

# Preference-dependent Economies in the Doha Round: Impacts and Options

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## Introduction

Since their emergence in the late 1960s, preferential market access schemes for developing countries have significantly impacted global trade and investment decisions in both developed and developing countries. Barriers to global free trade create distortions, and distortions create both costs and benefits. The benefits of trade preferences have accrued not only to the markets that they protect, but also to a small but significant number of developing countries whose economies have become dependent on preferential access.

When these preferences are eroded, the balance of winners and losers is reversed. Commitments from both the previous Uruguay Round and the ongoing Doha Round negotiations threaten to reduce the value of preferential access in the short, medium and longer term. Preference-dependent economies unable to compete in a liberalised market may see significant losses in production, revenue and employment. Given the combination of high poverty levels, small domestic markets, and vulnerable export sectors in many of these economies, many are unlikely to be able to finance the necessary adjustment by themselves. The scale of the shock implies that preference-dependent economies may incur net losses from multilateral liberalisation.

The launch of the Doha Round of trade negotiations has been predicated on the assumption that developing countries' needs would be explicitly incorporated into the negotiating agenda, and any agreements reached would reflect the true costs and benefits of integrating developing countries into the global trading system. Net losses from multilateral liberalisation may lead to further marginalisation of preference-dependent economies and has led to scepticism over the net benefit of agreeing to subsequent reductions in global trade barriers.

This paper aims to assess both the impact of multilateral liberalisation on preference-dependent economies and policy options to assist them. First we outline the theoretical approach of this chapter. Then potential losses from preference erosion are estimated. We consider these losses in the development and Doha context, and outline a policy framework to assist preference-dependent economies in adjusting to multilateral liberalisation.

## A typology of economic loss

Economic loss is by nature a multi-layered phenomenon. The losses that interest economists and academics may differ substantially from those which preoccupy policymakers and governments. Yet any estimation is significantly constrained by the limitations of economic forecasting. To complicate matters, the so-called 'Quad' countries (European Union, United States, Canada and Japan) currently administer a large number of overlapping preferential regimes, all with different numbers of beneficiaries, numbers of commodities covered, and values of the concessions provided. Furthermore, there is significant disagreement over models, methodologies and estimates. These caveats will be discussed below.

Any estimate will be highly sensitive to initial assumptions. Yet a sufficiently rich representation of the *status quo* compared with a range of probable outcomes can allow an appreciation of future resource needs. This paper will focus on two types of loss which can be reasonably estimated *a priori*: 'incentive loss' (quota rents) and 'competitive loss' (revenues).

## *Quota rent/income transfers*

In sensitive Quad sectors, several instruments act to provide a price cushion above world price for

domestic producers: (a) high tariffs; (b) quantitative restrictions on imports (quotas); and (c) producer support measures such as export subsidies and price support. These instruments result in a price premium in the domestic market, which can be partially or wholly captured by preferred producers. The profits derived from trading goods subject to quotas (and therefore artificially scarce) are known as quota rents.

Since quota rents represent returns in excess of those provided by the market in the absence of quotas, they also represent income transfers from consumers or government treasuries to quota beneficiaries.<sup>1</sup> This income transfer can be conceptualised as the tariff revenue foregone by donor countries to producers in exporting countries. Any country given preferential access to a highly protected market can gain a price premium over the normal rate of return that is required to encourage investment in the domestic economy, thus generating a powerful incentive to allocate resources to that sector (Brenton and Ikezuki, 2004a).<sup>2</sup> Where such allocation would occur in the absence of preferences, then the removal of the quota rent incentive may have little economic impact. However, where quota rents have been concentrating resources in uncompetitive sectors, a loss in income transfer may reduce the investment incentive for that country or that sector. This is the first aspect of economic 'loss'.

## Revenues

Reductions in protection (quota abolition, tariff reduction, etc.) often enhance market access for competitive suppliers. If these suppliers respond rationally to that enhanced access (and are not restrained by new protection) there will undoubtedly be changes in relative prices, supply patterns and export revenues. High-cost producers who lose market share to more competitive suppliers may potentially suffer losses in output, employment and export revenues. These losses are often several orders of magnitude larger than the initial losses in quota rents. These losses can in turn negatively affect internal and external balances where the sector in question is a primary source of foreign exchange. This is the second aspect of economic 'loss'.

## Models, scenarios and methodological caveats

Tables 1 and 2 show that for most products traded on world markets, standard tariff rates are relatively low, yet a simple average hides a wide dispersion where many products have very high tariff rates (so-called 'tariff peak' products). This paper will focus on preferences in agriculture (sugar, bananas, beef) and textiles and clothing as these products have some of the most lucrative preferential margins for preferred exporters.

**Table 1. Effective ad-valorem tariff equivalents on bilateral trade flows**

Importers	Exporters			
	Least developed countries	Other low-income countries	Middle-income countries	All developing countries
<b>Total trade</b>				
Canada	6.7	5.4	4.4	4.4
European Union	2.8	7.0	10.3	7.2
Japan	4.9	6.4	4.5	4.7
United States	13.6	6.2	3.6	4.5
Other OECD	8.7	13.1	10.4	10.2
<b>Trade in agriculture</b>				
Canada	3.4	18.7	16.3	17.5
European Union	7.6	13.4	24.8	20.0
Japan	29.1	16.3	21.2	21.9
United States	28.1	9.5	13	12.7
Other OECD	19.6	28.0	35.4	32.5

Source: IMF and World Bank (2002)

**Table 2. Import-weighted tariffs in the US and EU (%)**

	EU	US
Textiles	9.1	11.2
Clothing	11.9	13.3
Other Manufactures	3.6	2.8

Source: IMF and World Bank (2002)

A crucial modelling decision involves choosing between a partial equilibrium versus a general equilibrium framework. Generally, inter-sectoral linkages (such as cross-price elasticities) are ignored in the former, whereas they are explicitly included in the latter. The partial equilibrium setting focuses on particular sectors, without accounting for price and resource allocation changes elsewhere in the economy. The computable general equilibrium (CGE) framework allows the modelling of inter-sectoral reallocation of resources associated with changes in model variables, and the effects on the input–output structure of the economy. However, the onerous data requirements of CGE modelling means that country specificity is limited to a small number of large economies for which reliable data is publicly available.

### **Agriculture**

For the agricultural sector, this paper uses UNCTAD's Agriculture Trade Policy Simulation Model (ATPSM); a deterministic, comparative static, partial equilibrium model. As such it is limited to the agricultural sector yet contains data for a large number of countries.<sup>3</sup> The calculation of quota rents considers the tariff rate quotas (TRQs) for agricultural goods introduced in the Uruguay Round Agreement on Agriculture (URAA). The three instruments of a TRQ are the in-quota rate (the preferential tariff paid by beneficiary producers), the out-quota rate (for imports exceeding the quota), and the actual level of the quota itself (see Figure 1).<sup>4</sup>

Three different scenarios are modelled:

- **Ambitious:** A complete elimination of export subsidies and domestic support and an across-the-board reduction in bound MFN tariffs with a 'Swiss' coefficient of 25. The Swiss formula is designed to eliminate tariff peaks and tariff

escalation by making proportionately higher cuts for higher tariff levels.<sup>5</sup>

- **Harbinson:** The 'Chairman's Text'<sup>6</sup> proposal tabled in February 2003 calls for a complex formula to reduce bound tariff rates according to developed/developing country status (for developed countries the middle range is between 15 and 90 per cent with the lower and upper bounds lying on either side; for developing countries the middle range is 20 to 120 per cent).
- **Conservative:** A Uruguay Round-type outcome with developed countries implementing 36 per cent reductions in out-quota tariffs, 45% cuts in export subsidies, and 55% cuts in domestic support. Developing countries implement two-thirds of these reductions and the least developing countries implement none.

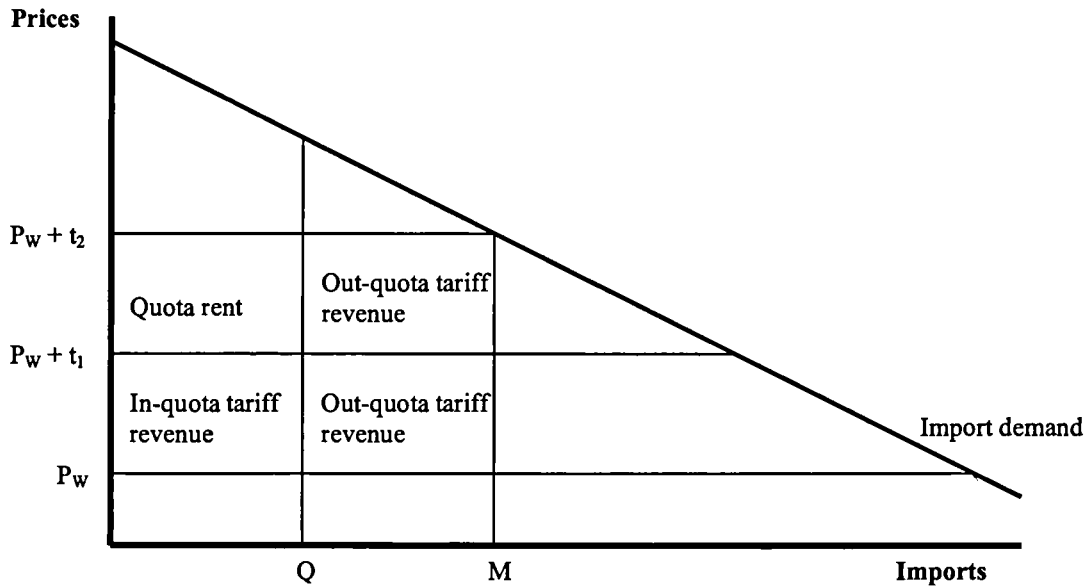
### **Textiles and clothing**

In textiles and clothing, this chapter summarises a number of findings which use the Global Trade Analysis Project (GTAP)<sup>7</sup> model; a comparative static, global general equilibrium model based on neo-classical theory. To determine price premiums for individual exporting countries in various importing markets, import demand curves need to be derived reflecting the 'Armington' assumption of heterogeneous goods distinguished by country of origin. Given the detailed country-level data required, the GTAP model includes only a limited number of developing-country exporters.

It is important to note that the textile/clothing (T&C) quotas do not rely on two-tariff TRQs and that the T&C sector lacks the dominating factor of domestic support measures such as export subsidies, which further depress world prices. Thus determining price premiums in the various markets is not as straightforward as calculating the price effects of in- and out-quota tariffs as in agriculture. In the existing literature, the quota rents arising from the MFA have been conceptualised as an export tax equivalent (ETE):

*The presence of a quota of a certain size provides no clear indication as to whether exports are being restricted by a large or a small amount. MFA quotas*

**Figure 1. Quota Rents with binding out-quota tariff**



Source: Vanzetti and Graham (2002)

are administered by exporters, and hence the value of the scarce quotas accrues to those exporters who hold the quotas. In order to export apparel or textile goods subject to quota, exporters must either buy quotas for these goods, or pass up the opportunity of selling quotas they already hold. For many purposes, it is useful to think of an export quota as being effectively the same as an export tax in its restrictive impact on exports. The price of a quota per unit of exports is then equivalent in its impact to an export tax of the same magnitude. If we divide the quota price by the value of the good in the absence of quotas, we obtain a measure of the quota rent in proportion to the value of the export (Khaturia et al., 2001).<sup>8</sup>

The ETE indicates the quota premium as a percentage of the unit value of exports excluding the premium, i.e. the value of the quota divided by the price received by a producer who does not own the quota license. The estimates of Agreement on Textiles and Clothing (ATC) quota rents (and hence of the corresponding export tax equivalent rates) are based on estimates by Francois and Spinanger (2000) included in the GTAP database. The scenarios themselves vary by study. Most studies model the ATC quota phase-out in addition to a steep reduction in tariffs in textiles and clothing.

### **Caveats**

The question of whether preferred exporters capture the full value of preferences – and how multilateral liberalisation may or may not impact supply decisions in rent-based industries – is subject to several theoretical caveats.

First, there is the question of whether underused preferential arrangements generate significant transfers to preferred exporters. The use of preferential schemes varies and can be significantly less than 100%. In the agricultural context, for example, rent generation depends on which of the three TRQ instruments (quota levels and in-/out-quota rates) is considered binding (formulation from Vanzetti and Graham, 2002).<sup>9</sup> Ideally, the import quota fill rate (i.e. reflecting use) should determine the domestic price. If the quota is unfilled, domestic prices should be determined by in-quota tariffs, and prices should be high only if the quota is filled or overfilled. However, in practice there is an intermediate case: quotas are unfilled but domestic prices are high in the relevant importing market. Thus ATPSM assumes that quotas are filled, either explicitly (i.e. global quotas do not exceed imports) or through administrative constraints. This implies that in the model the applied tariff or out-of-quota tariffs, rather than the in-quota tariff, drives the domestic

prices. This further implies that changes in in-quota tariffs do not have price and quantity effects, as these instruments are not binding. (They do, however, change the distribution of rents.)

Second, quota rents are in theory distributed between the different economic agents in the supply chain – exporters, processors, taxpayers, consumers and governments. Much depends on the relative bargaining power (and market position) of the various agents. If a small number of potential supplying countries receive the preference – especially if importers cannot switch imports between preferred states, or do not wish to in order to maintain high domestic prices – then a higher share of the quota rents accrues to beneficiary exporters (Stevens and Kennan, 2003).<sup>10</sup> If there is considerable rent-seeking activities or inefficient quota administration, then a share may accrue to governments. The form in which quota shares are allotted – whether through auction, or on the basis of historical trade flows – further affects the distribution of quota rents.

## **Estimated losses in the agricultural sector**

### ***Income transfers***

The ATPSM model yields substantial annual losses in income transfers for preferred exporters of the three major preferential goods – sugar, bananas and beef (Table 3). In the ‘Ambitious’ scenario, losses total US\$402 million. For sugar producers, the estimated annual losses range from \$172 million to \$288 million; for banana producers, the estimated annual losses range from \$8 million to \$35 million; and for beef producers, the estimated annual losses range from \$0.41 million to \$78 million.<sup>11</sup> Total welfare losses total \$318 million among the most dependent economies.<sup>12</sup> The aggregate losses of income transfers and welfare in the ‘Harbinson’ and ‘Conservative’ scenarios are, respectively, 75% and 47% of the ‘Ambitious’ scenario.

By way of comparison, several studies have estimated income transfer losses in the sugar sector. Milner et al (2003) considers a ‘Current WTO Case’ scenario (reduction of EU subsidised exports according to Uruguay Round commitments) and a ‘Full OECD Liberalisation’ scenario (removal of all OECD export subsidies and protection of domestic

production). Milner’s high-case total annual loss of income transfer (\$297 million) is broadly comparable to the ATPSM high-case scenario (\$288 million).

### ***Export revenues***

A staff paper of the Commission of the European Communities (CEC, 2003) concludes that the range of annual export revenue losses lies within the €150–350 million range. LMC International (2004) considers the costs of sugar production in ACP countries relative to feasible price movements in the EU market.<sup>13</sup> The LMC study concludes that under a ‘Price Cut’ scenario<sup>14</sup> sugar production will disappear entirely in several ACP countries. The resulting losses in annual export revenues (Table 4) are estimated at €719 million, with only five countries earning above €15 million annually.

## **Estimated losses in the textiles and clothing sector**

### ***Income transfers***

Table 5 lists a number of countries for whom the quota rent/income transfer in the T&C sector is a substantial proportion of merchandise export revenues. The annual income transfer of \$1.32 billion is nearly three times that of the agriculture case, reflecting the relatively higher value of trade flows in T&C. The list is considerably shorter than the agricultural list. This is primarily due to its focus on quota rents deemed at risk of being phased out, partially or wholly, over the medium term. In Table 5, this is denoted in the final two columns as TBA (To Be Abolished). The list of T&C preference-dependent economies includes significant ATC suppliers such as Bangladesh, Sri Lanka, Pakistan and Mauritius.<sup>15</sup> Several African countries such as Lesotho and Madagascar are also excluded as (a) they were not previously subject to ATC quotas; (b) they are both eligible for the EU’s Everything But Arms (EBA) agreement; and (c) they are eligible for liberal global sourcing rules of origin under the African Growth and Opportunity Act (AGOA).

When the ATC textile and clothing quotas are dismantled, the quota rents listed in Table 5 will disappear completely. For the major T&C preference-

**Table 3. Changes in annual income transfers and welfare – ‘Ambitious’ scenario (all figures in US\$ unless otherwise stated)**

	Change in income transfer				As % of value of agricultural exports	Change in welfare
	Total	of which: beef	of which: bananas	of which: sugar		
Fiji	-72,423,863	-146	144	-72,423,862	-46.8	-62,962,159
Mauritius	-97,656,428	-4	156	-97,656,580	-39.6	-87,952,867
Congo	-5,012,265	0	3,388	-5,015,652	-33.3	-5,422,350
Botswana	-40,950,190	-40,939,747	-758	-9,684	-29.2	-31,668,836
St. Lucia	-5,857,891	0	-5,857,891	0	-23.0	-5,729,651
Guyana	-33,810,466	16,720	943	-33,828,128	-22.3	-29,802,679
Namibia	-36,472,346	-36,472,346	0	0	-21.8	-22,193,902
Barbados	-12,548,562	-61	0	-12,548,501	-21.6	-11,606,598
Jamaica	-43,041,144	0	-4,112,577	-38,928,567	-17.8	-40,677,038
Belize	-18,582,235	-6,051	-3,314,849	-15,261,334	-17.1	-16,033,295
Dominica	-2,146,916	0	-2,146,916	0	-13.1	-2,052,398
St. Vincent	-2,980,128	0	-2,980,128	0	-10.9	-2,916,459
Swaziland	-6,837,898	-829,433	-46,727	-5,961,737	-4.8	19,972,082
Suriname	-2,220,770	0	-2,220,770	0	-4.6	-2,476,196
Cameroon	-10,116,363	-1,270	-10,106,860	-8,234	-2.8	-9,783,160
Mozambique	-818,426	0	2,164	-820,590	-2.1	-2,592,029
Dominican Rep.	-10,663,246	0	-4,219,969	-6,443,277	-2.0	-4,764,241
Total/Average	-402,139,137	-78,232,338	-35,000,650	-288,906,146	-18.4%	-318,661,777

Source: ATPSM database simulations

**Table 4. Impact of ‘Price Cut’ scenario on ACP sugar industry**

	Change in production (%)	Change in export earnings (millions €)
Barbados	-100	-32
Belize	-100	-35
Congo, Rep	0	-8
Cote d'Ivoire	-100	-13
Fiji	0	-61
Guyana	0	-33
Jamaica	-100	-73
Madagascar	-100	-12
Malawi	-19	-12
Mauritius	-100	-291
St Kitts	-100	-11
Swaziland	-20	-47
Trinidad	-100	-30
United Republic of Tanzania	-3	-16
Zambia	-14	-14
Zimbabwe	-28	-31
Average/Total	-55	-719

Source: LMC International (2004); Figures assume no changes in cost structure

dependent economies who will not have compensating duty-free access to the EU or US markets under another preferential regime, the total annual losses in income transfers total approximately \$1.32 billion.

scarce as most studies aim to report results at regional or global aggregates; a limited number of these countries are included as separate regions in GTAP. The results for studies on Bangladesh, Sri Lanka and Pakistan are summarised in Table 7.

**Table 5. Annual quota rents (million US\$) as percentage of merchandise exports (MXR, M US\$)**

	Annual quota rents	Total (MXR)	Quota rents (% of MXR)	Market access	
				US	EU
Cambodia	78	1,295	6.03	TBA	EBA
Bangladesh	480	5,495	8.74	TBA	EBA
Pakistan	467	9,170	5.10	TBA	TBA
Sri Lanka	218	4,327	5.04	TBA	TBA
Mauritius	76	1,448	5.22	AGOA	EBA
Total	1,319	21,735			

Source: Secretariat estimates based on GTAP studies.

TBA = Quota access to be abolished

### Export revenues

After multiple extensions of the MFA, there have been a number of phases in which successive tranches of imports have been integrated into WTO norms. The ultimate impact of the MFA phase-out has been foreshadowed by competitive supply shifts leading up to the 2005 deadline. The Phase III experience is summarised in Table 6. The results show growing supplier concentration in China and India, largely at the expense of preference-dependent suppliers in South and South-East Asia.

The vast majority of the post-ATC studies have been undertaken using the GTAP model. Data for T&C preference-dependent economies is often

**Bangladesh:** Many studies conclude that Bangladesh is not sufficiently competitive to maintain its share in a quota-free market after 2004. Mlachila and Yang (2004) find the largest estimated losses in the GTAP studies.<sup>16</sup> In their baseline 'central elasticities' scenario,<sup>17</sup> losses in export revenues of -17.7% in the clothing sector and -4.7% in the textiles sector, translating to respectively \$1.9 billion and \$100 million in 1997 prices. Using recent export revenue data from the ITC,<sup>18</sup> these percentages translate into losses of \$892 million in the clothing sector and \$20 million in the textiles sector.

Losses in gross domestic product (GDP) (-2.3%) and employment (-4.5%) are also quite consider-

**Table 6. Selected countries' exports of textiles and clothing to the United States and EU (Products liberalised in Phase III of ATC, percentage changes Jan-Sept 2001 vs Jan-Sept 2003)**

Origin	Exports to the US		Origin	Exports to the EU	
	Change in value (US\$)	Change in volume		Change in value (€)	Change in volume
China	193.6	652.6	China	90.8	377.1
Pakistan	13.2	27.7	India	-12.5	-9.5
India	12.2	1.8	Sri Lanka	-21.6	-0.6
Cambodia	-43.2	-31.1	Bangladesh	-41.2	-8.4
Bangladesh	-43.6	-41.9	Thailand	-44.8	-26.9
Sri Lanka	-57.9	-64.5	Vietnam	-49	6.6

Source: IMF (2004)

able. The authors also report a 'higher elasticities' scenario (double the central elasticities), with a near-doubling of the corresponding losses. Lips et al. (2003) find smaller output changes (-11% in clothing, and an increase of 1% in textiles) in both a base case (ATC elimination) and a WTO scenario (ATC elimination plus reduction in T&C tariffs), although welfare losses are substantial (up to \$425 million in the WTO scenario). Spinanger (2003) finds much milder effects (-7.9% in clothing, +15% in textiles) with a negligible effect on GDP.

**Sri Lanka:** The GTAP studies on Sri Lanka provide a fairly mixed picture. Francois and Spinanger (2001) use GTAP to model the elimination of Chinese ATC quotas on T&C, and find negligible effects on textiles but a strong (-6.5%) impact on clothing which, assuming recent export revenue data from the ITC, translate into losses of \$162 million. The authors also finds a correspondingly sharp fall (-\$452 million in 1995 prices) in welfare. Lips et al (2003) find negligible output changes (-2.4% in clothing, and an increase of 12.7% in textiles) with welfare losses of -\$228 million in their base case scenario; results are much more favourable for the WTO scenario.

**Pakistan:** Martin et al (2004) use GTAP to model the effects on Pakistan of abolition of ATC quotas on itself and its major competitors. Although the authors estimate high efficiency gains for Pakistan, they determine that the losses in quota rents for Pakistan outweigh the efficiency gains and produce

a net welfare loss of \$280 million, with a 15.7% increase in textile exports offset by a 17% decrease in clothing exports. Again, using recent export revenue data from the ITC, these percentages translate into a loss of \$374 million in the clothing sector.

### Preference erosion: Implications for development and the WTO

To summarise the findings presented above, the total annual loss of income transfers is estimated at \$1.72 billion in agriculture, textiles and clothing. In agriculture, the potential annual losses in income transfers equal \$402 million, with welfare losses of \$318 million among the most dependent economies. In the T&C sector, losses of quota rents are estimated at \$1.32 billion. Adding quantity adjustments, estimates for losses of export revenues are approximately \$300 million above the income transfer losses in each sector.

These losses must be placed in a wider context. First, there is the development impact of an exogenous shock to what is in many cases a primary foreign exchange earning sector. Second, there is the potential for increased marginalisation of preference-dependent economies in the global trading system and increased scepticism of the benefits on multilateral liberalisation.

### Implications for development

The degree to which individual states embrace globalism, encourage free trade and investment and

**Table 7. Change in major economic aggregates for studies on South Asian T&C sector**

	Clothing exports	Textile exports	GDP	Employment	Welfare (M US\$)
<b>Bangladesh</b>					
Mlachila and Yang (2004)	-17.7%	-4.7%	-2.3%	-4.5%	...
Lips et al. (2003)	-11.3%	1.0%	...	...	-401 to -425
Spinanger (2003)	-7.9%	15.5%	-0.14%	...	...
<b>Sri Lanka</b>					
Francois and Spinanger (2001)	-6.55%	-0.62%	...	...	-452
Lips et al (2003)	-2.4%	12.7%	...	...	-228
<b>Pakistan</b>					
Francois and Spinanger (2001)	-17.0%	15.7%	...	...	-280

Ellipses (...) indicate estimates unavailable

explore lucrative niches in the market is highly sensitive to the country's specific economic endowments and capacities. The ability to identify new long-term high-growth sectors, and efficiently reallocate factors of production to minimise adjustment costs, can be severely hampered by the combination of handicaps<sup>19</sup> facing many preference-dependent economies:

- **High number of small, poor and vulnerable states:** Almost any list of preference-dependent economies includes a disproportionate number of small and poor states. Countries are considered small if they account for less than 0.05% of the world's imports of goods and services and poor or low-income if their per capita GDP measured in PPP terms lies below \$4,630. Table 8 lists a number of small and poor countries where significant economic activity derives from preferential market access. The same table also indicates that according to the UN's Economic Vulnerability Index (EVI), all but one is considered 'vulnerable' (EVI>31) and two-thirds are considered 'highly vulnerable' (EVI>36).
- **Lack of economies of scale:** The relative lack of economies of scale substantially influences the structure of the economy. Most economies are able to have a wide variety of different-sized firms. When economies are small, either the economy becomes very specialised (thus becoming highly vulnerable to demand swings) or the average size of the enterprise remains small (thus costs remain high). The economy cannot both diversify and achieve lower costs.
- **No large consumer market:** Given the prohibitive cost of offering a wide variety of goods for consumers in small and poor economies, the economy is unlikely to attract significant levels of investment (either domestic or foreign). Fixed costs are likely to be large relative to the scale of investments. When demand is low, firms are forced to remain at a small scale, with subsequent inefficiencies in the rate at which inputs can be transformed into outputs.
- **Net food imports:** A number of small and poor preference-dependent economies, most notably

island states where arable land is highly constrained, are net importers of agricultural products. The reduction in trade measures such as export subsidies and domestic support may lead to substantial increases in heretofore artificially depressed world prices and increases in food import bills. Most studies estimate a rise in food prices of between 4 and 8%, although some simulations of a full elimination of trade-distorting subsidies arrive at a price impact of up to 20% for major food staples (Matoo and Subramaniam, 2004 and Tokarick, 2003).<sup>20</sup>

- **High operating costs:** Winters and Martins (2004) found that in many small economies everyday transportation and infrastructure costs – such as airfreight, utilities, fuel, and air travel – are often prohibitive relative to larger economies. In potentially lucrative sectors such as electronic assembly, clothing and hotels/tourism, the cost inflation factors for small and micro economies can range from 6.2 to 57% (Winters and Martins, 2004).<sup>21</sup> As these cost premia often cannot be passed onto consumers, the only way that most firms can export is if one of the factors of production accepts lower returns than it would in the case of a larger economy. As many small and poor preference-dependent economies exhibit high levels of risk and correspondingly prohibitive risk-adjusted interest rates, investment rates in these economies are often below those required for economic sustainability (Hughes and Brewster, 2002).<sup>22</sup>

The combination of the above factors implies two unfavourable outcomes for preference-dependent economies. First, preference erosion may lead to further economic instability and marginalisation in global trade. The narrow resource base and excess trading costs in many preference-dependent economies means that the set of goods that will be traded internationally will be relatively smaller than a larger economy. In practice, many high-cost countries lack 'operational' comparative advantage; that is, there is no good or service which they can export because their transaction costs or real production costs are too high to permit any trade on a commercial basis. Taking world prices as given and subtract-

**Table 8. Selected small, poor and vulnerable preference-dependent economies (2000)**

	Imports of goods and services		Per capita GDP (US\$)	WTO member	EVI score
	(billion US\$)	(world share)			
Suriname	0.72	0.01%	n.a.	Yes	44.28
Lesotho	0.76	0.01%	2320	Yes	53.11
Guyana	0.79	0.01%	4560	Yes	51.41
Fiji	1.03	0.01%	4730	Yes	37.39
Swaziland	1.10	0.01%	4330	Yes	35.02
Haiti	1.32	0.02%	1920	Yes	45.61
Congo (Rep.)	1.40	0.02%	950	Yes	46.90
Madagascar	1.47	0.02%	810	Yes	26.75
Mozambique	1.53	0.02%	1000	Yes	37.36
Zimbabwe	1.96	0.02%	2450	Yes	40.94
Cambodia	2.01	0.03%	1760	AP <sup>1</sup>	61.00
Tanzania	2.10	0.03%	510	Yes	36.23
Cameroon	2.38	0.03%	1640	Yes	31.59
Cote D'Ivoire	3.50	0.04%	1550	Yes	32.81
Jamaica	4.33	0.05%	3590	Yes	31.18

Source: Mattoo and Subramaniam (2004) and Grynberg and Remy (2004)

ing the minimum costs of trading, there is little or nothing left for value added and (in some cases) subsistence. In the absence of trade preferences or non-trade flows of foreign exchange, the country may be disconnected from the world economy (Winter and Martins, 2004).<sup>23</sup> Furthermore, reliance on a narrow export base implies an increased vulnerability to large swings in terms-of-trade when world prices fluctuate. Such imported instability can destabilise an economy, particularly when imports are important inputs into the manufacturing sector.

Second, the production and revenue losses in vulnerable developing economies may lead to strong negative impacts on employment and poverty levels. The textiles and clothing sectors in Sri Lanka and Bangladesh are forecast to shed jobs following the MFA phase-out. In Bangladesh, the T&C industry plays a key role in employment and in the provision of income to the poor, directly employing about 1.8 million people, or about 40% of manufacturing sector employment, 90% of whom are women. Mlachila and Yang's (2004) GTAP results for Bangladesh show a 4.5–7.7% decrease in overall employment. The UNDP's often-quoted estimate of 500,000 to 1 million job losses in Bangladesh is broadly in line with these GTAP results.

Employment losses on this scale could have significant economy-wide impacts as the industry supports indirectly about 10–15 million people (Mlachila and Yang, 2004).<sup>24</sup>

In agriculture most studies have focused on the sugar industry. Employment in the sugar industry is dominated by rural-based unskilled labour, particularly of family-based self-employment on small-scale farms. Consequently, it is this labour group that is greatly impacted in the event of a loss of sugar trade preferences (Levantis et al., 2002).<sup>25</sup> LMC International (2004), under the 'Price Cut' scenario, finds a 51% drop in field employment levels and a 33% drop in factory employment levels.<sup>26</sup> Levantis et al. (2002), using a general equilibrium model of the Fijian economy (FIJIGEM), find decreases in total unskilled rural employment in Fiji ranging between 5–6%.

### ***Implications for the multilateral trading system***

With the accession of a large number of new developing country members, the two-tiered approach in the WTO was abandoned to create a symmetry of obligations among WTO members.<sup>27</sup> Since the conclusion of the Uruguay Round and the advent of the

Single Undertaking, many preference-dependent economies have become increasingly vocal in articulating their interests in the multilateral trade negotiations.

The loss of preferences on the scale estimated earlier, combined with the economic handicaps described above, implies that the interest of many preference-dependent economies are only imperfectly aligned with the broader liberalisation agenda of the multilateral trading system. First, many small and poor preference-dependent economies lack sufficient market size to be attractive to the larger WTO members. The cornerstone of WTO negotiations – reciprocal bargaining yielding mutually beneficial market access – is immediately put into question as many of these countries are structurally disadvantaged in reciprocal negotiations. Secondly, preference-dependent economies face a combination of falling consumer surplus from rising food import bills, falling government tariff revenue from MFN tariff reductions, and falling producer surplus from the erosion of trade preference-based income transfers. These economies are struggling to allocate scarce resources to implement past agreements, let alone take on the fiscal burdens of new commitments. Several new preferential schemes have been tabled (such as the EU's EBA and the US AGOA), however the potential positive impact of these schemes have been greatly curtailed by the political economy surrounding their design.<sup>28</sup>

Such an overwhelmingly negative outcome, irrespective of the wider context of rising average global welfare, threatens further marginalisation of preference-dependent economies and the fragile consensus surrounding the need for subsequent reductions in global trade barriers.

### **Assisting preference-dependent economies: A proposed framework**

When a country is hit by a negative shock, it must decide both the appropriate mix of adjustment to the impact of the shock and the appropriate use of external or domestic financing. The financing-adjustment mix will ultimately depend on the nature of the shock and its direct and indirect economic effects. *A country must ultimately adjust to a*

*permanent shock.* However, where the short- to medium-term impact of the shock may be significant relative to the economy's capacity to adjust, an immediate adjustment may not be feasible or desirable, and financing to smooth the adjustment path to the new equilibrium may be warranted.<sup>29</sup>

For preference-dependent economies facing large-scale erosion of income transfers in their major export markets, financing must be focused on encouraging private and public sector investments in new higher growth industries, and on rationalising existing preferential sectors to maintain international competitiveness. This section addresses a number of deficiencies in the existing financial architecture for preference-dependent economies, and lists a number of essential principles that future instruments should account for.

### ***Appropriate lending terms***

Both the instruments used (e.g. loans and risk-sharing instruments) and the lending terms (i.e. interest rates and maturities) should reflect the need to increase investment in high-cost economies and ensure sustainable debt burdens. Preference erosion, unlike a commodity price shock or a natural disaster, is a permanent rather than transitory shock. An instrument whose primary focus is on smoothing temporary consumption or relieving short-term balance-of-payments pressures may be inappropriate for the preference-erosion setting, where the compensating efficiency gains may only occur after a protracted period of adjustment and resource allocation. Such a period may easily outlast the disbursement cycle and increase country risk far above the terms provided by existing arrangements. If the economy is already heavily indebted, contracting new loans (even on a highly concessional basis) may easily aggravate borderline debt burdens and turn a smooth adjustment into a twin export-sector/balance-sheet crisis. Table 9 shows a number of preference-dependent economies whose debt indicators are already high compared to the policy-dependent debt indicator thresholds (indicated in brackets).<sup>30</sup> Determining debt dynamics *ex ante* is a difficult task. Yet the Guyanese example yields some insight. In 2002, Guyana's total external debt stood at

**Table 9. Debt indicators in selected preference-dependent economies**

	Debt/ Exports (100,200,300)	Debt/GDP (30/45/60)	Debt service/ exports (15,25,35)
Guyana	200.92	219.49	23.0
Mauritius	59.32	39.74	8.24
Congo	209.36	234.68	0.98
Jamaica	119.6	75.28	18.39
Belize	161.96	109.58	36.48
St. Lucia	113.96	67.29	7.2
Dominica	147.87	94.96	7.94
St. Vincent	118.38	60.15	7.58
Zimbabwe	n/a	42.29	n/a
Mozambique	362.78	135.24	5.95
Average	181.39	98.06	12.86

Source: World Bank Global Development Finance Online Database (<http://publications.worldbank.org>), accessed August 2004

\$1.459 billion. Of this total, \$196 million is incoming IDA lending, nearly matched by \$154 million in outgoing debt-service payments. Despite substantial debt forgiveness under the HIPC initiative, Guyana's debt profile remains well above its 'safe' thresholds.<sup>31</sup> When one considers that its estimated income-transfer losses in agriculture amount to between \$36 million to \$66 million *annually*, it is clear that contracting further lending even at IDA terms<sup>32</sup> on this scale – at a time of potentially falling output in the very sectors from which external debt would be potentially repaid – could easily lead to even more unsustainable debt dynamics. Similarly, increased lending under the IMF TIM mechanism would in principle increase access to PRGF funds. However, despite a below-inflation interest rate of 0.5%, PRGF repayments begin after only five-and-a-half years, with full repayment due at the end of ten years.

A hypothetical lending facility could determine the grant element through a standardised approach implying loans on IDA terms for IBRD borrowers, and 'IDA plus' (largely grants) for IDA borrowers, or through a country-specific approach using the enhanced debt sustainability analysis (DSA) framework recently proposed by the IMF and World Bank.

### ***Focus on diversification***

Where production in preferential sectors is potentially uncompetitive, diversification into non-traditional export sectors should be a long-term objective. Most instruments have tended to focus on protecting public sector balance sheets and mitigating economy-wide fluctuations, rather than focusing resources on areas of potential future growth. As such, financing was directed to central bank international reserves and to provide budgetary support for the government ministry overseeing the relevant sector. However, there is ample evidence (see Razzaque et al., 2003; IMF, 2003; and Hubbard et al., 2000)<sup>33</sup> that financing channelled in this manner was used primarily as compensation payments to affected sectors. This tying of aid to the recovery of ailing sectors was prone to the fallacy of composition argument, as it encouraged further dependence on weak sectors and led to distortions in the private sector (*ibid.*)<sup>34</sup>

The case of EU bananas is instructive. An analysis of the effectiveness of EC SSA assistance (Hubbard et al., 2000)<sup>35</sup> concluded that allocating funds on the basis of a 'competitiveness gap' into declining sectors resulted in a waste of EU resources. While in certain countries financing was effective in upgrading productivity, the low share of SFA funds spent on diversification (12% in 1999) was flagged as a possible factor in the low levels of growth in banana-producing countries, despite the substantial inflows of external financing. The recent increase in the diversification share (up to 64% in 2002) points to an increasing realisation by preference-dependent economies of the need to finance diversification activities.

### ***Promotion of the private sector***

To maximise sustainable, broad-based growth, financing for the private sector should be a priority. Many of the impacted sectors were dominated by large state-run enterprises. As such the benefits of compensatory financing were often concentrated in a small number of inefficient producers. While such large enterprises can be engines of export dynamism, there is substantial evidence pointing to the crucial role of the private sector in generating

flexible, broad-based growth and poverty reduction. Clearly, the public sector has a vital role in providing complementary investments where private investment is not forthcoming. Yet given the competitive demands of exporting to increasingly liberalised markets, the private sector must be a lead engine.

Intervention in the private sector has become a *sine qua non* for recent multilateral efforts to encourage broad-based growth in developing countries. These efforts, spearheaded by agencies such as the World Bank Group's International Finance Corporation (IFC), are still in their infancy. The current projected IFC funding for its operations stands at \$1.3 billion worldwide, of which \$614 million is financial assistance to firms through the domestic financial sector and \$431 million for financial markets investments. Despite substantial donor commitments, lending to the private sector from sources such as the IFC is currently small relative to the potential need arising from preference erosion.

Another important consideration is the form that such intervention takes. Most multilateral lending to the private sector is on-lent through local intermediaries with upward interest rate adjustments for both country and institutional risk on top of the lenders' own cost of funds. In many preference-dependent economies the resulting risk premium, although mitigated by the multilaterals' investment-grade rating, often puts the cost of funds out of reach of most firms. This is most notable in the initial 'transformative' stage where the wider economy is suffering a systemic shock from preference erosion yet the capital needs are greatest.

Ideally, a financing instrument would provide a private sector window to facilitate investment start-up, expansion, restructuring or rehabilitation through local-currency loans (either indirectly through domestic commercial banks or directly from the lender). The loans could be augmented by discrete, finite matching grants disbursed directly to the firm for 'transformative' service or capital goods expenditures (such as factory re-tooling or outside consultants). Such an approach would recognise the hurdles to investment in preference-dependent economies without introducing distortions into the domestic financial sector.

### **Adequate scale**

The aggregate scale of financing should reflect the magnitude of the annual losses and the long-term nature of adjustment. Despite the significant donor resources flowing into developing countries, the multiple donor and country objectives often means that resources allocated for export diversification fall short of needs. In many IDA-eligible countries this may reflect the multilaterals' focus on poverty reduction programmes and macroeconomic structural adjustment rather than export diversification *per se*. Only in the banana sector have bilateral or multilateral external flows (€45 million from the EU under the Special Framework for Assistance) been commensurate to the estimated losses, however the absolute amount spent on diversification activities has only recently exceeded 50%.

Furthermore, several preference-dependent economies are already constrained by the high level of their pre-existing commitments to multilateral lenders. Guyana, for example, is eligible for concessional lending through both the IMF and the World Bank. Its existing three-year PRGF loan of US\$75 million already absorbs 63% of its IMF quota. Guyana's IDA-13 allocation is up to \$26 million for the three-year IDA-13 period, of which \$4 million consists of a Public Sector Technical Assistance Credit and the remaining amount for two Poverty Reduction Support Credits. A matter of concern is that even in Guyana, which among preference-dependent economies has a relatively long-standing relationship with the international donor community, the resource needs for adjustment relative to those currently allocated are significant.

Determining the total nominal financing needs requires a prior assumption of adjustment time-scales. Assuming (a) a fourteen- to twenty-year adjustment period (including an initial ten-year gradual implementation period of WTO commitments where losses of income transfers are assumed to be negligible) and (b) the \$1.72 billion annual income transfer loss estimated earlier, total nominal financing needs for preference-dependent economies range between \$6.88 billion and \$17.2 billion. In textiles and clothing, the ten-year implementation period will conclude in 2005. In agriculture,

the (assumed) ten-year implementation period will begin at the conclusion of the Doha negotiations. Applying a hypothetical 3% discount rate and adjusting for the two different implementation scenarios, the NPV of total financing needs ranges from \$6 billion to \$13.8 billion.

### ***Flexible, forward-looking investment incentives***

To ensure that diversification begins before a shift in relative prices occurs, financing should be disbursed as soon as reasonable *ex ante* estimates of economic losses are available. A major flaw in the existing financing architecture for preference-dependent economies is the misalignment between allocation and needs. In the balance between *ex ante* preventative versus *ex-post* mitigating actions, many instruments opted overwhelmingly for the latter.<sup>36</sup> Instruments such as STABEX disbursed funds for loss of export earnings relative to a trend, and entailed significant administrative costs (such as detailed statistical analysis) to justify disbursements. The resulting frequent delays in delivering supplementary financing implied that disbursements tended to be pro-cyclical, rather than responding counter-cyclically to adverse shocks.<sup>37</sup>

Preference erosion differs from traditional commodity price shocks in that its occurrence, if not its approximate impact, is foreseeable. However, the preventative 'cure' – export diversification – is difficult to anticipate. Diversification must begin *before* a shift in relative prices occurs, ensuring that new investment comes to fruition as the preference erosion shock hits the wider economy. Moreover, prejudging sector-specific outcomes in a changing, liberalised market when export diversification is led by private sector agents may be unworkable and undesirable. Yet the establishment of clear financial incentives in the years ahead of the preference erosion shock may yield high returns on expenditures relative to the costs of mitigating the negative impact after the fact.

It must be reiterated that loss of income transfers is an imperfect proxy for future adjustment needs. Adjustment varies in practice according to a number of variables whose precise relationship remains a

subject of debate. Ideally, a 'first-best' instrument would foresee the scale and timing country-specific adjustment needs and disburse funds accordingly. Given the limitations of economic modelling, this is a difficult (if not impossible) task. The data requirements for more precise modelling excludes many small and poor countries which comprise the majority of preference-dependent economies. If external assistance is to be truly forward-looking, then a 'second-best' instrument could pass on the foregone income transfer – over a reasonable adjustment horizon for these economies – as investment financing for producers in non-traditional sectors.

### **Conclusions: Moving beyond the 'spaghetti bowl'**

Although the costs of preference erosion are often highly concentrated, the timing and sources of external assistance have been *ad hoc*. This has resulted in preference-dependent economies facing a 'spaghetti bowl' (to paraphrase Jagdish Bhagwati), burdened by multiple and often conflicting donor-specific priorities, country strategies, asymmetric bilateral negotiations and donor/loan-specific disbursements which are often 'too little, too late'. In such an environment countries with limited administrative capacities will find it difficult to effectively marshal resources to mitigate the impact of preference erosion.

The multilateral negotiating context introduces even greater uncertainty for preference-dependent countries. As the history of recent trade rounds confirms, outcomes are often shaped by ever-changing political economy considerations rather than concrete analysis. New preferential regimes are often established as soon as old schemes are phased out. Although financing has been provided for such terms-of-trade shocks, the analytical process by which the funds are established and disbursed is often less than transparent.

A more consistent, clear and transparent framework could yield several benefits. An analytical and objective assessment of the impact of preference erosion will allow donors and beneficiaries to assess the costs and benefits of preferential schemes into future trading rounds. A forward-looking framework

would provide greater 'buy-in' from preference-dependent economies, as their preventative efforts to encourage investment in non-preferential sectors would be visibly backed both politically and financially. Most importantly, a harmonised framework can effectively channel donor resources to create diversified, sustainable export sectors in preference-dependent economies.

## Endnotes

1. This paper will use the two terms interchangeably.
2. Brenton and Ikezuki (2004a).
3. The present version of the model covers 160 individual countries plus one region (the European Union) and 36 commodities. Volume data are from 2000 (also the base year) and are compiled from FAO supply utilization accounts. The price data are also from FAO. Parameters on elasticities and feedshares are from FAO's World Food Model. Bilateral trade flow data are from UNCTAD's Comtrade database. These are used to allocate global quotas to individual countries. The UNCTAD TRAINS database is the source of information on applied tariffs.
4. To accommodate heterogeneous goods with one price, ATPSM estimates composite tariffs to determine the domestic consumption and production price.
5. The 'Swiss Formula' takes the following structure:  $T1 = (T0/c)/(T0+c)$  where T1 is the new tariff rate, T0 is the initial tariff rate, and c is the reduction coefficient.
6. WTO (2003).
7. See Hertel and Tsigas (1997).
8. Khaturia et al (2001).
9. This formulation is from Vanzetti and Graham (2002).
10. Stevens and Kennan (2003).
11. The lower figure is likely due to the substantial 'water' in the beef tariff and the fact that the Conservative scenario applies to bound rates only.
12. Welfare in ATPSM has three components. The first, producer surplus, is the aggregate difference between price and marginal cost plus any quota rent received on exports. The second, consumer surplus, is the aggregate difference between marginal valuation and price. The third, net government revenue, only relates to revenue from import tariffs, including both within quota and out-of-quota tariffs, and expenditure on export subsidies and domestic support.
13. In estimating production costs, the LMC study assumes that sugar producers either (a) maintain their current industry structure, or (b) restructure their operations in accordance with existing national sector restructuring plans. The study then models the supply responses of each country under the range of price cuts implied by each scenario, the average selling price in each market, and by extension changes in industry revenue and export earnings.
14. Under this scenario, the EU market price for sugar is cut by 38%, which is comparable to recent EU proposals for sugar sector reform.
15. This classification excludes a number of countries whose prefer-

ential access derives from regional initiatives such as the Caribbean Basin Economic Recovery Act and EU-EBA. This excludes many countries such as Haiti, Honduras, El Salvador, and the Dominican Republic, for whom T&C exports are more than 50% of total exports. Although Mauritius is AGOA/EBA-eligible, it is included as it was subject to binding ATC quotas until 2000 and the offsetting impact of AGOA may be substantially limited due to its more restrictive rules of origin under AGOA. As Mauritius is not included in the GTAP database, it exhibits similarly low utilization rates as Sri Lanka, so its quota rents have been estimated on the basis of the same quota wedges. Similarly, the quota wedges for Cambodia have been estimated using estimates for Vietnam in 1997.

16. The losses in the EU market are surprising considering that Bangladesh, much like Mauritius, has preferential access to the EU market under EBA. However such access will be highly limited by rules of origin requirements, and estimate that less than half of Bangladesh's exports actually receive duty-free treatment under EBA. (Mlachila and Yang 2004)
17. Assuming constant nominal wages and medium levels of elasticities.
18. See <http://www.intracen.org>
19. This list is a combination of factors from Josling (1998), Winters and Martins (2004) and UNCTAD (2002).
20. Matoo and Subramaniam (2004) and Stephen Tokarick, 2003, 'Measuring the Impact of Distortions in Agricultural Trade in Partial and General Equilibrium,' IMF Working Paper 03/110
21. Winters and Martins (2004).
22. Hughes and Brewster (2002).
23. Winter and Martins (2004).
24. Mlachila and Yang (2004).
25. Levantis et al (2002).
26. The LMC estimates are based on calculations of the number of workers that will be employed in the field and factory sectors are based on the average number of factory workers per mill, and the average number of field workers per hectare.
27. Much of the theoretical framework of this section is summarised from Mattoo and Subramaniam (2004).
28. See UNCTAD (2003a), UNCTAD (2003b), Brenton and Ikezuki (2004a) and Brenton and Ikezuki (2004b) for an analysis of these initiatives.
29. A more detailed analysis can be found in IMF (2003).
30. See the IMF's paper on 'Debt Sustainability in Low-Income Countries – Proposal for an Operational Framework and Policy Implications' (International Monetary Fund, Washington, February 2003) for a more detailed summary of these policy-dependent thresholds.
31. Guyana has had six separate rounds of Paris Club debt treatments, all of which remain active (i.e. not fully repaid) and of which the last two have been within the HIPC framework.
32. IDA loans have a typical maturity of 20, 35 or 40 years with a ten-year grace period. IDA loans have no interest charge but typically carry a service charge.
33. See Razzaque et al (2003), IMF (2003) and Hubbard et al (2000).
34. See Razzaque et al (2003), IMF (2003) and Hubbard et al (2000).
35. Hubbard et al 2000
36. Again, this subject is explored in greater detail in Razzaque et al (2003) and IMF (2003).
37. Of 311 STABEX disbursements analyzed over the period 1975–1995, 60 per cent occurred in periods of increasing government revenues (IMF, 2003).

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