

Banana Split

How EU Policies Divide Global Producers

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Abstract

Banana prices within the European Union are almost double world levels. These prices are maintained by restrictive import quotas and tariffs that generate rents that accrue to distributors and producers. The European Union is obliged to remove its quantitative restrictions and replace them with a tariff. It is likely to choose a preferential tariff that favours exports from ACP countries, but any one tariff would benefit the lower cost ACP producers at the expense of others. The EU's problem is one of addressing multiple objectives with a single instrument.

Quantitative analysis using a bilateral trade model suggests that if the European Union were to remove its import quotas but leave intact the €75/t preferential tariff on non-ACP exports, traditional ACP countries would see their global exports just maintained while the Ivory Coast, Cameroon and, to a lesser extent, non-ACP countries, would enjoy significant increases. However, welfare in traditional ACP countries would fall by €37 million as a result of losses in quota rents. A tariff of €230/tonne on imports, as recently proposed by the European Commission, would reduce the welfare losses in traditional ACP countries by more than half but would prevent growth in exports in non-ACP countries. The results confirm that current EU policies are poorly targeted and inefficient, and better means exist to assist producers in the high-cost countries.

Key words: Bananas, CMOB, tariff preferences, quota rent.

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Introduction

Bananas sell in the European Union at around €800-900 per tonne, almost twice the world price. The European Union is the second largest market for bananas in the world, with more than 4 million tonnes sold in 2003. However, consumption is restricted by high prices that are provided to protect EU producers in the Canary Islands, Martinique and Guadeloupe and to provide support to producers in selected developing countries. Access to this lucrative market is currently regulated by Common Market Organization for Bananas (CMOB)) through a tariff-quota system. Under this system, import licenses were awarded to producers, primarily in African, Caribbean and Pacific (ACP) countries on the basis of historical relationships. After ten years of dispute with in the WTO the European Commission is obliged to remove its quotas and replace them with tariffs. The Commission aims to set differential bilateral tariffs such that countries previously allocated the quotas will be no worse off. In October 2004 the Commission proposed a tariff of €230 per tonne. It is of interest to speculate how the various producers, distributors, taxpayers and consumers might be affected.

In this paper the current regime and likely changes are reviewed and a quantitative assessment is made of the tariff equivalent of the current quotas. Sensitivity analysis suggests that assumptions as to the initial distribution of quota rents drive the results. However, for reasonable assumptions regarding the proportion of rent captured by ACP countries, the increase in imports as a result of the expansion of the EU market more the offsets the loss in rents.

Regime Change in the EU Banana Market

The current EC banana regime originated when the European Union harmonized its markets in 1993. The objectives of the regime are to facilitate the trade of bananas within the European Union, to protect preferences granted to former colonies of EU countries, to protect the income of local producers, and to promote the development of EU produce distributors. The original system granted preferences to ACP countries under the Lome Convention, and later the Cotonou Agreement.

Over the past decade, the regime has evolved as a result of repeated challenges by the United States and Ecuador to international trade bodies. In 1997, the WTO Dispute Resolution Body ruled that the CMOB regime was in contempt of the GATT and GATS agreements, due mainly to the discriminatory practice of setting aside a set quota for ACP countries, and the allocation of licenses, which permitted discrimination against third party countries. In response the EU reformed the regime, but the WTO ruled again in January 1999 that the system was still incompatible with several GATT articles. Later that year, the EU proposed a two-step plan to reform its regime to fall in line with WTO rules. The United States and Ecuador agreed to the new proposal in April of 2001 and the first phase of the plan was phased in between July 2001 and January 2002. The transitional regime is described in table 1.

Table 1: The EU banana regime

	Quota	Quantity	Tariff	Tariff preference for ACP countries	Set aside for non traditional operators
		kt	€/tonne	€/tonne	%
Step 1	A	2,200	€75*	€75	17
	B	353	€75	€75	17
Phase 1	C	850	€300	€300	11
	Out of quota		€680	€300	na
Step 1	A	2,200	€75*	€75	17
	B	453	€75	€75	17
Phase 2	C	750	na	na	11
	Out of quota		€680	€300	na
Step 2	Quotas eliminated		Tariff to be determined	Tariff to be determined	

* Denotes bound tariff.

The quotas are implemented using import licenses, which are awarded to operators in banana producing countries. The major differences between this new policy and the previous version are:

- Changes in the definition of "traditional operators" to include "primary producers" and to use 1994-1996 as the base reference period.
- Introducing new requirements for qualifying as a non-traditional operator (e.g., having imported €1.2 million or more during 1994-1996).
- Abolition of the sub-quota categories in A/B quotas.
- Set aside quantities for non-traditional operators of 17 and 11 per cent in A/B and C quotas respectively.

During phase 2 of step 1, the required changes included:

- Transfer of 100,000 tonnes from Quota C to Quota A/B.
- Restriction of Quota C to ACP countries only.
- Allocation of licenses for traditional operators on the basis of their level of usage of their licenses since the beginning of phase 2.

Implementation of Phase 2 is underway. Due to the recent EU enlargement, the total quota amounts will be increased by 300,000 tonnes for May 1 to December 2004. The second step of the EU's transition to compliance with WTO rules is a move to a tariff-only system, free of quantitative restrictions, as of January 1, 2006.

In a recent communication, the European Commission stated that it will attempt to set a quota level that will provide for "a level of protection equivalent to that currently

existing" in order to protect the interests of their domestic and ACP producers.² As per the Cotonou Agreement, the Commission will seek to ensure that ACP producers are no worse off than when the original CMOB was introduced in 1993. It is not clear whether 'no worse off' relates to exports quantities, revenues, producer returns or some other variable. The crucial decision of the tariff rate for this new system has yet to be determined, although the Commission floated in figure of €230 per tonne in October 2004.

Competition for the EU Banana Market

EU consumers eat four million tonnes of bananas annually and there is fierce competition for this lucrative market. EU producers in the Canary Islands, Martinique and Guadeloupe supply 600 to 700 kt, about 15 to 17 per cent of the market, and the remainder are imported under quota.³ South America, Central America, Africa and the Caribbean respectively account for 40, 25, 12 and 5 per cent of exports to the European Union. Changes to the regime since 1993 have contributed to changes in the market shares of exporters, although total imports have been constrained by quota. The changing market shares are illustrated in figure 1.

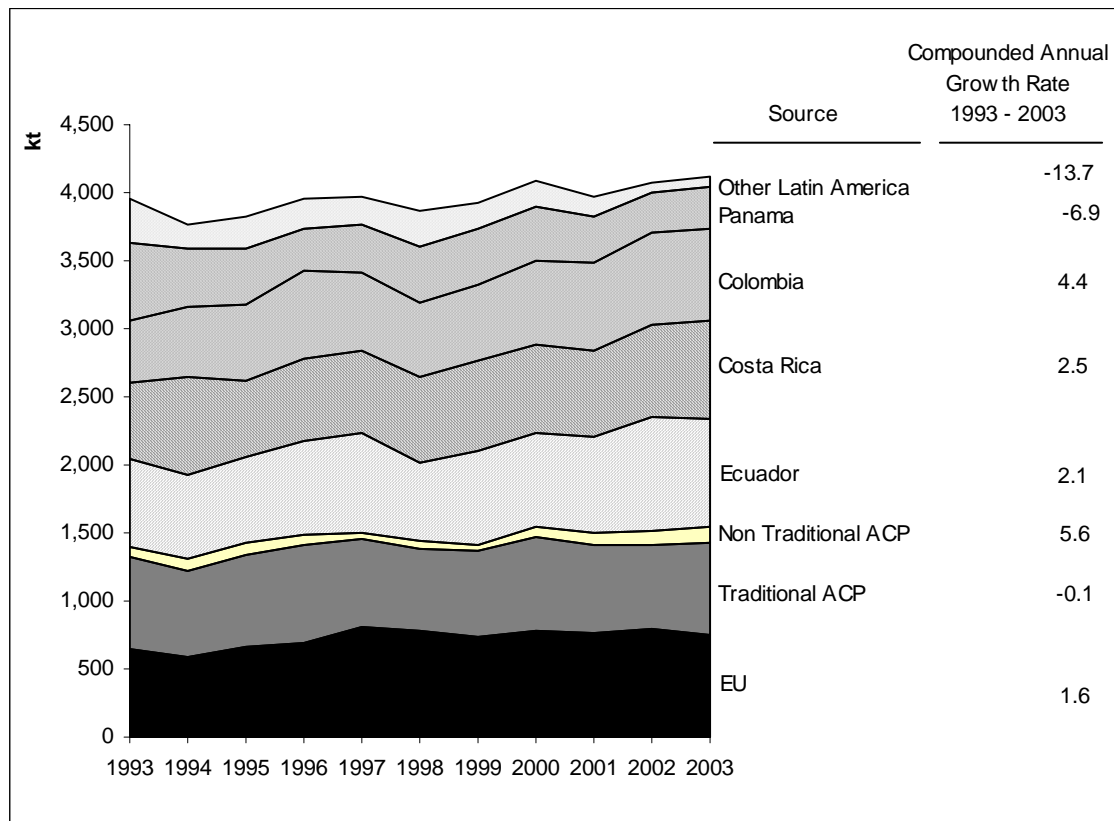
While the aggregate amount of imports from traditional ACP countries remained constant, within this category, three key producers, Cameroon, Ivory Coast and Belize experienced strong growth, while imports from the smaller countries with the ACP group declined dramatically. This reflected the move from allocating quotas to distributors rather than countries. This allowed distributors to source their supply from the more efficient, low cost producers within the ACP countries. Likewise, among "Dollar Zone" imports, three countries accounted for almost all of the growth in imports (Ecuador, Costa Rica and Colombia), winning market share away from smaller producers in other Latin American countries. Colombia, Costa Rica and Ecuador have enjoyed strong growth thanks to their relatively low production costs and scope for expansion.

Data on production costs from 1997 indicate the vast differences between the low cost producer Ecuador and the EU domestic suppliers (figure 2). These data are somewhat dated, and it is difficult to see how Martinique producers could remain profitable at current prices of €800-900, although changes in the €/US\$ could make a significant difference. Nonetheless, the range of production costs illustrates the scope for reform.

² EC (2004) Communication from the Commission on the modification of the European Community's import regime for bananas. *Commission Of The European Communities*, Brussels, 2.6.2004 COM(2004) 399 final.

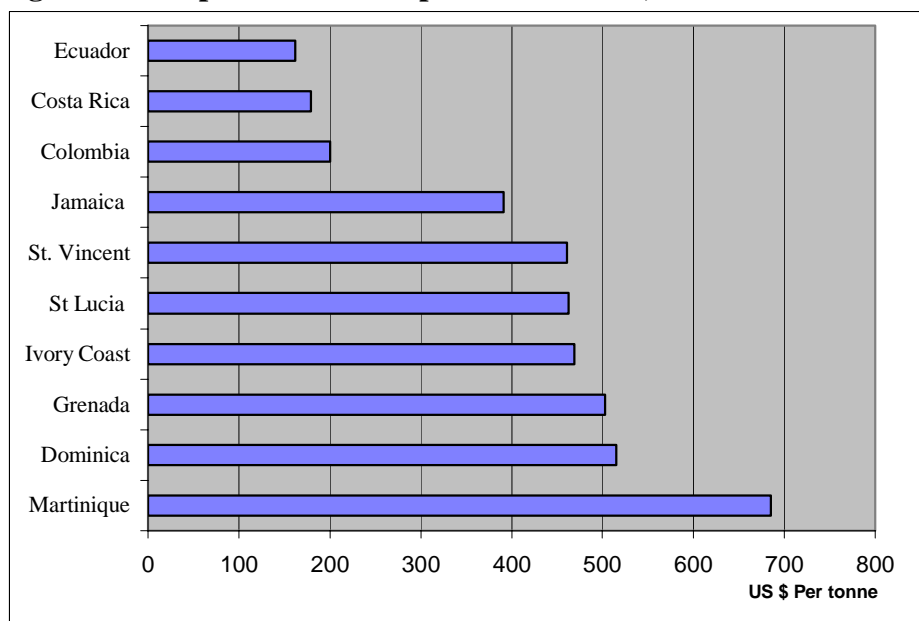
³ There are virtually no overquota imports.

Figure 1: Banana Supply in the European Union 15, 1993 - 2003



Data Source: MS Communications (EU) / Comext (ACP & DOLLAR Z.) / Austria, Finland and Sweden 1990-1994 from respective national trade statistics.

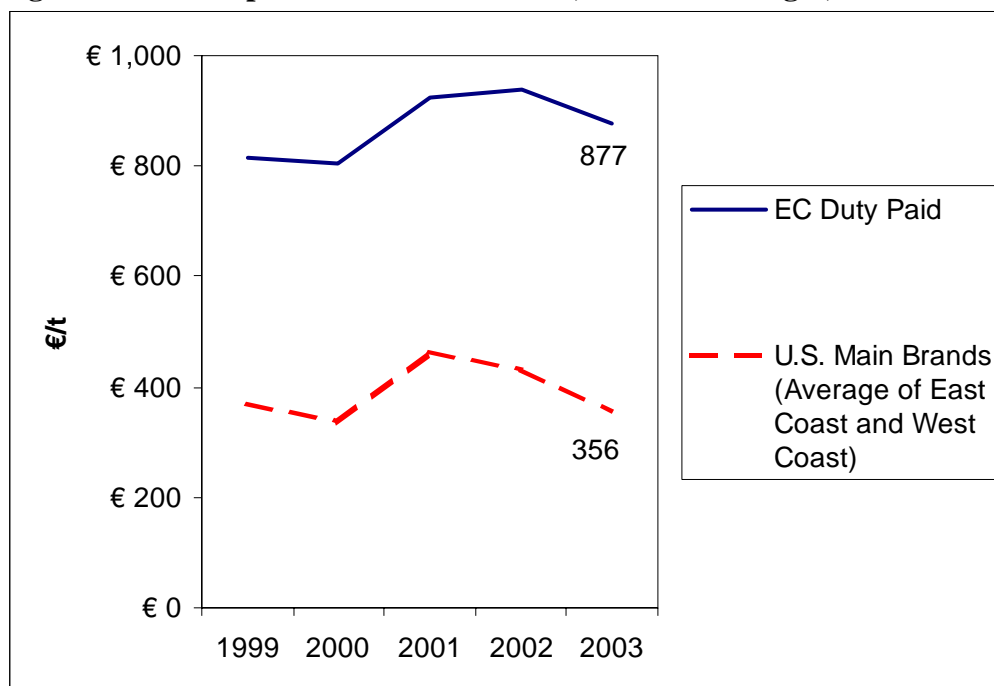
Figure 2: Comparison banana production costs, 1997



Source: Image and data adapted from OECD Trade Development and Capacity Building, (1997) as reported in Chambron (2000).

The move to a tariff only system has the potential to increase EU consumption if domestic consumer prices are reduced. Import quotas and high prices have constrained consumption in recent years, and per capita consumption is well below US levels. In 2000, per capita consumption of bananas in the EU was a third less than in the US. EU and US prices are compared in figure 3. The price premium in the EU is due largely to the effects of the managed supply regime and, to a lesser extent, consumer preferences for higher quality bananas. Reducing EU prices to world levels would lead to a substantial increase in consumption (see later estimates).

Figure 3: Banana prices in the EU and US, Annual Averages, 1999-2003



Source: FAO data, EC Duty Paid = Bananas (C. America, f.o.b. Hamburg - EC duty paid); U.S. Main Brands = Average of U.S.A. (East Coast) - Main Brands Central America, f.o.b. and U.S.A. (West Coast) - Main Brands Central America, f.o.b.

Quota rent distribution

The current quota system has resulted in higher average prices for bananas than almost any other market. The key question to consider is who is receiving the benefits (i.e., rents) from the artificially high prices created by the quota system. This question is especially relevant in the banana industry, which is highly oligopolistic in nature.

Banana growing for the export market is characterized by economies of scale. Significant up-front investment is required to build plantations and processing facilities. However, harvesting is labour intensive. As a result, large companies that operate in countries with abundant low wage labour tend to be better able to compete on world markets. These forces have contributed to the creation of a highly oligopolistic market. In 1999, the top three banana producing companies (Chiquita Brands International (previously United Fruit Company), Dole Food Company (previously Standard Fruit Company) and Fresh Del Monte Produce) had 67 per cent of the total market share of producing and exporting bananas.

However, throughout the 1990s, transnational companies began to deconstruct their vertical supply chains. They increasingly began to focus on the higher margin activities such as transportation and distribution while contracting out production. At the same time, retail food chains in Europe are increasingly becoming more consolidated, with an increasing share of the market being controlled by a smaller number of large retail chains. This has increased their purchasing power and has led some of them to also move into taking a more active role in managing the supply chain.

These factors raise the perception that the distributor rather than the grower gains a large share of the quota rents. However, the distribution of the rents depends on how the import quotas are allocated, rather than the market structure. For example, if quotas were auctioned, rents would accrue to the importing government. With EU bananas quotas are allocated to distributors who can source supply from the most competitive producers. It seems unlikely that under these circumstances the growers in exporting countries are likely to benefit substantially.

A number of different studies have estimated which groups are currently benefiting from the EU quota system. Borrell (1999) uses differences between the price for bananas from preferred supplies and the world price as an estimate of the cross-subsidy, or aid received by the producers in ACP countries. Multiplying this price difference by the quantity of bananas sold gives an estimate of the total cost of the banana regime to consumers. Borrell then subtracts out the portion that goes toward government tariff revenues, the operating costs of the producers and the profit margins retained by the distributors and marketers within the EU. Using this methodology, he arrives at a figure of \$150 million as an estimate for the total amount of extra revenues that producers in ACP countries are receiving as a cross subsidy or aid. He makes the point that the EU government is forgoing quota rents of \$3 billion to provide benefits of \$150 million to producers, and that a better way could be found to achieve the objectives.

Badinger, Breuss and Mahlberg (2002) assessed the welfare effects of the former EU regime on three groups: international banana traders, consumers and the government. They found that over the period of 1993 – 2000, the EU banana regime cost consumers 2073 million ECU per year, of which ECU 937 million went to international banana traders, ECU 1036 million went to governments in the form of revenues, and the remaining ECU 100 million is deadweight loss. The estimate for government revenue seems inflated given the EU inquota tariff is €75/t, and there were only limited outquota imports.

McCorrison (2000) takes the oligopolistic structure of the EU banana market into account when determining distribution of quota rents. His model demonstrates that estimates of the total cost of the EU banana regime to consumers (in the form of higher prices) is likely to be underestimated in perfectly competitive models.

Analysts at Patton Boggs LLP (Raboy, 2004) used a "price gap" methodology adapted from Annex 5 of the Uruguay Agricultural Agreement to estimate the tariff

equivalency of the current quota-tariff regime.⁴ This methodology involves comparing the gap in internal and external prices as a means to proxy the equivalent quota rents. In this case, internal prices are defined as "representative wholesale price ruling in the domestic market" and are based on a weighted average of c.i.f. prices for ACP-sourced bananas. External prices are defined as "appropriate average c.i.f. unit values of a near country" or "estimate from average f.o.b. unit values of major exporters when actual c.i.f. values in the country performing the calculation "are not available or appropriate. Data from the United States and Norway are both used as approximate near countries with relevant f.o.b. information. The results reveal an EU price gap of approximately €50 to €75 per tonne when compared with Norway, and €68 when compared with the United States. In the US case in particular, attempts were made to take into account the higher operating costs of selling bananas in the European Union versus the United States irrespective of trade regulations. Raboy also suggests that while the internal prices reflect both the quota and the additional €75 per tonne tariff imposed on Category A and B non-ACP imports, the external prices do not. Unable to determine a precise way to determine to what extent the prices reflect the tariff as well, Raboy proposes a possible range of the overall level of protection, varying from €106 to €143 per tonne depending on the extent to which the current tariff is added back into the results.

Using a similar "price gap" approach, Borrell and Bauer (2004) determine that the current tariff equivalent of the value of the protection afforded to ACP countries is €64 per tonne. They disagree with Raboy's approach of adding the tariff rate back in, claiming that it is already internalized. They claim that since this amount is less than the €75 per tonne margin of preference, the producers themselves are not receiving the full value of the tariff preference. They suggest instead that the highly consolidated EU license holders have been able to use their relatively high bargaining power vis-à-vis fragmented growers in ACP countries to collect part of the tariff preference (€11).

A quantitative analysis of the impacts of potential EU banana reforms

The European Union is obliged to remove its banana import quotas and replace them with tariffs. The impact of removing import quotas is assessed with GSIM, a modeling framework designed for trade policy analysis.⁵ GSIM is a relatively simple and transparent deterministic, comparative static, bilateral trade, partial equilibrium model without stocks. A feature of this approach, in contrast with several other banana models, is the treatment of imports by which bananas are differentiated by source. This implies imports from different countries are imperfect substitutes. As bananas are a perishable annual crop without significant storage and virtually no processing, GSIM is a suitable framework for analyzing such a commodity. However, using this framework requires ignoring products that may be substitutes for bananas in

⁴ The price gap methodology involves comparing wholesale prices in domestic markets (i.e. internal price) with the c.i.f. (cost, insurance and freight paid) quoted unit values of the importing country (i.e. external price). The difference between the two is the tariff amount necessary to help producers to compete on world markets. This methodology is based on Annex 5 of the WTO Uruguay Round agreement on Agriculture. The formula is : $(\text{internal price} - \text{external price}) / (\text{external price} - 1) * 100$

⁵ GSIM was developed by Joe Francois of Rotterdam University in The Netherlands. It is available through the World Bank's WITS website to registered users. An earlier version of GSIM is described in Francois and Hall (1997).

consumption (e.g. tropical fruits) or production, as these linkages are ignored here. This implies that losses and gains are overestimated, as the transfer of resources to or from other sectors is not taken into account.

The model includes 20 regions, listed in table 2, including most banana producers and exporters. The members of the European Union are treated as one country, including the banana producing regions such as Martinique, Guadeloupe and the Canary Islands. Countries with preferential access into the European Union include the Dominican Republic, Ivory Coast and Cameroon, with the remaining ACP countries grouped together.

Table 2: Regions

European Union	Honduras
United States	Nicaragua
Japan	Panama
EU10	Venezuela
Philippines	Ivory Coast
Colombia	Cameroon
Costa Rica	Other ACP
Dominican Rep.	Brazil
Ecuador	Mexico
Guatemala	Rest of World

The model is driven by export supply and bilateral import demand equations. Exports and imports are a function of the world price plus or minus the relevant bilateral trade tax or subsidy. Because tariffs are bilateral, and possibly different from country to country, the change in tariffs lead to a change in relative prices that drive differential changes in imports from various sources. This is essential in understanding the banana regime where some countries have preferential access. An elasticity of substitution determines the extent to which changes in relative prices lead to a switch in the source of imports.⁶ The model solves numerically to a specified tolerance using Excel's Solver to find a market clearing price such that global imports equals global exports.

An important consideration in the analysis of bananas is quota rents. Quota rents for the individual exporter are the quota multiplied by the difference between world and consumer prices in the importing country providing the quotas, in this case European Union. Quota rents may accrue to producers but because quotas are binding the change in the rents are assumed not to affect production, although producer returns are affected. The shift in the EU regime to a tariff only system implies that quota rents are eliminated.

The data

The initial data relate to 2002. Trade data is obtained from COMTRADE, price data from FAO and tariff and quota data from EC. The elasticities are -1 for demand and 1 for supply across the board, with the exception of the Ivory Coast and Cameroon

⁶ The elasticity of substitution between imports from different sources is the so-called Armington assumption. An elasticity of 5 is applied across all countries. This implies a 1 per cent change in relative prices leads to a 5 per cent change in the ratio of exports. High values are appropriate for homogenous goods such as bananas.

where the elasticity of supply is assumed to be 3. (See later discussion on responsiveness of producers.)

The initial dataset is used to generate tariff revenues and quota rents. The base data used in modelling reform to the EU banana regime is presented in table 3. Initial EU banana imports of 3257 kt are about at the level of the import quota. The world price is assumed to be €500 per tonne and EU domestic prices €800 per tonne, 60 per cent above the world price.

It is not clear how the initial rents are allocated between importers, distributors and exporters. As mentioned, both Borrell and Bauer (2004) and Raboy (2004) suggest rents accrue to distributors or importers, with very little if any trickling down to exporters. Since the conversion to tariffs eliminates any quota rents, the initial distribution of these rents is crucial to determining the welfare effects of the reforms.

Table 3: Base banana data, 2002

Observed data		
Global trade	€m	6511
EU Exports	€m	23
EU Imports	€m	1567
ACP exports to EU	€m	358
Non ACP exports to EU	€m	1209
World price	€/t	500
EU inquota tariff facing non-ACP suppliers	€/t	75
EU internal price	€/t	800
Generated or assumed data		
EU quota rent generated	€m	759
EU quota rent captured by traditional ACP producers (€110/t)	€m	31
EU tariff revenue	€m	181
Elasticity of demand		-1
Elasticity of supply		1
Elasticity of supply in African ACP countries		3

Source: COMTRADE, FAO, UNCTAD TRAINS.

EU imports at 3.28 billion tonnes include 747 kt from ACP countries and 2,538 kt from non-ACP countries but excludes local production of 770 kt. At 4 million tonnes, EU consumption is a mere 5 per cent of world production but imports are a third of global trade.

The responsiveness of producers

One of the key components of the model will be the assumption made around how the supply of bananas varies with changes in banana prices. Guyomard et al. (1999) assume an elasticity of 1.0 for EU and ACP banana producers. They assume that producers in the dollar zone countries (i.e. Latin America producers) can respond to changes in prices with greater flexibility, and therefore assign them an elasticity of 2.0. Their rationale for this distinction is that "dollar zone" producers do not face the land constraints that most of the island nations and other smaller countries within the

ACP face. They also note that dollar zone producers do not operate at full capacity, can modify quality control standards to decrease the rejection rate of fruit, and can fill shipping vessels with fruit at adjacent ports if there is a shortfall at any other port, thus ensuring efficient transportation costs.

However, Borrell and Bauer (2004) suggest that it is the African ACP countries that are the most responsive. With abundant land available, vertically integrated companies can set up large plantations.

Here we assume that Cameroon and the Ivory Coast have supply elasticities equal to 3, whereas other countries share the default elasticity of 1.⁷ There is evidence that these countries have greater scope for expansion than the traditional suppliers.

Some assumptions

Several important assumptions underpin the analysis. First, there are no overquota imports into the European Union. This implies that the two import quotas are binding, but the domestic price is determined by the location of the demand curve somewhere between the inquota tariffs (€75/t or 15 per cent) and the outquota tariffs (€680/t or around 135 per cent) facing non-ACP suppliers. This is illustrated in figure 4. If there were significant overquota imports, domestic prices (P_{d3} in figure 4) would be around €1180, and quota rents would amount to around €2 billion, a figure sometimes quoted in the literature. However, domestic prices at around €800-900 suggest quota rent are more moderate, and are more likely around €760 million. This assumes a domestic price of €800 (P_{d2}), a 60 per cent markup on the base world price of €500 (P_w). Of the available rent, €215 million is generated on imports of 747 kt from ACP countries, and €545 million on 2,537 kt of imports from non-ACP countries. Tariff revenue on imports from non-ACP countries amounts to around €180 million, that is, 15 per cent of the value of imports from non-ACP countries.

A second important assumption concerns the capture of quota rents. Indeed, virtually the whole analysis hinges on this point, because removal of quotas implies all the quota rents are removed, and it is important to gauge producer response. Our starting assumption is that traditional ACP producers, i.e. excluding Cameroon and Ivory Coast, receive €110/t or 22 per cent of the world price of €500.⁸ Data on unit values of exports are extremely variable, and it is difficult to obtain reliable estimates. Part of the €300/t premium is accounted for by the higher transport costs of Western Hemisphere producers exporting to Europe rather than North America. These additional costs might amount to €100/t. The remainder is likely to go to distributors, to whom the quota is initially allocated, and who can reallocate it to low cost producers until it is filled. Some of the quota may be dissipated in rent seeking behaviour. A related assumption is that producers respond to changes in quota rents. This assumption can be criticised as the quotas are obviously binding, and it seems unlikely that a small change in the quota would bring forth an immediate response. However, a reasonable justification is that the European Union is required to remove the quota altogether, and thus some producer response seems reasonable. Unfortunately, little is known about the point at which producers would decide not to

⁷ This contrasts with our assumption in an earlier paper, in which the general supply elasticity was 0.48.

⁸ At a technical workshop held at FAO in Rome in October 2005 the size of the quota rents was discussed at length. Information based on reports of quota purchase prices indicated the quotas were worth €100 - €120/t (FAO 2005) and had been falling over time.

fill their quota. Changes in producer returns through loss of rents are calculated. If rising world prices more than offset the loss in quota rents, welfare will rise rather than fall.

Simulations

To assess the impact of reforms, three hypothetical simulations are undertaken assuming traditional ACP exporters capture rents of €110 per tonne:

- (1) EU free market: The European Union removes its quota and tariffs, while the rest of the world maintains its trade policies.
- (2) EU 75: As for scenario 1 plus tariff of €75/t on non-ACP imports.
- (3) EU 230: As for scenario 1 plus tariff of €230/t on non-ACP imports.

The specific bilateral tariffs are modelled as a 60 per cent ad volorem equivalent on EU imports from African and Asian countries and a 50 per cent tariff on Latin American exports. This accounts for additional transport costs of €100/t that makes the specific tariff a lower proportion of the landed cost. Quota rents are modelled as an export subsidy without the government revenue implications. Quota rents disappear completely when the quotas are removed.

Results

The abolition of banana import quotas means that potential quota rent is transferred to EU consumers. Under the EU total liberalisation scenario, EU domestic prices fall 30 per cent from €800, leading to an increase in consumption from 4 million tonnes to around 5 million tonnes. This would put EU per capita consumption at just under the US level of 12 kg per capita. EU consumers gain €790 million under this scenario but tariff revenue falls to zero with the removal of tariffs.

To satisfy the increased demand in the European Union imports increase by 36 per cent, or 1.1 million tonnes. The increase would be filled mainly by non-ACP countries, which benefit from rising export prices and the removal of the inquota tariff. Ecuador (€152 million in additional global exports), Costa Rica (€99 million), Colombia (€89 million) and Panama (€44 million) are the major beneficiaries. However, ACP countries as a group also gain a €70 million (15 per cent) increase in global exports because the rise in EU demand. Exports to the EU from the Ivory Coast and Cameroon, two ACP countries that are assumed to have significant scope for rapid expansion of production, are estimated to increase by €36 million and €42 million respectively. Exports from the Dominican Republic and Other ACP countries fall by €3 million and €7 million respectively, driven by the assumption that producers respond immediately to a reduction in quota rent. Welfare in these countries also falls, by €12 million and €25 million, because of the loss of quota rents (€30 million).

With dollar zone countries taking the opportunity to increase exports to an expanding EU market, they have to switch away from the US market to some extent, and Guatemala (€22 million) and the Philippines (€38 million) fill the gap to become the most notable unintended beneficiaries.

Table 4 Change in exports and welfare relative to baseline following EU liberalisation

	EU free market		EU 75		EU 230	
	Exports	Welfare	Exports	Welfare	Exports	Welfare
	€m	€m	€m	€m	€m	€m
European Union	1	610	1	606	0	517
United States	11	-87	8	-62	2	-13
Japan	0	-15	0	-11	0	-3
EU10	1	-14	0	-10	0	-3
Philippines	38	19	28	14	7	4
Colombia	89	43	60	29	4	2
Costa Rica	99	49	67	33	5	3
Dominican Rep.	-3	-12	1	-10	10	-5
Ecuador	152	76	106	53	15	7
Guatemala	22	11	16	8	4	2
Honduras	10	5	7	3	1	0
Nicaragua	1	1	1	0	0	0
Panama	44	22	30	15	2	1
Venezuela	2	1	1	1	0	0
Ivory Coast	36	20	49	28	76	47
Cameroon	42	24	58	34	91	57
Other ACP	-7	-25	2	-20	21	-10
Brazil	5	3	4	2	0	0
Mexico	3	1	2	1	0	0
Rest of World	10	-62	7	-46	2	-13
Total	556	671	448	670	242	594

Source: GSIM simulations.

Part of the EU's policy is to change its regime to make ACP countries no worse off. As ACP countries are a diverse group with varying cost structures, any single tariff will benefit some to the detriment of others. Inevitably, low cost ACP producers will outcompete high cost producers. With a single instrument, it is virtually impossible for the European Union to make each country no worse off without making some much better off. This is illustrated in the second and third simulation, also shown in table 4. Imposing a €75/tonne preferential tariff on non-ACP exports maintains global exports from the Dominican Republic and Other ACP countries at around their initial levels while there are significant gains to Ivory Coast and Cameroon. The €230/tonne preferential tariff increases substantially exports from Dominican Republic and Other ACP countries without adequately compensating them for the loss in quota rents. The change in welfare remains negative for these countries.

Within the European Union, the €230/tonne tariff boosts tariff revenue from €180 million to €278 million, but EU consumers gain only €240 million compared with €790 million under the EU free trade scenario. Nonetheless, the EU is better off under this scenario than the status quo, by €517 million, because forgone quota rents are converted into tariff revenue and lower prices for consumers. The higher tariff stifles the growth in imports into the EU, which increase by 13 per cent €230/t preferential

tariff compared with 23 per cent under a €75/t tariff and 36 per cent under an EU free trade scenario.

Implications, limitations and conclusions

A major feature of the current EU banana regime is the quota rents generated by a binding quota. The absence of sizable imports over the quota implies that the rents are not easily determined, but it seems EU domestic prices are well below the outquota tariff rate of €680 above the world price. It is assumed here that the rents amount to 60 per cent of the world price, or €760 million. It is not clear how these rents are distributed between exporters, distributors and importers, but evidence suggests some ACP exporters benefit from the preferential tariff of €75/t on non-ACP exports. All this rent disappears once the import quotas are removed, and is essentially transferred to consumers and taxpayers. A €230/t preferential tariff instead of binding imports quotas would permit an expansion in the EU market for bananas leading to an increase in exports from ACP countries as a group. However, traditional ACP producers may be worse off from the loss in quota rents. Increasing the preferential tariff partially compensates but does not outweigh the loss in rents. Unintended beneficiaries are exporters to the US market, Guatemala and the Philippines, which benefit from South American countries switching some exports from the USA to the EU.

The major losers from the proposed policy shift would seem to be the distributors. At present they capture the bulk of the rents, but some of this is dissipated or passed on to inefficient suppliers. Removal of these rents would encourage a relocation of production away from some of the less efficient areas. However, distributor losses would be offset to some extent by the expansion of the EU market. This would be at the expense of suppliers of other fruits that are substitutable in consumption. USA consumers are worse off as a result of higher world prices.

A policy to choke off non-ACP exports to assist ACP producers with a preferential tariff would raise EU prices, limit the expansion of demand and increase EU tariff revenues. Non-ACP producers, in countries such as Ecuador, Colombia, Costa Rica, Nicaragua and Panama, would see their exports remain almost unchanged from the status quo following the imposition of a preferential tariff of €230 per tonne.

To the extent that the European Union feels obliged to offset any losses in ACP exporting countries, a superior policy would be to provide direct compensation to producers, just as it provides compensatory payments to its own cereal and livestock producers. A finite, rather than open-ended, time frame would encourage high cost producers to move to more productive activities. The funds freed up by direct compensation could be used for more productive development activities. Many poor producers in non-ACP would also benefit.

The major limitation with the analysis lies with the data. Price and export value data are extremely variable both spatially and over time, and this generates uncertainty as to the size of the rents and their distribution along the supply chain. It also inhibits making definitive conclusions regarding the tariff equivalent of the quota. In particular, the initial distribution of rents significantly influences the results, but the evidence on this is conflicting. The assumption regarding the producer response to

changes in rents has an important impact on export revenues in countries receiving rents, although not on welfare.

Another limitation includes the assumption of a fixed dollar-Euro exchange rate. The Euro has appreciated in recent years and this makes EU imports more competitive relative to domestic production. On the other hand, the specific tariff assumes a greater magnitude, favouring countries with duty free access. A further consideration about the modelling concerns the responsiveness of producers to price changes. Estimates in the literature seem to vary significantly. Perhaps equally significant is the Armington elasticity, which determines the source of imports in response to changes in relative prices (i.e. bilateral tariffs). Changing this elasticity changes the distribution of exports and welfare gains, although the overall impacts are similar.⁹ Finally, this analysis also ignores uncertainty and possible changes in the market over time. Including these refinements would obviously change the results somewhat, but are unlikely to reverse the conclusions.

⁹ The Armington elasticity has little effect on global (allocative efficiency) gains but significant distributional effects. Doubling the elasticity from 5 to 10 increases the global gains from complete EU liberalisation from €671 million to €673 million, whereas halving the elasticity reduces global gains to €668 million. However, ACP exports to the EU increase by 15 per cent with double elasticities compared with 22 per cent under the standard set and 29 per cent with halved elasticities.

Relevant EC Regulations:

Council Regulation (EEC) No. 404/93 of February 1993 – Establishes the Common Market on Bananas (CMOB)

Amendments:

Commission Regulation (EC) No 3518/93 of 21 December 1993
Commission Regulation (EC) No 3290/94 of 22 December 1994
Council Regulation (EC) No 1637/98 of 20 July 1998
Council Regulation (EC) No 1257/1999 of 17 May 1999
Council Regulation (EC) No 216/2001 of 29 January 2001 – Describes current regime

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Figure 4: Initial EU banana quota rents with binding import quota

