of 20%, as noted by Haeberli, is the same amount as has been achieved “over the whole Uruguay Round

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Indeed, exporters today enjoying governmental support of any kind will not agree to phase those payments out unless they are given sufficient assurances that their competitors will not benefit from support measures with a similar effect.” (Haeberli, 2004, p.1ff)

10 Critique was very vocal in the EU, which has been heavily criticized by its own member states, such as France; and by Canada, which holds state trading agencies

11 These trade supporting subsidies have been defined as Amber Box, Blue Box and de minimis support.
implementation period" and consequently as worthy of being termed a ‘breakthrough’ (Haeberli, 2004, p.7ff).

In terms of the absolute actual results of these cuts, a variety of opinions exist. While Haeberli suggests that they might pose a great challenge to the US, this claim is disputed as calculations with present numbers have shown. Thus, currently the US is spending around 23 billion $ in subsidies annually over the last three years, which is well under the 49 $ billion it would be allowed to use according to agreement calculations (Africa Renewal, 2004). This calculation results on the fact that the “sum of all trade-distorting support will not exceed 80 % of the sum of Final Bound Total AMS plus permitted de minimis plus the Blue Box,” of which the Blue Box level will be the higher amount of a ‘representative period’ so that the base for cut will be higher than the actual blue box usage. Thus, on Blue Box payments, the Framework text provides that such support “will not exceed 5 % of a Member’s average total value of agricultural production during an historical period” (Haeberli, 2004). However, even there exceptions exist, so that members with very high Blue Box levels, such as Norway, would not have to make “a wholly disproportionate cut” (ibid.).

Many critics of this interpretation argue that the effect of the Agricultural Framework Agreement on developed countries is not actual reduction, but simply the earlier mentioned shifting around of payments from box to box, which in case of the US is most likely to occur away from the illegal Amber box towards the Green and Blue boxes. Haeberli however argues that the "gateway from Amber Support (AMS or de minimis) to Blue Box measures is likely to be a narrow one, as the solution of product-specific capping" has been introduced. Overall, “it remains to be seen

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12 Product-specific capping basically refers to the idea that certain maximum levels across the various boxes will be identified for each product so that a simple ‘shifting’ of boxes no longer
whether the additional obligation to reduce support on a product basis will also apply to sensitive products" (ibid.).

The third grand pillar that has been included in the Framework Agreement is market access. Synchronous to the domestic subsidies cuts, a tiered formula will be applied here, meaning that tariffs will be divided into “different bands depending on their respective bound tariff level” (ibid.). While Least Developed Countries would be excluded from any reduction commitments, harmonization would occur in both developing and developed countries, resulting in higher tariffs being cut more than lower ones.

However, these reduction methodologies have yet to be defined, as well as how the bound tariffs are going to be classified. As Haeberli notes, “in order to accommodate the US delegation, capping remains on the table but only as a subject which ‘will be further evaluated’” (ibid.). Countries however are still able to apply the ‘sensitive products’ rule. As stated in Paragraph 31, “members may designate an appropriate number, to be negotiated, of tariff lines to be treated as sensitive” if they don’t undermine “the overall objective of the tiered approach” (WTO in Appendix). While this heavily favors export nations with only a few products, such as the US, as opposed to India, which exports more than 100 different agricultural commodities, developing nations have been granted some extra maneuver room as their products are generally subject to lesser reduction commitments. Furthermore, developing nations also would be able to designate “Special Products” (SP) based on the previously established criteria of food security, livelihood security and rural developmental needs.

is feasible. It is important to note though, that a phalanx of developed nations, e.g. Switzerland, Japan, are opposed to this feature, fearing that this would cut into their high-levels of ‘Green Box’ subsidies.
In summary, thus, the three main pillars under negotiation for further liberalization marks a milestone in the WTO's history and the developing countries struggle towards free and fair trade. However, in every single pillar there exist clear drawbacks towards further liberalization of agricultural trade. For example, while a general increase in export competition superficially appears to be beneficial for the developing nations, it also reduces previously held favorable statuses. Haeberli questions the benefits sub-Saharan African countries will receive from the agreement, as it would "considerably increase" their food bills "without being able to substantially improve their market shares abroad or even at home" due to the eradication of previously favorable tariff preferences in Europe\(^3\) (Haeberli, 2004, p.6). In addition, the breakthrough on market access is questionable as the main modalities and figures still have to be worked out. These detailed figures will essentially determine whether or not the more lenient treatment of sensitive products for example will offset any possible gains in terms of further reductions of tariff. However, as seen in the issue on domestic subsidies with the possibility of box-shifting, it appears that every member country that has the resources available to support its farming constituency will most likely explore all possible ways of continuing to do so. Consequently, while the proximate victors of the agreement might appear to be the developing nations in the short term, the ultimate winners could again be the large industrialized farming nations that have the legal and monetary

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\(^3\) As a matter of fact, these preferential access agreements to the markets of the developed world are one of the reasons "third world remained aloof form the negotiations organized by the GATT." (Mandle, p.14) However, economist Krueger argues that "most analysts believe that, although GSP [Generalized System of Preferences] had some value to developing countries, it was limited to a few countries and a few commodities [and that] it may not have been worth even the diplomatic efforts and other costs to developing countries." (Krueger, 1995, p.40 as quoted in Mandle, p.14)
resources to support their farmers, successfully argue their case at the WTO and benefit from freer markets elsewhere.

7.3 The 'Fifth Wheel': Singapore and Cotton

Further issues that were discussed included, but were not limited to, the Singapore issues and cotton, which were two of the reasons for failure of the Cancun agreement. While the Singapore issues, which consist of a "mixed bag, relating to investment, competition policy, trade facilitation, and transparency" have been largely dropped by the European Union and have been reduced to a simple commitment to take them up in later negotiations, the cotton issue has remained on the table (Bhagwati, 2004). With developing nations pushing for an expedited solution to the currently unstable and unfair market situation, cotton has been specifically integrated into the agreement, receiving special attention in an "ambitious and expeditious manner." Thus a subcommittee for cotton\(^\text{14}\) was established in 18\(^{\text{th}}\) November, 2004.

This subcommittee for cotton was established in the face of a dispute settlement case brought by Brazil and joined by several other countries, including four Central and West African nations, Mali, Burkina Faso, Benin and Chad. As argued by Oxfam, one of the largest international NGOs working in favor of 'fair and free trade' for the developing world context, "agricultural subsidies in the United States are at the heart of a deep crisis in the world cotton markets" (Oxfam, 2002, p. 2). It is challenging that with cotton prices, adjusted for inflation, having fallen to their lowest level since 1930s due to overproduction, more than 10 million producers that depend "directly on cotton production" have been pushed to the brink of starvation.

\(^{14}\) As of March 22\(^{\text{nd}},\) 2005, the Sub-Committee on Cotton does holds its own site at the WTO which will be continuously updated with releases of progresses. For more information, feel free to consult http://www.wto.org/english/tratop_e/agric_e/cotton_subcommittee_e.htm
and poverty (ibid., p.2). Arguing that Central and West African nations enjoy a ‘comparative advantage’ in the production of cotton, which is as much as three times lower than in the US in terms of production cost, US cotton subsidies are unfairly inflating the market, as they ‘kick in’ when prices are their lowest. Consequently, based upon a study undertaken by the International Cotton Advisory Committee (ICAC) which showed that the withdrawal of US cotton subsidies “would raise cotton prices by 11 cents per pound, or by 26 %”, Oxfam argues that the region lost more than 300 million dollars and demanded compensatory payments (ibid., p.1ff).

However, these compensatory payments have not been granted. As Jagdish Bhagwati argues, these demands were “simply unrealistic and inappropriate” as compensating others for the effects of their own policies would set a precedent which would open up a “Pandora’s Box” (2004). Consequently, the African states agreed to the US proposal of establishing a special subcommittee, in a quid-pro-quo deal for eliminating their demand of compensation. Nevertheless, in September, 2004, following the Agricultural Framework Agreement, the WTO Dispute Settlement Body upheld an earlier preliminary ruling that the “US had paid illegal subsides worth 3.2 billion dollars” to its cotton farmers (“Brazil,” BBC News, 2004). While the US has appealed the dispute ruling in October 2004, claiming that all of its subsidies are legal within the present system, Phil Bloomer from Oxfam International remarked the most recent ruling as “a triumph for developing countries” (ibid.).

Consequently, even the cotton dispute, while largely pointing in favor of Brazil, has not yet been ‘won’ and given the US mastery of box-shifting of subsidies, it could come as no surprise that by the end of the ruling, it will have again relocated
8. Outlook

Granted the complexities of the WTO systems and its agreements, it is difficult without further investigation and actual case studies to provide for an accurate and sound outlook on the winners and losers of the agreements. Nevertheless, I have been able to show the degree to which power-politics have shaped the particular outcomes in agricultural negotiations over a historical period of time. However, as the recent developments with the rise of the G20 coalition has shown, the past, quasi-hegemonic power-imbalance in favor of the heavy-hitters US and EU has slowly, even if only momentarily, shifted towards a 'truer consensus-based system' of the WTO.

However, this statement again needs to be differentiated as seen in the recent Framework agreement, which has been pushed for by the US, and heavily favors large food export nations that are able to effectively use the WTO's loopholes, box shifting methods, etc.. Furthermore, the agreement supports a 'return' to a more state-centric model of analysis, as NGOs and WTO critics have largely been sidelined and bypassed, or at least 'censured and filtered' through their own state's trade representatives.

Finally, the looming question needs to be posed whether or not trade liberalization, even if 'fairer' will benefit developing nations as a whole. While short-term benefits are likely to be harvested a more serious interrogation needs to take place. In the next section, I will investigate the agricultural sectors of the US, Mali and South Africa in order to determine the present and past structures of agricultural production and possibilities and hurdles that would stand in the way of change.
9. Declared Victors and other winners: Investigation of the Agricultural Sectors of US, Mali and South Africa

As becomes obvious from the previous chapter, these current developments raise various questions on who are the winners and losers of the Geneva agreement and the Cotton Dispute Settlement. Investigating the reactions in the various agricultural sectors and ministerial groups on a per country basis, I will first investigate what the domestic reaction has been to the 'historical' breakthrough in the public and private sphere. Secondly, I undertake an independent analysis based on commodities of the impact of the Framework agreement.

9.1 Setting the stage in the United States

The United States, acting as the most powerful actor in the present global world order, had an enormous stake in keeping the Doha Round Trade talks alive. Spending in the year 2000 more than the combined grossed domestic product of 70 nations, the United States not only had a great stake in finding export markets but also in providing continued support for its domestic farmers and the strong political constituencies they constitute. After the collapse of Cancun, Robert Zoellick, US Trade Representative “responded […] by letting recriminations fly” (Bhagwati, 2004). In a Financial Times letter to the editor, Mr. Zoellick threatened bilateral trade agreements with “can do” developing countries that “have withstood pressure to join the strife from larger developing neighbors” (2003). Consequently, adding pressure on the G-20 and other developing nations that have insisted on compensation for

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16 It is important to note that I purposefully did not use the term “hegemonic” in order to portray my sense that in agricultural negotiations, the European Union has almost the same amount of say, especially because of its 'larger-than-life' CAP program supporting farmers through controversial Blue Box measures.
cotton, fought measures of protectionism for their own agricultural sectors and the liberalizing Singapore issues, he threatened that “as WTO members ponder the future, the US will not wait: we will move towards free trade with can-do countries” (ibid.).

Having gained Fast-Track authority by President Bush, something that has not been achieved in the last years under President Clinton, Zoellick traveled the world (and the USA) immediately after Cancun with a “trip [he] took around 32'000 miles up and down the world to get a sense of the view of the key colleagues” (Zoellick, 2004). These stops included, but were not limited to Kenya, South Africa, China, Japan, Pakistan, India and of course the European Union. It is within this context of the establishing of the earlier mentioned FIPS that the current Framework was drafted and later agreed upon by the General Council.

While he certainly had to make certain successions to the European Union and other developed nations, such as Norway and Switzerland, in terms of the capping of tariffs and amount of amber box reductions, he was largely able to ‘box’ through his country’s stance on agricultural trade liberalization. Given the realization that new markets are needed in order to provide for the excess productivity of the US agricultural sector, his efforts were applauded not only by the government, but as well by large special interest groups and transnational companies. As a matter of fact, in a statement released by the ‘AgTrade Coalition’, which consists of such powerful members as the American Farm Bureau Federation (FB), and the leading US-agro multinationals Cargill and Monsanto, they “congratulate U.S. negotiators for a successful conclusion to the negotiations”, stressing that the agreement provides for the “expansion of access to highly restricted foreign markets”, a mission
American agriculture has long sought to achieve (AFBF, 2004). As Bob Stallman, President of the American Farm Bureau Federation has remarked,

"the framework text adopted by the WTO General Council will continue the process of negotiation toward the goal of expanding world markets for American agriculture [and] will lead to expanded market access for U.S. farmers and ranchers" (ibid.).

It is within this context that the Framework has been declared overall a victory as it achieved the US Agricultural Secretary's, Ann M. Veneman, goals of "significant improvements in market access; substantial reductions in trade-distorting domestic support; and in a historic move, the complete elimination of export subsidies" ("Statement", USDA, 2004).

What becomes obvious in the study of the major governmental and non-governmental actors' reactions is the widespread optimism within the agricultural sector in the United States that the Framework will have no or only little negative repercussions on their own livelihoods. Backed with a 2002 farmbill which increases US crop and dairy subsidies to farmers by more than 50%, one would expect the 'historic' Framework agreement to achieve the goals of liberalizing domestic subsidies reduction in the US and the world as a whole (FASS Track, 2002). However, as Zoellick reassured in a letter to then-Democratic leader Tom Daschle of South Dakota, "this reduction will not weaken our ability to support our farmers [...]" (Organic Consumer Association, 2004). As a matter of fact, based upon the calculation formula devised in the earlier section, the 20% cut taken from the 49 billion $ of annual maximum subsidies the US would be allowed to have will not affect its current projected commitment of 23 billion $ of subsidies per year.
Having presented a general overview, in the following commodity analysis, I will investigate to what extent this interpretation of a victory might be differentiated based on various scales, when investigating in detail the cotton and maize sector.

9.2 The US Cotton Sector

The United States holds a key position in the global agricultural market as it accounts for the world’s largest exporter of cotton, as “in a typical year more than half of US cotton is exported” (Oxfam, 2002, p.10). From a domestic perspective, however, cotton farmers in the US are receiving vast amounts of subsidies. Measured over a seven year period, from 1995 – 2002, 204182 cotton farmers have received around 10.7 billion $. (EWG) This figure accounts for the 5th highest subsidies program in the US, with corn subsidies being the greatest (34 billion $) overall, yet lower per-capita payments. In terms of subsidies per acre, cotton received around 230 dollars per acre, compared with corn, which amounted for approximately 40 dollars per acre in 2001/2002 (Agricultural Outlook, June/July 2002 qtd. in Oxfam, 2002, p.33).

From a historical perspective, these subsidies, as shown here in the case of cotton in Graph 1, have been largely on the increase and their respective increases largely correlate with the falling world market price for cotton, due to "counter-cyclical payments [that] are made when a commodity’s effective price is below its target price" (USDA, 2003). Consequently, their trade distorting effect, as reflected in the increase in global cotton market export share during this 7 year period, can be clearly detected in Graph 2.
Graph 1
Adapted from Oxfam, 2002.
Graph 2

Source: Oxfam
These subsidies programs (see Table 1) have been classified into 6 categories, with each respectively falling within one of the three subsidies boxes of the WTO. The largest of these payments, with a total of over 4 billion dollars, the Production Flexibility Contract in the 1997 Farm Bill, have been officially declared as Green Box subsidies, however with the newest ruling in the Dispute Settlement Body they will have to be declared as Amber Box. The second amber category payments are Emergency Loss Payments (renamed counter-cyclical payments in the 2002 Farm Bill), which include the Market Loss Assistance of over 2 billion dollars. The third Amber box payments are loan deficiency payments, which accounted for 1.7 billion dollars over that same period.
programs included in cotton subsidies

<table>
<thead>
<tr>
<th>Program</th>
<th>Payment 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production Flexibility Contract - Upland Cotton</td>
<td>$4,047,669,208</td>
</tr>
<tr>
<td>Market Loss Assistance - Upland Cotton</td>
<td>$2,065,790,187</td>
</tr>
<tr>
<td>Commodity Certificates - Coop Cotton</td>
<td>$2,009,698,726</td>
</tr>
<tr>
<td>Loan Deficiency - Upland Cotton</td>
<td>$1,719,873,129</td>
</tr>
<tr>
<td>Commodity Certificates - Cotton</td>
<td>$405,055,344</td>
</tr>
<tr>
<td>Market Gains Warehouse - Upland Cotton</td>
<td>$313,472,844</td>
</tr>
<tr>
<td>Direct Counter Cyclical - Upland Cotton</td>
<td>$184,610,470</td>
</tr>
<tr>
<td>Deficiency Advance - Upland Cotton</td>
<td>$97,808,518</td>
</tr>
<tr>
<td>Loan Def. Payment - Non PFC - Cotton</td>
<td>$1,093,294</td>
</tr>
<tr>
<td>Market Loss Assistance Refund - Upland Cotton</td>
<td>$-2,017</td>
</tr>
<tr>
<td>Loan Deficiency - Cropland Factor - Upland Cotton</td>
<td>$-7,769</td>
</tr>
<tr>
<td>Deficiency Advance - ELS Cotton</td>
<td>$-40,983</td>
</tr>
<tr>
<td>Loan Deficiency - Ineligible - Cotton</td>
<td>$-62,071</td>
</tr>
<tr>
<td>Denied Market Gain - Warehouse Stored - Upland Cotton</td>
<td>$-117,321</td>
</tr>
<tr>
<td>Loan Deficiency Payment Limit - Upland Cotton</td>
<td>$-120,477</td>
</tr>
<tr>
<td>Loan Deficiency Receivable - Upland Cotton</td>
<td>$-239,289</td>
</tr>
<tr>
<td>Production Flexibility Refund - Upland Cotton</td>
<td>$-276,249</td>
</tr>
<tr>
<td>Loan Deficiency Overdisbursement - Upland Cotton</td>
<td>$-471,223</td>
</tr>
<tr>
<td>Deficiency Final Payment - ELS cotton</td>
<td>$-3,837,461</td>
</tr>
<tr>
<td>Deficiency Final Payment - Upland Cotton</td>
<td>$-176,330,012</td>
</tr>
</tbody>
</table>

Direct payments, replacing earlier production flexibility contracts (PFC) payments, have been put in place for cotton farmers under the 2002 Farm Act (USDA, 2003). These direct payments have been established “based on the value of production and yields during a previous production period” (Oxfam, 2002.) Consequently, as these standardized payments are decoupled from production and present world prices, they are eligible for the Green Box. However, with a change of
the reference period to 1998 - 2001 (see Graph 1); the entitlement to subsidies has increased substantially as these years represented increased acreage and yields under production for cotton. Thus, during the period of 1995 – 2002, they accounted for more than 4 billion dollars, or roughly 40 % of total cotton subsidies.

The second new introduction under the 2002 Farm Act was to replace the emergency market loss payments with counter-cyclical payments, which are amber box support measures. The emergency market loss payments accounted between 1995 – 2002 for approximately 2 billion dollars, or 20 % of total cotton subsidies. Estimates from the USDA Farm Service Agency for 2003 Crop Counter-cyclical payments for cotton are 0.0393 dollars per pound of upland cotton (see Figure 1), which is considerably below the estimate given by Oxfam in 2003 of 13 cents per pound, “or one-third of the market value of the crop” (Oxfam, 2002). It consequently becomes obvious that with the high volatility of the cotton market prices, so do the
overall subsidies payments vary considerably.

A third measure are the loan deficiency payments, which are triggered whenever “world prices fall below $0.52 per pound” resulting in the effect that “the further world prices fall below that level, the more [the loan deficiency payments and marketing loan grains] increase” (Oxfam, 2002, p.15). During our observed period, they accounted for approximately 1.8 billion dollars, or 18 % of total cotton subsidies. As they are clearly linked to the current volume of production and global world price, they are Amber Box subsidies. Furthermore, 90 % of the cotton produced in the US is under protection under the “US Crop Revenue and Insurance Programme”, which covers farmers against potential losses of yield due to harsh weather conditions and other natural phenomena. As they subsequently reduce the risk of farming, they are technically Amber Box subsidies. However, because they are not product specific,
meaning that they are also applied towards other crops, they have been “permissible, as long as they do not exceed the de minimis quota” (ibid., p.16).

Finally, the last and arguably most controversial measure granted the currently pending dispute, early victory for Brazil and the developing West and Central African cotton producing nations, and recent appeal by the US at the WTO is the Step 2 subsidies. This subsidy, which was established first in the 1990 Farm Bill, totaled more than 10.7 billion $ between 1995 – 2002 and has risen to the center of the international debate over adverse impact of US subsidies on developing nations because it “keeps US export prices in line with low-cost competitors” (EWG and Oxfam, 2002, p.15). More specifically, it provided 285 cotton exporters and millers from 1995 to 2002 with 1.68 billion dollars, as aggregated under Commodity Certificates (EWG). As of now, the WTO Dispute Panel has ruled against the US, agreeing with Brazil that the Step 2 program, as well as other export credit guarantee programs that distort international trading patterns through export subsidies as illegal and in violation of various Articles of the Agreement on Agriculture. As a matter of fact, this ruling has been backed up recently by the Appellate Body, reducing any possibility of overruling in the future in favor for the United States. Consequently, the US currently has to present a proposal, not a timetable, by mid-Summer on how to implement the ruling. (for more information, see WTO Ruling, www.wto.org)

9.3 Perverse Myth of Cotton Subsidies

As becomes apparent, the cotton sector is one of the most heavily subsidized sectors in the whole world, backed up by political lobbying groups, such as the National Cotton Council of America, which portrays “an image of a sector dominated
by farmers operating in a harsh environment, but displaying an entrepreneurial drive that benefits the nation" (Oxfam, 2002, p.24). As a matter of fact, revisiting the earlier cross-comparison of subsidies received per acre, it is fair to conclude that the cotton sector and its political representatives are very well ‘in-sync’ and are able to produce some of the most outrageous pork-barrels in the US Congress in a sector that is highly non-efficient and cost-expensive. (See Graph 3) This lack of comparative advantage becomes especially apparent when compared with the net cost of producing one pound of cotton within the West African region. As seen in the graph, Benin, with 30 cents per pound, averaging similar net cost as Mali can produce at less than half of the average production cost of the United States with over 68 cents per pound between 1999 and 2001.

**Graph 3**

*Net Cost of Producing One Pound of Cotton*

[Graph showing net cost of producing one pound of cotton across different countries, with Benin and Mali at similar net costs compared to other higher-cost producers like the United States and Australia.]

*Excluding land rent and seed value. Cost are for 2000/01, except 1999/01 for U.S. and Australia.

*Source: ICAC, Survey of the Cost of Production of Raw Cotton, 2001.*
This earlier claim of uneven subsidies distribution is backed up by the data provided by the EWG, which shows that from 1995 to 2002, the top 10% of cotton subsidy recipients received 78% of cotton subsidies (EWG). As a matter of fact, large powerful agricultural farming corporations with intimate connections to multi-national agro companies have received the vast bulk of the cotton subsidies payments. For example, Tyler Farms in Arkansas, which controls almost 40,000 acres of land, has received a total of almost 25 million cotton subsidies from 1995-2002 (ibid.). In 2001 alone, the company received almost $6 million in cotton subsidies, a figure which is equivalent to the average income of 25,000 people in Mali (Oxfam, 2002, p.24).

The paradox of the situation is further aggregated by the fact that the recipients for these subsidies are not the local, rural cotton farmer, as argued in the most prevalent discourse on agricultural subsidies.17 As a matter of fact, the strong trend towards the consolidation of the family farm into large-scale concentrated farming is aggravated by the subsidies which provide sufficient capital to large-scale producers yet exclude almost completely the bottom 80% of farmers, who receive 8 per cent of the payments, a total of 5470$ per recipient. Consequently, while President Bush promoted the myth that the current subsidies “promote farmer independence, and preserve the farm way of life [and] helps America’s farmers, and therefore it helps America,” it becomes clear that the present agricultural policies most importantly help to preserve the increasing marginalization of smaller scale farmers on a domestic and global scale (ibid., p.1).

17 This creation of the myth of the family farm has been documented as early as in 1981 by Ingolf Vogeler in his book “The Myth of the Family Farm: Agribusiness Dominance of US Agriculture”.

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From a legal standpoint, up to this date, we will have to wait and see what the final ruling of the WTO will be. However, it becomes already apparent that any reduction either through the Dispute Settlement Mechanism or through the Framework in Export Subsidies will have a greater effect on large-scale farmers that have become dependent on sustaining their lack of 'comparative advantage' through agricultural subsidies. In terms of timing, however, it becomes very relevant through which modus operandi the reduction will be achieved, as a final ruling against the US would most likely accelerate any changes in US subsidies policies given the ability of exporting markets to impose tariffs in retaliation.

Overall, it becomes apparent that the current unsustainable cotton subsidies policy is largely founded upon the ill-advised vision of a rural America on "which we can project our hopes and dreams" (Danbom, 1997, p.15ff). As a matter of fact, hoping to escape the cold reality of neo-liberalism and global capitalism, the return to our 'roots' and the agricultural village often serves as our source of inspiration, hope and energy. As long as current agricultural policies largely support the heavy-hitters of cotton production, however, the likelihood is immense that we will end up facing the stark reality of neo-liberalism within our own backyard soon and the 'family-farm' we tried to preserve will have been reformed into a commodity without aesthetics and feel of 'naturalness.'

9.4 US Maize Sector

This picture of the rural farmland held by the US population is heavily dominated not by cotton, but by corn, which occupies the largest amount of farmed area of any other crop. While cotton has received higher subsidies payments per area, corn farmers have received the most amounts of subsidies in total. Estimates
of the 2003-2004 season show little change in acres planted, as they decreased by 0.2 million acres from 78.9 in 2002-2003 to 78.7 in 2003-2004. However, in its most recent USDA Corn Crop Production Report in November, the acres harvested broke again all records, due to better production conditions as the acres harvested rose from 69.3 to 71.1 millions. Consequently, the overall production of corn has reached record heights, surpassing the 10 billion bushels barrier, as it increased by 12 % from 8'967 million bushels to 10’114 million bushels in 2003-2004 (USDA and Hilker, 2005).

Granted this vast amount of production, over 1.4 million farmers, corporations, partnerships and estates have become the beneficiaries of at least one corn subsidy payments from 1995 – 2003 (EWG). However, analogous to cotton, 80 % of them received on average just ‘4'700 dollars total over 9 years, which, when broken down, results in less than $50 per month. Consequently, in comparison, the bottom 80 % of corn farmers received only 15 % of the payments, whereas the top 1 % received 18 %. Thus, the number, while proportionally higher than the cotton producers, is significantly lower in terms of total payments (EWG). (See Graph 4)
As can be seen, subsidy payments in the US greatly deviate from the gini coefficient of 0. Consequently, it becomes obvious that for any further analysis of the effects of a reduction of US corn and cotton subsidies, the effects are most likely to have a small effect on small scale farmers, as they are only benefiting marginally, mostly through conservation programs, from this form of government support.

In terms of exports, the US is the world’s largest exporter of maize globally (Oxfam, 2004). However, as Arturo Warman documented in his book “Corn & Capitalism: How a Botanical Bastard Grew to Global Dominance”, it was not until the early 1980s when corn surpassed the previously most important export, wheat, both in terms of value and volume and became the “backbone” of the “international phase of U.S. agriculture” (Warman, 2003, p.191f). As a matter of fact, present numbers show that in the 2002 – 2003 production year, total US corn value amounted to 21.2
US$ billion, which is almost four times more than the 5.9 US$ billion of wheat production (NCGA, 2003).

The rise of corn to its supreme status has occurred synchronous with the rise of large multinational agribusiness and the ‘Green’ and Biotech’ Revolutions. Holding the highest value of production, the corn sector is largely dominated by large agribusinesses, such as Cargill, Monsanto, Dow and Archer Daniels Midland. Monsanto alone has acquired more than 22 seed companies from 1995 – 1998 (MacDonald and Denbaly, 2000).

These firms have undertaken a policy of mergers over the past years, which have become even more important as with the introduction of GM corn, an increasing vertical oligopoly exists. Consequently, as seed companies and research firms have been acquired by these mega agribusinesses, so have the pesticide and fertilizer markets become increasingly consolidated. The top four firms’ concentration ratios account for 64% of seeds sold. These companies are DuPont/Pioneer, Monsanto, Novartis and Dow. These numbers are also reflected in the fact that presently the US is the largest grower of genetically modified (GM) crops, accounting for as much as 68% of the world’s GM production areas (ISAAA, 2003). In 2003, Bt corn plantings have increased from its introduction in 1996 with 4% to a total of 40% (Whybiotech, 2004).

Furthermore, within the cotton industry, Monsanto dominates this industry as it accounts for 87% of cotton seed sales, if included with Delta & Pine Land (MacDonald, Denbaly and Mark, 2000). In terms of the processing chain, wet corn milling powers are concentrated by 74% in 1997, grown from 63% in 1977, within ADM, Cargill, Staley and CPC. Cotton seed milling, on the other hand, while the data is older, is owned with 62% by Anderson Clayton (ibid.).
Overall, 2001-2002 global corn exports figures show that the US exports accounted for more than 60%, 1847 million bushels or 20% of total US maize production, which is significantly more than the 40% that the US accounts for in world production. It is within this context that the National Corn Growers Association, one of the largest lobbying groups, warns that "without export markets [for corn], farm and ranch income would be significantly lower today" (NCGA, 2004). While arguing strongly in favor of USTR Zoellick's "ongoing efforts to promote free and fair trade" that "assure US corn and corn products full access to world markets", they have been highly skeptical of the post-Cancun developments (ibid.). As indicated in a letter to USTR Robert Zoellick and Secretary of Agriculture Ann Veneman by 12 of the most powerful agricultural lobbying groups, they each voiced "serious concerns about developing countries' demand for limiting the implementation of new disciplines on market access, domestic support, and export subsidies in any self-declared developing country" ("Letter," NCGA, 2003). Consequently, while voicing their appreciation for further agricultural liberalization, they are articulating their concern with "extensions of Special and Differential treatment" for developing nations, while artfully hiding their own practices behind green and blue boxes (ibid.).

The US subsidies structure for corn closely resembles the cotton subsidies explained earlier. Production Flexibility and Market Loss Assistance payments make up the largest amounts of total subsidies. (See Table 2) While the former has been declared a Green Box subsidy, the latter has been placed within the Amber box as they exhibit a "direct link between payments and market prices" (Oxfam, 2004, p.7).

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18 Their major concern here lies with the recent "precautionary approach" principle which is applied in the disputes on GM crops. The US corn growers are essentially worried about the abuse of the "health and safety" clause in the WTO agreements, which would allow for restrictions of market access, etc.
Furthermore, loan deficiency payments, which account for the third largest form of subsidies, are classified as 'amber box'. Consequently, over the period from 1995 – 2002, approximately 44% of the subsidies fell within the green box, while 56% in the amber box. (See Graph 5)
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<th>Table 2: Source: EWG</th>
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<td>Production Flexibility - Corn</td>
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9.5 The Cotton Sector of Mali:

The West African nation of Mali has situated itself at the center of the current WTO cotton dispute and has taken great strides in the past and present in providing for a state-centered approach which placed a lot of faith into the 'white gold', cotton. As a matter of fact, the developmental discourse in Mali continuously stressed that "coton est la clé du développement [cotton is the key to development]" (Jeune Afrique Economie qtd. in Keeley and Scoones, 2004). Consequently, under the leadership of Prime Minister Alpah Oumar Konare, cotton, with its high socioeconomic status attached to it, has historically received a vast amount of political and research attention and domestic financial support, through which Mali has surpassed all other sub-Saharan African nations in terms of production output and is currently the largest cotton producer and exporter in SSA.

It is within this context of the promise for development of cotton that I will evaluate the current WTO agreement and its impact on Mali later on. Consequently, I will first provide a historical account of the two major stages of French colonialism and independence in order to illustrate the past activities, efforts and hopes that have led to what is believed to be a "rare agricultural success stories in contemporary Africa" (Bassett, 2001). Second, this analysis will be followed by recent developments of liberalization, as emphasized by outside pressures from the WB and IMF. Finally, I will provide for an analysis of the present cotton sector and its intriguing factors that need to be taken into account when evaluating the WTO Cotton Dispute Settlement and the Framework agreement.
Mali has long held a leading role in producing high quality cotton for the global export market due to favorable climatic conditions and less mechanical picking methods. While it does still trail heavily subsidized Greece in terms of export quantities, 2003/2004 estimates and 2004/2005 forecasts show that Mali is close to reaching the spot of the 4th largest cotton exporter in the world. (See Table 3)

Thus, using the 2003/2004 seasons as a benchmark, Mali’s 256’000 metric tons (mt) account for 3.5 % of the global exports of 7’183’000 Mt. In terms of cotton production, Mali currently is estimated of having approximately 545’000 ha under production (average between 2003 – 2005). Furthermore, it holds one of the highest yields in SSA with an average of 450 kg/ha of cotton produced. Analyzed from an African perspective, Mali is the largest cotton producer, with 1.2 million bales produced in 2003/2004, which is closely followed by Burkina Faso and Egypt (FAOSTATS).

Analyzing the cotton market on a domestic scale, 2004/2005 figures show that Mali is likely to hold a greater end stock than it did in the beginning, as

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19 The reason for the drop in 2000/2001, as explained later on, was a very ‘effective’ farming strike in Mali to gain greater share in producer prices.
production of 1.07 million 480 pound bales outstrips its exports, which total 1.025 million 480 pound bales. Thus, while its beginning stock was 257,000 480 pound bales, its end stock is projected to be 282,000 480 pound bales. While this is indicative of a weakening demand on a global scale, it also is important to note that domestic consumption (use) is proportionally outperformed by exports by a 1:51 ratio (20:1025 1’000 480 lb Bales). Thus overall, Mali has approximately 61’000 metric tons of cotton left at the end of the 2004/2005 cycle, a growth of about 8.5 % from the beginning stock, which is considerably more than the 1’000 metric tons increase in the 2003/2004 production year (“Cotton,” USDA, 2004).

These recent data are part of the continuing complex story of the fast rise of cotton in the West African nations under French colonial rule. Starting in 1960, cotton production in the West and Central African nations under the CFA franc zone did not amount to more than 1 % of total world production (Tefft, 2003, p.3). Consequently, as France was increasingly becoming interested in establishing cotton as the basis for its economic surplus extraction in a post WWI environment, motivated by Sarraut’s policy of ‘la mise en valeur des colonies francaises’, they introduced a system usually referred to as ‘filiere’. As described by Keeley, J. and Scoones, I., this vertically-styled organization “entails a very tightly integrated and managed system covering all aspects of the life of cotton – from provision and choice of inputs, to guidance in crop management, to supply of credit, to purchase and marketing of outputs, to processing and export” (2004, p.102).

With the introduction of new cotton hybrid varieties, output increased dramatically (see graph 1) in the 1970s and 1980s, and this focus on cotton production as the ‘key towards development’ enjoyed a linear continuation even in a post-colonial era through the continued “work of a quasi-privatized parastatal, the
*Compagnie Malienne pour le Développement des Textiles (CMDT)*, that has monopoly control over the local market" (Moseley qtd. in Moseley and Logan, 2003, p.54). It is important to note however that compared to other countries in the West and Central African region, the creation of a state cotton companies occurred fairly late (Tefft, 2003, p.8). As a matter of fact, prior to the creation of the CMDT, Mali experienced a drastic increase in cotton yields, which grew between 1960 and 1974 at an "annual rate of 15%, tripling average yields to 833 kilograms per hectare. The area under cotton cultivation expanded at an annual 5.5 % rate over the period reaching 69'000 hectares in 1974" (ibid., p.12).

The CMDT, as the offspring from the cotton *filiere* after independence in 1974, was partially owned by the Malian state, 60 %, and 40 % were held by the Compagnie Francaise pour le Développement des Fibres Textiles (CFDT), of which 64 % is owned by the French government, and constitutes one of the world's top ten largest international cotton merchants (Keeley and Scoones, 2004, p.103). Consequently, this highly vertically-integrated cotton operation acts not only as a 'commercial company' in that it provides cotton farmers with credits, seeds and technology to produce cotton which it then resells on the international market, but it also holds a mandate as a "rural development agency", as CMDT has taken the leading role in providing for "social development in the Mali-Sud region", which goes well beyond "the provision of health centers and literacy training, to the provision of infrastructure, such as roads, and some commitment to environmental management" (ibid., p.103). It is within this system of the holistic, all-encompassing parastatal, still largely controlled by its former colonial power, that the political clout of the CMDT
needs to be understood.

The increasingly political importance of the CMDT however did not go unchecked. One of the most important developments during the post-1974 period under the CMDT were the successive farmer protests and their increasing ability in mitigating unfair and pressing for fairer production conditions, most importantly higher production prices paid to the farmers. The first such widespread protest was triggered in 1964 when farmers protested to what was perceived to be "dishonest cotton grading and weighing practices" (Bingen et al., qtd. in Tefft, 2003, p.14). Finally having their demands met, they created so called farmer organizations, associations villageoises (AV), which were responsible in the "assembly and weighing of seed cotton grading in villages" (Tefft, 2003, p.14). Furthermore, they overall achieved lower CMDT operating costs and higher credit recovery rates as the AVs gained control over local development, such as the creation of infrastructures, e.g. schools, health centers, wells (ibid.). They literally sprouted across the cotton producing zone in Mali, starting with a single AV in 1974 to more than 900 by 1987. Presently, there are over 4'500 AVs in the cotton producing zone (ibid., p.14).

The second large-scale political protest by cotton producers took place in 1991, when the cotton farmers declared a cotton strike as the CMDT was unwilling to meet their "grievances related to specific cotton pricing and marketing practices" in the aftermath of the overthrow of President Moussa Traora (ibid., p.14). As Jim Bingen has argued, this "rural revolt symbolized a new era of 'democracy in the countryside', and brought forth a vital new political actor (the Union of Cotton and Food Crop Producers, Syndicat des producteurs de coton de vivriers, SYCOV) in
Malian politics” (Bingen, democracy (have to find article again), p.1) This SYCOV, representing local cotton farmers, consequently in the end of 1991 became a major new actor and has become a party to all "relevant CMDT decision-making units" (Bingen et al, qtd. in Tefft, p.15).

Under this leadership of the SYCOV in cooperation with the CFDT, CMDT and the World Bank/IMF, the farmers endured another major policy shift in 1994 with the devaluation of the CFA franc by 50 %, surpassing the previously fixed exchange rate of 50:1. This devaluation was largely pushed through in order to "reducing the heavy dependence of the West Africa franc zone on imports, stimulating export production and import substitution and shifting consumer demand towards more locally produced goods and services. The ultimate goal was to stimulate self-sustaining, broad-based economic growth, which would reduce Mali's widespread poverty and food insecurity" (Dibley qtd. in Tefft, 2003, p.23). This issue was even the more pressing as donors increasingly placed conditions on their financial assistance, as the cotton sector had acquired a 9 billion CFAF deficit by 1985/1986. This scenario was repeated again in 1992, when due to the fall in world prices and the previous overvaluation of the CFA franc, the CMDT needed financial support from the "Malian and French governments, the European Union and World Bank to cover their losses" (Bocchino qtd. in Tefft, 2003, p.21-22).

Initially, after the devaluation in 1994 and a parallel rise in world cotton prices, the impact on Mali's cotton sector was felt "overnight", resulting in a nominal rise of 189 % in the CFA price of fiber (Tefft, 2003, p.23). However, even though the CMDT saw a net raise in the sales price of 463 CFA franc per kilogram, under the producer price fixing system, the farmers only received 30 CFAF per kg. It was not until the
next year that the nominal base producer price of seed cotton was raised by 65% from 85 to 140 CFA franc, these higher levels "spurred large increases in the production of seed cotton and in the quantity of cotton ginned. Between 1994 and 1998, production grew annually by 21 %", pushing the francophone CFA countries' world market share from 8.8 % in 1991/92 to 15 % in 1997/98 (ibid., p.23-24).

Contrary to earlier expansions, however, this expansion largely was undertaken on the 'back of nature', as the acreage of planted cotton increased annually by 7.6 % between 1994 - 1998, resulting in an overall increase of 45 % in total area cultivated. As CMDT data shows, the average cotton farm planted 2.4 to seed cotton and 4.4 hectares to cereals with a total area of 8 hectares (CMDT qtd. in Tefft, 2003, p.24). It has consequently been argued that the initial result of the devaluation has been vast expanses in extensification of cotton production, as "most farmers increased acreage cultivated by reducing fallow periods and clearing new lands" (Tefft, 2003, p.24). This extensification largely went hand in hand with a vast increase in the use of animal traction equipment, as reflected in the fact that "manual or non-equipped farms declined by 23 %" from 1994 - 1998 (CMDT qtd. in Tefft, p.24). This increase in the numbers of cotton producers extended long past the 1993 devaluation into the present, as by 1998, 93 % of farm household in the CMDT zone were growing cotton and by the 2000, amounted to over 200'000, a 50 % increase since 1993 (Tefft, 2003, p.25). Alongside four more cotton gins were constructed, raising the total to 17.

However, as pointed out by Moseley, this increase in production has greatly increased the pressure that cotton has placed on the environment. As a matter of fact, the preference placed by the government and the CMDT on "expanding production in new areas rather than seek sustainable alternatives in older production
zones" has resulted in increased soil erosion, pesticide and nutrient runoff (Moseley, 2004, p.55). Thus, farmers during the post-1993 period have increasingly experienced declining yields in the old cotton basin, and the blame has solidly been placed by the World Bank, the CMDT and other governmental officials on the poor farmers, and as represented in the international discourse of the "poverty-induced environmental degradation thesis" (ibid., p.55). However, as his research has indicated, the "relatively rich, rather than the relatively poor, are the proximate cause of environmental degradation in southern Mali" (ibid., p.57). As a matter of fact, the poorer members of rural communities, seeking to gain profits generated from the rise in cotton profits, are seriously lagging behind in their richer counterparts, largely due to lack of capital investments and agricultural knowledge, in their ability "to practice resource exploitation on the same scale" (ibid., p.57).

Another indicator of the increasing environmental unsustainability of cotton production has been the fact that previous advantages, as indicated by the signs of relatively lower crop loss rates of 20 to 35 % compared to 60 % in other African nation, is slowly eroding. As a matter of fact, growing resistance has often been named on the main reasons for the decrease in seed cotton yields, as pesticide quantity used has doubled (Tefft, 2003, p.27). In 1995, for example, "cotton bollworm resistance to the relatively non-toxic pyrethroids became problematic and was compounded by additional damage from whiteflies" (Bingen qtd. in Moseley and Logan, 2003). Consequently, at present it is generally perceived that Malian farmers, under the leadership of the CMDT, have largely entered the 'classic pesticide treadmill' response, as opposed to undertaking a more organic approach, such as formulated under the very successful integrated pest management plans (IPMs).
Because of the fact that CMDT has been an the largest employer and provided numerous well-paid jobs, the CMDT has increasingly become the target of corruption and patronage, as high-level officials skimmed off security funds for themselves and their political allies personal profits. Consequently, Mali has recently been shaken with corruption charges in 1999, as “three vice-presidents of the CMDT were removed for corruption”, close links exist between the ruling party and senior officials, as well as the more than 2000 officials of the CMDT have received substantially higher benefits and wages than any other state employees (ibid., p.104). This has led to drastic changes to the cotton sub-sector as demands have increased for restructuring and privatizing the CMDT and “reassigning [the role of the state] in the public and private sector and [...] remodeling its producer support system” (Zoundi, 2004). This reform has been adopted on 6th of June 2001, amended in 2003 by the government and is to be carried out until 2006.

These reform calls have essentially been further strengthened by the very strong cotton boycott in 2000/01 season, when a large number of cotton farmers refused to plant their annual cotton, "resulting in a 47 % fall in seed cotton production" and a subsequent loss of at least 20 billion CFA francs in potential revenues (Tefft, 2003, p.35). The motivation for the strike was the fact that the farmers' AVs were severely financially strained when the CMDT decided to reneged on its earlier agreement of 195 CFAF/kg and paid farmers only 155 CFAF/kg (ibid., p.34). Furthermore, besides these price constraints, reports of the 'disappearance' of 36 million US dollars that had been established at the CMDT did not help its cause for institutional survival either.

Realizing that the cotton sector was “no longer serving as a dynamic motor for economic development in rural Mali”, these reforms call for a restructuring of the
CMDT (ibid., p.39). This restructuring effort includes such measures as “refocusing CMDT towards public service missions; withdrawal from extension work; gradual withdrawal from input and equipment supply activities; continued withdrawal of CMDT from transport activities; more rational use of human resources” (Zoundi, 2004). Furthermore, these liberalization efforts of the cotton and oil seeds sub-sector also call for a “better participation by producers in managing the cotton sub-sector, which includes allowing them to buy into CMDT capital and greater control by producers in providing services that they need” (ibid.). Most importantly CMDT’s refocus towards public services has already resulted in the reduction of its work force by almost 600 employees, as well as extension services have “dropped from approx. 1000 to a bare 500, which means 1 agent for 450-500 farms, rather than 250 – 300 farms” (ibid., p.6).

9.6 Maize Sector in Mali

Consequently, while cotton in Mali has to some extent lost its dominant stance within the development discourse, maize production has received increasingly more attention as a crop used for the internal market and neighboring countries’ trade.20 Introduced in Mali in the 1970s by French-operated research stations in West Africa, maize has historically played a minor role in Mali (MSU International Development Working Papers, 1994, p.6f). However, as a reaction to “chronic food deficits during the 1970s and early 1980s, government policy has consistently stressed self-sufficiency in cereals as a policy objective” (ibid., p.18). Consequently, using the synergies that exist with the already existing linkage and

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20 Export figures for maize are negligible as maize is largely consumed either fresh or marketed towards the urban population.
integrated approach towards technological delivery of the CMDT, maize farming was launched as a crop alternative to reduce starvation. As the CMDT decided to promote more intensive maize production, applying improved maize varieties and increased usage of fertilizer, maize production grew dramatically. As seen in the following Graph 7, improved maize was adopted very rapidly over the period from 1975 – 1990. As established by MSU researchers, this increase in the adoption of maize was highly correlated\textsuperscript{21} with increased mechanization of expanded cotton production. As cotton farmers invested their profits into mechanization equipment, they increasingly were able to "plow and weed frequently in a timely manner" (ibid., p.20). Furthermore, they also were able to apply left-over fertilizer from the previous cotton year to maize production, as maize "is the most fertilizer-responsive rained cereal" (ibid., p.20).

In addition, foreign donors were increasingly eager to support maize production as an alternative to cotton and rice. For example, a francophone development project, Project Mais, established an “operational budget for a seed multiplication farm, a large-scale program of maize demonstrations, a program of first-equipment loans for non-mechanized farmers, and the construction of maize storage silos at CMDT regional depots” (ibid., p.21). However, two main setbacks occurred, when in 1983 a maize streak virus outbreak destroyed hundreds of hectares of maize and subsequently in 1986 when the CMDT was no longer able to financially sustain its integrated approach towards production of maize, as it had to remove guaranteed prices for maize (ibid., p.20-22). Being exposed to these market

\textsuperscript{21} Their findings are that “bivariate correlations between the area of improved maize and the number of draft animals and equipment in service over the period 1975 – 1909 gives the following results (all significant at the 0.01 level): number of draft oxen 0.98; number of plows 0.99; number of weeders 0.98; number of seeders 0.98” (p.20)
pressures, farmers adapted rather quickly by reducing chemical fertilizer input, changing seed varieties and increasingly applying traditional maize-millet intercropping methods (ibid., p.22).

These findings reaching up to 1990 are greatly supported by James Tefft's work published in late 2003. As he points out, "contrary to a popular perception that cash crops have a negative effect on food crop production and household food security, cotton production has proven to be a boom to coarse grain production in Mali" (2004, p.17). As a matter of fact, he found that average annual gross cereal production per capita between 1989/90 – 1997/98 was in general almost twice as high in CMDT production zones as opposed to the overall region. As regression analysis by Dione in 1989 has shown, "a 10 % increase in per capita cotton area was associated with a 12 % to 13 % increase in net coarse grain availability per capita" (Dione qtd. in Tefft, 2004, p.17). Consequently, the earlier documented growth in cotton production has brought with itself a 3.5 % annual increase in maize production between 1960 and 1985. Furthermore the total area that was planted in the CMDT zone rose from 6000 hectares to 51000 hectares from 1960 to 1985 (Tefft, 2004, p.18). With the resent higher farm-level prices, cereal production, analogous to cotton, has increased drastically in area as extensification has taken place as a response to devaluation. Figures show that the total average cereal area planted in ha grew from 3.4 to 4.4 between 1993/94 and 1997/98, accounting for a 29 % change overall (ibid., p.24). This process was further aided by increased mechanization, as seen in the earlier high correlations, leading in increased, while

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22 To use an example, in the Koulikoro/Fana region, production per capita (kg per person) averaged at 225, as opposed to the CMDT zone with 407 kg per person.
still volatile, maize production starting dramatically in the 1980s. (See Graph 7)

Furthermore, the data greatly supports Tefft’s earlier claim of increased extensive production after devaluation in 1994, as production and area under production measured in ha increased from 256952 hectares in 1993 prior to devaluation to 619896 hectares in 1999, which is an increase of more than 240%.

(See Graph 8)

Overall, while not an export crop per se, maize in Mali has become increasingly important, especially since the "loose[ning] in the mid-1980s [by the CMDT] to allow farmers to freely manage the allocation [of] agricultural inputs across different farm plots [...] Maize then became a major cash crop" (Hussein, 2004). Consequently, as maize has reached increasing importance, the described
interdependence between maize and cotton production is clearly a key factor that needs to be taken into account when evaluating the potential impact of the WTO agreements and the cotton trade dispute settlement. (See Graph 9).

Growth in Maize Production / FAO STAT

Maize and Seed Cotton Production in Mali: FAO STAT
9.7 Maize and Cotton Sectors in South Africa

Historically, European settlers and their colonial regimes have forcefully supported the development of corn in order to meet the urban demand for export products and for export use. In many colonies, as a matter of fact, corn cultivation was the only “alternative if [the settlers] were to remain in the African colonies at all” (Warman, 2003, p. 72). It is within this context that South Africa, under the model of Apartheid, rose to become the “leading producer of corn in Africa [...] accounting for about a third of total production” (ibid., p. 87). Consequently, during the period of the Green Revolution, only Zimbabwe and South Africa were essential exporters of corn in the Sub-Saharan setting.

Placed within the current context, South Africa presents an interesting case, as it is clearly more developed than Mali, yet still ‘underdeveloped’ when interpreted from a US perspective. Consequently, South Africa has often been classified as a developing nation with great amounts of potential in Africa since the ending of Apartheid rule in 1994. In terms of agricultural production, South Africa acts in two interesting almost as a mirror image to Mali’s agricultural sector. First, on a macro-scale, while the agricultural sector as opposed to Mali and similar to the US, only accounts for approximately 14 % of its GDP and 10 % of its export goods, it still provides employment and a backbone of people’s livelihoods for more than 7 million people. As stated in the “Strategic Plan for South African Agriculture”, the approximately 50’000 large-scale commercial farmers in South Africa, which are predominantly white, “employ about 1 million workers, which is 11 % of total formal sector employment in the country” (NDA, 2001). These employees then provide livelihoods and housing to more than 6 million family members. Furthermore, with the
rise of 240'000 small-scale farmers, an additional one million family members, and 500000 temporal workers also need to be included into the calculations (ibid.). Overall, taking into account the "increasingly popular and economically significant agro-tourism and game-farming activities [...] about 40 % of the country's total population are therefore dependent mainly on agriculture and related industries" (ibid.).

However, it is important to note that while the importance of farming is still relevant, a merging of farms and increased concentration of farmland has occurred similar to the United States. According to the most recent 2002 South African Census of Agriculture, the number of active commercial farm units decreased by 12162 compared to the 1993 census to 45818 active commercial farmers (Statistics SA, 2004, p.1). Furthermore, the number of employees in formal agriculture also decreased by almost 14 % to below a million with 940'815 employees, of which Western Cape employed the largest number of paid employees (ibid.).

Secondly, South Africa stands out from Mali, as maize, as opposed to cotton is its largest export crop, amounting to 749'870 metric tons being exported in 2002, with a total value of more than 135 million US$ (FAOSTATS). Using 2001-2002 data, South Africa exported 47 million bushels of maize, which accounts for 2 % of global maize exports, a small fraction when compared to the 1.8 billion bushels exported in the US. In terms of overall corn production of 358 million bushels in 2001/2002, this export sum accounts for a mere 13 % of total production (USDA (2), 2004). Au contraire to the situation in Mali, cotton on the other hand is not an export crop, as the average export for cotton lint production between 1994/95 to 2003/2004 amounts to only 1850 metric tons total, with no exports occurring and projected from 2001/02 till 2004/05 (CottonSA.org). However, while maize production has historically
dominated the agricultural sector, cotton production is not negligible in certain regions. Cotton presently accounts for approximately 1% of total South African agricultural production, "generating approximately US$50 million annually" (Kock, 2000, as quoted in Shankar and Thirtle, p. 3). Furthermore, while 1530 large commercial farmers in the Limpopo Province, the Free State and KwaZulu-Natal produce over 90% of the output, smallholder farming is still significant in certain regions. For example, about 3000 Zulu smallholders in the Makhathini Flats, KwaZulu-Natal, and 500 in Tonga, Mpumalanga, produce an aggregated 98% of smallholder cotton grown in South Africa (Hofs and Kirsten, 2002, as quoted in Shankar and Thirtle, p.4).

As the government, with the institution of the GMO Act of 1997 has adopted a policy unique to the whole SSA, which is in favor of the adaptation of genetically modified agriculture, both GM maize and cotton\(^{23}\) have been introduced in South Africa since then. Presently, more than 600 different biotechnology projects are believed to be in existence, with more than 50 companies\(^{24}\), Monsanto having its Africa headquarters in South Africa, involved (Ledermann, 2003). As a matter of fact, as stressed by the government, GM technology plays an integral part as it "provides us with a way of meeting the growing demand of food without placing even greater pressure on our scarce resources. It allows us to grow better-quality crops with

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\(^{23}\) Bt cotton is also planned for introduction in Mali, as a recent news report by GRAIN has discussed. As a matter of fact, researchers with the Institut d'Economie Rurale in Mali are currently in the process of finalizing a five-year plan with the USAID, Monsanto, Syngenta and Dow Agrosciences to develop and commercialize GM cotton.

\(^{24}\) It is important to note that while many of these companies provide research, competition between them has reportedly increased. As an example, while a private input supply company, VUNISA, was in charge of supplying smallholders in Makhathini Flats with Bt cotton by Monsanto, their monopoly status has been undermined most recently. As a matter of fact, while VUNISA "buys cotton from the farmers at prices fixed by Cotton South Africa, [it] now has to compete with Danish-owned NSK, which has opened a high-capacity cotton gin" (Shankar and Thirtle, p.4).
higher yields while at the same time sustaining and protecting the environment” (Dept. of Agriculture SA, as quoted in Ledermann, 2003). Presently, approximately already between 10 and 15 % of maize crop planted is genetically manipulated in order to protect it from the ‘stalk borer’ (Reynolds 2002, as quoted in Ledermann, 2003). Furthermore, Bt-cotton production has been introduced in 1999, showing ‘strong’ results in the Makhathini Flats area of KwaZulu-Natal, as 95 % of small-scale farmers have been estimated to be growing GM cotton by 2001/2002 in that specific region with “augment[ing] their gross margin by 11 % in the first season, and 77 % in the second season in comparison to farmers growing non-Bt cotton” (Nuffield Council on Bioethics, 2003, p.23, as quoted in Ledermann, 2003).

While these results give hope for the application of Bt cotton as a tool for poverty reduction, Aaron de Grassi has pointed out that improved cotton technology seems unfit to reduce poverty, as a host of other factors are largely contributing towards it. Just to name a few, he identifies the unequal distribution of power in terms of negotiating access to water, “top-down planning favoring wealthier farmers, elitist tourism, authoritarian nature conservation, land inequality compounded by slow land reform, declining pensions and off-farm wages, overproduction and HIV/AIDS” (de Grassi, 2003, p.38 as quoted in Ledermann, 2003). From another point of view, as a recent investigation by Shankar and Thirtle into the situation in KwaZulu-Natal argue, the main contribution of the introduction of Bt technology is to enable “the smallholders to circumvent credit and labor constraints associated with pesticide application” (Shankar and Thirtle, 2004, p.1). Consequently they show that “non-BT smallholders in South Africa under-use pesticide and that the main contribution of the new technology is to enable them to realize the lost productivity resulting from under-use” (ibid.).
Nevertheless, two recent reports of development projects heavily focus on cotton as a tool to lift small-scale, black farmers out of poverty. As reported in July 2004, a R150 million investment project in Eastern Cape is hoped to provide for a much needed boost to "South Africa's struggling cotton sector" (SouthAfrica.info, "R150m...", 2004). Being one of the poorest province in South Africa, it is hoped that this investment, undertaken by the East London-based textile manufacturer Da Gama Textiles, will "create some 6000 seasonal jobs and empower local black farmers" (ibid). Overall, the project forms an integral part of a widespread cotton industry's development strategy "which looks to draw emerging black farmers into cotton growing", as almost 1500 ha of cotton will be planted, which should produce 36000 bales within the next three years (ibid.). In addition, the Labour Job Creation Trust, an agglomerate of three South African trade unions, has created the Moutse Cotton Umbrella in Denilton, Mpumalanga. This project is intended to provide money to buy farming equipment in order for 130 women farmers to enter the cotton businesses (SouthAfrica.info, "Cotton...", 2004).

In terms of research, the University of Missouri has been instrumental, in a similar fashion to Michigan State University in Mali, in providing its expertise in creating a modeling system to analyze the complex economic interrelationships of food and agriculture industry to the University of Pretoria (FAPRI, p.1). With the fall of apartheid, legislation "eliminated a large number of parastatal marketing boards on products ranging from sugar to maize" (ibid., p.4). At present, the main control is held by cooperatives and producer associations, "putting South Africa with countries like New Zealand and Australia" in terms of their elimination of "nearly all direct subsides" (ibid., p.4). Subsequently, it is argued that with the increasing exposure of South African agriculture to the volatile fluctuations in world market prices, their FAPRI
model provides them with the necessary forecasting tool to provide for the strengthening of the primary sector, but also the increasing integration of formerly marginalized small- and medium-scale black farmers within the competitive global market (ibid., p.4ff). Basing their projections on macro economic variables of the exchange rate, population, income per capita and inflation, they have created the following baseline projections for maize production in South Africa (million tons). (see Graph 10)

Most importantly, this graph shows an increase in production and a consequent increase in exports, as domestic consumption is reduced given the
projected population decrease in South Africa from 45.1 millions to 42.9 million between 2004 and 2010. This decrease in consumption is also supported by increasing inflation versus the dollar, which will cause higher prices and resulting in more maize being exported. Overall though, this graph needs to be interpreted with care, as it does not predict the future.

Overall, while cotton holds a potential to be evaluated for farmers as an alternate source of income, the importance of maize as the dominant staple food in South Africa is well-established. Classified as a “wage good”, it takes up as much as 20% of a low-income consumer’s income, and any changes in supply and subsequent lower prices could have a great effect on their livelihoods and food security (Traub and Jayne, 2004, p. 1). However, presently, the earlier mentioned significant market reforms and liberalization of the agricultural sector have not yet led to lower prices “as maize marketing and processing costs typically account for 50 to 70% of the total cost of maize meal paid by South Africa consumers” (ibid., p. 1). Consequently, while freer global markets might strengthen South Africa’s stance as a corn exporter, the domestic consumer and producer might profit little. As a matter of fact, as long as South Africa’s millers and processing firms control such a substantial part of the commodity chain both in terms of percentage of profits and production, they hold a de facto oligopoly on the maize consumer and producer. While food market reforms in neighboring countries have generally “reduced the marketing cost

25 For more projection information and detailed interpretation of the model please refer to the Final Report for the University of Missouri South African Education Program, FAPRI. 26 This point on the validity of the graph is especially important. As stressed by FAPRI, it is important to note that “in reality, the assumptions underlying the baseline are certain to be violated, and so actual market outcomes will deviate from the projections presented in the supply-and-use tables. Therefore, the usefulness of the baseline projections is not to predict the future but rather to analyze the impact of a range of “what if” questions on the baseline projections” (FAPRI, p. 10).
wedge between producer and consumer prices, there are *a priori* reasons why this outcome might not be expected in South Africa" (ibid., p.4). Nurtured over several decades of colonialism, the maize industry holds considerable political cloud and market control, as "three of the recently privatized grain cooperatives, Sentraalwes (SWK), OTK, and NWK own 72% of all silos in the country" (ibid., p.4). Furthermore, two food-retailers, Pick 'n Pay and Shoprite Checkers hold a *de facto* oligopoly in the retail sector, as they control 80% of all food retail sales (ibid., p.4). Furthermore, certain companies are vertically integrated, meaning that they control both silos, millings, processing and retailing.

In conclusion, it becomes clear that in order to evaluate the impact of the WTO breakthrough, a potential increase of the world price of cotton and maize and its impact on South African farmers, one needs to adopt a system's approach that takes into account the whole spectrum of political, economic, social and environmental concerns on the local, national and international level in order to undertake a useful assessment of its potential impact.
10. Assessing the Impacts

Having studied the contents of the WTO Framework agreement and the reactions and present and past trends within the maize and cotton industries of the United States, Mali and South Africa, this section is dedicated towards placing these contents within an informed context in order to undertake an educated analysis of possible short- and long-term impacts of the agreement on small- and large-scale farmers within these economies. This analysis, while by no means authoritative, will be drawing largely upon a synthesis of various sources ranging from the economic to the sociopolitical. Consequently, while exploring several avenues, the ultimate goal of this chapter will be to provide not definite answers but to raise important questions that will need to be taken into account when tackling the vagaries of the WTO outcomes.

Impact #1: US Reduction of Subsidies and its Impacts on US Farmers

Assessing the impact of the current Framework agreement, one first needs to explore the distribution of present subsidies. While Mali is exempt as a LCD country
from any reduction and South Africa presently does not exceed Total AMS measures, the greatest impact will be found within the United States. As illustrated earlier in Graph 4, both corn and cotton subsidies distributions are marked by a very uneven distribution as exemplified by its high gini coefficient. It becomes apparent that in both cases of maize and cotton, 20% of the largest farms receive more than 80% of the subsidies. Consequently, any subsequent subsidies reduction within the US setting would affect more vastly larger farms than small-scale farmers. As has been shown earlier, 80% of the corn farmers received less than $50 per month. Thus, the reduction would certainly not have that great of an effect on approximately 1 million farmers.

This finding concerning smaller farmers however stands in stark contrast to that of larger farmers, whose operations are dependent upon being able to produce domestically and export competitively cotton and maize in the world market. Of course, this first major impact is largely contingent upon the inability to undertake tactics of legal technicalities, such as boxshifting, as well as the longer time horizons that have been drawn in terms of the agreements’ implementation, starting around the year 2012, and the upcoming modalities to be negotiated by the end of 2005 and the upcoming Hong Kong summit. However, granted the limitations, the overall tendency speaks clearly in favor of reducing subsidies in the long run. This trend is supported by the recent announcement by President Bush to tackle farming as the major sector in which budgetary cuts will be undertaken, through the implementation of fiscal limits on subsidies’ recipients, potentially decreasing the current trend of
increasing agricultural land values. \(^{27}\) Furthermore, it is also important to differentiate between cotton and corn in terms of its current legal contentions. As of this writing, cotton subsidies have undergone a vastly greater scrutiny, as they have been the subjects of international contention in the WTO. Consequently, while the possibility exists that corn subsidies will receive less scrutiny in the near future, cotton subsidies will have to be reduced more quickly in order to comply with the WTO ruling. Thus such programs, for example the Step 2 export subsidies, will have to be eliminated in the shorter, medium-term or compensatory legal measures will be in order.

Granted the reduction of both domestic, as well as export subsidies, cotton and maize prices no longer will be able to be sustained at an artificially higher level. Consequently, prices for the domestic farmer in the US will most likely drop across the board and overall supply \(^{28}\), due to reduced profit margins or even lack thereof, would be greatly reduced. Taking the well-documented example of cotton and using the various economical models applied, this estimated drop in US cotton production varies from 1.5 % (ODI, 2004) to 29.1 % (Sumner, 2003). Taking the average of all studies cited by the FAO Commodity and Trade Policy Research Working Paper (2004), the average supply would be reduced by 11.59 %. Expressed in prices, the

\(^{27}\) As William Moseley has pointed out, this recent domestic pressure on the agricultural sector could be interpreted indirectly as diminishing the earlier gained victory of third world countries at the WTO in relationship with their bargaining power.

\(^{28}\) It is important to note however that certain farm activities within the US is delinked from the capitalist logic of profitmaking. As Arturo Warman points out, “there are cases in which large corporations enter into agriculture specifically intending to lose money. This would be poor business strategy from any point of view other than the intricate labyrinth of tax breaks. Ronald Reagan, before he became president, boasted of not paying taxes on income thanks to losses on his California ranch” (Warman, p.195). As a word of caution, I need to point out however that I am unaware of any case studies which would specifically demonstrate this tax-delinking from capitalist logic in cotton and maize farming enterprises.
estimated price increases range from 2.8 % (Tokarick, 2003) to 29.7 % (ICAC, 2002), with an average of approximately 16 %\(^\text{29}\) (FAO, 2004).

While the models' figures are different, it does become prevalent that a subsidy reduction would have an effect on American farmers. Consequently, with the lowered prices, there would be a great push towards these farmers to improve their production processes if they would like to sustain their operations. Based upon earlier dynamics of farming operations, they would either have to increase the quality of the cotton or corn that is produced in order to reap a greater price, i.e. organic cotton or corn, or the output would have to be stepped up, such that the quantity and efficiency would be greater, while potentially sacrificing the potential gains associated with the production of higher grade cotton (A) or producing maize for the organic market. While this interpretation might lead to the increasing concentration of farming operations within larger, more efficient units, the picture seems to be less common-sensical, as pointed out by Willis L. Peterson in his study “Are large farms more efficient?”. Undertaking a study of the Corn Belt revealed that “there is evidence of diseconomies [of scale] as farm size increases” (Peterson, 1997, p.2ff).

Consequently, with a reduction of subsidies, the US corn and cotton farming size and population is most likely to be reduced, accelerating the current decline, without necessarily effecting a reduction in actual farming acreage.

As a result, the cultural and environmental landscape of farming in the US is most likely to change accordingly as subsidies will be reduced and total output declines. With a reduction in farming population, the public as a whole will

\(^{29}\) These disparities between the various studies can be best explained by the different key assumptions implicitly situated within each model. Those key assumptions are estimates on demand and supply elasticity, year upon which the simulation is based upon, and whether or not market segmentation was assumed and cotton stocks were included. For more detailed analysis, refer to the earlier mentioned FAO Trade Backgrounder No.1 on cotton.
increasingly become more disconnected from the agricultural discourse of the myth of the ‘small scale farmer’ as fewer farming operations will remain. However, this effect is mitigated by the unrelenting fact that the US farmers constitute one of the most powerful historical lobbying groups that are willing to battle any reduction in production-effecting subsidies. NCC (National Cotton Council) Chairman, Woods Eastland, warned in a reaction to the recent proposal of budget cuts within the agricultural sector, that “any reduction or weakening of the safety net provided by the 2002 farm law will negatively impact the security of all Americans”, framing it as “equivalent to unilateral disarmament” within the international WTO context (NCC, 2005). Furthermore, the American Farm Bureau (AFBF) and a diverse group of organizations, argued that budget cuts in agriculture “will put at risk the promising environmental benefits of the bill, and the nutritional health of some of the poorest populations in our country” (AFBF, 2005). Consequently, it becomes apparent that greater pressure exists to remedy any reduction or limits on subsidies with other compensatory measures. Returning to the ‘colored’ boxes scheme, one approach for which great support for the farmers exists, would be to strengthen present conservation programs, so called Conservation Reserve Program (CRP) and Conservation Security Program (CSP), which are Green Box subsidies and have been well-established on a global scale without much controversy in such countries as Switzerland under the notion of ‘multi-functionality.’ This concept of strengthening the green box through boxshifting away from the amber box would allow for greener, more sustainable production, as farmers are receiving money to either take land out of cultivation (CRP) and to farm sustainable (CSP). Furthermore, as such support is

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30 One suggested measure is greater support for farmers and ranchers purchasing land, as well as the removal of the death taxes, etc.
Currently capped at a maximum amount, this would greatly favor the smaller farms and consequently correspond with the general public's perception of 77% support for subsidies to small farms, yet only 31% support for subsidizing large farming businesses (PIPA/Knowledge Networks, 2004, p.22ff).

Consequently, the big winner in the United States of subsidies reduction would ultimately appear to be the public, as formerly budgeted tax money will be freed up. This view seems to be strengthened by the PIPA survey, as the public becomes increasingly more aware, through the works of such NGOs as EWG, of the myth of agricultural subsidies. This debate will especially become more heated as discussions and publicity will increase during the Presidential budget proposal negotiations. Ultimately, however, it becomes evident that any saved budgetary money will most likely be lost within the budgetary battles and other pork created within it.

Impact #2: Spread of Global Agribusinesses
This potential reduction in US production will not only hit hard the farmers who were put out of business, but as well global agribusinesses who earn their greatest share of profits within the US farming industry. (see Graph 11: Biotech Crop Countries and Mega-Countries) In the year 2004, the US, one of 14 designated Biotech Mega-Countries, contributed to more than 58% of total biotech crop production. Overall, the global production value of biotech crops amounted to more than estimated US$ 4.7 billion, which accounted for approximately 16% of the US$ 30 billion global commercial seed market (ISAAA, 2004). These figures are especially essential when witnessing the rapid growth of GM corn and cotton planting in the United States. In 2001, the percentage of genetically engineered corn amounted to 26% of all corn, and 69% of all upland cotton. This number increased to 2004 by the number of US GM corn planted increasing to 45%, and 81.1 million acres. Cotton established a percentage increase as well, as its total GM cotton
acreage increased from 15.5 million in 2001, which amounted to a staggering 69 % to 13.5 million, a decrease in terms of acreage to 13.9 million in 2004, but a percentage increase to 76 % (PEWAG, 2004; see Table 4: Major US GM Crops). In terms of profits, as reported in Monsanto's 2004 Annual Report, 47 % of its seeds and genomics gross profit comes from corn seeds and traits. Taking into account that North America accounts 59 % of sales by geographic region, it becomes apparent that more than a quarter of its profits from seeds and genomics are achieved with in the US (Monsanto, 2004).

Granted a possible decrease in corn and cotton production within the US and a resulting reduction in profits would consequently have an immense impact on such large companies as Monsanto. It is for this reason that we need to take a broader view of the issue by stepping 'outside' the agricultural setting and examining the 'whole package' of the Doha Development Round. As WTO General Director Supachi himself recently stated in an address to African and Nordic Ministers, "[...] progress in agriculture alone is not sufficient. We need the other areas of the negotiations to also make progress. The network of linkages between different areas and issues is well known. We can certainly not wait for results in agriculture before making further progress in NAMA [Non-Agricultural Market Access], Services, Rules and all the other areas" (WTO News, 2005). Taking this holistic view, it becomes apparent why Monsanto, which holds significant leverage within the structural body of the WTO, is not opposed to the current proceedings; while agricultural markets within the US might dry up, several new springs of agricultural possibilities will be opened by freeing up the agricultural trading landscape. As noted earlier, several African countries are currently contemplating integrating GM crops within their farming operations. The strengthening of the Singapore issues and TRIPS, etc., not
only facilitate that process, but also are aided by an increase in the free movement of goods, services and capital across the globe. Consequently, the reduction in subsidies within a US context could likely result in an increasing proliferation of biotech, as well as agro-chemical and other agricultural services abroad. Thus, the question raised by Kirsten and Sartorius in their intriguing article “Linking agribusiness and small-scale farmers in developing countries: is there a new role for contract farming?” needs to be kept in mind while evaluating the movements towards “agricultural industrialization” in developing countries (Kirsten and Sartorius, 2002, p.1ff).

**Impact #3: Genetically-modified Intensification and Dependency**

One of the nations that presents itself as an obvious choice for expansion is South Africa. Having adopted a “promotional approach” towards GM crops through its earlier mentioned GM act, estimates were that 95% of its cotton farmers were using Monsanto’s Bt-cotton by 2001/2002 (Ledermann, 2003). Occupying the largest share of development ‘space’ in Sub-Saharan Africa, South Africa has positioned itself at the cutting edge of the biotechnological revolution through the creation of a network of research centers within the private sector and universities. Consequently, it is marked by a strong private, public cooperation as well as ‘state of the art’ intellectual property rights (ibid.). Thus, the groundwork for an increase in

<table>
<thead>
<tr>
<th>Crop</th>
<th>2001 Total Acreage</th>
<th>2002 Total Acreage</th>
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<th>2004 Total Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corn</td>
<td>75,800 (26%)</td>
<td>79,000 (34%)</td>
<td>79,066 (40%)</td>
<td>81,100 (45%)</td>
</tr>
<tr>
<td>Soybean</td>
<td>74,105 (68%)</td>
<td>72,993 (75%)</td>
<td>73,653 (81%)</td>
<td>74,724 (85%)</td>
</tr>
<tr>
<td>Cotton</td>
<td>15,499 (69%)</td>
<td>14,151 (71%)</td>
<td>13,924 (73%)</td>
<td>13,947 (76%)</td>
</tr>
</tbody>
</table>
investments into the modernization of agriculture have been established, especially in the, from a GM perspective, lesser-developed corn market.

Given that the potential for further intensification\(^{31}\) exists, the thesis needs to be evaluated whether or not the South African farmers will actually benefit from the reduction of subsidies and the Framework agreement. As established earlier, the cotton market presently is not shaped for the export market, as all cotton has been used within a domestic context. Nevertheless it presents itself as a very important source of income for several thousands of small-scale farmers who depend on the cotton harvest for their food security. Consequently, a small increase in the prices received would certainly strengthen their livelihoods, especially if implemented with conjunct policies of reducing the ‘hungry seasons’ through the building of storage silos, encouraging a return to traditional agricultural methods, such as increasing the diversity of planting cycles, etc. Overall, as pointed out by Todd Moss and Alicia Bannon, the possibility certainly exists, as found in two case studies, that a 10 % of price increase could lead to a 30 % increase in food security (Moss and Bannon, 2004).

However, taking into account the earlier discussed account of South Africa’s agricultural sector being marked by a liberal, yet highly integrated vertical oligopoly, one could expect that only a small trickle down effect might be likely to occur.\(^{32}\) As articulated within the recent “The State of Agricultural Commodity Markets” report by

\(^{31}\) The gains from the application of Bt-cotton however need to be more closely evaluated, not only in economic terms, using the language of ‘gross-margins’, but also from the perspective of ecological sustainability. From another perspective, however, it is clear that the potential for intensification and expansion of production does exist, as after falling production for several years, “producers responded to a sharp increase in the real producer prices of white and yellow maize and have increased their harvest area” for the last two production seasons (NDA, 2003, p.145). In addition, the milling industry does still hold potential, as it currently is running at around 80 % of its available capacity.

\(^{32}\) This is mainly true for the corn market.
the FAO, “at the international level, a few vertically integrated companies have
gained increasing control over agricultural trade” (FAO (2), 2004, p.31). Furthermore,
as observed with the prominence of less than a handful of retailers in the South
African market, “supermarkets’ domination of the market gives them significant
leverage over production, distribution and trade, including through direct involvement
with developing country suppliers” (ibid., p.31). This effect of concentration is
especially pronounced within the maize sector and will likely affect simultaneously
large- and small-scale farmers.\footnote{Small scale farmers however might be enjoying a considerable disadvantage as they are less able than larger farmers to create an alliance that could constitute a challenge to the strong maize oligopoly.}

Furthermore, these farmers clearly run the danger of increasing their
dependency by the application of GM seeds as the vertical integration of the
commodity chain would be extended vertically downwards to the seed. As Mariam
Mayet, the director of the anti-GM Centre for Biosafety in South Africa has argued,
“multi-national companies [most prominently Dow Agrosciences and Monsanto] [are]
seeking nurseries in the south hemisphere for the production of GM seeds for export
to the United States” (\textit{CapeTimes}, 2005). Filing an objection last year with the
Department of Agriculture, it has successfully lobbied the government, as of early
this year, to “turn down an application by multi-national Dow Agrosciences to test its
genetically modified (GM) maize in South Africa” (ibid.). One of the main reasons for
objection by the government was the unknown potential impact of pesticide-resistant
GM maize on non-target species. Furthermore, Dow explicitly stated in their
application that the reason for their filed trials was “to gather information to
substantiate European Union registrations” (ibid.). Consequently, while the
dependency in the lesser important cotton sector on GM production has already well
progressed, GM maize has not yet fully established itself within the South African market.

Furthermore, large-scale maize farmers in South Africa have become increasingly dependent on large loans both from the governmental Land Bank, as well as commercial banks. As news of the current harvest estimates trickle in, several farmers are threatened going ‘belly-up’ as they are forced to default on loans due to an extremely low and volatile maize price. Holding more than 3.2 million tons of maize stocks and having expanded production areas from previous years, farmers are faced with current prices which are well below the R900 that would be need in order to “cover their input costs “and we are not even talking about profit”” (Njobeni, 2005). Currently, the market price for white maize stands at their lowest level ever, with R512, having dropped by more than R500 due to an over-supply and a lack of drought (Reuters, 2005). Ultimately, it becomes apparent that the current strategy of intensification might not be profitable or even applicable within the present context.

From a macro-economic perspective, the opening up of the agricultural market of the developed countries would not greatly affect South Africa’s maize market, as presently, in years when maize surpluses exist, “South Africa exports maize mainly to Zimbabwe, Japan, Zambia, Malawi, Mauritius, Kenya and Mozambique” (NDA, 2003, p.146). Consequently, unless vast increases in output would take place, South Africa is unlikely to become a major player outside of an African context in the maize market. Thus, while subsidies reduction would

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34 Due to the liberalization efforts undertaken within a post-apartheid context, which included the deregulation of the industry and the abolishment of the Maize Board in 1997, prices have been determined under free market condition through the trading at the SAFEX. Consequently, some analysts advocate for farmers to take part within the global ‘gamble’ of locking in their harvest through the purchase of futures on the maize markets. If they would have undertaken so, they could have locked in last fall, when the price was around R1000 and sold presently without having to deal with the loss of R400 since then.
potentially increase the price due to a drop of supply on a global scale, the issue of
 tariff reductions is of lesser importance, as South Africa engages most prominently in
 regional trading. Nevertheless, due to maize’s crucial role within the domestic
 context and in relationship to the issue of domestic food self-sufficiency, the
 continuation of a strong sector is of utmost importance. Consequently, a short-term
 price increase might most likely benefit South African large-scale farmers the most,
as they are operating under a liberalized market setting and hold the necessary
 capacity and capital to increase production.

**Impact # 4: Sustainability of Maize and Cotton Price Increase**

This importance is heightened within the Malian economy, both in the context
of maize and cotton production. Maize in Mali has been established as an important
source of nutrition in a domestic context, whereas cotton’s importance is much
further reaching in terms of scale due to its rising importance as the main export
crop. Overall, agriculture accounts for as much as 92.3 % of total export products in
2003. Consequently, as Mali’s small- and large-scale farmers are to profit in the
short-term the most from any global price gains, it is important to question the
potential sustainability of such gains in the long-term.

As has been well documented by several authors, commodity prices in
general and cotton prices in particular have been marked by a steady historical
decline, as well an omnipresent high seasonal volatility (FAO (1), 2004, Moseley,
2004). Commodity prices consequently are not only marked by the laws of supply
and demand, but have become integrated within the global economy and its various
stockmarkets, where traders, with imperfect information, are making decisions on
potential vulnerability of production output, and consequently integrate their own perception of risks within the current price. To illustrate this occurrence, as we can see in Graph 11, 12 and Table 5, overall, the African agricultural commodity sector has undergone a historical depression over the last 40 years if analyzed from a long-term horizon. First, as illustrated in Graph 11 “Decline in African agricultural commodity terms of trade”, Sub-Saharan African countries have been identified as having suffered the most due to increasing worsening of terms of trade. As estimated by the World Bank, “between 1970 and 1997 declining terms of trade cost non-oil-exporting countries in Africa the equivalent of 119 % of their combined annual gross domestic product (GDP) in lost revenues” (FAO, 2004, p.13).

35 A recent example is the reaction of traders to the final WTO dispute ruling in early March that declared US cotton subsidies illegal. On news of this decision, cotton futures rose to 51 cents / lb for May deliveries. They are expecting a "bullish" market, signified by lower cotton planting and rising global cotton demand, which has led to its highest level since October 2004. However, fears already exist that "prices have climbed too fast [... as the textile mills might not] consume the excess supply of both U.S. and world cotton." Furthermore, as shown in the earlier South African case, drought forecasts have also been actively integrated. Overall, consequently, the short market reaction is an indicator of the expectations of traders (Purchasing.com, 2005).
Second, as illustrated in Graph 12 "Cotton exports grow but income lags", while one common revenue to a decline in terms of trade due to falling export earnings and rising food import prices is to increase production, this attempt to offset the losses become increasingly non-compatible. As a matter of fact, while countries (including Mali)\(^3^6\) that depend on cotton as a single agricultural commodity for more than 20% of their total revenues have significantly increased their export volumes, they have not seen the corresponding increase in export revenues. Thus, as in the case of cotton, while export volumes have increased in these 6 countries by more than 40% during the 1990s, the revenues have respectively dropped by 4% during the same period. Consequently, needing the foreign exchange derived from exports in order to repay earlier debts, as well as pay for food imports, several developing countries have been hurt considerably by the high volatility of cotton and maize prices. As illustrated by a IMF/World Bank study, the past “sharp drop in the prices of key export commodities [were] the main reason why the ratio of debt to exports had worsened dangerously in 15 heavily indebted poor countries” (ibid., p.21).

This sharp drop in prices is a linear phenomenon cutting across all traditional agricultural export commodities. As illustrated in Table 5, both cotton and maize prices measured in real terms have declined consistently over the past 40 years (ibid.). Consequently, when evaluating the potential increase in price due to an

\(^3^6\) These countries are Central African Republic, Togo, Mali, Benin, Chad, Burkina Faso.
elimination in US and EU subsidies, while a 4 % increase in the price has been realistically estimated in the aftermath of the current WTO decision, as mentioned earlier, the estimated price increases range from 2.8 % to 29.7, with an average of 16 % (FAO (1), 2004; see Table 6: "Estimated impacts of developed country subsidy removal on world prices, …"). Having observed the general downward trend from a historical perspective, the damning question on the sustainability and longevity of these price increases needs to be asked. Thus, a potential 16 percent increase in world cotton and maize prices through the successful implementation of the WTO Framework Agreement and the Cotton Dispute Settlement, appears like a drop of water on a hot stove, given the structural long-term forces, as manifested in the declining terms of trade and world agricultural commodity prices.

The matter is further complicated by forces that lie outside the traditional economical analysis. As illustrated earlier, cotton prices have been effected not only by the laws of supply and demand, but as well by traders’ perception of risks, physical circumstances and the decisions undertaken by major cotton actors. As mentioned earlier, China, due to its commanding volume of cotton processed each year, has a great amount of influence on the annual volatility of the cotton market. Acting as both a producer (exporter) as well as an importer, China's level of net imports of raw cotton has been ascribed as “the single most important factor affecting world cotton prices” (Cotton Incorporated). China currently accounts for "over 25 % of world cotton production and nearly 35 % of consumption" (FAO (1), 2004, p.3ff). At the moment, as it is unclear whether or not China is currently subsidizing cotton production, analysts are unsure what impact an increase in world prices would have on Chinese production. Given the past strong response in 2002/2003 in China, when a 20 % increase in the domestic cotton price led to a 26 %
increase in production area, the world's largest cotton producer clearly amounts to one of the main factors affecting prices in a post-US-EU-subsidies environment.

In summary, it thus becomes prevalent that increases in cotton prices due to a reduction in subsides, while beneficial in the short term, are not only also affected in the short-term by a multitude of other factors, but as well placed in stark opposition with the historical trends observed above. Consequently, assuming a continued worsening of the terms of trade for agricultural products, while greater benefits will be reaped from the cotton production in the shorter term, increased global supply as a reaction to these higher prices, or expectations of higher prices, will reduce any prior short term benefits as demand for cotton will most likely not increase dramatically.  

Having thus questioned the long term sustainability of cotton production in terms of revenue, as well as from an ecological standpoint in the discussion of Mali (Moseley

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37 As a matter of fact, a large part of US cotton spending was devoted towards a marketing campaign, as witnessed on US TV that pitches cotton as a natural, American good and consequently tries to eliminate its archenemy, cheaper polyester.
Table 1: Estimated impacts of developed country subsidy removal on world prices, EU and US production levels, and the resulting increase in West and Central African (WCA) export earnings

<table>
<thead>
<tr>
<th>Source: FAO, 2004</th>
<th>Estimated price without subsidies (US$/lb)</th>
<th>Effect on price (%)</th>
<th>Production fall in the United States (%)</th>
<th>Production fall in the European Union (%)</th>
<th>Prejudice to WCA farmers (US$ million)³</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODI (2004)¹</td>
<td>0.675</td>
<td>18 - 28</td>
<td>15.2</td>
<td>26.6</td>
<td>266.5</td>
</tr>
<tr>
<td></td>
<td>0.688</td>
<td>20</td>
<td>8.3</td>
<td>19.8</td>
<td>93.6</td>
</tr>
<tr>
<td></td>
<td>0.70</td>
<td>22</td>
<td>13.6</td>
<td>25.2</td>
<td>354.6</td>
</tr>
<tr>
<td></td>
<td>0.732</td>
<td>28</td>
<td>1.5</td>
<td>8.9</td>
<td>133.5</td>
</tr>
<tr>
<td>Gourix (2003)</td>
<td>0.589 - 0.649</td>
<td>2.9 - 13.4</td>
<td>2.2 - 14.7</td>
<td>10 - 48</td>
<td>37 - 254</td>
</tr>
<tr>
<td>ICAC (2002)</td>
<td>0.742</td>
<td>29.7</td>
<td>-</td>
<td>-</td>
<td>274</td>
</tr>
<tr>
<td>ICAC (2003)²</td>
<td></td>
<td>0.742</td>
<td>21</td>
<td>-</td>
<td>504</td>
</tr>
<tr>
<td></td>
<td>2000/01</td>
<td>0.742</td>
<td>21</td>
<td>-</td>
<td>504</td>
</tr>
<tr>
<td></td>
<td>2001/02</td>
<td>0.736</td>
<td>72.4²</td>
<td>-</td>
<td>504</td>
</tr>
<tr>
<td>FAO (2004)</td>
<td>0.591 - 0.60</td>
<td>2.3 - 5.0</td>
<td>7.4 - 14.2</td>
<td>16.1 - 31.7</td>
<td>30</td>
</tr>
<tr>
<td>FAPRI (2002)</td>
<td></td>
<td>-</td>
<td>11.4</td>
<td>6.7</td>
<td>90.37</td>
</tr>
<tr>
<td>Reeves et al (2001)²</td>
<td></td>
<td>0.474</td>
<td>10.7</td>
<td>15.9</td>
<td>76</td>
</tr>
<tr>
<td>Summer² (2003)</td>
<td></td>
<td>0.844</td>
<td>12.6</td>
<td>29.1</td>
<td>116</td>
</tr>
<tr>
<td>Tokarick (2003)</td>
<td></td>
<td>0.588</td>
<td>2.8</td>
<td>8.6</td>
<td>26</td>
</tr>
</tbody>
</table>

Source: Based on Shuk (2004)

¹ The ODI studies run four model scenarios: S = Single Market; F = Fragmented market; U = Uniform elasticity; D = Differentiated elasticity. For the segmented market assumption, the world price is an average across segments.
² All studies use 2000/01 as the simulation year data except ICAC (2003) and Reeves (2001) which use 2001/02 data. Actual world price in 2000/01 = US$0.572/lb Actual world price in 2001/02 = US$0.418/lb.
³ Removal of US support only
⁴ The value of 72 percent reported in ICAC is considered by many to be an outlier due to the very low world price during the simulation year – see discussion on base year below.
⁵ Where the prejudice to WCA farmers is not explicitly stated in a study, the value in the table is estimated by using a cotton supply equation for WCA to determine additional export earnings generated by the increase in world price.

Impact #5: Food Security for the small- and large-scale farmer

Estimating the ultimate impact of the WTO Framework agreement on small- and large-scale farmers, we need to establish a concrete understanding of the concept of food security. Expanding across four scales, the international, national, household and individual, the Framework for food security and the diversity of its conceptualization is enormous. While presently, according to Maxwell, over "two hundred different definitions of the term" do exist, its source lies in the 1970s, when it was applied as an indicator of a "nation's aggregate food production" (Norton, 2004, p.99). Generally, this concept has evolved to our present understanding, which
stresses “the ability of poor households to gain access to food in the necessary amounts” (ibid., p.99). Consequently, while a discourse of the definitions of food security might be an interesting avenue for further exploration, I will use the well-known food security definition presented by the FAO Committee on World Food Security, which states that food security means that “all people at all times have both physical and economic access to the basic food they need” (USAID 1992).

To briefly elaborate on this definition, the important key element is food access. While food self-sufficiency highlights the importance of access to locally produced food without having to depend upon external donors and commercial imports, food access ‘expands’ this access both in terms of its geographical scale and through the introduction of capitalist modes of production, with the introduction of cash-crops, and a focus on trade as a means for securing this access. To cite the USDA definition of this concept of food access, it stresses that “individuals have adequate incomes or other resources to purchase or barter to obtain levels of appropriate foods need to maintain consumption of an adequate diet/nutrition level” (ibid.).

It stands consequently in stark contrast to policies proposing nationwide food self-sufficiency. These policies have generally been characterized as a costly, if not impossible, approach, that induces the dangers of an autarkic approach with a historical quest “to extracting rural produce cheaply to feed cities, creating perverse incentives, harming food output and employment and worsening undernutrition” (Norton, 2004, p.101). Thus, as advocated by Norton, the ‘fundamental lesson’ learned from past mistakes is that “to achieve improved levels of nutrition in rural households, cropping patterns should be allowed to follow comparative advantage, and farmers should not be given artificial incentives to grow basic foods. The surest
This comparative advantage has continually been linked during both the colonial and post-colonial era in the Malian context with the 'white gold', cotton.

Granted that over 200'000 farmers, and over 93 % of farm households in the CMDT zone, depend on cotton as their source of income, it becomes apparent that any increase in producer price with other food prices staying stable could result in a significant strengthening of food security in terms of increasing their abilities to purchase food crops. Long-term trends have shown that, while the internal autarchical strategy has largely been abandoned, least-developed countries have moved from holding a net surplus of agricultural products up through the 1980s to an expanding net deficit of close to $5 billion by 2002. (see Graph 13: “Agricultural trade balance of least developed countries, 1961-2002”) Furthermore, future projections by the FAO predict that by the year 2030, “the net food trade deficit of developing countries is expected to swell to more than US$50 billion in constant 1997-99 US$” (ibid.). Thus, while an increasing net deficit exist, from a macro scale, food security and insecurity appears to be closely related to three indicators of international trade:
the share of food imports in total merchandise exports, the share of food aid in food imports and the share of total food imports in calories available for consumption (ibid. p.19). Consequently, as seen in Graph 14 below, the food insecure countries, while devoting a large part of their export earnings towards imports of food crops, “cover a smaller share of their apparent consumption from food imports” (ibid.).

Consequently, it becomes apparent that in order to increase their food security, presently food insecure countries “might import even more food to cover shortfalls in domestic production and ensure food security if they were not constrained by limited export earnings” (ibid.). Thus, recalling the current trends proposed by the global and national actors away from food self-sufficiency in the 70s and 80s towards agricultural production with the goal of achieving food security, this present data seems to suggest that this trend is well underway and no future return to former policies in an increasingly open, networked and globalized economy is foreseeable.

Finally, this endeavor is also supported by further data sets that suggest that past food spikes, while still currently being detrimental to national economies that are

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38 It is however important to point out that the break in food security categorization appear to be drawn rather random. Furthermore, the graph does not address the question of the reason for this phenomenon directly.
heavily dependent upon a small number of economic export and import goods, have vastly been reduced and resulted in a, at least perceived, increasing sustainability of this policy approach. (see Graph 15: “Distribution of the incidence of import price spikes...”) Calculations by Diaz et al. show that the coefficient of variability for maize ($/mt) and cotton (cents/kg) has decreased from 0.21 in 1960-1999 to 0.16 in the 1990s for maize and from 0.19 to 0.14 for cotton respectively (Diaz et al., 2002, p.

**Graph 15**

Source: FAO, “State...”, 2004

Interestingly, not only South Africa has moved towards a greater liberalization of their markets, with the major exception of sugar, but so has Mali, with the major exception of cotton. Receiving considerable international support (PRMC; Programme de Restructuration du Marche Cerealier), as well as under pressure by the World Bank under its SAP (Structural Adjustment Program), the government deregulated their cereal markets starting in 1981. Investigating the response of cereal traders to this market reform effort in the cereal sector, Dembélé and Staatz found that while these market reforms failed at resolving “all the problems of cereals marketing and food security in Mali”, as it did ignore structural problems on the
production and transportation side of farming, they nevertheless were “effective in increasing competition, lowering costs, and improving physical access to coarse grains by consumers” (Dembele and Staatz, 2000, p.159ff). Consequently, their study seems to support the liberal assumption that the sale of state enterprises, permitting private sector involvements will increase competition and efficiency, resulting ultimately in greater producer and lower consumer prices, as well as more ‘equal’ food distribution. A case in point are the marketing margins, which decreased due to the increasing competition, and fell by almost 20% for “millet and sorghum between Bamako and its two major supplying areas” (ibid., p.153). Furthermore, “most evidence suggests that the reduction in marketing margins was passed back to farmers in the form of higher prices” (ibid., p.153). However, it is important to note that the larger traders, due to the lower margins available in the grain trade, decided to invest elsewhere, and smaller traders “responded most dramatically” investing heavily into trucks and storage capacities (ibid.). Consequently, through market reforms, these smaller traders, which used to operate in the shadow economy under the monopoly of the OPAM (Office Malien des Produits Agricoles) and faced repression, moved into the formal economy and could increase their profits as well as reduce their margins, as they no longer were “forced to operate clandestinely” (ibid., p.148ff).

Filling the gap, these traders ‘exploited’ this newly gained freedom of access to all regional markets across the country (including neighboring countries) as they “moved cereals to areas where prices were most attractive” (ibid. p.156). Measuring the average correlation of retail millet prices across the urban market areas in Mali, Dembele and Staatz found an increase “from 0.70 in the mid-1980s to 0.97 during the 1990s” (ibid., p.156). Overall, trade flows have increased dramatically, partially
due to the devaluation of the CFA as well as the removal of import and export restrictions both in Mali and neighboring countries. In summary, on a regional level, the market reforms have led to greater physical availability of grains in markets that previously were marked by food deficits. However, when taking the international economy into account, a clear “risk” exists that due to the increasing competition with wealthier neighboring countries, such as Cote D’Ivoire and Senegal, “some Malian consumers may be priced out of the market” (ibid., p.156f). Furthermore, any market instability, be it local, national, regional or global, will have an effect now on the market prices as they are no longer protected from outside ‘ripples’.

Taking into account this decrease in price stability due to internationalization of trade, food security does not seem to have improved accordingly. As the reforms, while successful in reducing the costs of grain distribution, marketing costs as well as retail prices, poor people still lack the purchasing power necessary to purchase grains in periods of low supply, exchange fluctuations and the resulting high price volatility. Consequently, improving access for the poorest lies outside the current market reforms undertaken under the PRMC and would “require a much broader effort to reduce poverty and developed targeted social safety nets in Mali” (ibid., p.161).

Evaluating the effect of past policy measures undertaken in post-Apartheid South Africa, Nick Vick finds that deregulation of the grain market, which included the abolition of price fixing mechanisms, resulted similar to the Malian case in increased opportunities for traders and “small and medium-scale businesses in processing and distributing maize and maize products” (Vick, 2004, p.162). As prices are increasingly coupled to the world market level, farmers in general have responded by either reducing their input costs and/or increasing their agricultural asset
diversification as well as increasing concentration of operations. Thus, Nay observed an overall “increase in the number of smaller commercial farms and an overall increase in the average farm size” (ibid., p.157). Overall, the real price for food has decreased in the rural areas in South Africa as the concept of comparative advantage has been more strongly applied within the liberalized setting.

Consequently, for example, with the retreat of the “single-channel fixed price marketing regime [that was] characterized by pan-territorial and pan-seasonal pricing”, prices took into account such factors as transportation costs, as well as the regional dynamics of supply and demand. In summary, farmers in South Africa have responded to this abolition by diversifying their livelihood strategies through increased part-time farming, adhering to contract farming or price hedging, supported by the creation of the SAFEX and other agricultural futures market, resulting in “greater certainty and lower transaction costs” (ibid., p.162).

However, smaller farmers seems to have been the most negatively affected as first governmental spending on agricultural research was cut back, leaving several small farmers without any support services in the country. Secondly, due to the decline in employment within the large-scale farming sector, attributed to the introduction of a minimum wage, and the reluctant pace of land redistribution, which

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39 Of course public spending, while reduced, was to a certain degree offset by private sector research, especially in South Africa. However, it becomes evident that adhering to the principles of economies of scale and profit-maximization, these companies and research enterprises largely tend to reach the large-scale producers. Furthermore, an interesting issue arises, such as the Fiscal Year 1995 Appropriations Act and its “Bumpers Amendment, i.e. “the US directive against providing assistance to local agricultural commodities’ producers whose exports may compete with US agricultural production” (USAID, 2002, p.32). Consequently, even though in high demand, the hands are tied for the world’s largest aid organization, USAID, to undertake any strengthening of agricultural cotton research within the Malian context.
account for less than 2 % so far, Vick argues that the rural farmers' food security\(^{40}\) has not improved. Furthermore, with the absence of effective governmental structures to reach these rural poors with the social service programs, a task usually undertaken by their former large-scale farming employers, rural farmers engaging in export-oriented agriculture have increasingly become polarized in two classes, in which a "privileged minority of households succeed in developing multiple livelihood strategies based on skills and predictable income, while a poorer majority of households increasingly find their established strategies undermined and often move on in search of better locations from which they will attempt to develop a new strategy" (Vick, p.175ff). In conclusion, Vick paints a 'dark picture' for the rural, traditional sector, as agricultural strategies are increasingly undermined by lack of governmental support and safety nets, women are experiencing increased vulnerabilities and a general trend towards pushing for "rights to residence [that] take precedence over rights to cultivation and grazing" (ibid., p.176ff). Thus, a great need exists to get a better understanding of rural-urban migration on a regional scale, supported with a food security monitoring system, in order to provide for the more than 12 million people, 25 % of the whole population, that are involved directly or indirectly in the commercial or traditional rural agricultural sector (ibid., p.173ff). Vick ultimately finds that the "multipliers from agricultural growth" theory\(^{41}\) is still well alive and should receive its deserved attention in order to strengthen food security and

\(^{40}\) Vick rejects subsistence agriculture as a viable strategy, adhering to the conclusion of a recent research report, ECI, which "concluded that the single most important determinant of food security in South Africa is cash in hand [...] Unless agricultural production moves out of subsistence levels to some scale of commercialization, little impact on food insecurity and poverty is possible" (ibid., p.168).

\(^{41}\) Agricultural growth theory suggests that for every dollar of increased earnings within agriculture, additional spending will be created through a 'multiplication' of that dollar's purchasing power. Thus, multipliers to non-tradables form agricultural income growth ranges from below 2.0 (i.e. Niger) to above 2.75 (i.e. Burkina Faso) (Melor, 1999, p.9).
purchasing power of the rural populations, thus regurgitating the earlier thesis by Norton that "adequate real price incentives in agriculture are important not only for economic growth but also for alleviating rural poverty" (Norton, 2004, p. 103).

To a great extent, this focus on seeing vulnerability and food insecurity as an income problem, as opposed to a supply-side issue, is shared by Moseley and Logan. In their work on "The Politics of Discourse, Famine Early Warning Systems and Hunger in Africa", they argue that there is a considerable bias in the international community towards interpreting food in-/security as a supply-side problem that, while acknowledging the importance of the household level, is still largely focused on a macro-level approach that ignores important developed nations' political economical analysis (Moseley and Logan, forthcoming 2005, p. 4). Demonstrating how this supply-side approach is closely entrenched within the interests of Africa's largest donors, they argue against the application of early warning systems as indicators of vulnerability and conclude that "the inexactness of food security monitoring, means that the national or international safety net will always be riddled with holes" (ibid., p. 18).

Consequently, in order to evaluate the ultimate effects we need to connect the political economy of agricultural trade markets with the structural, supply-side problems, as elaborated in the previous section. Thus, any improvements in food security, while higher prices garnered through reduced subsidies are an important factor, will have come in over the long term "only about through reducing the real costs of food production and distribution, coupled with broad-based income growth" (Dione, 2000, p. 137). Both private and public investments will be needed in order to ensure an improvement in both physical infrastructure, as well as technical support to the farming communities. The role of the private trader, as well as the large-scale
11. Policy Considerations

Having studied in-depth the potential outcomes of the WTO Framework Agreement and the Cotton Dispute Settlement at large, and the farming sector within the United States, South Africa and Mali in particular, it becomes evident that no clear-cut panacea exists. Dedicating this final section towards the proposition of policy considerations, I will advocate for three wide-ranging avenues that all lead towards the ultimate goal of increasing 'developmental space' within an increasingly modernized, liberalized and industrialized global agricultural setting. This expansion or creation of developmental space within agriculture occurs at five levels: the global, national, regional, local and the individual. While it will be impossible to cover all five levels with due justice, all proposed avenues will ultimately be aiming at strengthening or creating the flexibility and choice of the marginalized farmers in the medium- to long-run without negatively limiting developmental space for equally marginalized non-agricultural groups.

Having witnessed the decreasing political clout of the US agricultural sector, as seen in the recent proposed budget cuts by President Bush, the first successful legal agricultural challenge fought at the WTO by developing nations, and the partial, yet in terms of modalities, incomplete victory achieved with the phasing out of subsidies in the July 31st Framework Agreement, it becomes clear that the bargaining power of developing nations on the global level has increased.
Consequently, a potential increase of developmental space\textsuperscript{42} appears to lie in the horizon with the continued coherence of the G20. However, in order to sustain this ‘success story’ in the long-term, these nations should invest heavily into the strengthening of their legal understanding and capabilities to keep a check on the implementation of the rulings as well as during the negotiations in the Hong Kong summit and upcoming negotiations. This academic public investment into strengthening the legal ability\textsuperscript{43} of both Mali’s and South Africa’s negotiators will be key in monitoring this process of freer, less-distorted agricultural trade. Furthermore, the role of scholars and NGOs in articulating injustices has increasingly heightened in the age of globalization and the internet revolution. Consequently, a dual-pronged approach should be taken, through the creation of linkages between the bureaucracy, academia and farmers, which focuses on pointing out and challenging current violations, prohibiting past violations from reoccurring and shaping future negotiations that strengthen and defend any gained developmental space. Ultimately, while acknowledging the major democratic and institutional shortcomings witnessed in the past in the WTO, I strongly believe that each developing nation’s possibility will be the greatest through including and establishing itself with a commitment towards shaping the international trade rules from within. Of course, this long-term strategy does not have to occur

\textsuperscript{42} The increase of development space, according to Wade (2004), would include a shift away from further trade homogenization towards granting states reasonable ‘water’ or acting room to choose effective levels of national protection during times of volatility and infancy.

\textsuperscript{43} It is important to note that the WTO is already offering several legal workshops, financed usually by Northern countries, such as the Netherlands. While a major conflict of interest exists with the United States certainly not wishing to be strengthening developing nations ability to challenge their own subsidies through legal ‘education’, an interesting space does exist as European nations have been battling against the US on the African continent to ban GM crops. It is within this context of a ‘GM-war’ that several European anti-GM IOs, NGOs and governments have provided legal advice and support, which increases their bargaining power outside the realm of GM crops.
unilaterally, as the perseverance of the G20 alliance has shown, overcoming many real-politik obstacles. Overall, including the importance of the TRIPS, TRIMS and the GATS in diminishing and limiting development space, the overarching goal should not be simply to gain 'market access', but to appropriate for themselves the tools necessary to create 'development space' and reversing the 'kicking away of the development ladder', as described by Robert Wade (2003).

While one potential strategy of development space, as articulated by Wade, is the well-discussed strategy of import substitution in the manufacturing sector, its equivalent within the agricultural sector is traditional agriculture, free from contract farming, with reduced dependency on non-organic fertilizer, pesticides and herbicides, as well as patented seeds and a capable state that can protect their market in cases of high volatility. All of these factors are represented to the extreme in the struggle against biotech companies, such as Monsanto, through their highly vertical production process, as well as their powerful lobbying and legal capacity within and outside the WTO setting⁴⁴. Taking into account the potential impact of the WTO Framework in extending the reach of biotechnology and strengthening local farmers' dependency on non-organic inputs, it becomes imperative that the national governments implement policies that filter this power-imbalance. Granted that the benefits and the disadvantages of biotechnological farming are still largely unknown and facts are abundant pointing in both directions, it appears to be most reasonable for the legislature to adopt policies of a 'precautionary approach'⁴⁵ towards

⁴⁴ As a matter of fact, several of past WTO high-ranking officers have held management posts within Monsanto.
⁴⁵ While several definitions exist, the most prominent one is the one found in the Rio Declaration on Environment and Development, as set out in the declaration's 15th and 16th principles. This precautionary approach requires that "when there are threats of serious or
biotechnology, in order to regain a legal degree of autonomy within the industrialized agricultural context. Furthermore, while not excluding the potential benefits of biotechnology per se, governments should be wary of sacrificing their farmers and its lands for field testing experiments, as seen in the case of South Africa, that are aimed not towards helping improving food security of these farmers, but rather strengthening their own role in the international market context. Given the immense amount of funding that is invested on both pro- and contra-biotech actors’ sides, both Mali and South Africa would be well advised to include conditionalities into any potential contracts or licenses handed out. Possible conditionalities could include, but not be limited to, the sharing of information with public universities to promote the biotechnological development of indigenous crops or the inclusion of financial credits to smaller-scale farmers. Consequently, the goal would be to counteract, what Moseley has observed as the trend that “international capital sought out the local wealthy through agricultural extension programs in order to proliferate and intensify cash cropping and its associated technologies” (Moseley, 2005, p.18).

Of course, while potentially economically beneficial in the short- to medium-run, in Moseley’s final analysis, it becomes evident that soil degradation appears to be more closely linked to the technological methods of agricultural production, as opposed to any index of poverty (ibid.). Thus, challenging the dominant discourse of poverty induced environmental degradation, the overall ecological sustainability of modernized maize and cotton production might be threatened in the long run with increasing application of pesticide and inorganic fertilizer, and threatens to overshadow any short-term economic gains achieved through more stable and irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation” (UNEP, 1992).
higher world prices. Consequently, the government needs to pay close attention to both the economic, as well as the ecological sustainability of modernized agriculture in order to avoid slipping into a 'straight-jacket' of increasingly marginalized yields, soils and farmers.

Furthermore, governmental policies should be established that go beyond the push for liberalization of the cotton sector, as demanded by the World Bank, by creating policies that counteract the establishment of monopolies and oligopolies in the trading sector. This factor appears to be especially prevalent in the case of both South Africa and Mali, whereas in South Africa the issue appears to expand well beyond the trader into the retail sector. Of course, this national policy does not have to be undertaken through limiting of the free trade, but rather through promoting greater competition among these actors, supporting the democratic capacity of the citizens in voicing their own opinion and strengthening and cooperating with the farmers' unions as important actors in shaping fairer markets. Overall, extending Amartya Sen's thesis on famines and democracy, both Malian and South African governments, as their domestic influence in the agricultural markets are reduced, should encourage the strengthening of accountability in order to not weaken the food security of marginalized, rural population.

Finally, as seen in the case of South Africa and Mali, there is a great need for continued governmental involvement acting as safety nets, as well as extension agents that reach and support the small-scale farmers. This governmental support however needs to be as dynamic and flexible as possible, in order to avoid counteracting market incentives and not to prolong, as was the case in Mali, the historical lack of support for intercropping, crop rotations, improved fallows and diversification seen as integral in strengthening food security. One of the most
promising avenues of policy involvement for the government certainly would be in the provision of credits for small-scale farmers that are less attractive for agribusinesses, as well as the support for the creation of locally owned storage capacity systems, anti-monopoly legislation, the creation of commodity exchange markets and better diffusion of pricing information in order to provide for (temporary) shelters from price volatility. Of course, this governmental support is largely financed by multi- and bi-lateral donors that have previously viewed cotton as the key export crop towards development. However, with an increasing focus on ecological sustainability, these governments might be able to garner a new influx of support by developing organic cotton, as an example, that will counteract many of the negative effects associated with cotton production through increasing both its ecological, reduced soil degradation, and economic, highest quality resulting in higher prices, sustainability. One recent avenue of such production efforts has been undertaken in Mali and Kyrgyzstan with the support of several high-ranking Swiss governmental and non-governmental aid agencies, such as Helvetas. Results from the 2002 and 2003 harvest have shown that not only yields, as compared to conventional cotton,

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46 One of the most beneficial avenues to improve food security, I would argue, is the possibility of supporting a group of farmers financially in order for them being able to buy into storage and processing facilities, for example, during the process of liberalization in order to offset the negative effects observed in the case of South Africa. This is especially pertinent within the context of Mali, where currently liberalization efforts in the cotton sector are underway. Furthermore, in the case of South Africa, financial support for land redistribution should be made more readily available, as the current process has been a disappointment.

47 As noted by Norton on the topic of anti-monopoly legislation, he points out that "legal remedies for cases of abuse of the power of monopolies and oligopolies [...], can be made available, and should be. Nevertheless, proving abuse is likely to be a cumbersome, uncertain process, and the difficulties of doing so should not be underestimated, especially in circumstances where judiciaries are relatively weak" (Norton, p.95).

48 As stated by Meier, the reasons for organic production vary from "occupational health and opportunity to escape ‘treadmill’ of credits for inputs" for the producers to "Opportunity to turn ‘faceless’ community into a clearly profiled product" for the cotton and apparel industry. Furthermore, a facilitated access to the Swiss cotton import market has been established, and several international actors have stressed their interest or already purchased organic cotton, including Ikea, Nike, H&M and Patagonia (Meier, 2004).
12. Conclusion

In conclusion, it consequently becomes clear that the issue of assessing the impact of the WTO Framework Agreement on farmers in both the developed and developing world is vastly complex and clear limitations in any study will exist. Nevertheless, I hope to have clearly shown that the WTO Framework Agreement currently can not be deemed a historic breakthrough for two main reasons. First, the term *breakthrough* is certainly inappropriate, as it will take up to 10 years to implement the agreement if negotiation progress does not stall. Second, analyzing its historicity, the agreement, while holding the potential to constitute a *historic* achievement compared to the URAA, nevertheless will ultimately depend upon the working out of the modalities at the Hong Kong Summit in December 2005. It is within this context that the earlier proposed policy consideration of strengthening the legal capabilities becomes especially urgent and important to close legal loopholes, such as the documented boxshifting activities, as well as increase development space in the long-run.

Concerning the impact on small- and large-scale farmers, it appears that the greatest beneficiary in both the United States and Mali would be the smaller scale farmers. In South Africa, on the other hand, due to the high marketing margins and their increasing marginalization within a liberalized setting, the larger-scale farmers would be the ones that will reap the benefits of an increased price most readily. Being able to respond to higher prices with increasing supply, they would most likely be able to increase their own capital, consequently outcompeting smaller-scale farmers even further.
Taking a step back, however, it becomes evident that in the long-term, the price increase might prove to be unsustainable unless large-scale structural economic changes would take place on a global level. However, as has become evident in the earlier analysis of the WTO Framework Agreement and the Dispute Settlement victory, these structural changes are not to be found within a setting of an increasingly neo-liberal agricultural market. Thus, strategies of diversification at all scales might prove to be the most successful avenue, through a reinvestment of potential short-term increased agricultural profits into other sectors and agricultural commodities, as well as through a return towards more traditional agricultural approaches, e.g. inter-cropping, no-till and organic farming.

Ultimately, however, for future studies and the interested reader, three main story-lines should be kept in mind and on the academic and policy radar screen: First, how long will the gained bargaining power of the G20 be sustained? Listening to people having closer access to negotiations, severe deflections and internal disputes have weakened the alliance’s consistency and could undermine a great achievement. Second, the modalities will be extremely important and as soon as agreed upon, a wealth of reports will likely be released by the NGO armada, lead by Oxfam, assessing the impacts. A special eye should be kept on the United States farming lobbies, as their press releases tend to be very indicative of their true stance. Concerning the DSM, Oxfam has already started as of March 2005 a new campaign targeting rice subsidies in the US. Consequently, further rulings in favor of developing nations may be very likely. Finally, in terms of agricultural development, two key events to be closely watched is the continued push for biotechnology in Africa, such as the introduction of GM cotton in Mali, and the potential for an increase in contract farming as agricultural specialization might occur. Both cases, I
strongly believe, will turn out to be detrimental to the success of strategies on
strengthening food security as an increasing of concentration on the vertical
commodity chain will occur. Thus, it will only be through a complex action and
cooperation at several scales that developing and least-developed countries will be
able to 'climb up the development ladder' and increase their own development
space, counteracting the kick by the developed nations.

Acknowledgments

I am very grateful for all the support and insightful reviewers of this work. First
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and given me insightful feedback on both my presentations and the paper in general.
Appendix I
Source: WTO

**AMBER BOX**
All Domestic Support Measures that distort production and trade

- *De Minimis* support of 5% for developed/10% for developing allowed
- Reduction Commitments: Total AMS: specific + non-specific product support

**BLUE BOX**
"Amber Box with Conditions" if support requires farmers to limit production (e.g. Direct Payments as opposed to market support)

- During UGAA, no limits on spending on blue box subsidies.

**GREEN BOX**
Do not distort trade, or at most cause minimal distortion. Have to be government-funded and must not involve price support.

- Governments may increase spending or introduce or amend these subsidies

**Developed Countries:** 20% by 2000

**Developing Countries:** 13.3% by 2004
Appendix II
Source: WTO

**EXAMPLES OF US SUBSIDIES**

**AMBER BOX**
- All Domestic Support Measures that distort production and trade
  - De Minimis support of 5% for developed/10% for developing allowed
  - Marketing Loan Programs
  - Price Support Programs (Dairy + Sugar)

**BLUE BOX**
- "Amber Box with Conditions" if support requires farmers to limit production (e.g., Direct Payments as opposed to market support)
  - None so far
  - During UGAA, no limits on spending on blue box subsidies.

**GREEN BOX**
- Do not distort trade, or at most cause minimal distortion. Have to be government-funded and must not involve price support.
  - Agriculture Research
  - Food Stamps
  - AMTA (Production Flexibility Payments) and Direct Payments

Do not distort trade, or at most cause minimal distortion. Have to be government-funded and must not involve price support.
Export subsidy expenditure by country, 1995-98

Source: Economic Research Service, USDA
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<tbody>
<tr>
<td>Wheat</td>
<td>169.3</td>
<td>403.4</td>
<td>197.9</td>
<td>562.9</td>
<td>531.1</td>
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<tr>
<td>Coarse grains</td>
<td>420.0</td>
<td>494.4</td>
<td>306.4</td>
<td>864.5</td>
<td>772.0</td>
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<td>Rice</td>
<td>55.3</td>
<td>97.7</td>
<td>36.3</td>
<td>28.7</td>
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<td>Oilseeds</td>
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<td>49.9</td>
<td>10.1</td>
<td>2.7</td>
<td>1.0</td>
</tr>
<tr>
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<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>Fruits and vegetables</td>
<td>166.3</td>
<td>126.4</td>
<td>95.1</td>
<td>89.8</td>
<td>79.2</td>
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<tr>
<td>Sugar</td>
<td>512.9</td>
<td>692.7</td>
<td>890.7</td>
<td>913.2</td>
<td>510.0</td>
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<td>Milk products</td>
<td>2,547.1</td>
<td>2,695.3</td>
<td>1,938.7</td>
<td>1,992.9</td>
<td>2,255.1</td>
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<tr>
<td>Wine</td>
<td>75.7</td>
<td>85.9</td>
<td>47.2</td>
<td>35.5</td>
<td>27.4</td>
</tr>
<tr>
<td>Beef</td>
<td>2,010.1</td>
<td>1,947.1</td>
<td>950.2</td>
<td>732.5</td>
<td>808.0</td>
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<tr>
<td>Pork</td>
<td>135.5</td>
<td>94.4</td>
<td>95.4</td>
<td>403.7</td>
<td>288.5</td>
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<td>Poultry</td>
<td>189.2</td>
<td>104.7</td>
<td>107.8</td>
<td>128.8</td>
<td>102.2</td>
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<tr>
<td>Other meats</td>
<td>11.9</td>
<td>11.3</td>
<td>10.1</td>
<td>2.2</td>
<td>2.6</td>
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<td>Livestock</td>
<td>26.6</td>
<td>14.7</td>
<td>0.1</td>
<td>0.2</td>
<td>1.2</td>
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<td>Tobacco</td>
<td>25.8</td>
<td>5.9</td>
<td>0.8</td>
<td>0.9</td>
<td>0.0</td>
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<tr>
<td>Processed products</td>
<td>779.4</td>
<td>852.4</td>
<td>709.5</td>
<td>747.5</td>
<td>841.0</td>
</tr>
<tr>
<td>Other agricultural products</td>
<td>114.7</td>
<td>209.5</td>
<td>159.0</td>
<td>161.6</td>
<td>257.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>7,323.6</td>
<td>7,865.6</td>
<td>5,555.3</td>
<td>6,667.7</td>
<td>6,504.1</td>
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</table>

1/ Not all countries have notified as yet for this year.

Source: Economic Research Service (ERS) calculations from World Trade Organization (WTO) export subsidy notifications. 
http://www.ers.usda.gov/db/wto/
Appendix IV

WTO July Framework Agreement

Doha Work Programme

Decision Adopted by the General Council on 1 August 2004

1. The General Council reaffirms the Ministerial Declarations and Decisions adopted at Doha and the full commitment of all Members to give effect to them. The Council emphasizes Members’ resolve to complete the Doha Work Programme fully and to conclude successfully the negotiations launched at Doha. Taking into account the Ministerial Statement adopted at Cancun on 14 September 2003, and the statements by the Council Chairman and the Director-General at the Council meeting of 15-16 December 2003, the Council takes note of the report by the Chairman of the Trade Negotiations Committee (TNC) and agrees to take action as follows:

   a. **Agriculture**: the General Council adopts the framework set out in Annex A to this document.

   b. **Cotton**: the General Council reaffirms the importance of the Sectoral Initiative on Cotton and takes note of the parameters set out in Annex A within which the trade-related aspects of this issue will be pursued in the agriculture negotiations. The General Council also attaches importance to the development aspects of the Cotton Initiative and wishes to stress the complementarity between the trade and development aspects. The Council takes note of the recent Workshop on Cotton in Cotonou on 23-24 March 2004 organized by the WTO Secretariat, and other bilateral and multilateral efforts to make progress on the development assistance aspects and instructs the Secretariat to continue to work with the development community and to provide the Council with periodic reports on relevant developments.

   Members should work on related issues of development multilaterally with the international financial institutions, continue their bilateral programmes, and all developed countries are urged to participate. In this regard, the General Council instructs the Director General to consult with the relevant international organizations, including the Bretton Woods Institutions, the Food and Agriculture Organization and the International Trade Centre to direct effectively existing programmes and any additional resources towards development of the economies where cotton has vital importance.

   c. **Non-agricultural Market Access**: the General Council adopts the framework set out in Annex B to this document.

   d. **Development**:

   **Principles**: development concerns form an integral part of the Doha Ministerial Declaration. The General Council rededicates and recommits Members to fulfilling the development dimension of the Doha Development Agenda, which places the needs and interests of developing and least-developed countries at the heart of the Doha Work Programme. The Council reiterates the important role that enhanced market access, balanced rules, and well targeted, sustainably financed technical assistance and capacity building programmes can play in the economic development of these countries.
Special and Differential Treatment: the General Council reaffirms that provisions for special and differential (S&D) treatment are an integral part of the WTO Agreements. The Council recalls Ministers’ decision in Doha to review all S&D treatment provisions with a view to strengthening them and making them more precise, effective and operational. The Council recognizes the progress that has been made so far. The Council instructs the Committee on Trade and Development in Special Session to expeditiously complete the review of all the outstanding Agreement-specific proposals and report to the General Council, with clear recommendations for a decision, by July 2005. The Council further instructs the Committee, within the parameters of the Doha mandate, to address all other outstanding work, including on the cross-cutting issues, the monitoring mechanism and the incorporation of S&D treatment into the architecture of WTO rules, as referred to in TN/CTD/7 and report, as appropriate, to the General Council.

The Council also instructs all WTO bodies to which proposals in Category II have been referred to expeditiously complete the consideration of these proposals and report to the General Council, with clear recommendations for a decision, as soon as possible and no later than July 2005. In doing so these bodies will ensure that, as far as possible, their meetings do not overlap so as to enable full and effective participation of developing countries in these discussions.

Technical Assistance: the General Council recognizes the progress that has been made since the Doha Ministerial Conference in expanding Trade-Related Technical Assistance (TRTA) to developing countries and low-income countries in transition. In furthering this effort the Council affirms that such countries, and in particular least-developed countries, should be provided with enhanced TRTA and capacity building, to increase their effective participation in the negotiations, to facilitate their implementation of WTO rules, and to enable them to adjust and diversify their economies. In this context the Council welcomes and further encourages the improved coordination with other agencies, including under the Integrated Framework for TRTA for the LDCs (IF) and the Joint Integrated Technical Assistance Programme (JITAP).

Implementation: concerning implementation-related issues, the General Council reaffirms the mandates Ministers gave in paragraph 12 of the Doha Ministerial Declaration and the Doha Decision on Implementation-Related Issues and Concerns, and renews Members’ determination to find appropriate solutions to outstanding issues. The Council instructs the Trade Negotiations Committee, negotiating bodies and other WTO bodies concerned to redouble their efforts to find appropriate solutions as a priority. Without prejudice to the positions of Members, the Council requests the Director-General to continue with his consultative process on all outstanding implementation issues under paragraph 12(b) of the Doha Ministerial Declaration, including on issues related to the extension of the protection of geographical indications provided for in Article 23 of the TRIPS Agreement to products other than wines and spirits, if need be by appointing Chairpersons of concerned WTO bodies as his Friends and/or by holding dedicated consultations. The Director-General shall report to the TNC and the General Council no later than May 2005. The Council shall review progress and take any appropriate action no later than July 2005.

Other Development Issues: in the ongoing market access negotiations, recognising the fundamental principles of the WTO and relevant provisions of GATT 1994, special attention shall be given to the specific trade and development related needs and concerns of developing countries, including capacity constraints. These particular concerns of developing countries, including relating to food security, rural development, livelihood, preferences, commodities and net food imports, as well as prior unilateral liberalisation, should be taken into consideration, as appropriate, in the course of the
Agriculture and NAMA negotiations. The trade-related issues identified for the fuller integration of small, vulnerable economies into the multilateral trading system, should also be addressed, without creating a sub-category of Members, as part of a work programme, as mandated in paragraph 35 of the Doha Ministerial Declaration.

**Least-Developed Countries:** the General Council reaffirms the commitments made at Doha concerning least-developed countries and renews its determination to fulfil these commitments. Members will continue to take due account of the concerns of least-developed countries in the negotiations. The Council confirms that nothing in this Decision shall detract in any way from the special provisions agreed by Members in respect of these countries.

e. **Services:** the General Council takes note of the report to the TNC by the Special Session of the Council for Trade in Services and reaffirms Members' commitment to progress in this area of the negotiations in line with the Doha mandate. The Council adopts the recommendations agreed by the Special Session, set out in Annex C to this document, on the basis of which further progress in the services negotiations will be pursued. Revised offers should be tabled by May 2005.

f. **Other negotiating bodies:**

**Rules, Trade & Environment and TRIPS:** the General Council takes note of the reports to the TNC by the Negotiating Group on Rules and by the Special Sessions of the Committee on Trade and Environment and the TRIPS Council. The Council reaffirms Members' commitment to progress in all of these areas of the negotiations in line with the Doha mandates.

**Dispute Settlement:** the General Council takes note of the report to the TNC by the Special Session of the Dispute Settlement Body and reaffirms Members' commitment to progress in this area of the negotiations in line with the Doha mandate. The Council adopts the TNC's recommendation that work in the Special Session should continue on the basis set out by the Chairman of that body in his report to the TNC.

g. **Trade Facilitation:** taking note of the work done on trade facilitation by the Council for Trade in Goods under the mandate in paragraph 27 of the Doha Ministerial Declaration and the work carried out under the auspices of the General Council both prior to the Fifth Ministerial Conference and after its conclusion, the General Council decides by explicit consensus to commence negotiations on the basis of the modalities set out in Annex D to this document.

**Relationship between Trade and Investment, Interaction between Trade and Competition Policy and Transparency in Government Procurement:** the Council agrees that these issues, mentioned in the Doha Ministerial Declaration in paragraphs 20-22, 23-25 and 26 respectively, will not form part of the Work Programme set out in that Declaration and therefore no work towards negotiations on any of these issues will take place within the WTO during the Doha Round.

h. **Other elements of the Work Programme:** the General Council reaffirms the high priority Ministers at Doha gave to those elements of the Work Programme which do not

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49 This report is contained in document TN/S/16.
50 The reports to the TNC referenced in this paragraph are contained in the following documents: Negotiating Group on Rules - TN/RL/9; Special Session of the Committee on Trade and Environment - TN/TE/9; Special Session of the Council for TRIPS - TN/IP/10.
51 This report is contained in document TN/DS/10.
involve negotiations. Noting that a number of these issues are of particular interest to
developing-country Members, the Council emphasizes its commitment to fulfill the
mandates given by Ministers in all these areas. To this end, the General Council and
other relevant bodies shall report in line with their Doha mandates to the Sixth Session of
the Ministerial Conference. The moratoria covered by paragraph 11.1 of the Doha
Ministerial Decision on Implementation-related Issues and Concerns and paragraph 34
of the Doha Ministerial Declaration are extended up to the Sixth Ministerial Conference.

2. The General Council agrees that this Decision and its Annexes shall not be used in
any dispute settlement proceeding under the DSU and shall not be used for interpreting the
existing WTO Agreements.

3. The General Council calls on all Members to redouble their efforts towards the
conclusion of a balanced overall outcome of the Doha Development Agenda in fulfilment of
the commitments Ministers took at Doha. The Council agrees to continue the negotiations
launched at Doha beyond the timeframe set out in paragraph 45 of the Doha Declaration,
leading to the Sixth Session of the Ministerial Conference. Recalling its decision of 21
October 2003 to accept the generous offer of the Government of Hong Kong, China to host
the Sixth Session, the Council further agrees that this Session will be held in December 2005.

Annex A

Framework for Establishing Modalities in Agriculture

1. The starting point for the current phase of the agriculture negotiations has been the
mandate set out in Paragraph 13 of the Doha Ministerial Declaration. This in turn built on the
long-term objective of the Agreement on Agriculture to establish a fair and market-oriented
trading system through a programme of fundamental reform. The elements below offer the
additional precision required at this stage of the negotiations and thus the basis for the
negotiations of full modalities in the next phase. The level of ambition set by the Doha
mandate will continue to be the basis for the negotiations on agriculture.

2. The final balance will be found only at the conclusion of these subsequent
negotiations and within the Single Undertaking. To achieve this balance, the modalities to be
developed will need to incorporate operationally effective and meaningful provisions for
special and differential treatment for developing country Members. Agriculture is of critical
importance to the economic development of developing country Members and they must be
able to pursue agricultural policies that are supportive of their development goals, poverty
reduction strategies, food security and livelihood concerns. Non-trade concerns, as referred
to in Paragraph 13 of the Doha Declaration, will be taken into account.

3. The reforms in all three pillars form an interconnected whole and must be
approached in a balanced and equitable manner.

4. The General Council recognizes the importance of cotton for a certain number of
countries and its vital importance for developing countries, especially LDCs. It will be
addressed ambitiously, expeditiously, and specifically, within the agriculture negotiations.
The provisions of this framework provide a basis for this approach, as does the sectoral
initiative on cotton. The Special Session of the Committee on Agriculture shall ensure
appropriate prioritization of the cotton issue independently from other sectoral initiatives. A
subcommittee on cotton will meet periodically and report to the Special Session of the
Committee on Agriculture to review progress. Work shall encompass all trade-distorting policies affecting the sector in all three pillars of market access, domestic support, and export competition, as specified in the Doha text and this Framework text.

5. Coherence between trade and development aspects of the cotton issue will be pursued as set out in paragraph 1.b of the text to which this Framework is annexed.

DOMESTIC SUPPORT

6. The Doha Ministerial Declaration calls for "substantial reductions in trade-distorting domestic support". With a view to achieving these substantial reductions, the negotiations in this pillar will ensure the following:

- Special and differential treatment remains an integral component of domestic support. Modalities to be developed will include longer implementation periods and lower reduction coefficients for all types of trade-distorting domestic support and continued access to the provisions under Article 6.2.

- There will be a strong element of harmonisation in the reductions made by developed Members. Specifically, higher levels of permitted trade-distorting domestic support will be subject to deeper cuts.

- Each such Member will make a substantial reduction in the overall level of its trade-distorting support from bound levels.

- As well as this overall commitment, Final Bound Total AMS and permitted de minimis levels will be subject to substantial reductions and, in the case of the Blue Box, will be capped as specified in paragraph 15 in order to ensure results that are coherent with the long-term reform objective. Any clarification or development of rules and conditions to govern trade distorting support will take this into account.

Overall Reduction: A Tiered Formula

7. The overall base level of all trade-distorting domestic support, as measured by the Final Bound Total AMS plus permitted de minimis level and the level agreed in paragraph 8 below for Blue Box payments, will be reduced according to a tiered formula. Under this formula, Members having higher levels of trade-distorting domestic support will make greater overall reductions in order to achieve a harmonizing result. As the first instalment of the overall cut, in the first year and throughout the implementation period, the sum of all trade-distorting support will not exceed 80 per cent of the sum of Final Bound Total AMS plus permitted de minimis plus the Blue Box at the level determined in paragraph 15.

8. The following parameters will guide the further negotiation of this tiered formula:

- This commitment will apply as a minimum overall commitment. It will not be applied as a ceiling on reductions of overall trade-distorting domestic support, should the separate and complementary formulae to be developed for Total AMS, de minimis and Blue Box payments imply, when taken together, a deeper cut in overall trade-distorting domestic support for an individual Member.
• The base for measuring the Blue Box component will be the higher of existing Blue Box payments during a recent representative period to be agreed and the cap established in paragraph 15 below.

**Final Bound Total AMS: A Tiered Formula**

9. To achieve reductions with a harmonizing effect:

- Final Bound Total AMS will be reduced substantially, using a tiered approach.
- Members having higher Total AMS will make greater reductions.
- To prevent circumvention of the objective of the Agreement through transfers of unchanged domestic support between different support categories, product-specific AMSs will be capped at their respective average levels according to a methodology to be agreed.
- Substantial reductions in Final Bound Total AMS will result in reductions of some product-specific support.

10. Members may make greater than formula reductions in order to achieve the required level of cut in overall trade-distorting domestic support.

**De Minimis**

11. Reductions in *de minimis* will be negotiated taking into account the principle of special and differential treatment. Developing countries that allocate almost all *de minimis* support for subsistence and resource-poor farmers will be exempt.

12. Members may make greater than formula reductions in order to achieve the required level of cut in overall trade-distorting domestic support.

**Blue Box**

13. Members recognize the role of the Blue Box in promoting agricultural reforms. In this light, Article 6.5 will be reviewed so that Members may have recourse to the following measures:

- Direct payments under production-limiting programmes if:
  - such payments are based on fixed and unchanging areas and yields; or
  - such payments are made on 85% or less of a fixed and unchanging base level of production; or
  - livestock payments are made on a fixed and unchanging number of head.

Or

- Direct payments that do not require production if:
  - such payments are based on fixed and unchanging bases and yields; or
  - livestock payments made on a fixed and unchanging number of head; and
  - such payments are made on 85% or less of a fixed and unchanging base level of production.
14. The above criteria, along with additional criteria will be negotiated. Any such criteria will ensure that Blue Box payments are less trade-distorting than AMS measures, it being understood that:

- Any new criteria would need to take account of the balance of WTO rights and obligations.
- Any new criteria to be agreed will not have the perverse effect of undoing ongoing reforms.

15. Blue Box support will not exceed 5% of a Member’s average total value of agricultural production during an historical period. The historical period will be established in the negotiations. This ceiling will apply to any actual or potential Blue Box user from the beginning of the implementation period. In cases where a Member has placed an exceptionally large percentage of its trade-distorting support in the Blue Box, some flexibility will be provided on a basis to be agreed to ensure that such a Member is not called upon to make a wholly disproportionate cut.

Green Box

16. Green Box criteria will be reviewed and clarified with a view to ensuring that Green Box measures have no, or at most minimal, trade-distorting effects or effects on production. Such a review and clarification will need to ensure that the basic concepts, principles and effectiveness of the Green Box remain and take due account of non-trade concerns. The improved obligations for monitoring and surveillance of all new disciplines foreshadowed in paragraph 48 below will be particularly important with respect to the Green Box.

EXPORT COMPETITION

17. The Doha Ministerial Declaration calls for “reduction of, with a view to phasing out, all forms of export subsidies”. As an outcome of the negotiations, Members agree to establish detailed modalities ensuring the parallel elimination of all forms of export subsidies and disciplines on all export measures with equivalent effect by a credible end date.

End Point

18. The following will be eliminated by the end date to be agreed:

- Export subsidies as scheduled.
- Export credits, export credit guarantees or insurance programmes with repayment periods beyond 180 days.
- Terms and conditions relating to export credits, export credit guarantees or insurance programmes with repayment periods of 180 days and below which are not in accordance with disciplines to be agreed. These disciplines will cover, inter alia, payment of interest, minimum interest rates, minimum premium requirements, and other elements which can constitute subsidies or otherwise distort trade.
• Trade distorting practices with respect to exporting STEs including eliminating export subsidies provided to or by them, government financing, and the underwriting of losses. The issue of the future use of monopoly powers will be subject to further negotiation.

• Provision of food aid that is not in conformity with operationally effective disciplines to be agreed. The objective of such disciplines will be to prevent commercial displacement. The role of international organizations as regards the provision of food aid by Members, including related humanitarian and developmental issues, will be addressed in the negotiations. The question of providing food aid exclusively in fully grant form will also be addressed in the negotiations.

19. Effective transparency provisions for paragraph 18 will be established. Such provisions, in accordance with standard WTO practice, will be consistent with commercial confidentiality considerations.

Implementation

20. Commitments and disciplines in paragraph 18 will be implemented according to a schedule and modalities to be agreed. Commitments will be implemented by annual instalments. Their phasing will take into account the need for some coherence with internal reform steps of Members.

21. The negotiation of the elements in paragraph 18 and their implementation will ensure equivalent and parallel commitments by Members.

Special and Differential Treatment

22. Developing country Members will benefit from longer implementation periods for the phasing out of all forms of export subsidies.

23. Developing countries will continue to benefit from special and differential treatment under the provisions of Article 9.4 of the Agreement on Agriculture for a reasonable period, to be negotiated, after the phasing out of all forms of export subsidies and implementation of all disciplines identified above are completed.

24. Members will ensure that the disciplines on export credits, export credit guarantees or insurance programs to be agreed will make appropriate provision for differential treatment in favour of least-developed and net food-importing developing countries as provided for in paragraph 4 of the Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food-Importing Developing Countries. Improved obligations for monitoring and surveillance of all new disciplines as foreshadowed in paragraph 48 will be critically important in this regard. Provisions to be agreed in this respect must not undermine the commitments undertaken by Members under the obligations in paragraph 18 above.

25. STEs in developing country Members which enjoy special privileges to preserve domestic consumer price stability and to ensure food security will receive special consideration for maintaining monopoly status.
Special Circumstances

26. In exceptional circumstances, which cannot be adequately covered by food aid, commercial export credits or preferential international financing facilities, ad hoc temporary financing arrangements relating to exports to developing countries may be agreed by Members. Such agreements must not have the effect of undermining commitments undertaken by Members in paragraph 18 above, and will be based on criteria and consultation procedures to be established.

MARKET ACCESS

27. The Doha Ministerial Declaration calls for "substantial improvements in market access". Members also agreed that special and differential treatment for developing Members would be an integral part of all elements in the negotiations.

The Single Approach: a Tiered Formula

28. To ensure that a single approach for developed and developing country Members meets all the objectives of the Doha mandate, tariff reductions will be made through a tiered formula that takes into account their different tariff structures.

29. To ensure that such a formula will lead to substantial trade expansion, the following principles will guide its further negotiation:

- Tariff reductions will be made from bound rates. Substantial overall tariff reductions will be achieved as a final result from negotiations.

- Each Member (other than LDCs) will make a contribution. Operationally effective special and differential provisions for developing country Members will be an integral part of all elements.

- Progressivity in tariff reductions will be achieved through deeper cuts in higher tariffs with flexibilities for sensitive products. Substantial improvements in market access will be achieved for all products.

30. The number of bands, the thresholds for defining the bands and the type of tariff reduction in each band remain under negotiation. The role of a tariff cap in a tiered formula with distinct treatment for sensitive products will be further evaluated.

Sensitive Products

Selection

31. Without undermining the overall objective of the tiered approach, Members may designate an appropriate number, to be negotiated, of tariff lines to be treated as sensitive, taking account of existing commitments for these products.

Treatment

32. The principle of 'substantial improvement' will apply to each product.
33. "Substantial improvement" will be achieved through combinations of tariff quota commitments and tariff reductions applying to each product. However, balance in this negotiation will be found only if the final negotiated result also reflects the sensitivity of the product concerned.

34. Some MFN-based tariff quota expansion will be required for all such products. A base for such an expansion will be established, taking account of coherent and equitable criteria to be developed in the negotiations. In order not to undermine the objective of the tiered approach, for all such products, MFN based tariff quota expansion will be provided under specific rules to be negotiated taking into account deviations from the tariff formula.

**Other Elements**

35. Other elements that will give the flexibility required to reach a final balanced result include reduction or elimination of in-quota tariff rates, and operationally effective improvements in tariff quota administration for existing tariff quotas so as to enable Members, and particularly developing country Members, to fully benefit from the market access opportunities under tariff rate quotas.

36. Tariff escalation will be addressed through a formula to be agreed.

37. The issue of tariff simplification remains under negotiation.

38. The question of the special agricultural safeguard (SSG) remains under negotiation.

**Special and differential treatment**

39. Having regard to their rural development, food security and/or livelihood security needs, special and differential treatment for developing countries will be an integral part of all elements of the negotiation, including the tariff reduction formula, the number and treatment of sensitive products, expansion of tariff rate quotas, and implementation period.

40. Proportionality will be achieved by requiring lesser tariff reduction commitments or tariff quota expansion commitments from developing country Members.

41. Developing country Members will have the flexibility to designate an appropriate number of products as Special Products, based on criteria of food security, livelihood security and rural development needs. These products will be eligible for more flexible treatment. The criteria and treatment of these products will be further specified during the negotiation phase and will recognize the fundamental importance of Special Products to developing countries.

42. A Special Safeguard Mechanism (SSM) will be established for use by developing country Members.

43. Full implementation of the long-standing commitment to achieve the fullest liberalisation of trade in tropical agricultural products and for products of particular importance to the diversification of production from the growing of illicit narcotic crops is overdue and will be addressed effectively in the market access negotiations.
44. The importance of long-standing preferences is fully recognised. The issue of preference erosion will be addressed. For the further consideration in this regard, paragraph 16 and other relevant provisions of TN/AG/W/1/Rev.1 will be used as a reference.

LEAST-DEVELOPED COUNTRIES

45. Least-Developed Countries, which will have full access to all special and differential treatment provisions above, are not required to undertake reduction commitments. Developed Members, and developing country Members in a position to do so, should provide duty-free and quota-free market access for products originating from least-developed countries.

46. Work on cotton under all the pillars will reflect the vital importance of this sector to certain LDC Members and we will work to achieve ambitious results expeditiously.

RECENTLY ACCEDED MEMBERS

47. The particular concerns of recently acceded Members will be effectively addressed through specific flexibility provisions.

MONITORING AND SURVEILLANCE

48. Article 18 of the Agreement on Agriculture will be amended with a view to enhancing monitoring so as to effectively ensure full transparency, including through timely and complete notifications with respect to the commitments in market access, domestic support and export competition. The particular concerns of developing countries in this regard will be addressed.

OTHER ISSUES

49. Issues of interest but not agreed: sectoral initiatives, differential export taxes, GIs.

50. Disciplines on export prohibitions and restrictions in Article 12.1 of the Agreement on Agriculture will be strengthened.

Annex B

Framework for Establishing Modalities in Market Access for Non-Agricultural Products

1. This Framework contains the initial elements for future work on modalities by the Negotiating Group on Market Access. Additional negotiations are required to reach agreement on the specifics of some of these elements. These relate to the formula, the issues concerning the treatment of unbound tariffs in indent two of paragraph 5, the flexibilities for developing-country participants, the issue of participation in the sectorial tariff component and the preferences. In order to finalize the modalities, the Negotiating Group is instructed to address these issues expeditiously in a manner consistent with the mandate of paragraph 16 of the Doha Ministerial Declaration and the overall balance therein.
2. We reaffirm that negotiations on market access for non-agricultural products shall aim to reduce or as appropriate eliminate tariffs, including the reduction or elimination of tariff peaks, high tariffs, and tariff escalation, as well as non-tariff barriers, in particular on products of export interest to developing countries. We also reaffirm the importance of special and differential treatment and less than full reciprocity in reduction commitments as integral parts of the modalities.

3. We acknowledge the substantial work undertaken by the Negotiating Group on Market Access and the progress towards achieving an agreement on negotiating modalities. We take note of the constructive dialogue on the Chair’s Draft Elements of Modalities (TN/MAA/W/35/Rev.1) and confirm our intention to use this document as a reference for the future work of the Negotiating Group. We instruct the Negotiating Group to continue its work, as mandated by paragraph 16 of the Doha Ministerial Declaration with its corresponding references to the relevant provisions of Article XXVIII bis of GATT 1994 and to the provisions cited in paragraph 50 of the Doha Ministerial Declaration, on the basis set out below.

4. We recognize that a formula approach is key to reducing tariffs, and reducing or eliminating tariff peaks, high tariffs, and tariff escalation. We agree that the Negotiating Group should continue its work on a non-linear formula applied on a line-by-line basis which shall take fully into account the special needs and interests of developing and least-developed country participants, including through less than full reciprocity in reduction commitments.

5. We further agree on the following elements regarding the formula:
   - product coverage shall be comprehensive without a priori exclusions;
   - tariff reductions or elimination shall commence from the bound rates after full implementation of current concessions; however, for unbound tariff lines, the basis for commencing the tariff reductions shall be [two] times the MFN applied rate in the base year;
   - the base year for MFN applied tariff rates shall be 2001 (applicable rates on 14 November);
   - credit shall be given for autonomous liberalization by developing countries provided that the tariff lines were bound on an MFN basis in the WTO since the conclusion of the Uruguay Round;
   - all non-ad valorem duties shall be converted to ad valorem equivalents on the basis of a methodology to be determined and bound in ad valorem terms;
   - negotiations shall commence on the basis of the HS96 or HS2002 nomenclature, with the results of the negotiations to be finalized in HS2002 nomenclature;

6. We furthermore agree that, as an exception, participants with a binding coverage of non-agricultural tariff lines of less than [35] % would be exempt from making tariff reductions through the formula. Instead, we expect them to bind [100] % of non-agricultural tariff lines at an average level that does not exceed the overall average of bound tariffs for all developing countries after full implementation of current concessions.

7. We recognize that a sectorial tariff component, aiming at elimination or harmonization is another key element to achieving the objectives of paragraph 16 of the Doha Ministerial Declaration with regard to the reduction or elimination of tariffs, in particular on products of
export interest to developing countries. We recognize that participation by all participants will be important to that effect. We therefore instruct the Negotiating Group to pursue its discussions on such a component, with a view to defining product coverage, participation, and adequate provisions of flexibility for developing-country participants.

8. We agree that developing-country participants shall have longer implementation periods for tariff reductions. In addition, they shall be given the following flexibility:

a) applying less than formula cuts to up to [10] % of the tariff lines provided that the cuts are no less than half the formula cuts and that these tariff lines do not exceed [10] % of the total value of a Member's imports; or

b) keeping, as an exception, tariff lines unbound, or not applying formula cuts for up to [5] % of tariff lines provided they do not exceed [5] % of the total value of a Member's imports.

We furthermore agree that this flexibility could not be used to exclude entire HS Chapters.

9. We agree that least-developed country participants shall not be required to apply the formula nor participate in the sectorial approach, however, as part of their contribution to this round of negotiations, they are expected to substantially increase their level of binding commitments.

10. Furthermore, in recognition of the need to enhance the integration of least-developed countries into the multilateral trading system and support the diversification of their production and export base, we call upon developed-country participants and other participants who so decide, to grant on an autonomous basis duty-free and quota-free market access for non-agricultural products originating from least-developed countries by the year [...].

11. We recognize that newly acceded Members shall have recourse to special provisions for tariff reductions in order to take into account their extensive market access commitments undertaken as part of their accession and that staged tariff reductions are still being implemented in many cases. We instruct the Negotiating Group to further elaborate on such provisions.

12. We agree that pending agreement on core modalities for tariffs, the possibilities of supplementary modalities such as zero-for-zero sector elimination, sectorial harmonization, and request & offer, should be kept open.

13. In addition, we ask developed-country participants and other participants who so decide to consider the elimination of low duties.

14. We recognize that NTBs are an integral and equally important part of these negotiations and instruct participants to intensify their work on NTBs. In particular, we encourage all participants to make notifications on NTBs by 31 October 2004 and to proceed with identification, examination, categorization, and ultimately negotiations on NTBs. We take note that the modalities for addressing NTBs in these negotiations could include request/offer, horizontal, or vertical approaches; and should fully take into account the principle of special and differential treatment for developing and least-developed country participants.

15. We recognize that appropriate studies and capacity building measures shall be an integral part of the modalities to be agreed. We also recognize the work that has already
been undertaken in these areas and ask participants to continue to identify such issues to improve participation in the negotiations.

16. We recognize the challenges that may be faced by non-reciprocal preference beneficiary Members and those Members that are at present highly dependent on tariff revenue as a result of these negotiations on non-agricultural products. We instruct the Negotiating Group to take into consideration, in the course of its work, the particular needs that may arise for the Members concerned.

17. We furthermore encourage the Negotiating Group to work closely with the Committee on Trade and Environment in Special Session with a view to addressing the issue of non-agricultural environmental goods covered in paragraph 31 (iii) of the Doha Ministerial Declaration.

Annex C

Recommendations of the Special Session of the Council for Trade in Services

(a) Members who have not yet submitted their initial offers must do so as soon as possible.

(b) A date for the submission of a round of revised offers should be established as soon as feasible.

(c) With a view to providing effective market access to all Members and in order to ensure a substantive outcome, Members shall strive to ensure a high quality of offers, particularly in sectors and modes of supply of export interest to developing countries, with special attention to be given to least-developed countries.

(d) Members shall aim to achieve progressively higher levels of liberalization with no a priori exclusion of any service sector or mode of supply and shall give special attention to sectors and modes of supply of export interest to developing countries. Members note the interest of developing countries, as well as other Members, in Mode 4.

(e) Members must intensify their efforts to conclude the negotiations on rule-making under GATS Articles VI:4, X, XIII and XV in accordance with their respective mandates and deadlines.

(f) Targeted technical assistance should be provided with a view to enabling developing countries to participate effectively in the negotiations.

(g) For the purpose of the Sixth Ministerial meeting, the Special Session of the Council for Trade in Services shall review progress in these negotiations and provide a full report to the Trade Negotiations Committee, including possible recommendations.

Annex D

Modalities for Negotiations on Trade Facilitation
1. Negotiations shall aim to clarify and improve relevant aspects of Articles V, VIII and X of the GATT 1994 with a view to further expediting the movement, release and clearance of goods, including goods in transit. Negotiations shall also aim at enhancing technical assistance and support for capacity building in this area. The negotiations shall further aim at provisions for effective cooperation between customs or any other appropriate authorities on trade facilitation and customs compliance issues.

2. The results of the negotiations shall take fully into account the principle of special and differential treatment for developing and least-developed countries. Members recognize that this principle should extend beyond the granting of traditional transition periods for implementing commitments. In particular, the extent and the timing of entering into commitments shall be related to the implementation capacities of developing and least-developed Members. It is further agreed that those Members would not be obliged to undertake investments in infrastructure projects beyond their means.

3. Least-developed country Members will only be required to undertake commitments to the extent consistent with their individual development, financial and trade needs or their administrative and institutional capabilities.

4. As an integral part of the negotiations, Members shall seek to identify their trade facilitation needs and priorities, particularly those of developing and least-developed countries, and shall also address the concerns of developing and least-developed countries related to cost implications of proposed measures.

5. It is recognized that the provision of technical assistance and support for capacity building is vital for developing and least-developed countries to enable them to fully participate in and benefit from the negotiations. Members, in particular developed countries, therefore commit themselves to adequately ensure such support and assistance during the negotiations.

6. Support and assistance should also be provided to help developing and least-developed countries implement the commitments resulting from the negotiations, in accordance with their nature and scope. In this context, it is recognized that negotiations could lead to certain commitments whose implementation would require support for infrastructure development on the part of some Members. In these limited cases, developed-country Members will make every effort to ensure support and assistance directly related to the nature and scope of the commitments in order to allow implementation. It is understood, however, that in cases where required support and assistance for such infrastructure is not forthcoming, and where a developing or least-developed Member continues to lack the necessary capacity, implementation will not be required. While every effort will be made to ensure the necessary support and assistance, it is understood that the commitments by developed countries to provide such support are not open-ended.

7. Members agree to review the effectiveness of the support and assistance provided and its ability to support the implementation of the results of the negotiations.

52 It is understood that this is without prejudice to the possible format of the final result of the negotiations and would allow consideration of various forms of outcomes.
53 In connection with this paragraph, Members note that paragraph 38 of the Doha Ministerial Declaration addresses relevant technical assistance and capacity building concerns of Members.
8. In order to make technical assistance and capacity building more effective and operational and to ensure better coherence, Members shall invite relevant international organizations, including the IMF, OECD, UNCTAD, WCO and the World Bank to undertake a collaborative effort in this regard.

9. Due account shall be taken of the relevant work of the WCO and other relevant international organizations in this area.

10. Paragraphs 45-51 of the Doha Ministerial Declaration shall apply to these negotiations. At its first meeting after the July session of the General Council, the Trade Negotiations Committee shall establish a Negotiating Group on Trade Facilitation and appoint its Chair. The first meeting of the Negotiating Group shall agree on a work plan and schedule of meetings.
Works Cited


"Big-Spending US Farm Bill Tangles Trade Talks." FASS Track. 6 May 2002.


