FAO TRADE POLICY BRIEFS
on issues related to the WTO negotiations on agriculture

No. 11 DAIRY AND DAIRY PRODUCTS: Why is reform so difficult?

SUMMARY

- *Dairy policy liberalization will increase dairy product prices, although perhaps not by 25 to 35 percent as suggested by most studies, given supply potential in some low-cost producing areas.*
- *OECD dairy policies are pervasive, complex and long standing, making it difficult to assess the impact of their reform or even removal.*
- *OECD countries will gain most from complete reform, with consumer gains and government savings exceeding producer losses.*
- *Reform is difficult in countries with high support because of the re-distributional impacts and structural changes that would occur throughout dairy supply chains.*
- *Many developing countries may be largely unaffected by reform, given their large informal markets which insulate them from changing world market conditions.*

This Policy Brief[1] examines the impact of dairy sector domestic and trade policies on international dairy markets, and addresses the question of what inhibits reform in this important agricultural sector. It outlines the difficulties in assessing the impacts of policy reform, and provides an overview of recent results from quantitative assessments of comprehensive policy reform, with particular attention to the consequences of reform for developing countries.

1 What are the policy questions?

Government intervention in dairy policy is among the highest and most pervasive in the agricultural sector - support remains stubbornly high in most countries of the Organisation for Economic Cooperation and Development (OECD), and various questions remain as to the likely impact of reform:

- Is there agreement on how key policy instruments affect markets?
- Are estimates of high price impacts of policy on dairy product markets reliable?
- What is the impact of policy reform, both across countries and on the various market participants?
- How might policy reform change production, processing and trade?
- How do OECD policies affect various developing countries?

Clarifying the results of studies attempting to answer these questions should help policy makers and negotiators to understand what is at stake in dairy policy reform in OECD countries, as well as which policy instruments matter most and to whom.

[1] An informal consultation of experts involved in both quantitative analyses of dairy markets and sector developments in key developing countries assisted in preparing this Brief, and an accompanying Technical Note. Further detail and a full list of references is provided in FAO Trade Policy Technical Note No. 11 www.fao.org/trade/policy_en.asp

2 International dairy markets are among the most distorted agricultural markets

In milk equivalent terms, dairy product trade is only 7 percent of global milk production. Growth in trade has been very slow and international market prices are highly volatile, reflecting fluctuating supplies of a few main exporters and very restricted market access by most countries. For the OECD as a group, the Producer Support Estimate (PSE) for milk was 49 percent in 2003, and, except for Australia and New Zealand, not less than 40 percent for individual OECD countries. Over 80 percent of the PSE has been market price support, largely secured by high tariffs, or tariff rate quotas (TRQs) with high over-quota tariffs. Average over-quota tariffs for dairy products in the OECD range from 138 percent for cheese, to over 1 000 percent for whey powder. Market access is also highly restricted in many non-OECD countries, but tends to be more open in countries where domestic demand is growing rapidly. International dairy product markets are significantly disrupted by extensive use of export subsidies, although this has declined in tandem with a declining market share of countries using such subsidies.

In many domestic markets, particularly the OECD, milk marketing systems are complicated by policies such as production quotas or marketing orders for fluid and manufacturing milk, with pricing schemes which discriminate among markets, classified according to end use. These schemes obscure market signals, and affect industry investment and structure. The global dairy market is fragmented and markets are not integrated, allowing highly diverse production systems and cost structures across and within countries. Table 1 provides a general picture of the cost of milk production in different countries. At current international prices of dairy products, such as butter, milk powders and cheese, in milk equivalent terms, only those producers with domestic milk costs currently at or below US$0.18/kg would be competitive in the absence of support. Within countries too, domestic dairy markets are similarly fragmented on a regional basis. Marketing (quota) systems have encouraged a diverse production base, with high cost production units co-existing with more efficient lower cost ones. Some large units may be efficient at high domestic prices, but their production costs are far above those of internationally competitive suppliers.

3 Dairy policies are among the most complex and difficult to assess

The comprehensive and complex nature of dairy policy, the complications of the multi-component nature of milk and milk products and their diverse consumption attributes, make it very difficult to assess the impacts of policies and identify the eventual industry supply response under liberalization:

- Observed cost structures have long been affected by these policies and identifying free market costs is problematic.
- Rents from the application of the policies have accrued largely to first generation agents along the marketing chain (producers, processors), and have affected the industry's current cost and organizational structures.

Table 1 - Costs of producing milk in selected regions/countries

Cost of production (US cents/kg of milk)	Countries
< 18	Poland, Argentina, Pakistan, Vietnam, New Zealand, Western Australia, Brazil (larger farms), India (larger farms); Chile (smaller farms), China (smaller farms), Australia (smaller farms)
18-28	Estonia, Czech Republic, Brazil, Bangladesh, China, Thailand, Brazil (smaller farms)
28-35	Spain, Denmark, Ireland, United Kingdom, Hungary, United States of America, Germany (larger farms), Netherlands (larger farms), Israel (larger farms)
35-45	Austria, France, Sweden, Netherlands (smaller farms), Israel (smaller farms)
> 45	Switzerland, Norway, Finland, Canada, Germany (smaller farms)

Source: International Farm Comparison Network (IFCN) Dairy Report 2004

- Price discrimination mechanisms of the national marketing schemes, which allocate milk to different product categories, such as fluid and manufacturing milk, have obscured marketing margins.
- High tariffs have often prevented all trade, limiting empirical analysis of import substitutability with domestic products. It is hard to measure accurately the extent of tariff "water" or "overhang" and to assess tariff rate quota systems correctly.
- Measuring domestic milk processing responses is complicated by the allocation of milk components, fat, protein and other solids, to diverse milk products such as butter, cheese, and milk powders.

These challenges to identifying consumer demand within each country condition how trade may change under policy reform. Geographical indications for products such as the many different cheeses produced worldwide may also affect these changes.

4 There is consensus that the impact of dairy policies is significant

Various studies examine the impact of policy reform, focussing either on a particular WTO proposal, on the impact of regional trade agreements, or at the extreme, on alternative scenarios for complete policy liberalization. Only the latter are easily comparable and tend to provide the best benchmark for assessment. However, a full liberalization of the dairy market is not very likely and even if it were likely, its consequences are very difficult to be accurately captured by models which simulate situations far outside historical experience.

Despite the many difficulties in assessing policies, there is substantial agreement among different analysts on the main impacts of dairy policies on international markets. Analyses show, for example, that average farm milk prices of dairy product exporters, typically represented by prices in Oceania markets, would increase by at least 25 to 35 percent under full liberalization. Dairy product prices would increase similarly, and the butterfat (butter) component of milk would be affected more than the protein (skim milk powder) component, implying that the latter market is relatively less distorted. Producer prices in highly protected markets, such as those of the European Union (EU), the United States of America, and Canada, would decline by amounts that have been estimated to range from 5 to 25 percent, 0 to 13 percent, and 30 to 43 percent respectively.

However, industry experts suggest that the estimated effects from empirical models should be tempered by the emergence of new producing regions in South America and several transition countries, which appear to have considerable potential to expand output at higher international prices.

Studies also agree in assessing the winners and losers from global reform. All studies show consumers in OECD countries with high current support, and producers in countries with low cost and low current producer support as clear and sizable winners from reform. They also show sizable and concentrated per unit losses for milk producers in countries with high current support levels. Consumers in net importing countries will also lose according to these analyses. Governments in importing regions lose tariff revenue, while those in highly protecting and subsidizing countries would spend less. Globally, the welfare gains of fully liberalizing dairy policies are estimated to be around US$3 billion. Due to the expected rise in world market price following milk market liberalization, developing countries which are net importers of dairy products lose from reform while the net exporting countries among them would gain. The milk policy regimes in developed countries are dominated largely by market support policies, which are backed up by high tariffs, and as such do not necessitate much direct government spending. Market intervention costs are often limited in the presence of production quotas. Hence, the impact of reform on the agricultural support budgets in developed countries would be low.

5 Impact on production structures is a major issue

What is not so clear from the various studies of policy reform is the impact on milk production volume. High farm gate prices in some OECD countries have encouraged investment in large dairy farms, with production costs well above

those of low cost international producers. Under free trade, competitive (exporting) milk producers would produce at a farm gate price of about US$0.23/kg, an increase of about US$0.05/kg over pre-reform prices. Producers, both small and large, whose costs exceed this, including any associated transaction costs and processing and marketing cost differentials, would face significant adjustment pressures. The cost profile shown in Table 1 indicates both the location and degree of potential adjustment pressures.

6 Dairy markets in many developing countries may be unaffected by reform

The impact of dairy policy reform on many developing countries is estimated to be small due to currently high tariffs in some of these countries. If tariffs are reduced this would offset higher international product prices, or high internal transaction costs which effectively isolate internal and largely rural milk producers and consumers. An important feature of dairy industries in these countries is the domestic market share of the so-called "informal markets". These markets are traditional, largely non-commercial and extremely important in some countries. For instance in East Africa they account for more than 80 percent of domestic milk markets, in Latin America for 30 to 45 percent with higher shares in Central America, and in large Asian countries like India and Pakistan for more than 85 percent. This suggests that for a large number of countries, particularly in Africa, Asia and parts of Latin America, international dairy policy reform would have little effect on producer and consumer livelihoods for some time to come, to the extent that these markets remain segmented and isolated from international market activity. This includes countries such as India, the world's largest dairy producer. Of course, newly emerging developing country dairy exporters would gain considerably in such reforms.

7 Conclusion

The high level of support of the dairy sector in OECD countries has been one of the stumbling blocks to the wider reform of agricultural policies in the trade negotiations, despite the large net welfare benefits that reform is likely to bestow on the reforming countries. The high adjustment costs which dairy producers would face under dairy market liberalization have been one key reason for resistance to reform, and explain why so far the reductions of tariffs, domestic support, and/or export subsidies have been rather limited. Any reduction formula is likely to impact significantly on dairy producer incomes, volume of production and industry structure. At the same time, developing countries have shown only limited interest in pushing for reforms in the dairy sector, as their perceived benefits from such re-forms are generally small or even negative.