

# 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. These policies generate rents that accrue to distributors and producers. The European Union is obliged to remove its quantitative restrictions and replace them with differential tariffs that are likely to give preference to existing quota holders on exports from ACP countries. The removal of binding quotas will remove the quota rents. The impact on export country producers depends on the rents they currently receive. Indications are that a relatively small proportion, perhaps €60/tonne, of the rents are currently accruing to ACP producers.*

*Quantitative analysis suggests that the loss in rent received by producers from an EU free market in bananas would be more than offset by the expansion of EU imports by 37 per cent. Under these circumstances ACP exports to the EU are estimated to expand 8 per cent and non-ACP exports by 45 per cent. EU consumers and suppliers to the US market would also gain, while distributors would experience a loss in quota rents. A preferential tariff of €75/tonne on imports from non-ACP suppliers would revise these impacts on ACP and non-ACP export to 26 and 30 per cent respectively. The results confirm that current EU policies are poorly targeted and inefficient, and better means exist to assist producers in the target 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 double the world price. The European Union is the second largest market for bananas in the world, with more than 4 million tonne 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. It is of interest to speculate what this tariff might be and 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 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	%
<b>Step 1</b>	A	2,200	€75*	€75	17
	B	353	€75	€75	17
<b>Phase 1</b>	C	850	€300	€300	11
	Out of quota		€680	€300	na
<b>Step 1</b>	A	2,200	€75*	€75	17
	B	453	€75	€75	17
<b>Phase 2</b>	C	750	na	na	11
	Out of quota		€680	€300	na
<b>Step 2</b>	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.<sup>2</sup> 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.

### **Competition for the EU Banana Market**

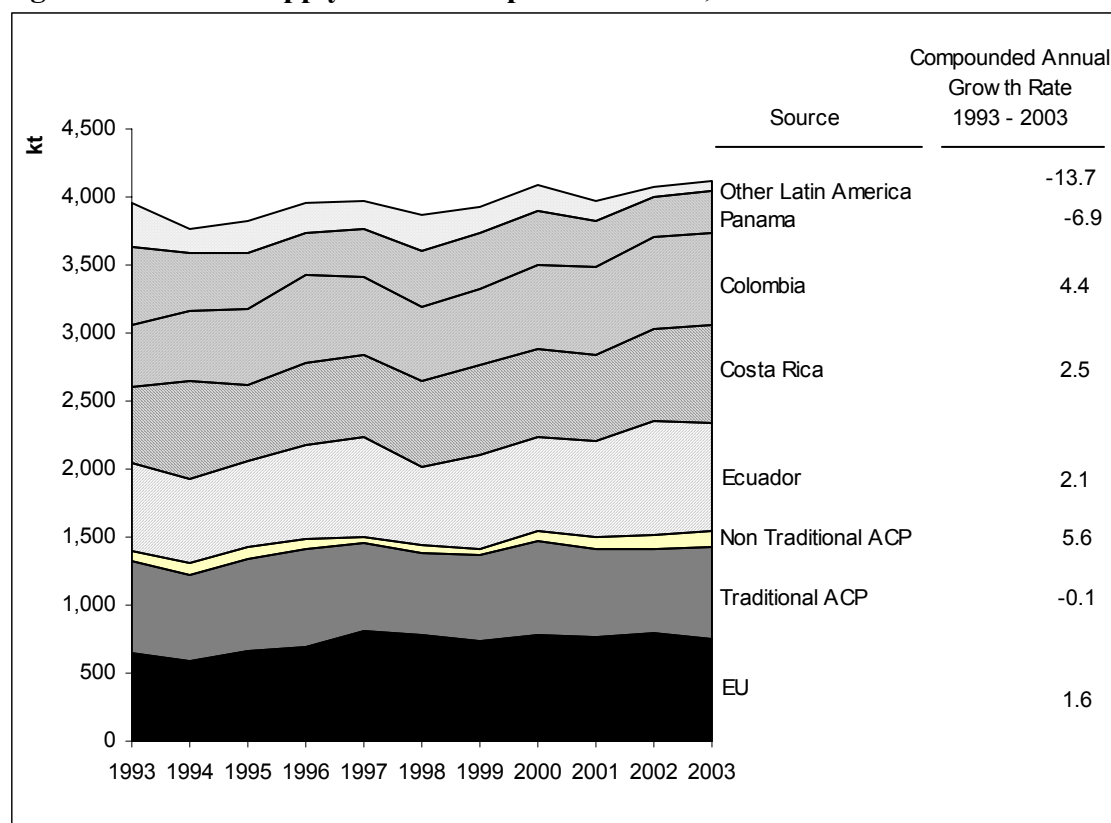
EU consumers eat four million tonnes of bananas annually and there is fierce competition for this lucrative market. EU producers in the Canary Islands, Martinique and Guadeloupe supply 600 to 700 kt, about 15 to 17 per cent of the market, and the remainder are imported under quota.<sup>3</sup> South 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 share is illustrated in figure 1.

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<sup>2</sup> 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.

<sup>3</sup> 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.

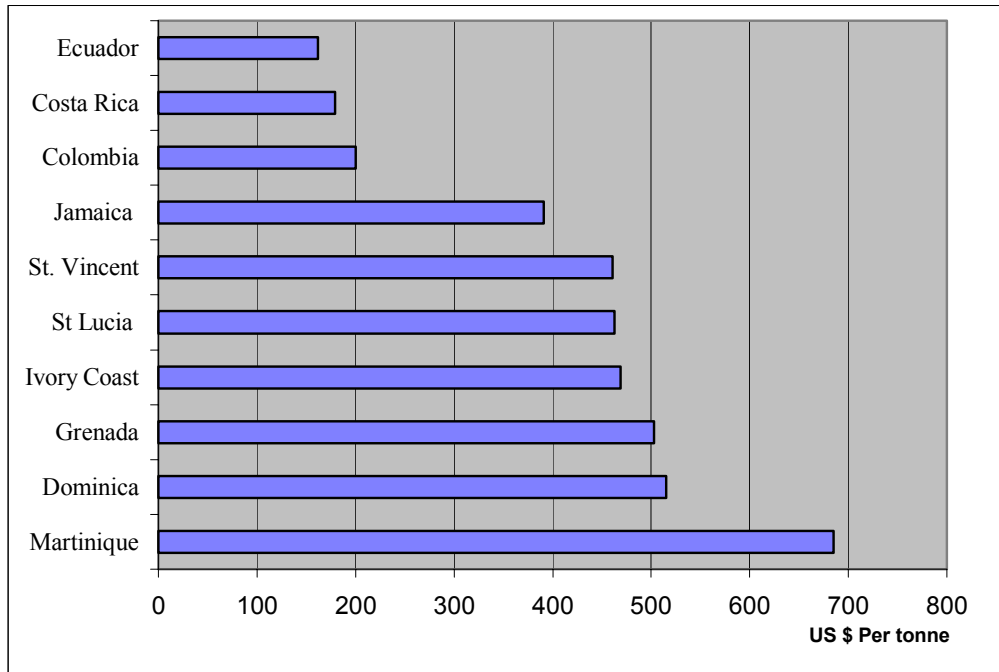
While the aggregate amount of imports from traditional ACP countries remained constant, within this category, three key producers, Cameroon, Ivory Coast and Belize experienced strong growth, while imports from the smaller countries with the ACP group declined dramatically. This reflected the move from 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.

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

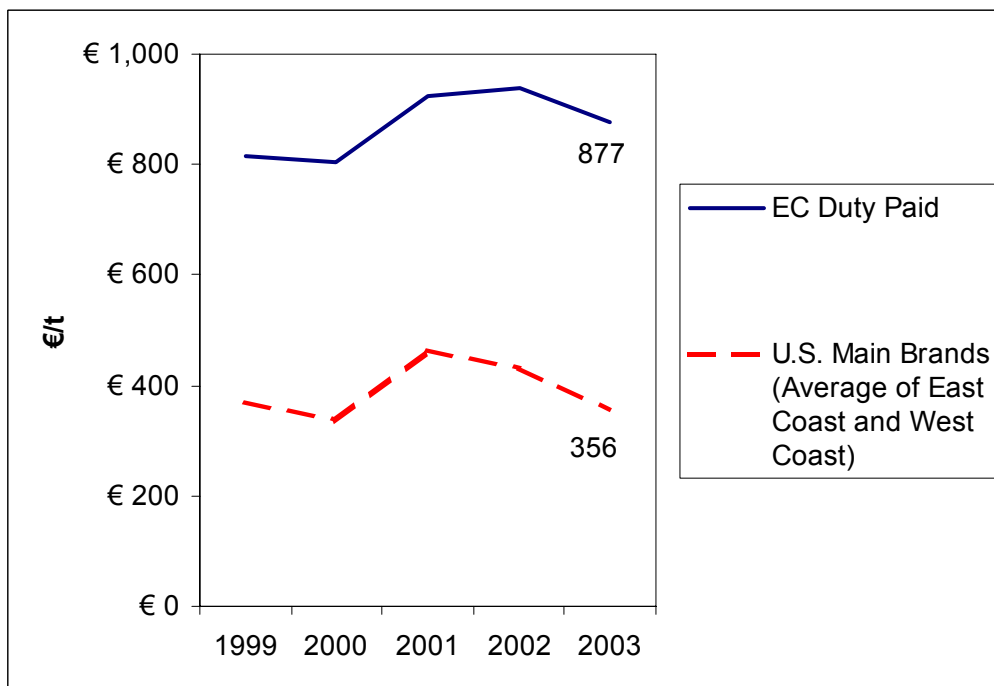
is due largely to the effects of the managed supply regime and, to a lesser extent, consumer preferences for higher quality bananas. Reducing EU prices to world levels would lead to a substantial increase in consumption (see later estimates).

**Figure 2: Comparison banana production costs, 1997**



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

**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 the actual 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 tariffs is €75/t, are 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.<sup>4</sup> 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).

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<sup>4</sup> 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 :  $(\text{internal price} - \text{external price}) / (\text{external price} - 1) * 100$



## 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.<sup>5</sup> GSIM is a relatively simple and transparent deterministic, comparative static, bilateral trade, partial equilibrium model without stocks. 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 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**

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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

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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.<sup>6</sup> 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

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<sup>5</sup> GSIM was developed by Joe Francois. 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).

<sup>6</sup> 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.

consumer prices in the importing country providing the quotas, in this case European Union. Quota rents may accrue to producers and in such cases are treated as an export subsidy, a measure of the benefits to producers. To the extent that rents accrue to producers, they are assumed to affect production. 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 from FAO's World Food Model. These are -0.89 for demand and 0.48 for supply across the board, with the exception of the Ivory Coast and Cameroon where the elasticity of supply is assumed to be 1. (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**

<b>Observed data</b>		
Global production	kt	87860
Global trade	kt	12877
EU Production	kt	770
EU Consumption	kt	4009
EU Exports	kt	45
EU Imports	kt	3284
ACP exports to EU	kt	747
Non ACP exports to EU	kt	2538
World price	€/t	500
EU inquota tariff facing non-ACP suppliers	€/t	75
EU internal price	€/t	800
<b>Generated or assumed data</b>		
EU quota rent generated	€m	782
EU quota rent captured by producers	€/t	60
EU tariff revenue	€m	199
Elasticity of demand		-0.89
Elasticity of supply		0.48
Elasticity of supply in African ACP countries		1

Source: COMTRADE, FAO, UNCTAD TRAINS.

EU imports at 3.28 billion tonnes includes 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 assumptions 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 one, whereas other countries share the default elasticity of 0.48. 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 €795 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, €224 million is generated on imports of 747 kt from ACP countries, and €571 million on 2,537 kt of imports from non-ACP countries. Tariff revenue on imports from non-ACP countries amounts to around €200 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 is removed, and it is important to gauge producer response. Our starting assumption is that ACP producers receive €60/t on a price of €500, or 12 per cent, almost equivalent to the 15 per cent rent paid by non-ACP suppliers. Data on unit values of exports are extremely variable, and it is difficult to obtain reliable estimates. 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, the European Union is required to remove the quota altogether, and thus some producer response seems reasonable. If rising world prices more than offset the loss in quota rents, production will rise rather than fall.

### **Simulations**

To assess the impact of reforms, two hypothetical simulations are undertaken assuming ACP exporters capture rents of €60 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 Preferential. As for scenario 1 plus tariff of €75/t on non-ACP imports.

### **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 32 per cent from €800, leading to an increase in consumption from 4 million tonne to 5.2 million tonne. This would put EU per capita consumption at just under the US level of 12 kg per capita. EU consumers gain €900 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 37 per cent, or 1.2 million tonnes. The increase would be filled mainly by non-ACP countries, for whom export prices rise because of rising world prices and the removal of the inquota tariff. However, ACP countries as a group also gain a 7 per cent increase in exports because the rise in export prices offsets the loss of rents. Exports to the European Union for this group are increased from 747 kt to an estimated 810 kt. Export revenues are increased by €33m.

However, the major beneficiaries of the reform, apart from EU consumers, are producers in the non-ACP countries. The major countries gaining are Ecuador (€173 million in additional global exports), Costa Rica (€107 million), Colombia (€95 million) and Panama (€48 million). These countries have to switch away from the US market to some extent, and Guatemala (€28 million) and the Philippines (€50 million) fill the gap to become the most notable unintended beneficiaries.

Part of the EU's policy is to change its regime to make ACP countries no worse off. Maintaining the €75/tonne preferential tariff on non-ACP exports is more than adequate to compensate the ACP countries for loss in quota rents, although this conclusion is sensitive to the assumption regarding the capture of rents (more on this later). The second scenario in table 4 shows that ACP exports to the European Union are increased by 26 per cent under this scenario. Non-ACP exports to the European Union are likewise reduced. The €75/tonne tariff boosts ACP export revenues by €77

million and lessens the tariff revenue losses for the European Union, but EU consumers gain only €668 million compared with €900 million under the EU free trade scenario.

**Table 4 Change in exports to EU following EU banana liberalisation under alternative scenarios**

	EU free trade %	EU preferential %
European Union	0	0
United States	51	34
Japan	0	0
EU10	0	0
Philippines	0	0
Colombia	43	28
Costa Rica	44	29
Dominican Rep.	8	30
Ecuador	48	32
Guatemala	50	34
Honduras	48	32
Nicaragua	50	34
Panama	44	29
Venezuela	46	30
Ivory Coast	8	26
Cameroon	8	25
Other ACP	8	26
Brazil	46	30
Mexico	50	34
Rest of World	50	34
<b>ACP exports to EU</b>	8	26
<b>Non-ACP exports to EU</b>	45	30
<b>Total exports to EU</b>	37	29

These results are sensitive to the assumption that €60 per tonne of the quota rent is captured by ACP suppliers. Table 5 shows the impact of the EU free trade scenario assuming zero or 100 per cent rent capture. The second, €60/t column, is repeated from table 4. ACP exports to the EU would range from an increase of 30 per cent to a fall of 46 per cent under these extreme assumptions. The breakeven point is around €100/t or a third of the estimated €300/t in generated rents. Below this level the EU reforms would leave them no worse off. If they were capturing all the rents, €215 million, the elimination of these rents would reduce ACP exports to the European Union by 46 per cent or €165 million. An additional tariffs on non-ACP exports to the European Union of 35 per cent or €185/t would be required to offset the loss in rents one the indirect effects have worked through.<sup>7</sup>

<sup>7</sup> This estimate of €185/t for the tariff equivalent of the quota rents is remarkably similar to that obtained in the Guyomard and Le Mouël (2003) study.

**Table 5 Sensitivity analysis: Change in exports to EU following EU banana liberalisation under alternative rent assumptions**

	Rent = 0 %	Rent = €60/t %	Rent = €300/t %
ACP exports to EU	30	8	-46
Non-ACP exports to EU	42	45	55
<b>Total exports to EU</b>	<b>39</b>	<b>37</b>	<b>32</b>

### 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 €780 million. It is not clear how these rents are distributed between exporters, distributors and importers, but evidence suggests ACP exporters benefit from the preferential tariff of €75/t on non-ACP exports. All this is removed once the import quotas are removed, and essentially transferred to consumers. The expansion in the EU market for bananas more than compensates ACP producers for losses of a third of the available 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.

If traditional ACP exporters captured all the quota rent generated on their exports, a tariff of €185 per tonne on non-ACP exports would leave ACP exporters no worse off than previously. The presumption that ACP exporters do indeed capture these rents may be fuelling speculation that the European Commission may be contemplating a tariff of this magnitude on non-ACP imports.

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 way 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 results 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 be harmed by a move towards a preferential tariff.

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.

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. Other others have assumed a greater supply response than used here. More responsive supply curves imply a given policy change generate a greater production response. In this model doubling all the supply curves has little effect on exports or welfare. More 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. 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.

### **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**

