4

Addressing Global Cotton Subsidies: Uprooting the Seeds of Poverty

David Primack

Introduction

International trade in cotton came to the fore in trade and development debates in 2002, with the Brazilian request for consultations on US cotton subsidies. This was followed by the 2003 WTO proposal by Benin, Burkina Faso, Chad and Mali for a 'Sectoral Initiative on Cotton'. The trade exemplifies the way in which the playing field is tilted against developing countries in agriculture. On the one hand, some of the poorest developing countries (in West and Central Africa) and some of the largest (Brazil, China and India) hold a competitive advantage in the production of raw cotton; on the other, the USA and the EU spend billions of dollars annually in subsidies to prop up an otherwise inefficient and high-cost sector. The pernicious impacts of these continued subsidies are now well established: they result in depressed world cotton prices, lost market share for otherwise competitive producers and the concomitant loss of hundreds of millions of dollars in forgone export earnings. What remains a matter of intense debate, however, is exactly how, when and where the impact of these subsidies should be addressed.

One of the key problems at the heart of the battle to address the problem of global cotton subsidies is whether those countries whose support to the cotton sector is most distorting (i.e. the USA and the EU) will pursue meaningful domestic reform to mitigate the harm caused to otherwise competitive cotton producers, or whether they will seek to avoid such reform by, for example, offering an attractive financial package aimed at generating support for effectively carrying on with 'business as usual'. If the seeds of the poverty caused by the subsidies are to be uprooted, the issue of compensation (especially for those least capable of mitigating the damage caused), pending the needed reforms, must also be addressed.

The debate surrounding trade and development has been reinvigorated in recent years, as evidenced by the latest round of multilateral trade negotiations launched in Doha in 2001. At Doha the international community – and in particular the major OECD trading powers – made a commitment to place development at the centre of the trade agenda. However, what has been termed by some the 'Doha Development Agenda' has now passed its original 1 January 2005 completion date, and there has so far been only slow progress. This includes the failure in September 2003 to reach consensus at the

The author would like to thank Roman Grynberg for his guidance and input, and Ivan Mbirimi and Alex Werth for their helpful comments. Any errors or omissions remain the author's sole responsibility.

Cancun Ministerial Meeting[1] and sluggish progress since, including at the recently concluded Ministerial Meeting in Hong Kong.[2] As with the Uruguay Round negotiations (which lasted seven and a half years – twice as long as envisaged), the area of agriculture has proved particularly troublesome.

Since the lead-up to Cancun, the cotton sector has received particular attention on the WTO agenda. Indeed, with the persistence of such a clear imbalance in the sector, many observers have viewed cotton as a litmus test of the ability of the multilateral trading system to focus its attention on the needs of its most vulnerable members. As was the case with Cancun, these observers looked to the Sixth WTO Ministerial Meeting in Hong Kong to see what, if anything, the major trading powers were prepared to deliver on cotton in the context of the Doha Development Agenda. Like most items on the agenda in Hong Kong however, low ambitions resulted in little change.

With the 'trade aspects' of cotton having been subsumed into the broader agricultural talks, meaningful progress is now predicated on making significant progress in the achievement of across the board reform – as part of which deeper cuts in cotton subsidies can be pursued. However, with the most difficult decisions left unresolved in Hong Kong, and negotiators facing the extremely ambitious (if not impossible) deadline of end-April 2006 to finalise the agricultural modalities, a realistic assessment would indicate that significant support to inefficient cotton producers (and the associated injury to competitive producers) will continue for some time to come.

While the successful Brazilian challenge to US subsidies means that it may be possible to achieve some of the objectives sought through the Cotton Initiative, no reforms are scheduled prior to mid-2006, and these are not directed at the domestic support measures that constitute the bulk of the US support programme. The latter appears to be an issue on which no progress can be made until after the passage of the 2007 US Farm Bill, and even after that the pre-2008 election political landscape in the USA could derail potential reforms until some time into 2009 when the next administration takes over. As for the EU's support programme, some time will be required to assess the recent reforms and determine their real impact; initial assessments do not bode well.

With these probable delays in the achievement of meaningful reforms in the cotton sector, the complementary issue of transitional compensation should return to the WTO agenda. The issue is important both in terms of compensation for continued injury to those producers least capable of coping with the harm resulting from depressed cotton prices and lost market share, and as an additional reminder of the responsibility of the offending subsidisers to reform their distorting ways. While the proposed 'financial assistance' from the donor community is an important part of the broader support to cotton-producing countries from the international community (irrespective of existing distortions in the cotton market), it cannot serve as a substitute for compensation.

This is in no way intended to absolve the USA and the EU of responsibility for confronting their domestic cotton interests and undertaking the often difficult domestic reforms that developing country WTO Members are well versed in. While a range of international technical and financial efforts – both to compensate injured cotton producers and support export diversification – must form some part of the solution, the reduction of the distortionary effects of US and EU cotton subsidies are a *sine qua non* of effectively mitigating the damage. Without this, developing country cotton producers will not be able to maximise the benefits of their competitive advantage in cotton.

Should the required reforms seem unattainable in a reasonable time-frame through negotiations, the LDC net exporters may wish to consider taking the offending parties to a dispute panel. Barring that, while waiting for the deeper reforms to take effect, a range of other elements in the reform package could potentially be pursued. They include a structure to ensure that the elimination of all trade-distorting cotton support measures occurs more rapidly, and agreement (at least in principle) on the development of mechanisms to ensure that the reduction is meaningful and not simply an exercise in 'box-shifting'. In parallel, WTO Members must accept responsibility for the injury that will be caused to competitive cotton producers pending the elimination of distortions in the cotton trade and should agree to recommence discussions under the auspices of the WTO. (They should do this even if it was agreed *ex ante* that such compensation would be delivered outside the WTO framework.) Indeed, the passage on cotton's 'development dimension' in the Hong Kong Declaration (2005f) refers to some as yet undefined mechanism outside the WTO aimed at addressing the decline in incomes in the cotton sector.

If the international community wishes to maintain or bolster the legitimacy of the multilateral trading system, distortions as flagrant as those in the cotton sector must be addressed in a timely, effective and fair manner. While the issue may have not impeded consensus in Hong Kong, as the proponents held it might, the challenge it poses for the legitimacy of the system (to say nothing of potential direct challenges to the US cotton and other support programmes) calls for urgent action.

The structure of this chapter is as follows. The next section presents background information on cotton production, highlighting its importance in developing countries and reviewing the existing literature, which confirms the link between cotton subsidies, recent price trends and the loss of export earnings by competitive producers. The chapter then enquires into what is currently being done to address distortions in the trade in cotton, including a review of the West and Central African (WCA) Cotton Initiative and the WTO dispute ruling, as well as the financial assistance initiative outside the WTO. Following on from the discussion on the unsatisfactory progress made so far, the next section considers areas for potential improvements within existing initiatives, as well as touching on other systemic difficulties related to commodity dependence that require attention. The chapter concludes with recommendations for reforms in the aftermath of the Hong Kong WTO Ministerial Meeting.

Cotton in the Developing World: Why Distortions Matter

Two-thirds of global cotton production occurs in developing countries, and the importance of the cotton trade to their growth and poverty reduction prospects cannot be overstated. By extension, neither can the damage done by subsidies and domestic support.

Indeed, alongside the magnitude of the support given to Northern cotton farmers, one of the key reasons that so much attention has been focused on the sector is the essential role it plays in many developing country producers. This chapter reviews production and price trends before turning to recent studies linking subsidies to depressed cotton prices and lost export earnings. With the clear linkage between US and EU subsidies and significant injury to competitive producers, and the fact that many of these producers are some of the lowest-income countries in the world, for which cotton is a vital cash crop, this chapter emphasises that the unique nature of the problem facing the global cotton sector warrants short-term practical action.

The Importance of Cotton

Despite fairly stagnant global demand for cotton (due partly to synthetic substitutes and partly to the rising productivity of some producers), global cotton production has grown at almost 2 per cent annually over the past 40 years, doubling from just over 10 million tonnes in 1960 to 20 million in 2001 (Baffes, 2004). In terms of value, both relative to other agricultural activities and as a source of income in developing countries, it is the highest earning non-food crop globally and has been estimated to employ 7 per cent of all labour in developing countries, mostly in smallholder farms (Clay, 2004). Indeed, much of the growth in global production is attributable to large increases in production in developing countries, including traditional producers such as India, China and Pakistan, as well as new entrants such as WCA (Baffes, 2004).[3]

For example, in the latter group, which include some of the lowest-income countries in the world, cotton production rose from just over 100,000 tonnes in the early 1960s to over 1.1 million tonnes in 2002 (Gillson *et al.*, 2004). Based on production volume, WCA has become the sixth largest producer after China, the USA, India, Pakistan and Uzbekistan. Accounting for 13 per cent of world exports in 2001/02, the region is on a par with Uzbekistan as the second largest exporter after the USA (which accounts for 37 per cent of total exports) (Goreux, 2004b). This figure is somewhat misleading in absolute terms, however, as WCA ranks high in terms of exports due to the fact that a number of the larger cotton producers tend not to export their production, but rather consume it in domestic textile industries (for example China, India and Pakistan). Thus, in absolute terms of production volume, they are still a marginal player, accounting for between 10–15 per cent of global cotton production (Gillson *et al.*, 2004).

However, WCA's low proportion of global production does not diminish the importance of cotton domestically. On the contrary, its relative economic importance is far greater than in most other cotton producers, accounting for between 5 to 10 per cent of GDP, more than a third of the value of export earnings and over two-thirds of the value of agricultural exports (Gillson *et al.*, 2004). It has been estimated that 6 million people in the region are employed in cotton production (UNCTAD, 2005). Because of the use of manual harvesting techniques, WCA produces good quality fibre delivered at highly competitive costs.[4] Because of their low labour costs, WCA countries are believed to hold a comparative advantage in cotton production (Goreux, 2004a). Expanded cotton production from 1993–98 has also been attributed to significant health and poverty reduction improvements in WCA cotton growing areas, where incidences of poverty declined from 50 to 42 per cent, as opposed to a two percentage point increase in non-cotton-producing rural areas (Goreux, 2004b). With such a fundamental role in livelihoods and well-being, it comes as no surprise that these countries are pushing for an expedited track in the negotiations to address specific distortions.

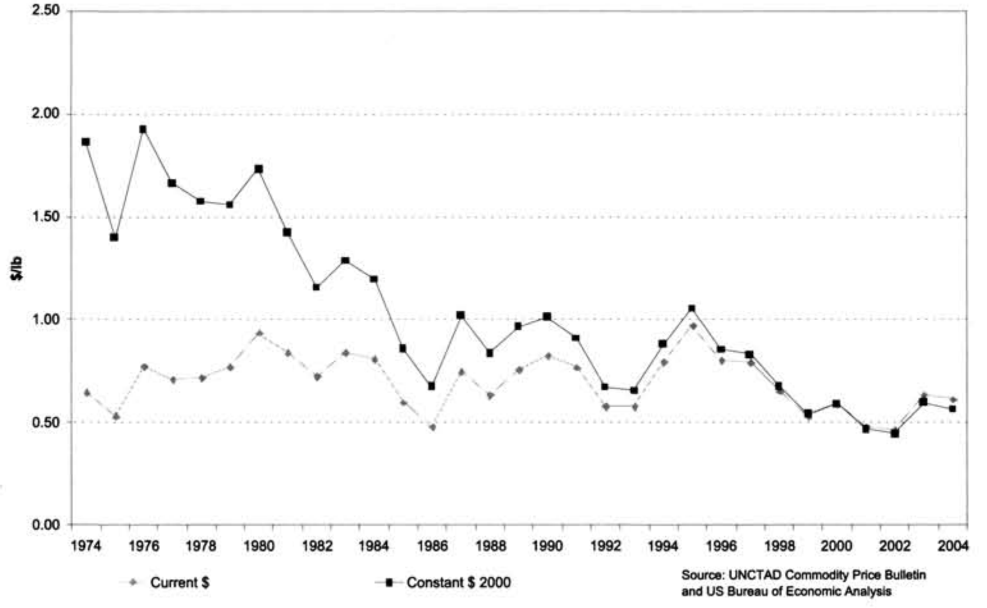
Cotton production also plays an important role in other areas of the developing world. India, for example, accounted for approximately 10 per cent of global cotton production in 2002 (ranking third globally with 1.9 million tonnes) (Gillson *et al.*, 2004). Due, however, to its large textile sector, exports were negligible – and thus the depression of global cotton prices is of smaller significance. In the case of Pakistan, on the other hand, which accounted for 9 per cent of global production in 2002 (ranking fourth globally with 1.7 million tonnes), cotton exports amounted to almost 15 per cent of the value of all agricultural exports (Fortucci, 2002).

Cotton production and export is a significant economic activity elsewhere in Africa, in countries such as Tanzania, Zambia, Mozambique and Uganda – although it is declining in importance in some regions, while increasing in others. Despite a decline in relative importance since the 1980s in Tanzania and Zambia, raw cotton exports still accounted for 6 per cent and 27 per cent, respectively, of the value of all agricultural exports in 2000 (Fortucci, 2002). For other countries in the region, the trend ran in the other direction, with cotton exports taking on relatively greater importance over the 20-year period, rising as a share of the value of all agricultural exports in 2000 from 5 to 14 per cent in Mozambique and from 1 to 7 per cent in Uganda.

Recent Trends in Cotton Prices and Subsidies

Looking at historical price trends,[5] Baffes (2004) notes that real cotton prices (i.e. cotton prices in constant dollar terms) in 2003/04 were one fifth of their 1950 level.[6] Taking into account various price data sources and previous studies on commodity price trends, Razzaque *et al.* (2004) find a declining price trend rate of approximately 2.5 per cent over the 1960–2002 period, with greater volatility in the last two decades. Echoing the latter point, Baffes (2004) points out that cotton price volatility has been twice as high since 1985 compared to the period before 1973; he finds a structural break at the start of the recent period of increased volatility which coincided with the 1985 change in the US support programme from stockholding (i.e. supply management) to price support. Indeed, this latter observation foreshadows the relationship found in recent literature between the US cotton support programme and price movements. Figure 4.1, showing annual A Index prices in both nominal terms (current US$) and real terms (constant 2000 US$),[7] presents a picture of both the downward trend and the heightened post-1985 volatility.

Figure 4.1. Cotlook A Index Annual



Numerous factors lie behind recent price movements. They include erratic changes in production and exports from India, Pakistan and China (where high levels of production, usually bound for domestic textile sectors, have at times found their way onto export markets); reductions in the cost of production (a combination of technological innovations resulting in yield improvements and decreased transportation costs, as well as sectoral reforms); and competition from synthetic substitutes (where declining prices in the late 1990s, resulting in part from the impact of the Asian financial crisis on producers in the region, placed downward pressure on demand for and the price of cotton (Baffes, 2004; Gillson *et al.*, 2004). Another key factor placing downward pressure on cotton prices in recent years has been the large increase in subsidies[8] to cotton producers, which, as discussed below, facilitated levels of production and exports that did not reflect their real cost, thereby inducing excess supply and helping to lower global prices (Sumner, 2003; Goreux, 2004b; Gillson *et al.*, 2004).

Depending on what is taken to constitute a subsidy, estimates of annual government support to the cotton industry worldwide have ranged from US$3.8 to US$6 billion for the 1997/98 to 2001/02 period (Baffes, 2004; ICAC, 2005). In terms of absolute support, the USA provides the highest level (averaging US$2.5 billion annually in the period 1997/98–2001/02), followed by China (US$1.2 billion in 2001/02) and the EU (US$0.8 billion in 2001/02) (Baffes, 2004). As the USA is by far the largest exporter, US subsidies exert the strongest influence on world prices, followed by the EU, which offers the highest per unit support (nearly twice that of the A Index price in 1995/96–1999/2000). The impact of Chinese subsidies on world prices depends largely on whether China is a net importer (pushing prices higher) or net exporter (depressing prices); since the 1980s, it has been slightly more often the former than the latter. Indeed, as noted above, the 2002/03 price rise was largely attributed to a poor Chinese crop, which meant that China increased its imports to meet the demands of its textile sector).

To put these figures (and their recent growth) into perspective: whereas 50 per cent of traded cotton was already subject to subsidies in 1997/98, this figure increased to 75 per cent in 20001/02 (Goreux, 2004b). By 2001/02, direct annual support alone as a percentage of the A Index price reached 75 per cent in the USA, and 187 and 253 per cent in Greece and Spain respectively (Baffes, 2004). US support that season, estimated at US$3.9 billion, totalled three times the amount of the entire USAID budget for Africa in the same year (Oxfam, 2002).

Linking Subsidies, Declining Prices and Lost Earnings

Despite important differences in their conclusions,[9] numerous recent studies estimating the impact of cotton subsidies (primarily US and EU) on cotton prices and/or the export earnings of other cotton producers have confirmed the relationship between cotton subsidies, depressed cotton prices and lost export earnings. With respect to increases in cotton prices resulting from the removal of subsidies, the estimates generally range between 3 and 30 per cent. In the more limited subset of studies directly addressing lost export earnings, the injury to WCA producers (the group most commonly treated) tends to fall within a US$30–260 million range.[10] While estimation techniques are fraught with subjective judgements and parameter values that prevent definitive results (for example the difficult task of judging the capacity of producers to change supplies in response to global price changes, i.e. their price elasticity of supply), the studies offer a sense of the scale on which cotton subsidies distort global cotton markets and harm other producers.

An exhaustive review of the literature lies outside the remit of this chapter – and has been well covered in FAO (2004).[11] Here, therefore, we briefly consider three influential and important studies. The first, which was used by Brazil to support its WTO dispute case, is that by Sumner (2003), who estimates the impact of various elements of the US cotton support programme on world cotton prices. The other two, offering estimates of both price changes and forgone earnings, are by Goreux (2003; 2004b), which underpinned the WCA WTO proposal and by Gillson *et al.* (2004), building on the Goreux model but allowing for scenarios based on different market segmentation and elasticity assumptions. The latter is particularly interesting, both in its attempts to better approximate the conditions and dynamics of global and domestic cotton markets, and because it offers estimates of forgone earnings for countries outside WCA.

In his 2003 study, Sumner considers the production and price effects of the removal of all US subsidies. He bases his work largely on the Food and Agricultural Policy Research Institute (FAPRI) policy modelling framework, which is a multi-market, world agricultural model widely employed by governmental and international researchers to model the impacts of trade liberalisation. Notably, this framework forms the basis of work undertaken by the US Department of Agriculture (USDA) to determine (and market) the beneficial impact of the 2002 US Farm Bill on the domestic cotton industry. Of interest to the Brazilian WTO challenge (to which we return in more detail below), Sumner's disaggregated approach allows him to identify the specific distortionary effects of the various elements within the complex US support programme (Table 4.1). On aggregate however, for the marketing period 1999–2002, Sumner finds that the removal of all US production and export subsidies would have resulted in an average 12.6 per cent increase in the world A Index price. Over the longer period of 1999–2007, the price increase would have been slightly lower, averaging 11.6 per cent.

Table 4.1. Impact of Eliminating Elements of the US Cotton Support Programme on World Cotton Prices (% change from baseline, average 1999/2000–2007/08)

Programme type	% Increase in world price	Type of support measure
Marketing loan payments	3.61	Price-contingent domestic support
User marketing (Step 2) payments	2.95	Price-contingent export subsidy
Market loss assistance/counter-cyclical payments	1.46	Price-contingent domestic support
Crop insurance payments	1.27	Non price-contingent domestic support
Export credit guarantees	1.03	Non price-contingent export subsidy
Production flexibility contracts/direct payments	0.60	Non price-contingent domestic support
Interaction between programmes	0.66	
All subsidies	11.58	

Source: Table 1.4, Sumner (2003) and Table 5, Goreux (2004a).

This estimate is broadly in line with that derived by Goreux (2003), which serves as a background document to the WCA WTO submission. In it, Goreux employs a partial equilibrium model to simulate prices that would have prevailed over the 1997/98–2001/02 period in the absence of subsidies in the USA, China, Greece and Spain (the latter two taken to represent EU cotton support). In his initial paper (based on the demand and supply elasticities commonly employed in ICAC analysis), Goreux (2003) estimated an average 12 per cent increase in cotton prices over the five-year period. While his initial study saw an annual peak of 15.2 per cent in 1999/2000 during that period, his revised 2004 paper (based on newly available subsidy data) estimated a 17.6 per cent price increase in 2001/02 in the absence of subsidies (as opposed to the 13.3 per cent estimated for that season in the original study).

In terms of translating this into estimates of lost export earnings, despite similar shortcomings to those noted above in estimating price changes, Goreux (2003) estimated lost export earnings to WCA cotton producers at US$250 million in 2001/02 and an average annual loss of US$200 million over the previous five years. The losses from US subsidies alone, he calculates, represent between 30 and 40 per cent more than the US overseas development assistance (ODA) received by these four LDCs combined (Goreux, 2004a). However, the estimated losses are based on the initial subsidy data available and not the higher levels which were noted in the revised 2004 version of his paper (Goreux, 2004b). As such, it should be taken as a conservative estimate.

Gillson *et al.* (2004) attempt to better approximate different real world market conditions by developing four scenarios which distinguish between a single world cotton market and a perfectly fragmented market, as well as between uniform and differentiated supply elasticities between producers. By taking such an approach, the study is able to account for the heterogeneity in the quality of raw cotton supplied to the international market (and thus the different price dynamics), as well as the varying capacity of different countries/producers to respond to price changes. Subjective assumptions notwithstanding, they estimate that the removal of all cotton subsidies globally in 2001 would increase world cotton prices in the range of 18–28 per cent, with the low end coming under a single world cotton market with homogeneous supply elasticities across countries (as used in most other studies) and the upper figure arising in a world where cotton users cannot switch between suppliers (i.e. a perfectly fragmented market), and where different producers are capable of different supply responses to global price changes. Based on their qualitative assessment of both the demand conditions for cotton importers (i.e. the 'stickiness' of cotton trade flows) and the factors affecting the supply capacity of different cotton-producing countries, they conclude that of the four scenarios, 'the cotton market is probably more fragmented in the short term than in the long term, so our preferred simulation of the final impact would be ... [that of] a single market but with higher supply elasticities for WCA' (p. 65).

In terms of direct earnings forgone from subsidies in 2001, Gillson *et al.* find that WCA would have gained between 10 and 37 per cent of additional earnings that year, with the preferred scenario highlighted above suggesting the upper end of the spectrum. This would translate into additional export earnings in the range of US$94–360 million dollars for this group of countries. They posit a gain of 5–36 per cent for India and 3–36 per cent for Pakistan. Along with these two countries, the bulk of the gains from subsidy removal would be captured by Australia, Brazil and Turkey, ranging on aggregate from 68–73 per cent of the total available gains. With such gains potentially available to these non-WCA countries, they would be well placed to actively support the efforts of these small African producers to elicit a meaningful package of reform from the major subsidising countries.

Another noteworthy outcome of the Gillson *et al.* study relates to their estimates of the influence on global prices of individual subsidising countries. By virtue of their size alone, it has long been perceived that US cotton subsidies impose the greatest injury on other cotton producers. However, by disaggregating the impact of individual country subsidies, the study posits that EU subsidies, relative to their absolute level of support, cause disproportionate harm to WCA producers in terms of lost earnings. We note, however, the sensitivity of these results to the assumptions of market segmentation, with the losses attributable to EU subsidies jumping at least 30 per cent when it is assumed that cotton users cannot easily change suppliers. While the assumption of perfect market segmentation is clearly unrealistic and serves illustrative purposes in the study, the implication that EU subsidies cannot be overlooked when considering what is needed to reform the global cotton market still holds.

Table 4.2.Estimated Impact of Developed Country Subsidy Removal on World Prices, EU and US Production Levels, and the Resulting Increase in WCA Export Earnings

	Estimated price without subsidies (US$/lb)	Effect on price (%)	Production fall in the USA	Production fall in the EU	Prejudice to WCA farmers (US$million)[e]
ODI (2004)[a]					
S/U	0.675	18–28	15.2	26.6	266.5
F/U	0.688	20	8.3	19.8	93.8
S/D	0.70	22	13.6	25.2	354.6
F/D	0.732	28	1.5	8.9	133.5
Goreux (2003)	0.589–0.649	2.9–13.4	2.2–14.7	10–48	37–254
ICAC (2002	0.742	29.7	–	–	274
ICAC (2003)[b]					
2000/01	0.742	21	–	–	–
2001/02	0.738	72.4[d]	–	–	504
FAO (2004)	0.591–0.60	2.3–5.0	7.4–14.2	16.1–31.7	30
FAPRI (2002)	–	11.4	6.7	70.5	90.37
Reeves *et al.* (2001)[b]	0.474	10.7	15.9	n.a.	76
Sumner (2003)[c]	0.644	12.6	29.1	n.a.	116
Tokarick (2003)	0.588	2.8	8.6	n.a.	26

[a]The ODI studies run four model scenarios: S = Single; F = Fragmented market; U = Uniform elasticity; D = Differentiated elasticity. For the segmented world market assumption, the world price is an average across segments.

[b]All studies use 2000/01 as the simulation year data except ICAC (2003) and Reeves *et al.* (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.

[c]Removal of US support only.

[d]The value of 72 per cent reported in ICAC is considered by many to be an outlier due to the very low world price during the simulation year. See discussion of base year below.

[e]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.

Source: Table 1, FAO (2004)

Table 4.3. Key Assumptions Made in the Studies Reviewed

	Demand elasticity	Supply elasticity	Simulation from base year	Market segmentation assumed	Model includes stocks
ODI (2004)	–0.1	0.36 to 0.6	2000/01	Yes	No
Goreux (2003)	–0.1 to –0.5	0.15 to 0.90	2000/01[a]	No	No
ICAC (2002)	–0.1	0.47	2000/01	No	No
FAO (2004)	–0.75 to –1.25	0.2 to 1.25	2000/01	No	No
FAPRI (2002)	Not specified	Not specified	Average 2002/03–2011/12	No	No
Reeves *et al.*l (2001)	–0.3	0.8	2001/02	No	No
Sumner (2003)	–0.2 to –0.47	0.14 to 0.6	2001/01	No	Yes
Tokarick (2003)	–0.56[b]	0.41[b]	2001/01	No	No

[a]Goreux uses a five-year average for the base period
[b]Tokarik's elasticities are for the USA only
Source: Table 2, FAO (2004)

It is also important to note that the above estimates are exclusively direct losses resulting from forgone cotton trade and do not account for indirect impacts in other sectors of the economy. Such effects would be particularly important for those countries most dependent on cotton production – such as the WCA producers. Due to difficulties in estimating indirect impacts (resulting from insufficiently disaggregated consumption data), few studies have attempted it. One exception is a study by Minot and Daniels (2002) on the poverty impacts of cotton subsidies on Benin. The study attempts to estimate the indirect effects of a 40 per cent price fall on non-cotton producers by calculating the marginal propensity of cotton producers to consume tradable goods (i.e. their reduced domestic demand). They conclude that for every $1 reduction in cotton producers' income, there is a $3.3 contraction in overall demand. As noted by Goreux (2004b), in the WTO context, both in terms of dispute settlement and calculations for compensation, only direct losses are relevant. This is especially so with the latter, where compensation (assuming it was fully transmitted to cotton producers) would have similar indirect effects.

This discussion highlights the fact that cotton remains an essential component of the development trajectory for many developing countries. As such, the relative impacts resulting from distortions in the market are disproportionately borne by developing countries, many of which are among the lowest-income countries in the world; at the same time they are some of the most competitive cotton producers. Despite important methodological differences between the numerous studies estimating the impact of US and EU cotton subsidies, there appears to be consensus that they have depressed prices, resulting in meaningful income losses, exacerbated incidences of poverty and diminished developing countries' capacity to maximise the benefits of their comparative advantage. In sum, the combination of these factors should place cotton at the top of the global agricultural trade reform agenda. The reality on the ground, however, indicates that outside the realm of rhetoric, this is not taking place. It is to a consideration of what is currently being done to address this heavily distorted sector that we now turn.

What Is Being Done?

To date, specific efforts to address distortions in the global cotton trade have occurred along two main tracks – one within the WTO and one outside. The former includes what has been termed the 'trade aspects' of the Cotton Initiative (i.e. the subsidy elimination elements), as well as the successful Brazilian challenge to US cotton subsidies. Outside the WTO, efforts have focused on the 'development assistance aspects', which have been equated, erroneously, with the compensation dimension of the Cotton Initiative and have largely been conducted as a discussion between African cotton producers and the development/donor community. A review of each of the prongs below helps to elucidate their respective objectives, consider the progress achieved to date and assess the potential of the current trajectory to effectively address the key challenges.

Specifically, while the successful challenge to US subsidies may help deliver on some of the reform objectives highlighted in the Cotton Initiative, neither of the current paths of negotiation or litigation are poised to deliver meaningful reductions in support to inefficient producers in the short term. While financial assistance is welcome, both to enhance the competitiveness of low-cost producers and assist in their efforts at export diversification, it would not be helpful if it gets in the way of the needed reforms – on the contrary, it could then exacerbate the harm. Nor for that matter should it be viewed as a substitute for transitional compensation pending reforms.

The Cotton Initiative

The Cotton Initiative was brought to the WTO in April 2003 by Benin, Burkina Faso, Chad and Mali as part of the lead-up to the WTO Cancun Ministerial Meeting. It arose from a sense by its WCA proponents that the circumstances surrounding the cotton trade deserved a separate and expedited track in the latest 'development' round of trade negotiations. As noted above, this view was based on the fact that their comparative advantage in cotton – a commodity that is paramount in the welfare of a small group of some of the lowest-income countries in the world – was being undermined by the subsidies provided by two of the greatest champions of the fruits of comparative advantage-based trade liberalisation, the USA and the EU. With such an stark imbalance, a specific intervention on cotton, like the intervention on TRIPs and the public health issue that surfaced in Doha,[12] seemed to have a good prospect of making the major trading powers take the 'development agenda' seriously.

Citing the elimination of cotton subsidies as 'the only specific interest of WCA cotton-producing countries in the Doha round' (WTO, 2003a), the proponents called for: (a) a mechanism to phase out, with a view to eliminating, all support for cotton production; and (b) transitional financial compensation to offset the resulting injury (i.e. forgone earnings) during the period of elimination. As detailed in their August 2003 submission (WTO, 2003b), the specifics of the proposal (the 'modalities') outlined a three-year implementation period for the elimination of all production and export support to cotton, which was initially envisaged to begin in 2004. More recent proposals (for example WTO (2005a) by the Africa Group) differentiated between domestic support and export subsidies, calling for a slightly longer phase-out period for the former (which are more politically sensitive, especially in the USA where they form the bulk of expenditures).

With regard to compensation, the proposed 'stop-gap' emergency measure was intended as a temporary mechanism both to offset the injury caused by continued cotton support in the main subsidising countries and to provide an additional incentive to those countries to reduce their support expeditiously. The amount of compensation requested was based on the estimated direct losses suffered by LDC net exporters in the 1999/2000 to 2001/02 seasons; on the basis of the initial study by Goreux (2003), the proponents requested approximately US$250 million per annum.[13] Contributions would be based on a country's respective share in the total amount of global cotton subsidies and would decrease proportionately with the reduction of support. The allocation of compensation would be determined on the basis of shares of total cotton production within the group of recipient countries. It would be disbursed, wherever possible, via local producer associations so as to help ensure it enabled producers to maintain production in the face of depressed world prices and encourage competitiveness-enhancing investment. This was later repackaged in the April 2005 Africa Group proposal (WTO, 2005a) as an emergency support fund equivalent to 20 per cent of the value of cotton production in each beneficiary, linked directly to the pace of subsidy removal.

Structured in this way, the proposals seemed to address effectively the two core problems of continued subsidisation of uncompetitive cotton producers in the USA and the EU, and the resulting injury to the most vulnerable, yet competitive, LDC net exporting producers. Responses from the major trading powers in Cancun, however, were lukewarm at best (Oxfam, 2004b), especially with regard to compensation. As opposed to accepting the need for domestic adjustment and compensation for injury, the subsidising countries (led mostly prominently by the USA) called for LDC producers to diversify their economies. This was taken as an affront to both the LDC producers, as well as to the principles of trade liberalisation which the WTO ostensibly aimed to promote.

Despite the fact that the issue remained high on the post-Cancun agenda and on that of the Hong Kong Ministerial Meeting, very limited progress has been achieved on cotton reforms to date. Although this was initially opposed by the proponents, the 2004 'July Package' (WTO, 2004a) split the Initiative into two elements. This included those 'trade aspects' related to subsidy reduction, which would be 'addressed ambitiously, expeditiously, and specifically, within the agriculture negotiations' – or in other words, not on a separate and expedited track as requested. On those aspects of the Initiative said to be related to 'development assistance', the WTO Director-General would consult with the development community so as to 'direct effectively existing programmes and any additional resources towards development of the economies where cotton has vital importance'. Work in all three pillars of market access, domestic support and export competition, together with the coherence between the trade and development aspects, was to be the remit of a new sub-committee on cotton, formed under the auspices of the Special (negotiating) Session of the Committee on Agriculture.

In Hong Kong, despite continued expressions of sympathy with the plight of WCA cotton producers, only minor advances were made. On the 'trade dimension' aspect, apart from an ambiguously enhanced commitment to treat cotton reforms more ambitiously and expeditiously, developed country Members agreed to eliminate all forms of cotton export subsidies in 2006 and provide duty-free and quota-free access for LDC cotton exports at the start of the implementation period (WTO, 2005f). However, neither of these pledges confers much benefit. The USA is the only developed country to use export subsidies for cotton, and even then they constitute a small and declining percentage of their overall cotton support (averaging 14 per cent for 1999–2002 and less than 10 per cent in 2002 itself). As is shown below, while making up 4 per cent of an estimated 11.6 per cent gain in cotton prices stemming from US subsidy removal (1999–2001), these subsidies have already been marked for removal as a result of Brazil's successful dispute challenge. In addition, in the face of continued domestic subsidies to high-cost producers, commitments to provide greater access to the US cotton market are largely meaningless. This is true also of the EU, where LDCs already enjoy duty-free and quota-free access for cotton. No commitments were made where they really matter, namely on the key area where cotton distortions continue – domestic support.

Similarly, no commitments were made with respect to transitional compensation, although some language was included that could lead to a form of financial support mechanism linked to lost incomes (which as noted above have been shown to be due, in part, to cotton subsidies). In particular, the WTO Director-General, as part of his activities with the donor community under the 'development dimension', is urged to explore the possibility of establishing through the donor institutions a mechanism to address declining incomes in the cotton sector (WTO, 2005f). Although not on a par with the mid-2005 Africa Group proposal (WTO, 2005a), the language appears to allow for some kind of similar mechanism to operate outside the auspices of the WTO. Whether it will be tied to subsidy reduction remains to be determined. It should be emphasised, however, that to maintain maximum effectiveness, compensation should be explicitly tied to the reduction of distorting subsidies. The reason for this lies in the importance of ensuring that the mechanism serves as redress for continued injury and, at least in principle, as an additional incentive to reform. Moreover, compensation without subsidy reduction carries the potential to promote greater aggregate cotton production, thereby depressing cotton prices even more and leading to further injury.

The trajectory of the July Framework in relation to cotton, reinforced by the recent Hong Kong Declaration, does not effectively address the underlying objectives of the

Initiative. In particular, by failing to address the areas most in need of attention – namely reforms to domestic support measures in the USA and the EU, and refusing to commit to any specifics on implementing the mandate to address cotton 'ambitiously, expeditiously and specifically' within the agriculture negotiations, the international community has so far failed to prioritise the needs of its most vulnerable Members.

While the subsidy reduction negotiations appear to offer scope for delivering, to some extent, much-needed reform in the sector, the fact that this is now predicated on the achievement of much more complex and sensitive across the board agricultural reforms implies a much slower timeline (along with the potential for 'trade-offs' with other areas of the negotiations). Indeed, with Members having demonstrated an inability to agree on modalities for agriculture in Hong Kong, the view that there is likely in the short term to be little progress on cotton reform in the broader negotiations is reinforced. Recognising the likely slow progress of the negotiations, some observers are already pointing to the successful Brazilian challenge to US subsidies as an alternative avenue for pursuing more expeditious reforms in the sector. We turn now to consider this argument.

Dispute Settlement – Brazil versus the USA

The successful Brazilian challenge to elements of the US cotton support programme stands as one of the most important challenges to the agricultural policies of developed countries in the history of the WTO. It offers an additional avenue, albeit somewhat limited in scope, to elicit significant reforms to the trade in cotton in the short term. In the medium term it may address some of the more egregious distortions in the US programme (for example Step 2 payments and distortions stemming from export credit guarantees). However, the extent and speed to which these and other reforms emanating from the decision may occur is likely to be tempered by political economy considerations in Brazil over pushing the USA to overcome entrenched domestic resistance. In addition, because it focuses on US subsidies, the ruling does little to address EU distortions, which also cause injury to competitive producers, especially those in WCA. These caveats notwithstanding, the case offers both a floor for the outcome of the forthcoming negotiations, as evidenced by the Hong Kong decision to eliminate export subsidies in 2006, as well as a template for possible additional challenges to US and EU subsidies from competitive producing countries such as WCA, India, Pakistan and Australia.

With this in mind, we review *United States – Subsidies on Upland Cotton* (hereafter 'the case'), as well as the findings of the Dispute Settlement Body Panel (hereafter 'the Panel' (WTO, 2005b), and the subsequent upholding of the decisions by the Appellate Body (AB) (WTO, 2005c). We highlight specific areas of relevance for addressing distortions via the negotiations, and their limitations.

After the passage of the 2002 US Farm Bill,[14] which authorised an additional US$51 billion in support to US farmers in the period 2002–2007 (Becker, 2002), Brazil requested consultations with the USA on its cotton support programme in September 2002. Brazil alleged that various elements of US farm legislation constituted prohibited[15] and actionable[16] subsidies in violation of WTO rules on agriculture and subsidies (i.e. the Agreement on Agriculture (AoA), GATT 1994 and the Agreement on Subsidies and Countervailing Measures (ASCM)) (WTO, 2002). Brazil held that these subsidies caused (for marketing year (MY) 1999–2001) and/or threatened to cause (for MY 2002–2007) adverse effects, in the sense of 'serious prejudice',[17] to its interests.

Based on the extensive evidence provided by the two main parties (as well as numerous third parties),[18] the Panel ruled on two key issues:[19] whether or not the subsidies were allowed or prohibited and, irrespective of this, whether they caused[20] 'serious prejudice' to Brazilian interests (Josling, 2005). As the USA is both the largest exporter and the largest absolute subsidiser of cotton, both questions clearly have important implications for the objective of reforming global cotton trade, even if the responses are restricted to the US context.

Listing the seven programmes of US support to cotton included in Brazil's challenge, ordered from most to least distortionary as cited in Sumner (2003),[21] Table 4.4 highlights the key elements of the ruling.

On the issue of whether subsidies were allowed or prohibited, the Panel found that the user marketing payments – or Step 2 payments,[22] were contingent on export performance and thus prohibited under the ASCM. Payments to exporters were found to constitute prohibited export subsidies not included in the US Schedule of subsidies,[23] while those to mills using US cotton were deemed prohibited import substitution subsidies. For this, the Panel instructed the USA to remove the prohibited subsidies 'without delay' and not later than 1 July 2005.

In addition, with the Step 2 payments being contingent on cotton prices, the Panel found that they were causally related to depressed and suppressed world cotton prices, and thus in part responsible for serious prejudice to Brazilian interests. Similarly, by maintaining higher US cotton production (and export) levels in the face of lower world prices (effectively shielding US cotton farmers from world price trends), the other two price-contingent programmes – the marketing loan payments[24] and the market loss assistance/counter cyclical payments[25] – were also found to be responsible for depressing and suppressing global cotton prices and thus causing serious prejudice. For this group of programmes, the USA was to remove the adverse effects (causing serious prejudice) or withdraw the subsidies; based on ASCM Article 7.9, this should occur 'within six months from the date when the WTO Dispute Settlement Body (DSB) adopts the panel report or the Appellate Body report' (WTO, 1995). With the latter having occurred on 21 March 2005, this implied a 21 September 2005 deadline.

Of note, however, was that the Panel did not feel it was necessary to quantify the degree to which expenditures in these price-contingent programmes needed to be reduced or changed to comply with the adverse effects ruling. In doing so, it opened a degree of ambiguity over exactly what is required for compliance with this finding, and as such, to what degree such compliance might contribute to the broader objectives of meaningful reform of the US cotton sector.

Table 4.4. US Cotton Programmes and Summary of Panel/Appellate Body Report (US – Subsidies for Upland Cotton: WT/DS267/R & WT/DS267/AB/R)

Programme	Expenditure, US$ annual average 1999–2002	Classification (as notified)	Panel/AB ruling on classification and/or serious prejudice	WTO discipline(s) under which ruling made	Remedy
1. Marketing Loan (gain/deficiency) Payments	$1.4 billion	Amber box	• Amber box • Caused significant price suppression on world market	SCM 6.3(c); 5(c)	Remove the adverse effects or withdraw the subsidy
2. User Marketing (Step 2) Payments (to (i) users of domestic cotton; and (ii) cotton exporters)	$161 million	Amber box	• Caused significant price suppression on world market • Payments constituted prohibited subsidy (i.e. not Amber box): – import substitution subsidy (domestic); – export subsidy not included in the US schedule (export)	SCM 6.3(c); 5(c) SCM 3.1(b); 3.2 AoA 3.3; 8; SCM 3.1(a); 3.2	Remove the adverse effects or withdraw prohibited subsidies by 1 July 2005
3. Market Loss Assistance Payments (1999–2001)/ Counte-Cyclical Payments (2002–2007)	combined $797 million	Amber box	• Amber box • Caused significant price suppression on world market	SCM 6.3(c), 5(c)	Remove the adverse effects or withdraw the subsidy
4. Crop Insurance Payments	$197 million	Amber box	• Do not cause significant price suppression on world markets	SCM 6.3(c); 5(c)	None

Table 4.4 (continued)

Programme	Expenditure, US$ annual average 1999–2002	Classification (as notified)	Panel/AB ruling on classification and/or serious prejudice	WTO discipline(s) under which ruling made	Remedy
5. Export Credit Guarantees	$324 million (cotton products;[a] Fiscal Year)	Not notified	• Credit guarantees for cotton (and other products) are export subsidies not included in the US Schedule (rice export subsidy exceeded its scheduled level)	AoA 10.1 SCM Annex I, item (j); 3.1(a); 3.2	Withdraw prohibited export subsidies by 1 July 2005
6. Production Flexibility Contract Payments 1999–2001)/Direct Payments (2002–2007)	combined $570 million	Green box	• Amber box – not eligible for green box due to land use restrictions • Do not cause significant price suppression on world markets	AoA 13(a); Annex 2, para. 6(b) SCM 6.3(c); 5(c)	Re-notify domestic support
7. Cottonseed Payments	$78 million	Amber box	• Do not cause significant price suppression on world markets (only 2000 considered)	SCM 6.3(c); 5(c)	None

[a]As noted by Brazil in the case, this amount includes only those guarantee applications received for cotton specific allocations and not those (which possibly also included cotton) listed

Source: This table is based on information extracted from Josling (2005), Halverson-Cross (2005), WT/DS267/R and USDA (various).

For the three programmes not contingent on cotton prices, but aimed at income support, the Panel did not find causal evidence of price depression and suppression. These include crop insurance subsidies and cottonseed payments, despite the fact that the former was found by Sumner (2003) to cause downward pressure on global prices similar in magnitude to the market loss assistance/counter cyclical payments programme (see Table 4.1).

The third non price-contingent programme, the production flexibility contract (PFC) payments (which were in use from 1996 to mid-2002) and the subsequent direct payments (DP), brought in by the 2002 Farm Bill to cover the period to September 2007, were also not deemed to be prohibited subsidies. However, they were found to have been erroneously notified by the USA as 'green box' measures.[26] While not being strictly based on production targets, the Panel ruled that in keeping eligibility for the programmes related to certain types of agricultural production (i.e. by maintaining restrictions on current land usage), they were insufficiently decoupled from production and so should have been notified as 'amber box' measures.[27] Importantly, as discussed below with respect to the Peace Clause, by ruling in this manner the USA was deemed to put itself in violation of subsidy disciplines in the AoA, thus exposing its entire domestic support regime to challenge under the SCM for causing adverse effects.

On export credit guarantees,[28] the Panel ruled that due to the premiums not covering the long-term net operating costs of the programmes, they constituted export subsidies as defined in the ASCM's *Illustrative List of Export Subsidies* (Annex I, item (j)). Furthermore, the ruling (upheld by the AB in a majority decision) found that the subsidies were not exempt from export subsidy disciplines in the AoA. For those products not listed in the US Schedule of Subsidies, which include cotton,[29] they constituted prohibited export subsidies. It was also found that for rice, which is included in the Schedule, the USA had exceeded its commitments. These prohibited subsidies were also to be removed 'without delay', and not later than July 2005.

The ruling has far-reaching implications. Two legal implications have been highlighted (Josling, 2005; Halverson-Cross, 2005), relating to the Peace Clause and the determination of serious prejudice. The Peace Clause (AoA Article 13), which expired at the end of 2003, protected certain developed country agricultural support measures from challenges under WTO rules on subsidies. Measures protected included permitted export subsidies, 'green box' subsidies and domestic support measures below MY 1992 levels. While the case did not challenge the Peace Clause *per se* (it ruled that the USA had effectively disqualified itself from Peace Clause protection by erroneously classifying green box support and surpassing its 1992 levels), it did offer an indication on how to apply the ASCM to agriculture (Halverson-Cross, 2005). In particular, it did so with respect to the ability to challenge domestic support measures under the ASCM, irrespective of whether they are deemed allowable by the AoA.[30] By extension, this would more easily expose such domestic support to claims of serious prejudice. Indeed, due in part to the difficulties of demonstrating serious prejudice, this case is only the second to successfully do so with respect to domestic support measures (Halverson-Cross, 2005).[31] The way in which it occurred in this case also demonstrates the importance of econometric work such as that reviewed above in supporting Members' ability to show the causal impacts of domestic policies.

The case also has significant implications for the negotiations aimed at addressing global distortions in the cotton trade, . The ruling itself clearly has the potential to elicit many of the objectives sought by the Cotton Initiative. As demonstrated by Goreux (2004a), US compliance, by removing the prohibited export subsidies and withdrawing or removing the adverse effects of those found to cause serious prejudice, could (based on Sumner's estimates) achieve just over 9 per cent of the 11.6 per cent gain in cotton prices stemming from subsidy removal over the 1999–2001 period. As it currently stands, the Hong Kong commitment to remove cotton export subsidies would achieve 4 per cent of this gain.

In addition, the ruling on alleged green box measures and the clarification of criteria for eligibility could prove valuable in a discussion over mechanisms to ensure that the reduction or elimination of trade-distorting cotton subsidies does not occur simply by reclassifying them under the green box – which currently has a fairly open definition and does not have an expenditure limit (see below).

Despite a deadline of 1 July 2005 for the elimination of prohibited subsidies, and the instruction to remove the adverse effects (causing serious prejudice) or withdraw the relevant actionable subsidies as of 21 September 2005, the USA has as yet done little to comply. On 30 June, USDA announced the elimination of the 1 per cent cap on fees in the remaining export credit guarantee programmes, GSM-102 and SCGP,[32] thus, in its view, addressing the Panel's concern that the schemes' fees were insufficiently risk-based. Legislation was also sent to the US Congress on 5 July recommending the repeal of the Step 2 payments; however they were not scheduled to be removed before 31 July 2006.

Concerned that compliance on prohibited subsidies came over a year after the deadline, and wishing to safeguard its rights to retaliate under the AGSM and the Dispute Settlement Understanding (DSU), on 5 July Brazil requested authorisation to impose a $US3 billion penalty in retaliation for failure to repeal the measures in the allotted time. This included requests for the suspension of tariff concessions under the GATT 1994, as well as cross-retaliation in the form of suspended concessions in TRIPs and GATS. At the same time, however, recognising the amendment to the export credit programme and the proposed repeal of the Step 2 programme, the two Members came to an understanding that the retaliation authorisation request would be suspended, and because of a US challenge on the level and appropriateness of Brazil's request, this was to be sent to arbitration. Arbitration proceedings have thus been suspended, pending a possible compliance panel ruling on whether the measures taken by the USA constituted compliance (highlighting again the difficulties posed by the Panel's failure to specify the degree of expenditure amendment required). However, implicit in the Hong Kong commitment by developed countries (i.e. the USA) to remove cotton export subsidies in 2006, would appear to be Brazil's acceptance of this timeline. Future action on these measures is thus contingent on whether or not Brazil is satisfied with US implementation, as and when it is finalised.

On the issue of serious prejudice being caused by actionable subsidies, for which the adverse effects were to be removed or the subsidies withdrawn by 21 September 2005, a similar procedural agreement has been reached. On 5 October, the Chair of the US Senate Agriculture Committee intimated that the programmes deemed to have caused serious prejudice were unlikely to be altered prior to the next Farm Bill, which would only come into effect in September 2007. The following day, Brazil filed a request for authorisation to apply US$1.037 billion in suspended concessions[33] on goods (including additional import tariffs) and concessions in TRIPs and GATS. With the USA arguing that the countermeasures are not commensurate with the degree and nature of the adverse effects, the matter was remanded to arbitration on 18 October. The two Members have agreed to suspend the arbitration proceeding pending further bilateral talks.

However, stemming from frustrations that no steps at all have been taken to address this group of subsidies, there have been recent indications that Brazil is considering pushing ahead with this latter arbitration proceeding. Whether it will first have to request a compliance panel depends on the actual legal status of the proposed Bill to repeal the Step 2 subsidies. Based on the Step 2 programme being removed from US law, the USA could argue that sufficient steps to mitigate and/or remove the serious prejudice have already been undertaken and that a compliance panel was first required before moving to arbitration.

From the state of play outlined above, it is clear that Brazil is making use of all the legal remedies available to push the USA towards compliance, especially via its requests for cross-retaliation via TRIPs and GATS.[34] However, observers have noted that Brazil is unlikely to actually proceed with the cross-retaliation (should it be authorised)[35] out of concern not to incite a trade war with the USA. Touching on exactly these concerns, former US Trade Representative Robert Zoellick indicated soon after the latest retaliation request that Brazil's GSP benefits (amounting to over US$2.5 billion) could be jeopardised should it decide to proceed down the road of retaliation.

Consequently, while the case would seem to have had some influence on the Hong Kong deal to eliminate cotton export subsides in 2006, meaningful progress on the other programmes that cause serious prejudice seems likely to come from a longer-term negotiating process. This includes direct negotiations between the USA and Brazil, and wider negotiations between the USA and the larger WTO membership on agriculture. Reiterating the point made above, this recognition only reinforces the support for implementing a transitional compensation mechanism in the meantime; this is not, as this chapter will demonstrate, equivalent to the proposal for financial assistance.

Financial Assistance

The second track under which efforts are ostensibly being undertaken to address distortions in global cotton trade occur outside the purview of the WTO. While having been equated – wrongly in our view – with the compensation proposal contained in the Cotton Initiative, the 'development assistance aspects' of this track have largely been part of a discussion between African cotton producers and the development/donor community. Recent discussions confirm the focus on providing investment resources for the longer-term objectives of promoting greater competitiveness (economy-wide and in the cotton sector), as well as export diversification more broadly. While few observers of the challenges facing cotton-dependent developing countries would dispute the importance of such resources in helping them promote growth and reduce poverty, there is a misconception that this can serve as a substitute for the short-term aim of compensation. Of perhaps greater importance, the prospect of financial assistance in lieu of meaningful reform of the US and EU cotton support programmes carries dangerous implications for the trading system as a whole.

As touched on earlier, the proponents of the Cotton Initiative were initially reluctant to divide it into separate tracks. They acquiesced, however, in the lead-up to the 23–24 March 2005 WTO African Regional Workshop on Cotton, which brought together the 33 African countries engaged in cotton production and trade with the major national and intergovernmental donors. The result was the present situation – with the subsidy-reduction elements of the Initiative subsumed in the much larger and more complex agricultural negotiations, and the compensation-cum-financing elements carved out of the WTO's remit and put into the hands of the donor community.

It is important to highlight the contradiction that although the problems that the Regional Workshop purported to address stemmed from subsidy-induced distortions in the cotton trade, subsidy reduction and recompense, pending its arrival, were explicitly kept off the agenda. As noted by Oxfam (2004b), the programme for the conference had an exclusive focus on 'the Development Aspects, particularly the scope and opportunities for financial and technical assistance', and was aimed at contributing to, *inter alia*, 'a more focussed understanding of some of the policy issues underpinning the [Initiative]...' (WTO 2004b: 22). Surely financial and technical assistance are part of the needed solution. Avoiding discussions on the very source of the problem – the persistence of cotton subsidies, and the adjustment mechanism requested by those most injured appears to be at odds with what should be the core objective of these efforts.

The current state of these efforts, while facilitating a wealth of discussions, conferences and project planning, have produced little in terms of short-term respite from the injury resulting from distorted cotton trade. Emanating from the Cotonou meeting, the International Financial Institutions (IFIs) – the World Bank and IMF – and other multilateral agencies (including FAO, ITC, OECD and UNIDO) have attempted to focus existing instruments on cotton-related challenges. This includes the Bank's PRSPs, the IMF's Poverty Reduction and Growth Facility (PRGF) and numerous technical assistance and capacity building projects aimed at enhancing competitiveness and value-added production in the cotton sector. Especially highlighted have been the Diagnostic Trade Integration Studies undertaken under the auspices of the multi-agency IF.

With respect to bilateral donors, both the pledges and associated actions have been similarly focused. Calls have been made to reflect 'cotton-sector priorities' in country programmes and to provide financial and technical assistance for relevant projects.

There has also been much talk of 'enhanced coordination' and 'follow-up workshops' to ensure that these laudable endeavours proceed as intended.

In this respect, the EU and US programmes are notable both for the paucity of resources allocated (relative to the amount of subsidies provided) and the lack of concomitant commitments to address the core of the problem – the sustained injury resulting from continued subsidising of high-cost cotton producers.

The 'EU-Africa Cotton Partnership',[36] launched at a July 2004 forum in Paris, outlines an action plan focussed on seven areas.[37] While the area on international trade calls for an effective and specific solution amenable to all parties, it maintains that these are best held in the context of the broader agriculture negotiations. Unfortunately, in terms of commitments, there is little more than the April 2004 announcement that 65 per cent of EU support to cotton will be decoupled from production. Leaving a full 35 per cent still tied to production, together with the as yet unknown impact of the announced reforms that will only come into effect in 2006, the extent to which this will alleviate the injury caused by EU subsidies remains to be seen.[38] On technical assistance and capacity building, h40 million is to be allocated to the Initiative proponents' national programmes, with an additional h15 million for ACP-wide cotton-related activities. This h55 million (in the range of US$65–70 million) pales, however, in comparison with the over US$800 million in subsidies provided in 2001/02 alone.

Within the context of their efforts to assist cotton producers, the EU has also highlighted changes in access criteria of the FLEX (Fluctuations in Export Earnings) instrument[39] as a potential financing mechanism to mitigate the effects of export earning shortfalls. It would seem somewhat contradictory, however, that the EU is willing to consider making compensation funds available for earning shortfalls that result, in part, from the EU's own domestic cotton support policies and at the same time opposes the Initiative's request for a similar type of mechanism (see below).

Like the EU, the USA points to various existing aid-related endeavours as examples of efforts being undertaken to support African cotton producers (for example the G8 debt relief announcement and the Millennium Challenge Co-operation). The USA has also recently announced the 'West Africa Cotton Improvement Program',[40] to which it has committed an initial US$5 million in new funding ($7 million in total), aimed at improving the production, transformation and marketing of cotton in the four WCA proponent countries, plus Senegal.[41] However, not only are the resources dwarfed by the billions of dollars paid out in annual US cotton subsidies, but the programme does little to address the injury that continued US subsidies will inflict on these WCA countries, together with the other developing countries, such as Brazil, India and Pakistan, who stand to gain nothing from these endeavours.

In the light of these and other inadequate proposals, it is not surprising that the response from the WCA proponents, together with other African cotton producers, has generally been one of disappointment. While aid activities are welcome, the fact remains that they do little to help cotton producers take advantage of their competitive edge in cotton, or to compensate them for continued loss of market share and export earnings (estimated at US$250 million per annum), while US and EU producers continue to receive extremely generous governmental support. The proponents have thus appealed to subsidising countries to step up their efforts on a scale that is commensurate with the challenges faced. In addition, with so much focus on WCA, and in particular the four proponents of the Cotton Initiative, other African producers have called for a broader continental focus.

This does not imply that there is no role for financial assistance. Indeed, with scarce investment resources contributing to an 'international poverty trap' in much of sub-Saharan Africa (UNCTAD, 2002), additional financial assistance to cotton-dependent developing countries is a necessary, albeit insufficient, condition for their growth and poverty reduction prospects. This includes much-needed resources to facilitate economy-wide productivity-enhancing investments, such as the building of roads, ports and broader institutional infrastructures (for example customs administration), as well as investment focused specifically on the cotton sector, such as relevant local research and development (R&D) to boost labour and land productivity in smallholder farms, and support improved marketing and distribution know-how. In addition, to promote structural transformation and export diversification in the economy, a vast range of skills needs to be developed to facilitate more value-added processing of cotton-based products (including, but not only, the production of textiles and garments).

The fact remains that none of these proposals addresses the continued injury caused by the billions of dollars in subsidies that undermine competitive cotton producers in Africa and elsewhere in the world. Indeed, in this sense, there is a clear and present danger that financial assistance could be targeted expressly at alleviating the pressures on the USA and the EU to do just that – confront their powerful domestic cotton interests and move ahead with reforms of their cotton support programmes. Two concerns arise from the use of financial assistance to undermine pressures for reform in the EU and US cotton sector.

The first is systemic and relates to the legitimacy of the multilateral trading system (MTS) and its capacity to promote the interests of its most vulnerable Members. With such a clear imbalance in the global cotton trade, attempts by the major trading powers to use financial assistance effectively to buy their way out of having to make difficult reforms at home sends a powerful and dangerous signal regarding their commitment to trade liberalisation and more broadly to rules-based economic governance regimes. The loss in legitimacy to the MTS that such signals would engender would be detrimental to all countries involved. It would also be likely to produce, at the very least, a hiatus in the Doha negotiations.

Secondly, there is the risk that financial assistance in the absence of reform in the USA and the EU could worsen the situation brought about by subsidy-induced overproduction in cotton by further depressing global prices and lowering export earnings. As noted above with respect to compensation without subsidy reform, if the assistance was transmitted (even partially) to already competitive producers in such a way as to replicate the market conditions that would have existed without US and EU subsidies, then *ceteris paribus* cotton production and exports from these countries would increase. Without the removal of subsidies in the USA and the EU, and change in their production levels, the global supply of cotton would also increase. Depending on the magnitude of the supply response in the recipient countries, this could further depress global cotton prices and result in lower per unit revenue both on the original and the assistance-induced output. While the net effect would be contingent on the size of the supply response and the impact on global prices, there would be clear potential for further injury.

Additional concerns related to financial assistance include the diversion of international aid resources from other development priorities, the question of whether this would be a judicious use of taxpayer money and the potential, if such assistance were loan-based, to further aggravate the as yet unresolved debt problems facing most developing country cotton producers (Oxfam, 2004a). It would also reinforce the perception that developing countries depend on handouts from rich countries, as opposed to promoting the fact (especially in the cotton context) that they would be capable of generating at least some portion of the additional investment resources required, if there was a more level playing field.

Put simply, financial assistance is not a substitute for compensation: rather, it complements both compensation and the broader subsidy reduction agenda. While it could surely be of benefit (as part of a broader reform agenda) for adequate resources to be made available, current efforts indicate that this is not happening. On its own, however, financial assistance cannot address the structural problem of the persistence of a distorted cotton trade caused by continued subsidies to US and EU cotton producers. Furthermore, financial assistance focused on the WCA countries, or even more broadly on sub-Saharan Africa, offers little to cotton-producing countries such as Brazil, India and Pakistan, which stand to gain far larger benefits (in absolute terms) from global cotton reform.

This discussion highlights the fact that the current agenda for reforming the global cotton trade is both inadequate in its ambition and unlikely to result in meaningful outcomes in the short or even possibly the medium term. For this reason, we turn now to consider areas for improvement, both in the context of the activities discussed above, and beyond.

What Is Not Being Done?

Having reviewed the initiatives currently on the agenda to promote the reform of the global cotton trade, we discuss potential improvements that might be considered vis-à-vis subsidy reduction, compensation, financial assistance and dispute settlement litigation. We also touch briefly on some systemic commodity issues that require attention if developing country cotton producers are to have the opportunity of maximising the benefits of their competitive advantage.

While it would appear that there will be little subsidy reform in the short term, it is of the utmost importance that when it does occur, adequate proposals will have been put forward to ensure that payments are not simply shifted to the uncapped and loosely-defined green box. In addition, in the light of the slow pace at which deep reforms to the cotton sector are likely to occur – predicated as they are on the overall agricultural negotiations – it is important to put some type of compensation mechanism back on the trade agenda (irrespective of whether it is delivered via a WTO mechanism). If reforms are insufficient, even in the medium term, then it will be up to aggrieved Members to consider the merits of proceeding to dispute settlement.

Outside the WTO, the resources allocated for financial assistance must be greatly enhanced if they are to fill the chronic savings/investment gap in most African cotton-producing countries. In addition, if the global community is serious about helping to create an environment conducive to competitive developing country cotton producers trading their way out of poverty, certain issues endemic to primary commodity dependence must be addressed. These include the long-run secular decline and volatility in cotton prices, as well as the barriers to market access and market entry for cotton and higher value-added cotton products. Other areas include low productivity in the cotton sector and poor access to technology and finance to facilitate increased competitiveness and export diversification.

Subsidy Reduction

As confirmed by the dynamics that played out in Hong Kong, subsuming the subsidy reduction component of the Cotton Initiative into the broader agriculture negotiations will make reforms in the cotton sector much slower. While this amalgamation is unlikely to be reversed procedurally, it does not necessarily preclude an accelerated track for cotton within the talks on agriculture. Despite some additional language which could further these aims in the Hong Kong text, there is still a need for improvements in both the substance and timing of the current discussions, especially if Members are to live up to the Doha Development Agenda and in particular the July Framework mandate of addressing cotton 'ambitiously, expeditiously, and specifically [...]' (WTO, 2004a).

Recognising the political difficulties in the immediate elimination of all cotton support measures in the USA and the EU, consideration of other avenues to address the distortions resulting from these measures is probably the most appropriate initial approach. Baffes (2004) notes the increased popularity of decoupled support measures (i.e. payments not tied to the level of production). However, for such measures to have the beneficial impacts intended, he highlights three essential conditions: (a) replacing 100 per cent of support mechanisms with decoupled support; (b) ensuring that the decoupled support is explicitly time limited so as to be an effective transitory mechanism towards elimination; and (c) ensuring that eligibility for decoupled support is not predicated on the obligation to keep resources in agriculture (thus facilitating a reduction in supply and an increase in world prices).

The EU's proposed cotton reforms are an example of attempts to move in this direction.[42] Equally, for the USA, with the Panel decision finding that decoupled payments (PFC/DP) notified as a green box measure were ineligible for such classification, domestic legislators have since alluded to the need to 'tighten up' up such programmes to ensure that they are eligible in the future.

Consequently, with the key subsidising Members increasingly looking to the decoupling of their existing support as a mechanism to mitigate distortions, a key area for improvement on substance is the need to develop specific proposals to ensure that support measures moved from the amber box to the green box are minimally trade-distorting. Without such a mechanism, the currently uncapped – and in the view of numerous WTO Members ill-defined – green box offers too much leeway for subsidising Members to avoid real reforms to the sector.[43]

While a detailed discussion of such mechanisms lies beyond the scope of this chapter, it seems clear that such preparation will be essential when the window to negotiate meaningful reform opens. One could, for example, envisage proposals such as cotton-specific reduction commitments based on the amount and classification of support measures as notified in the base period (i.e. committing to reductions *before* support measures can be reclassified under the green box). In addition, in line with Baffes' criteria, the introduction of some concept of time limitation for such measures could be an effective way of garnering greater support amongst developing countries for box-shifting in the initial stages, thereby offering more breathing room for subsidising Members to make the necessary domestic reforms.

In addition, while agreement-wide calls for expenditure caps and more specific criteria for the green box have been strongly rejected by many developed country Members, a more receptive climate may be generated for such disciplines focused specifically on cotton. For example, Members might consider a requirement that no cotton is produced on land which receives support under the green box. While offering some clarification of existing green box guidelines, at least with respect to restricting current land usage for payment eligibility, the Panel ruling provides a floor for such discussions in this area. Furthermore, both the panel ruling and the concerns highlighted above underscore the importance of ensuring that the review of green box criteria, as mandated in the July Framework and reaffirmed in Hong Kong, is as comprehensive as possible, as well as that cotton-specific requirements are embedded in the envisaged amendments to future subsidy notifications and that they are monitored. What seems clear is that the issue of finding appropriate disciplining mechanisms for the green and blue boxes is a priority area for future research.

Another area of substance requiring urgent attention is the base year used for reduction commitments. As it stands, Members are considering either 1995–2000 or 1999–2001 as the base period for agricultural support expenditures. For either of these periods, however, and especially the latter, government expenditures to support cotton were extremely high in both the USA and the EU; using them as a base for reduction commitments would greatly undermine the potential to reduce existing distortions. In this regard, competitive cotton-producing countries may want to propose a more appropriate time-frame for the base year for cotton-specific reductions, either one with a longer time-frame to dampen the effects of higher subsidy expenditures in the last decade, or an earlier time-frame that better reflects historical expenditures prior to the recent increase.

With respect to the timeline of reforms, fixed dates for concrete action are required. On export subsidies, developed countries (i.e. the USA) have already committed to the removal of all forms of export subsidies for cotton in 2006 (in line with the USA's stated intentions pre-Hong Kong to comply with elements of the Brazilian challenge). What remains to be seen is whether the USA intends to reform its export credit guarantee programme beyond the June 2005 amendment to the fee cap, or the potential influence explicit disciplines to be negotiated on such guarantees for all agricultural goods might come into play.

On trade-distorting domestic support, however, agreement on a firm date – or even a blueprint for a timetable – remains elusive. The case made by some Members is that without the foundation of similar dates being made in the overall agricultural negotiations, one cannot be forthcoming for cotton. Acknowledgment of the political origins of such a position does not, however, prevent the search for a middle ground. Predicated on a transitional compensation mechanism, this might include an early harvest, followed by a structure on agreed reductions over time, contingent on the overall starting date (to be determined later). While a similar approach put forward by the WCA proponents before the Hong Kong Ministerial Meeting was not then adopted, it remains an approach that may garner support as the negotiations progress.[44]

Assuming, for example, that the reduction commitments made as part of the Doha Round are to start in year *x* (which in all likelihood will not be before the next US presidential election scheduled for late 2008), one could envisage 'front-loading' in year *x* a 40 per cent reduction of trade-distorting domestic cotton support. By doubling the 20 per cent reduction already agreed to in the July Framework, this would help assuage concerns that these commitments represent only theoretical cuts and ensure that actual cuts are made immediately upon implementation. At the same time, a cut of this degree acknowledges the political difficulty of exacting deeper cuts (especially from the USA) at that point in time. These could be followed by an additional 20 per cent reduction in year $x+1$ and 15 per cent in year $x+2$. Add to this an early harvest reduction in amber box domestic cotton support of 25 per cent upon agreement (but to be implemented under the 2007 Farm Bill), and over half trade-distorting domestic support measures would be eliminated by 2009 and all such support eliminated by 2011.

While the early harvest reduction, in particular, would pose some difficulties for the US administration, offers for domestic compensation to facilitate acceptance of changes in the next Farm Bill – similar to those proposed in attempts to repeal the Step 2 subsidies – could help facilitate such a move. Indeed, the resistance of the US administration to agree to recent calls to extend the 2002 Farm Bill until the end of the Doha negotiations would seem to indicate some flexibility towards such an approach. For its part, just prior to Hong Kong, the EU proposed to eliminate the most trade-distorting support for cotton immediately upon implementation of the Round; the EU is therefore unlikely to exhibit much resistance to the structure outlined above.

However, as already emphasised, the acceptance of such an elongated timeline should be predicated on the development of a transitional compensation mechanism to offset the injury inflicted on the competitive net exporting LDCs pending such reforms.

Compensation and Financial Assistance

Recognising the lengthy negotiations ahead before reforms to the US and EU cotton support programmes can be achieved, the issue of transitional compensation (as distinct from financial assistance) deserves renewed consideration by WTO Members. In terms of financial assistance, commitments already made should be translated into practical action plans, and the resources allocated to these should be greatly augmented.

As discussed above, to be most effective, the delivery of compensation should be tied explicitly to the reduction of subsidies. This does not, however, preclude the creation of such a mechanism outside the auspices of the WTO, including on a contractually binding bilateral (as opposed to multilateral) basis. The example of the EU's FLEX mechanism to compensate developing countries for unstable export earnings offers an interesting avenue for further investigation – one which the text of the Hong Kong Declaration could support.

Under the FLEX mechanism, the EU could create a sub-scheme under which the funds allocated were proportionate to the injury caused to LDC net exporting cotton producers, and were tied (voluntarily) to the EU's WTO reduction commitments. Distribution to the beneficiaries could be determined on the basis of net exports and delivered directly to producers in order to replicate the world cotton prices that would have existed if there were no subsidy-induced distortions. Such a mechanism could mimic in many ways the Africa Group's proposed 'emergency support fund' (WTO, 2005a), albeit in a bilateral context. Constructed in this way, it could also temper some of the developed country concerns over setting a precedent for a WTO-sanctioned financial compensation mechanism.

A similar bilateral mechanism could be considered for the USA, perhaps in exchange for the proponents, together with Brazil, accepting a delay in the implementation of reductions to domestic support until mid-2007 (with a time-limited 'Peace Clause'-type agreement not to bring these measures to the DSB in the meantime). Cotton producers not scheduled to receive compensation would receive benefits by way of the agreed subsidy reduction (for which the US reforms would have a relatively larger impact). Indeed, according to Gillson *et al.* (2004), countries such as Australia, Brazil, India and Pakistan would stand to gain much more by such an arrangement.

While possible mechanisms are not limited to those proposed above, it would seem appropriate that the aggregate amount of compensation should be in the range of US$150–300 million per annum for it to effectively redress the injury that continued subsidies cause to net exporting LDCs. To act as an effective additional incentive for reform, the amount would have to be at least 3–4 times that amount. It is unlikely that this could be achieved, so the compensation mechanism is perhaps best directed at addressing continued injury.

Similarly, if financial assistance is to be a truly effective tool for promoting the competitiveness of cotton producers and the pursuit of export diversification, the resources allocated would need to be greatly enhanced. To illustrate the magnitude of the funding required, a 2001 UNECA study estimated an investment rate of 40 per cent of GDP to facilitate diversifying into higher value-added products. For the four proponent WCA countries alone, this would amount to approximately US$1–1.5 billion *each* per annum.

Furthermore, as stressed by Oxfam (2004b), it is essential that such assistance is not made conditional on the reduction of pressure in the WTO for subsidy reform; nor should it exacerbate the beneficiaries' indebtedness. In addition, the development of programme activities should include all stakeholders. A final caution, equally applicable to compensation, is the importance of ensuring that all the funds allocated to these initiatives are in addition to those already earmarked for aid-related activities. Without such assurances, there would be a danger of diverting existing funds to the detriment of other important initiatives.

Dispute Settlement

With respect to litigation via the WTO's DSB, there are two areas for potential improvement. The first relates to the initial ruling in favour of Brazil against the USA, while the second addresses the potential for additional cotton-related disputes (focused on either or both the USA and the EU). On the former, we touch briefly on some recommendations made in Sumner (2005) that might mitigate the serious prejudice caused by US trade-distorting support measures. On the latter, should the negotiations fail to deliver on meaningful reform in a timely fashion, we discuss some issues that should be considered if the proponents wish to consider a DSB case.

On the Brazil-USA case, Sumner (2005) has made some useful suggestions that could contribute in the near term to mitigating the adverse effects caused by US amber box support measures. Specifically, he focuses on those measures shown to be most distortionary in the 2004–07 period – namely the marketing loan assistance and counter-cyclical payments (Sumner, 2003). On the former, he suggests lowering the loan rate and changing the formula so as to raise the effective loan repayment rate (and thus tighten the degree of subsidy paid to farmers). For counter-cyclical payments, he suggests reducing the target price to lower overall expenditures and removing restrictions on the types of production allowed on land previously used for cotton, so as to more effectively decouple the payments and minimise their distortionary effects.

As noted earlier, however, the lack of specificity about the extent to which these subsidies must be reduced or removed means that there is uncertainty as to what is actually required of the USA for compliance. A compliance panel could contribute to the push for deeper and more expeditious reforms by clarifying this aspect of the ruling.

On dispute settlement options for other cotton producers, such as the WCA proponents of the Initiative, the lack of timely movement in the negotiations could prove a sufficient incentive to proceed with litigation. Two reasons commonly offered as to why this is unlikely to occur are the high costs associated with bringing a case to the WTO's

DSB and the systemic shortcomings of the available remedies. While funding could probably be obtained to support such a case, the latter concern is held by many developing countries, who perceive themselves to be at a systemic disadvantage in making use of the DSU remedies available to them.[45]

Specifically, in the context of this discussion, the remedies are usually limited to the suspension of tariff concessions against the offending Member. Imposing additional duties would raise the costs of imports, which for a small developing country which may be highly dependent on the other Member for consumer and producer imports, would have negative socio-economic impacts. It is partly for this reason that Brazil has requested cross-retaliation in the form of suspending concessions on intellectual property rights and services. Again, however, for small developing countries such as those in WCA, this would confer little benefit; nor would it inflict much damage on the offending country. In this regard, the controversial issue of temporary monetary compensation once again comes to the fore.

A problem that is often cited in relation to the proposal for monetary compensation is the lack of any legal precedent for it in GATT/WTO history. However, the fact that it is not explicitly excluded would appear to be an implicit recognition that compensation is at the very least a potential outcome should it be so deemed in a dispute ruling. Furthermore, such considerations have gained weight once again in the context of the Doha-mandated DSU review. In other words, while it would be a challenging position to argue, legal grounds for monetary compensation appear to exist.

The Brazilian case could also offer guidance that may mean that a new case is less difficult (and expensive) to undertake. For example, as US subsidies have already been deemed to cause serious prejudice according to the Brazil ruling, it would probably be easier to prove that they continue to harm other countries if sufficient US reforms are not forthcoming. Indeed, although the Panel did not base its ruling on the existence of serious prejudice to other Members, it accepted such allegations as 'evidentiary support' (WTO, 2005b). Thus it would seem possible for other Members to pursue a new case based on similar evidence.

As the EU is a net cotton importer and is therefore unable to influence world prices, a serious prejudice claim in terms of price depression would be difficult to pursue. However, with the analysis offered by Gillson *et al.* (2004) on the disproportionate effect of EU subsidies on WCA producers due to their close competition in similar markets, an argument for the cause of serious prejudice resulting from displaced imports could be an alternative avenue. Such an approach, however, would need to be tempered by the EU reforms touched on above, and it would be some time before relevant analysis could be undertaken to determine whether a case would still exist.

Systemic Commodity Issues

Global cotton subsidy reforms and associated compensation pending their achievement, together with technical and financial assistance, are only a few elements of the broader trade-related primary commodity strategy that is required to address the systemic problems related to dependence on cotton production and more generally on primary commodities. Indeed, such dependence is a key component of what UNCTAD (2002) has termed the 'international poverty trap', whereby the increasing marginalisation of commodity-dependent developing countries (CDDCs) in world trade, together with their continued dependence on a weak and slow growing primary commodity sector exhibiting declining real commodity prices and high price volatility, reinforces generalised poverty and contributes to a vicious low income-savings/investment-productivity trap. As a result, these countries are hard pressed to pursue export diversification, which, via learning-related externalities, can contribute to mitigating risks associated with prices and the upgrading of productive capacities, thus stimulating more dynamic economic growth.

While a comprehensive review of these issues is beyond the scope of this chapter, and has been well documented, for example in a recent UNCTAD (2003b) publication, *Economic Development in Africa: Trade Performance and Commodity Dependence*, we touch briefly on some key areas below so as to highlight the wider context of subsidy reform. In particular, the chapter focuses on the need to address the long-term decline and volatility of cotton prices, and barriers to market access and entry.

On the long-term decline and volatility of cotton prices, we underscore the need to develop international mechanisms to help stabilise prices and thus facilitate more predictable economic management. Price volatility in particular, which is said to be caused largely by supply conditions, can greatly increase the level of economic uncertainty in the economy, and as a result hamper macroeconomic management and frustrate investment decisions. With respect to cotton, while supply concerns have been a factor (for example, the 2002/03 price increase resulted from a poor crop in China), the above analysis shows clearly that subsidies have also played a key role. (Baffes (2004) observes that cotton price volatility increased after 1985 when the USA moved from supply management to price support measures to stabilise farm incomes.)

Declining prices have been attributed to both demand and supply factors. Prebisch and Singer discussed demand side factors in the 1950s. It has been argued that the low income elasticity of demand for primary commodities relative to manufactures (i.e. that increases in income lead to slower demand growth for primary commodities than for manufactures) leads to declining long-term primary commodity prices and thus to deteriorating terms of trade (i.e. a lower purchasing power for imports derived from primary commodity exports). More recently, UNCTAD (2003b) has expounded a supply-side explanation, pointing to structural over-supply resulting from new high-productivity producers[46] (for example Asia in tropical beverages), as well as subsidies to high-cost producers. Cotton is, of course, an example of the latter – although remedies to remove subsidies and provide compensation alone will not rectify the problem (as they predate the recent rise in US and EU subsidies).

With decreasing and uncertain revenues,[47] less foreign exchange[48] to import productivity-enhancing goods and pay off debts,[49] and lower levels of investment,[50] many CDDCs are thus confronted with widening savings, foreign exchange and fiscal gaps, higher debt loads and increasing difficulties in accessing international finance. Taken together with other national and international economic policy-making reforms,[51] these difficulties highlight the far-reaching benefits that mechanisms to stabilise commodity prices could deliver.

In this regard, many in the international community, including in the context of the 'development dimensions' of the cotton issue, have increasingly focused on market-based tools to mitigate price risk, such as forward and future contracts, swaps and put options. While increasing familiarity with such tools in the more vulnerable CDDCs, and the maturing of financial markets, might mean that they became more widely used and help stabilise commodity revenues, they would seem more useful for doing so during a growing season than between seasons (UNCTAD, 2003b). To help address the problem of fluctuations in commodity revenues between seasons, a mechanism would need to influence prices received by producers between seasons. Here the role of price support is important, although admittedly a challenge when the long-term declining trend of cotton prices is considered. While the history and challenges surrounding price stabilisation go beyond this chapter, a bilaterally-funded cotton compensation mechanism could be deployed to help bolster, and facilitate the improvement of, existing national institutions offering price stabilisation, and thus go some way to mitigate the problem of increasing poverty in many competitive cotton producers. To date, however, this suggestion has not met with a warm reception.

Alternatively, there has also been renewed interest in recent years in revisiting the potential benefits of producer–consumer or producer–producer commodity arrangements to manage the demand and/or supply (and by extension, price) of traded commodities. While there are a number of legitimate concerns regarding such mechanisms, not the least of which is the often dismal history of previous international commodity organisations, this does not preclude the potential for new approaches to improve their effectiveness and ensure a better accommodation of current political and economic realities (UNCTAD, 2003a). Indeed, with respect to cotton, there has never been an attempt at supply management, making it perhaps an ideal candidate for a new initiative, with no historical baggage.

Another key area requiring attention if competitive cotton-producing developing countries are to maximise the benefits of their competitive advantage in cotton production relates to market access and entry for cotton and higher value-added cotton products. Market access issues include traditional trade issues, such as the subsidy considerations dealt with in this chapter, as well as tariff peaks and escalations (which can impede value addition in the producing countries) and NTBs, such as market defence measures (anti-dumping and safeguards), product standards, and health and food safety regulations. While MFN import tariffs on raw cotton are generally low for most countries,[52] they tend to increase as additional processing (and value added) occurs. Quantitative restrictions on textiles (under the now-expired ATC or the safeguards that have now replaced it) typify such treatment, which can impede diversification out of cotton production.

Market entry issues, however, are of greater importance in the cotton sector. These include the monopsony and oligopsony power in purchasing and distribution channels that results from the integration of multinational firms which effectively control international trade in specific commodities, as well the need to meet the product quality standards demanded by consumers for entry into specific markets.[53] Although far less concentrated than other commodities such as cocoa and coffee, the role of international cotton traders (who mediate between producers and processors) is often highlighted. According to an ICAC survey, Gillson *et al.* (2004) report that the 19 largest companies accounted for approximately 33 per cent of global production in 2003, with expanded activities in the area of inventory storage and helping to ensure stable supply availabilities. As a result of higher transaction costs stemming from these and other new activities, traders have increasingly attempted to pass them on to captive producers, resulting in lower farm-gate prices and lower domestic earnings (Gibbon, 2003).

In addition, with a greater focus on new quality standards – the 'High Volume Instrument' (HVI) classification (Gibbon, 2003) – traders are increasingly looking to suppliers who can consistently provide uncontaminated high-quality cotton grades, and are willing to pay a premium on the world price in return. These new exacting standards, combined with instances of contamination that have damaged the image of WCA cotton in recent years, have resulted in their cotton being traded at a discount rather than at the premium price it should command due to its otherwise high quality (Estur, 2005).

In light of these constraints on market access and market entry, a wide range of international efforts needs to be considered, including addressing specific measures within WTO rules (such as tariff escalations, market defence measures, and TBT and SPS disciplines), as well as mechanisms to promote better integration into global commodity chains. The development of niche markets and alternative marketing channels (for example fair trade networks) has also been identified in this regard (UNCTAD, 2003a). Domestically, efforts to upgrade production structures and build the the capacity to develop quality assurance and testing facilities could prove highly beneficial.

However, to be able to undertake such activities requires a large pool of investment resources. Indeed, the lack of investment resources underlies two other key systemic issues requiring attention, namely low productivity in the cotton sector (and CDDC economies more generally), and poor access to technology and finance to facilitate these and other improvements in competitiveness and stimulate export diversification. The welcome efforts to provide greater technical and financial assistance to cotton-producing developing countries reviewed earlier are essential. To be effective, however, the resources allocated need to be greatly augmented.

The need for subsidy reform illustrates just some of the systemic challenges facing CDDCs and cotton-producing developing countries in particular. While it forms only one part of the solution to their problems, subsidy reform is essential. If developing countries were allowed to take advantage of their competitive advantage in cotton production, they would be far better equipped to generate at least a portion of the investment resources they need to begin addressing these systemic concerns. In this context, compensation pending these reforms is all the more important.

In conclusion, the chapter considers some potential areas to be pursued post-Hong Kong, as Members approach the 30 April deadline of finalising modalities for agriculture.

Looking Beyond Hong Kong

The discussion above demonstrates that despite both economic and moral arguments supporting immediate reforms in the cotton sector, political reality dictates that the process of negotiating meaningful agricultural reform in the WTO, including for cotton, will be a long one. There is unlikely to be much in the way of serious implementation before the end of the decade. Indeed, the end date for eliminating trade-distorting domestic support could be even later, if the 2013 date agreed in Hong Kong to eliminate all agricultural export subsidies is any indication. Either way, 2006 will be crucial as agricultural negotiators ambitiously attempt to finalise the modalities. Some cotton-specific elements could be included in the modalities, with the aim of meeting the mandate to find an 'ambitious, expeditious, and specific' resolution to the cotton issue.

If there is failure to achieve explicit numbers and dates in the near term, modalities that ensure the accelerated treatment of cotton (predicated on an agreed baseline to be agreed in the future) could serve as a foundation for further reforms.

Digging at the Roots – Dealing with Domestic Support

In terms of the reduction and eventual elimination of trade-distorting domestic support, a key sticking point continues to be the timeline for implementation. As proposed above, one avenue for investigation is a structure around which specific dates can be agreed upon in the future. To this end, just before the Hong Kong Ministerial Meeting, the WCA producers proposed a three-step reduction approach of 80 per cent on the day of implementation of the round, an additional 10 per cent after 12 months and the last 10 per cent a year later. However, with the political difficulties surrounding the reform of domestic support measures in the USA discussed above, the degree of 'front-loading' proposed is probably too ambitious. An alternative construction could see a combination of an early harvest, with a lower year 1 reduction and with higher year 2 and 3 reductions (which in the face of a temporary compensation mechanism could be a much easier scenario for the WCA proponents to accept).

In addition, the proponents may wish to pursue cotton-specific mechanisms to prevent the reform commitments that have already been made from becoming an exercise in shifting expenditures to support categories with lower (or no) reduction commitments (such as the blue and green boxes). As mentioned above, cotton-specific commitments based on the categorisation of existing support programme notifications (i.e. before 'box-shifting' can occur) may prove helpful in this regard. Other possible measures include agreement that the envisaged reductions in the total aggregate measure of support (AMS) and/or *de minimis* threshold will be a fixed percentage that is greater for cotton-specific measures (for example, by agreeing that cotton-specific reductions will be x percentage greater than the horizontal reductions in this area to be implemented as part of the Round).

Another key issue is that of the base year for reduction commitments. With the high levels of support extended to cotton producers in the USA and the EU in the two baselines currently under consideration (1995–2000 or 1999–2001), the proponents could advocate for an alternative methodology to be established such that the combination of the base year employed for cotton and the reduction commitments accepted ensure real and meaningful cuts in the level of existing support. An earlier (or longer) time-frame to reduce the impact of these particularly generous years of support would seem appropriate.

While perhaps not offering the specificity and depth of reforms that the proponents are seeking, provisions such as these offer concrete and binding commitments that could help implement the mandate to address cotton 'ambitiously, expeditiously and specifically', and at least help move the agenda forward until a more amenable political climate is in place.

Compensation and Litigation – Where Next?

Little progress has been made on the issue of a mechanism for temporary monetary compensation, although there is increasing justification for it as reform is further delayed. A recent window of opportunity has emerged from the Hong Kong Ministerial Meeting, where Members 'urged' the WTO Director-General to engage, via the donor institutions, in discussion of a possible mechanism to address declining incomes in the cotton sector. Whether or not the 'explorations' of this produce results, and if so how effective they will be, remains to be seen. In light of the view offered above on a realistic timeline for meaningful cotton reforms, it is important to continue to press for the issue of compensation to be reinstated on the WTO agenda.

One option is to create a delivery mechanism outside the WTO, based on a contractual bilateral agreement between subsidisers and LDC net exporting producers, whereby funding would be inversely related to continued cotton support. While there is a danger that such an arrangement could become an institutionalised cost of doing business for the subsidising countries (and a marginal one relative to the subsidies provided), the maintenance of links with the agreed mandate to address the trade-distorting policies that affect the sector would help mitigate this. In addition, the support and involvement of those competitive non-LDC producers who would receive no benefit from such a mechanism would help ensure that momentum towards deeper reforms was not lost.

While the donor community prepares its response to this new opportunity, the proponents would do well to come forward with specific and practicable suggestions on how they envisage such a mechanism being most effective.

On litigation, should the proponents (or other competitive producers) feel that inadequate attention is being given to their needs, and that there is little likelihood of this changing in any acceptable time-frame, they still have the option of reconsidering additional dispute challenges to either the USA and/or the EU. Recent comments by the new US Chief Agricultural Negotiator, Richard Crowder, to the annual convention of the American Farm Bureau Federation (the self-proclaimed 'Voice of Agriculture') confirm that the US administration (if not Congress) clearly recognises the potential threat of continued challenges if reforms fail to move ahead. '[...S]imply put', he stated, 'if the Doha talks stall, if our timetable is overshot, and current US policies continue as they have, the United States faces the prospect of additional challenges to its current programs' (Crowder, 2006). Indeed, the irony is that the outcome upon which such 'stalling and overshooting' would be based would provide the most fertile of environments (with no Peace Clause protection) for a wide range of challenges to the OECD agricultural support programme for cotton and other commodities.

Unfortunate as it may be, deep reforms to the cotton sector are unlikely to take place in the near future. This is not to say that the producers who face the loss of their livelihoods and are on the brink of poverty must sit idly by and wait. In the meantime steps can be taken to help facilitate meaningful reforms when these become possible. Most importantly, some type of temporary compensation mechanism must be developed. While the proponents may have backed off from their position that insufficient movement on cotton at the Hong Kong Ministerial Meeting would translate into a lack of consensus on the overall package, the concerns of all competitive cotton producers – and especially the most vulnerable countries in WCA and sub-Saharan Africa – will need to be taken into account before any modalities on agriculture can be completed. To attempt to do otherwise would call the 'Doha Development Agenda', and the institutional foundation upon which it is based, into farcical disrepute.

Notes

1 Two key areas of divergence in Cancun were agriculture (including cotton) and the basket of 'Singapore Issues' (which included investment, competition, transparency in government procurement and trade facilitation). See ICTSD (2003) for the collapse in Cancun.
2 On Hong Kong, see the statement from Commonwealth Secretariat Secretary-General (*http://www.thecommonwealth.org/Templates/System/LatestNews.asp?NodeID=147867*), ICTSD (2005) and Oxfam (2005).
3 Cotton producers in WCA for which cotton comprised at least 1 per cent of GDP in 2000 include Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Ghana, Guinea, Mali, Senegal and Togo (Fortucci, 2002).
4 Despite difficulties in comparing costs across countries, a 2001 ICAC study ranked WCA amongst the lowest cost cotton producers globally (alongside Uganda and Tanzania).
5 The most widely used cotton price measure is the 'Cotlook A Index', which provides an average (in US$) of the five lowest offering prices traded in North European ports for 16 styles of cotton (all of the Middling 1–3/32 inch fibre length grade). All cotton prices used will be in terms of the Cotlook A Index (hereafter A Index).
6 This decline would have been even more pronounced were it not for a 34 per cent increase in 2002/03, after cotton prices reached historic lows in 2001/02. This upswing was stimulated primarily by a poor 2002/03 crop in China and the resulting increase in global demand. However, the ICAC (2005) projected a 22 per cent decline for 2004/05 after a six-year high the previous season.
7 Real prices were calculated using the US Bureau of Economic Analysis GDP deflator with 2000 as the base year.
8 Government support is disaggregated between 'domestic support measures' and 'export subsidies'; the former have traditionally been viewed as less price distorting than the latter. However, it is commonly believed – and confirmed by the recent WTO ruling, at least in relation to cotton – that domestic support measures can also result in meaningful price distortions and injury to other producers. For present purposes, we shall use the terms interchangeably, unless otherwise specified. We note that the lack of consensus over the definition of what constitutes a subsidy has resulted in the reporting of differing figures across studies.
9 For example, the definition of what constitutes a subsidy (and hence the level of support accounted for), the base year for levels of production and government support, assumptions on market structure, demand and supply elasticities, and the estimation model employed.
10 For those studies that do not themselves consider forgone earnings, FAO (2004) uses a supply response equation for WCA countries to offer a rough calculation of their forgone export earnings.
11 Tables 4.3 and 4.4, sourced from FAO (2004), offer a glimpse of the key conclusions and assumptions relating to the major econometric studies undertaken.
12 See ICTSD (2002) for a review of the TRIPs and public health issue at Doha.
3 Goreux's 2003 study estimated losses for WCA cotton producers, as opposed to the LDC net-exporters referenced in the WTO submission. However, as he outlined later (Goreux 2004a), the degree of overlap between the two groups results only in a 2 per cent difference in cotton production and exports. As such, his calculations remain a reasonable approximation of the compensation required.
14 Adopted in May 2002, the 2002 Farm Bill is officially known as the 'Farm Security and Rural Investment Act of 2002'.
15 Prohibited subsidies are those that require recipients to meet certain export targets, or to use domestic goods instead of imported goods.
16 Subsidies (allowed or otherwise) are deemed 'actionable' in the sense that they are countervailable if they confer a benefit to a specific enterprise or industry (*de jure* or *de facto* specificity), such that they cause (or threaten to cause) material injury to domestic industry.
17 Serious prejudice is said to occur (based on ASCM Article 6(c)) where the effect of a subsidy is to displace imports or exports, significantly depress or suppress prices in the same market or increase the world market share of the subsidising Member (WTO, 1995).
18 Third parties to the case included Argentina, Australia, Benin, Canada, Chad, China, Chinese Taipei, EU, India, New Zealand, Pakistan, Paraguay and Venezuela.
19 Due to the AB report upholding the key finding of the Panel, unless otherwise specified, 'ruling' refers to both the DSB and AB ruling.
20 On the claim of 'threat' of serious prejudice for a basket of subsidies to be granted in the future, the Panel found it unnecessary to rule. They did so in light of the potential for the significant transformation of future support measures resulting from the withdrawal of relevant subsidies (either prohibited and/or causing present serious prejudice) prescribed in their ruling (as seen below).

21 See Table 4.1; this excludes cottonseed payments (number 7), which were not included in his analysis but did form a part of the case.

22 Step 2 payments are provided to domestic users of US cotton and/or exporters to cover the difference in cost between (higher) US cotton prices and (lower) world prices.

23 The US Schedule of commitments on domestic support and export subsidies on agricultural products can be found in Schedule XX of the United States of America, Part IV, Section II entitled 'Export Subsidies: Budgetary Outlays and Quantitative Reduction Commitments' in the GATT Schedule of Commitments.

24 The marketing loan programme (comprising marketing loan gains, loan deficiency payments and commodity certificate exchange gains) is intended to minimise potential loan forfeitures by providing interim financing to eligible producers on their eligible production, and to facilitate the orderly distribution of eligible commodities throughout the year. Rather than selling the crop at harvest when prices tend to be at their lowest, the proceeds of the interim loan enable producers to pay off their expenses when they become due, while storing their pledged harvested crop as collateral and repaying the loan when market conditions are potentially more favourable.

25 Market loss assistance (MLA) payments were annual *ad hoc* emergency measures from 1998–2001, aimed at making up losses sustained to producers' income as a result of recently low commodity prices. These were formalised in the 2002 Farm Bill as the counter-cyclical payments (CPP) programme, which filled a gap in revenues whenever 'effective' domestic cotton prices fell below a target rate of $0.72/pound (effective domestic prices include direct payments and, where applicable, loan gains) (WTO, 2005b).

26 Green box (domestic) subsidies, as defined in Annex 2 of the AoA, must have no, or at most minimal, trade-distorting effects. They often include government services, as well as direct payments made to farmers that do not stimulate production (i.e. they must be 'decoupled' from production). Importantly, they do not currently have expenditure limits, nor are they subject to reduction commitments.

27 Amber box subsidies include all domestic support measures not eligible for the blue (production-limiting) and green (see note 26) boxes, such as measures to support prices, or subsidies directly related to production quantities. They are subject to limitations (a *de minimus* level of support up to 5 per cent of agricultural production for developed countries; 10 per cent for developing countries), as well as reduction commitments (based on an 'aggregate measure of support' or AMS figure).

28 Three such programmes run by the US government's 'Commodity Credit Corporation' were considered by the Panel: GSM 102, which guarantees the repayment of credit made available to finance commercial export sales of agricultural commodities on credit terms that do not exceed three years ; GSM 103, which guarantees the repayment of credit made available by financial institutions in the USA to finance commercial export sales of agricultural commodities on credit terms of between three and ten years; and SCGP, which issues guarantees for the repayment of credit made available for a period of not more than 180 days by a US exporter to a buyer in another country (WTO, 2005b).

29 Other products not included in the Schedule include corn, oilseed, oil products and soybeans.

30 See Steinberg and Josling (2003) for an in-depth legal discussion on the vulnerability of US and EU agricultural subsidies in light of the Peace Clause expiry.

31 The other was Indonesia – Autos; WT/DS54, WT/DS55, WT/DS59, WT/DS64.

32 The GSM-103 programme was also eliminated. However, this programme had not been used for cotton in the past and had only been used marginally for other commodities.

33 Corresponding to the annual average value of US surplus production resulting from subsidisation from 1999–2002 (as estimated by Sumner, 2003) multiplied by international prices for that period.

34 Cross-retaliation has been authorised once before in the WTO, as part of the 1999 banana dispute between Ecuador and the EU. With the two Members having arrived at a negotiated agreement however, Ecuador opted not to exercise its cross-retaliatory rights.

35 See Basso and Beas (2005) for an overview on the potential difficulties in utilising TRIPs as an instrument of retaliation.

36 See the EU 'Proposal for an EU-Africa partnership in support of cotton sector development' at *http://www.cotton-forum.org/docs/partenariat-en.pdf* and the summary of proceedings of the July meeting at *http://www.cta.nl/pubs/coton/Cotton_Forum.pdf*

37 This includes international trade; national and regional cotton strategies; policies and institutions; technological innovation; risk management; chain integration; and coordination.

38 Goreux (2004a) notes that the changes implied by the proposed EU reforms (and the remaining coupled subsidies) would not necessarily alter the level of cotton production in Greece.

39 The FLEX instrument was introduced in 2000 in the framework of EU-ACP cooperation to assist governments facing sudden losses of export revenues. Due however to restrictive eligibility criteria, from 2000–02, only

g35.65 million had been distributed as part of six successful applications (out of 51). Had the new criteria been in place originally, the applications submitted would have resulted in a g255 disbursement.

40 See 10 November 2005, USDA News Release No. 0486.05, *http://www.usda.gov*

41 The programme will focus on: promoting the use of good agricultural practices; strengthening private agricultural organisations; providing training for West African ginners; improving the quality of WCA cotton via better classification; improving linkages with relevant US research organisations; improving the enabling environment for biotechnology; and policy/institutional reform.

42 As noted above, however, with less than full transition to decoupled measures and thus 35 per cent of their support still tied to the amount of area under cotton production, the degree to which these reforms will deliver the professed benefits remains to be seen. Goreux (2004a), for example, speculates that the changes implied will not necessarily alter the level of cotton production in Greece.

43 Indeed, without a cap on green box spending, it is altogether conceivable that support to inefficient cotton producers could increase in the future.

44 The WCA proposal envisaged an 80 per cent cut in trade-distorting domestic support upon implementation, with an additional 10 per cent cut in each of the following two years.

45 For a detailed discussion on such concerns vis-à-vis the DSU, see Shaffer, Mosoti and Qureshi (2003), 'Towards a Development-Supportive Dispute Settlement System in the WTO'.

46 This relates to the 'fallacy of composition', whereby a small commodity producer may be able to increase production without affecting world prices and thus, *ceteris paribus*, increase export earnings; whereas many producers proceeding in this manner will work to depress the world price and lower unit revenues for all. A similar trend is now said to be occurring in low-skilled manufactures.

47 The World Bank (2000) suggests losses (1970–1997) for African non-oil CDDCs (excluding South Africa) exceeding 110 per cent of their combined 1997 GDP and 68 per cent of cumulative net resource flows (cited in UNCTAD, 2003b).

48 Razzaque *et al.* (2004) estimate the average foreign exchange losses for 1995–2000 for the LDCs alone at between US$946 and 2181 billion. For details on the estimation procedures, see Razzaque *et al.* (2004), Chapter 4.

49 See Nissanke and Ferrarini (2001) for a discussion on the commodity-debt relationship.

50 UNCTAD (2003b) notes that the investment ratio would have been on average 6 percentage points per annum had terms-of-trade losses for non-fuel CDDCs not occurred.

51 UNCTAD (2003a) highlights the following possible policy measures: stabilisation of real exchange rates; better management and control of capital flows; debt reduction (including debt write-offs) for HIPCs; financing for diversification, particularly in LDCs and Africa; more effective and wider coverage of compensatory finance; use of risk management instruments; and the consideration in the structural adjustment and stabilisation programmes of the implications of competitive devaluation for international commodity prices, due to the potential of fallacy of composition.

52 For example, the EU has no import tariff on cotton, while that of the USA is fairly low (14 per cent). Additionally, as a result of the Hong Kong Ministerial Meeting, duties in developed countries for LDC exports are scheduled to be eliminated from the start of the implementation of the Doha Round. On the other hand, some exporting countries who have large textile sectors have high tariffs – with China's 90 per cent tariff standing as the only one above 40 per cent (Baffes, 2003; Gillson *et al.*, 2004).

53 This area is addressed most directly in the global commodity chain literature, which examines the range of activities and actors from primary production to final consumption in specific commodity value chains, considering the linkages that bind them and the distribution of value added between them. See Gibbon (2003) and *http://www.globalvaluechains.org/*

References

Baffes, J. (2004). 'Cotton: Market Setting, Trade Policies, and Issues', World Bank Policy Research Working Paper 3218, Washington, DC: World Bank.

Basso, M. and Beas, E. (2005). 'Cross-retaliation through TRIPs in the Cotton Dispute?'. BRIDGES Monthly Trade News Digest, 9 (5): 19–20. Geneva: International Centre for Trade and Sustainable Development.

Becker, G.S. (2002). 'The 2002 Farm Law at a Glance', CRS Report for Congress RS21233. Washington, DC: Congressional Research Service.

Clay, J. (2004). *World Agriculture and the Environment: A Commodity-by-commodity Guide to Impacts and Practices*. Washington, DC: Island Press for WWF-USA.

Crowder, R.T. (2006). Remarks to American Farm Bureau Federation Annual Convention, 9 January. Nashville, Tennessee. *http://www.ustr.gov/Document_Library/Transcripts/2006/January/Remarks_of_Richard_T_Crowder,_USTR_Chief_Agricultural_Negotiator,_before_the_American_Farm_Bureau_Federation_Annual_Convention.html*

Estur, G.E. (2005). 'Commodity Risk Management Approaches For Cotton in West Africa'. Washington, DC: International Cotton Advisory Committee.

FAO (2002). 'Dependence on Single Agricultural Commodity Exports in Developing Countries: Magnitude and Trends', in FAO Papers on Selected Issues Relating to the WTO Negotiations on Agriculture. Rome: United Nations.

FAO (2004). 'Cotton: Impact of Support Policies on Developing Countries – A Guide to Contemporary Analysis', FAO Trade Policy Technical Note No. 1. Rome: FAO.

Fortucci, P. (2002). 'The Contributions of Cotton to Economy and Food Security in Developing Countries'. Rome: FAO.

Gibbon, P. (2003). 'Commodities, Donours, Value-Chain Analysis and Upgrading', Paper prepared for UNCTAD. Copenhagen: Danish Institute for International Studies.

Gillson, I., Poulton, C., Balcombe, K. and Page, S. (2004). 'Understanding the Impact of Cotton Subsidies on Developing Countries'. London: Overseas Development Institute.

Goreux, L. (2003). 'Prejudice Caused by Industrialised Countries Subsidies to Cotton Sectors in Western and Central Africa', Background document to the submission made by Benin, Burkina Faso, Chad and Mali to the WTO (TN/AG/GEN/4).

Goreux, L. (2004a). 'Cotton After Cancun', mimeo. Paris: Sahel and West African Club (OECD).

Goreux, L. (2004b). 'Prejudice Caused By Industrialised Countries Subsidies to Cotton Sectors in Western and Central Africa', Update of the 2003 background document to the submission by Benin, Burkina Faso, Chad and Mali to the WTO (TN/AG/GEN/4).

Halverson-Cross, K. (2005). 'King Cotton, Developing Countries, and the "Peace Clause": The WTO's US – Subsidies on Upland Cotton Decision', mimeo.

ICAC (2001). 'Survey of the Cost of Production of Raw Cotton'. Washington: International Cotton Advisory Committee.

ICAC (2005). 'The World Cotton Outlook', Paper presented to the 3rd International Cotton Conference, 24–25 May 2005. Uzbekistan: Tashkent.

ICTSD (2002). 'Access to Medicines: WTO Members May Snatch Defeat Out of the Jaws of Victory', *BRIDGES Monthly Trade News Digest* 6(8): 1–3. Geneva: International Centre for Trade and Sustainable Development.

ICTSD (2003). 'Cancun Collapse: Where There's No Will There's No Way', *Bridges Daily Update*. Geneva: International Centre for Trade and Sustainable Development. *http://www.ictsd.org/ministerial/cancun/wto_daily/ben030915.pdf*

ICTSD (2005). 'Low Ambitions Met: Members Adopt Declaration', *Bridges Daily Update*. Geneva: International Centre for Trade and Sustainable Development. *http://www.ictsd.org/ministerial/hongkong/wto_daily/19_December/en051219.pdf*

Josling, T. (2005). 'Unraveling the Cotton Case', *BRIDGES Monthly Trade News Digest* 9(4): 3–5. Geneva: International Centre for Trade and Sustainable Development.

Minot, N. and Daniels, L. (2002). 'Impact of Global Cotton Markets on Rural Poverty in Benin', MMSD Discussion Paper 48. Washington, DC: International Food Policy Research Institute.

Nissanke, M. and Ferrarini, B. (2001). 'Debt Dynamics and Contingency Financing: Theoretical Reappraisal of the HIPC Initiative', UNU-WIDER Discussion Paper 2001/139. Helsinki: UNU-WIDER.

Oxfam (2002). 'Cultivating Poverty: The Impact of US Cotton Subsidies on Africa', Oxfam Briefing Paper 30. Oxford: Oxfam International.

Oxfam (2004a). 'Dumping: the Beginning of the End? Implications of the Ruling in the Brazil/US Cotton Dispute', Oxfam Briefing Paper 64. Oxford: Oxfam International.

Oxfam (2004b). '"White Gold" Turns to Dust Which Way Forward for Cotton in West Africa?', Oxfam Briefing Paper 58. Oxford: Oxfam International.

Oxfam (2005). 'What Happened in Hong Kong?', Oxfam Briefing Paper 85. Oxford: Oxfam International.

Oxfam America. (2003). 'US Export Credits: Denials and Double Standards', Oxfam America Briefing Note. Boston: Oxfam America.

Razzaque, M.A., Osafo-Kwaako, P. and Grynberg, R. (2004). Commodity Prices, Aid and Debt: Implications for LDCs, Small Vulnerable States and HIPCs, Commonwealth Economic Paper 72. London: Commonwealth Secretariat.

Steinberg, R.H. and Josling, T. (2003). 'When the Peace Ends: The Vulnerability of EC and US Agricultural Subsidies to WTO Legal Challenge', *Journal of International Economic Law* 6 (2): 369–417.

Sumner, D.A. (2003). 'A quantitative simulation analysis of the impacts of US cotton subsidies on cotton prices and quantities', mimeo.

Sumner, D.A. (2005). 'Reducing Cotton Subsidies: The DDA Cotton Initiative', in Martin, W. and Anderson, K. (eds), *Agricultural Trade Reform and the Doha Development Agenda*, Chapter 10. Washington, DC: World Bank.

UNCTAD (2002). *The Least Developed Countries Report 2002: Escaping the Poverty Trap*. New York: United Nations and Geneva: UNCTAD.

UNCTAD (2003a). Background notes prepared for meeting of eminent persons on 'Commodity Issues, Including the Volatility inCommodity Prices and the Impact these have on Development Efforts on Commodity-dependent Developing Countries', TD/B/50/CRP.3. Geneva: UNCTAD.
UNCTAD (2003b). *Economic Development in Africa: Trade Performance and Commodity Dependence*. New York: United Nations and Geneva: UNCTAD.
UNCTAD (2005). 'Cotton', in *InfoComm: Market Information in the Commodities Area*, available online at *http://r0.unctad.org/infocomm/anglais/cotton/sitemap.htm*, updated on 23 August 2005; accessed on 3 September 2005.
UNECA (2001). *Economic Report on Africa 2000: Transforming Africa's Economies*. Addis Ababa: UN Economic Commission for Africa.
WTO (1995). *The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations*. London: Cambridge University Press.
WTO (2002). 'United States – Subsidies on Upland Cotton', Request for Consultations by Brazil', WT/DS267/1. Geneva: WTO.
WTO (2003a). 'Poverty Reduction: Sectoral Initiative in Favour of Cotton, Joint Proposal by Benin, Burkina Faso, Chad and Mali', TN/AG/GEN/4. Geneva: WTO.
WTO (2003b). 'Poverty Reduction: Sectoral Initiative in Favour of Cotton', Joint Proposal by Benin, Burkina Faso, Chad and Mali, Proposal on Implementation Modalities', TN/AG/GEN/6. Geneva: WTO.
WTO (2004a). 'Doha Work Programme Decision Adopted by the General Council on 1 August 2004', W/T/L/579. Geneva: WTO.
WTO (2004b). 'WTO African Regional Workshop on Cotton, Cotonou, Republic of Benin, 23–24 March 2004. Note by the Secretariat', WT/L/587. Geneva: WTO.
WTO (2005a). 'Proposed Elements of Modalities in Connection with the Sectoral Initiative in Favour of Cotton, Communication from the African Group', TN/AG/SCC/GEN/2. Geneva: WTO.
WTO (2005b). 'United States – Subsidies on Upland Cotton', Report of the Panel, WT/DS267/R. Geneva: WTO.
WTO (2005c). 'United States – Subsidies on Upland Cotton', Report of the Appellate Body', WT/DS267/AB/R. Geneva: WTO.
WTO (2005d). 'Doha Work Programme, Preparations for the Sixth Session of the Ministerial Conference, Draft Ministerial Text', JOB(05)/298, 26 November 2005. Geneva: WTO.
WTO (2005e). 'Doha Work Programme, Preparations for the Sixth Session of the Ministerial Conference, Draft Ministerial Text', JOB(05)/298/Rev.1, 1 December 2005. Geneva: WTO.
WTO (2005f). 'Doha Work Programme, Hong Kong Ministerial Declaration', WT/MIN(05)/DEC. Geneva: WTO.

Data Sources

UNCTAD (2005). *Commodity Price Bulletin.*

US Bureau of Economic Analysis (2004). 'National Income and Product Accounts Tables'.

USDA (various). 'Monthly Summary of Export Credit Guarantee Program Activity', *http://www.fas.usda.gov/excredits/Monthly/ecg.html*, last accessed: 12 November 2005.

World Bank (2004). *World Development Indicators 2004.*