Northern agricultural policies and world poverty: will the Doha ‘development round’ make a difference?

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Abstract

Agricultural growth based on smallholder producers has the potential to act as a powerful catalyst for poverty reduction. This paper shows how rich country agricultural policies undermine that potential. Focussing on the EU and the US, the paper also shows how northern governments have developed World Trade Organisation (WTO) rules that fail to address fundamental inequities in agricultural trade. Support to agricultural producers in rich countries amounts to $1bn a day. Most of this support is provided through mechanisms that increase output, subsidise exports, and restrict market access. Claims that subsidies help small farmers in rich countries are difficult to square with the facts. We show that the distribution of agricultural support in the EU and the US is more unequal than income distribution in Brazil, one of the world’s most unequal countries. Agricultural producers in developing countries lose on several counts. High tariffs in industrial country markets mean that some of the world’s poorest farmers face the highest trade barriers. Subsidised over-production and export dumping causes further damage, undercutting small farmers in global markets. West Africa’s 10-11 million cotton farmers alone lost some $200m as a direct result of US subsidies in 2001. Under the Common Agricultural Policy (CAP), subsidies for sugar have enabled the EU to emerge as the world’s largest exporter of white sugar, driving more efficient exporters out of markets. Subsidised exports from rich countries also displace small farmers in their local markets, undermining the development of dynamic linkages between the farm and the non-farm sector. Taken collectively, rich country farm policies provide a stark example of the hypocrisy and double standards that govern international trade. They systematically skew the benefits of globalisation towards rich countries. Will the current WTO ‘development round’ change this picture? Not without a fundamental change in approach. Under the Uruguay Round Agreement on Agriculture (AoA), rich countries agreed to cut support to agriculture. While complying with the letter of that agreement, they have violated its spirit by increasing support. This has been possible because of a provision that exempts payments defined as being ‘non-distorting’ or ‘decoupled’ from WTO disciplines. In effect, the AoA has been little more than a subsidy repackaging exercise. This paper argues that nominally decoupled support increases production and includes an implicit export subsidy. That export subsidy is estimated at over $1bn for US wheat and maize and $2bn for cotton in 2001. For EU wheat, the subsidy is estimated at $2.2bn for 2000-2002. No direct subsidies were reported either by the EU or the US for these crops. The paper also looks at other disguised export subsidies, including the $7.7bn in export credits and commercial food aid provided for under the 2002 US Farm Bill. The danger for developing countries is that any new, more stringent disciplines on export subsidies agreed the Doha round will be subverted through an increase in payments that produce equivalent effects. Any support payments that generate production in excess of domestic demand clearly include an implicit export subsidy component. What is needed is a comprehensive WTO prohibition on all direct and indirect export subsidies, accelerated market opening in rich countries, and entrenched rights for developing countries to protect their food systems.
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"I would like our farmers in America to be feeding the world, and therefore I'm going to work hard to open up markets."
President George Bush, March 8, 2001 (US Congress 2002a)

"Critics of US farm policy would cede our food production to unstable places like the Third World, but in these times does any American want to depend on the Third World for a safe and abundant supply of food?"
US House of Representatives (US Congress 2002b)

“The logic of liberalisation cannot be applied to the agricultural sector as such”
Pascal Lamy (cited in COPA 2003)

“Any export efforts we might make will be worth nothing if rich countries continue to preach free trade and practice protectionism”
President Lula Da Silva, World Economic Forum, 26 January, 2003 (Government of Brazil 2003)

Introduction
Poverty is back in the official rhetoric on international trade. Gathered at the ministerial meeting of the World Trade Organisation (WTO) held in Doha, Qatar in November 2001, governments of industrialised countries collectively signed up for a ‘development round’ of multilateral trade talks. The Doha ministerial declaration emphasises a shared commitment to poverty reduction. It also acknowledges that the benefits of trade need to be more widely distributed (WTO 2001). Northern governments repeatedly point to the ‘development round’ commitment as evidence of their concern to create a more equitable pattern of globalisation. The question that remains is this: will pleasant words be translated into practical action?

The answer will depend in part on whether the new WTO round resolves longstanding problems in agricultural trade rules. These rules matter for global poverty reduction efforts. Some three-quarters of all people surviving on less than $1 a day - around 900 million in total - live and work in rural areas (IFAD 2001). Many developing countries depend critically on agriculture for employment, government revenue, and foreign exchange earnings. Of course, the benefits of trade are not automatic. In the absence of strategies for tackling inequalities based on ownership of assets, access to markets, and gender, the poor stand to lose out. Growth based on small farmer agriculture is one of the most powerful catalysts for poverty reduction because it enables the poor to produce their way out of poverty – and agricultural trade can create an enabling environment for poverty reduction. The extent to which it does so is determined in part by rules governing competition between labour-intensive smallholder agriculture in developing countries on the one side, and large-scale, capital intensive agriculture in industrialised countries on the other.
These rules are currently rigged against the poor. Agriculture plays a minor role in the economies of industrial countries. Yet governments in these countries spend $1bn a day on agricultural subsidies - six times the amount allocated to aid. Expressed differently, these subsidies exceed the total income of the 900 million people in rural areas of developing countries living below the international poverty line. Industrial country agricultural support and rural poverty are connected in other ways. Most support is provided not to those in need, but to large producers and agribusiness interests through mechanisms that raise output and generate large export surpluses. Meanwhile, high tariffs and other barriers restrict market access.

Small farmers in developing countries suffer on several counts. They are forced to compete in global and local markets against European Union (EU) and US surpluses exported at prices that bear no relation to the costs of production. Meanwhile, their entry to northern markets is curtailed by some of the highest import barriers in the world trading system. The result: lower prices for their output and loss of market shares, with attendant consequences for household poverty. Governments in rich countries may endorse human development goals, but their agricultural policies are at the heart of a system that is perpetuating mass poverty and unequal globalisation.

The double standards are self-evident. In their trade policy rhetoric and advice to developing countries, northern governments are strong proponents of open markets and 'level playing fields'. The same governments are seeking to use the WTO to promote rapid liberalisation in some areas - such as financial services and investment - where they enjoy an advantage. By contrast, they have systematically failed to apply open-market principles to their own agricultural sectors. In agricultural trade, success continues to depend less on comparative advantage than comparative access to subsidies - a game which farmers in developing countries lose every time. To make matters worse, major industrialised countries such as the US and the EU adopt an openly mercantilist approach to agriculture. This combines aggressive strategies to open markets in developing countries with an equally aggressive commitment to protectionism at home.

As the chief economist of the World Bank has written: 'It makes no sense, indeed it is hypocritical, to preach the advantages of trade and markets and then erect obstacles in precisely those markets in which developing countries have a comparative advantage' (Stern 2002). The problem with hypocrisy, in international trade as in other areas of life, is that it is easier to identify than to correct - and nowhere more so than in the WTO.

Agriculture was brought under formal WTO disciplines through the Agreement on Agriculture (AoA) adopted at the end of the Uruguay Round. However, the disciplines were exceptionally weak. Arguably the most significant outcome was an elaborate restructuring of subsidies to take advantage of loopholes built into the new regime by its main architects, the EU and the US. The largest of these loopholes is a provision exempting from any subsidy reduction payments deemed to be 'decoupled' from production, and hence 'non-trade distorting'.

Escalating ‘decoupled’ payments help to explain how industrial countries have complied with the AoA, while increasing support to agriculture. Nowhere is the gap between the letter of WTO law and the spirit of fair trade more evident than in relation to export subsidies. The US claims to have virtually eliminated such subsidies. Similarly, the EU has reported deep cuts across most major product groups. Using the WTO definition of an export subsidy as a payment bridging the gap between (higher) domestic guaranteed prices and (lower) world
prices, such assessments may be justified. Yet both agricultural superpowers continue to provide multi-billion dollar support to products in structural surplus. In the case of the US, export credits and food aid play a key role in facilitating disguised export dumping. The upshot is that both ‘agricultural superpowers’ continue to export at prices below those paid to their producers, and often below costs of production. Distinctions between the different types of subsidy that make this possible are clearly of great interest to trade lawyers and rich country negotiators. But they are of less relevance to small farmers in Africa, Latin America and other developing regions, where unfair competition is destroying real livelihoods. In short, WTO rules are an increasingly inadequate vehicle for addressing one of the most serious problems facing small farmers in global markets.

Will the Doha round fundamentally change this picture? One positive sign is that some industrial countries now recognise that there is a problem. President Jacques Chirac of France, one of the world’s premier export subsidisers, has belatedly acknowledged the damage caused by agricultural dumping in Africa and proposed a temporary moratorium. However, the problem extends beyond Africa – and a voluntary moratorium is not a substitute for binding rules. The direction of farm policy reform gives further cause for concern. Shortly after signing the Doha declaration the US Administration signed new farm legislation that increases support levels and strengthens the link between farm subsidies and output. In Europe, reform of the Common Agricultural Policy (CAP) is deadlocked. There is now little prospect of an agreement that cuts structural over-production. Moreover, whatever their wider difference, neither agricultural superpower shows any inclination to address the fundamental inequities that they built into the current system of rules.

Agricultural trade reform confronts policy makers in rich countries with difficult political choices. Powerful vested interests – including large farmers and assorted agribusiness lobbies – have a strong stake in maintaining the status quo. There are obvious political costs associated with challenging these interest groups. The potential winners from reform - a constituency that includes small farmers and the environment lobby in rich countries as well as producers in poor countries - are more dispersed, less organised, and have a weaker voice. But failure to reform agricultural trade at the WTO is not a cost-free option. The most immediate losers will be a large section of the world’s poor. Looking to the future, business as usual will reinforce a system that excludes millions of the world’s poorest people from a stake in rising global prosperity. The consequences will extend beyond poor countries. Serious damage will be inflicted on the legitimacy of the WTO and the rules-based system it represents, adding to the widespread – and largely justified – perception that current rules skew the benefits of trade towards the rich and powerful.

This paper is divided into six parts. The first briefly examines the importance of agricultural growth - and agricultural trade - for poverty reduction. It challenges the argument that trade cannot act as a positive force for change. Part 2 outlines patterns of agricultural support in the EU and the US. It explains the structure of support and the distribution of benefits from that support, highlighting its regressive character. Part 3 analyses the impact on poor countries of agricultural support in rich countries, focusing on trade and food security. Part 4 shows how the new systems of support emerging in the EU and the US are maintaining over-production and export dumping. It challenges the increasingly artificial distinction being drawn between ‘trade-distorting’ subsidies on the one side, and WTO-friendly ‘decoupled’ supports on the other. Part 5 extends the analysis into two areas of disguised export subsidisation operating entirely beyond WTO rules: officially supported export credit programmes and food aid. Both are widely used to facilitate the disposal of agricultural export surpluses, notably by the US.
Part 6 looks at challenges in four key areas of the Doha Round negotiations on agriculture: export dumping, domestic support, market access, and the treatment of developing countries.
1. Agricultural trade and poverty reduction

Any assessment of the implications of northern agricultural policies for developing countries has to start from a basic fact: poverty is an overwhelmingly rural phenomenon. In most countries rural income deprivation is not only more pervasive, it is also deeper as measured by the poverty-gap index. Income poverty in rural areas is also closely linked to other forms of deprivation, including malnutrition, high child death rates, and illiteracy. In each of these areas, women are disproportionately represented.

Around three-quarters of all people in developing countries with an income of less than $1 a day – some 900 million in total – live in rural areas. Even with urbanisation, current projections suggest that over 60 per cent will continue to do so in 2025 (IFAD 2001:15). The vast majority of the rural poor depend on agriculture for their livelihoods.

Such facts explain why growth in rural areas is vital if the Millenium Development Goal of halving income poverty is to be achieved. The importance of sustained growth to poverty reduction is well established. But the composition of growth also matters for an obvious reason: the larger the share of any increment to growth captured by the poor, the faster the rate of poverty reduction. Cross-country evidence indicates that a 1 per cent increase in average income can lower the incidence of poverty by anything from 1 per cent to 3 per cent, depending on patterns of distribution (Ravaillon 2000). Rural growth based on smallholder farming is a powerful catalyst for poverty reduction because it concentrates income among the poor (Ravaillon and Datt 1999).

The rate at which rural growth is converted into poverty reduction is conditioned by the rate at which it generates new employment, stimulates local production of labour-intensive goods and services, and creates linkages between the farm and non-farm sectors. These linkages are critical. Research in West Africa found that every additional $1 in income in the rural sector generated an additional $2.88 through increased demand for goods and services (Delgado, Hopkins, and Kelly 1998). Strong linkages and poverty reduction outcomes are far more likely in situations where small farms, rather than large-scale agriculture, dominate. Trade between the farm and the non-farm sector is vital to the creation of this multiplier effect. Inelastic demand for food means that rural regions cannot generate sustained growth without links to other areas. Exchanges with urban areas, neighbouring countries and the rest of the world can all help to forge dynamic linkages.

The importance of agriculture – and agricultural trade – is also apparent at the national level. In most industrialised countries, agriculture accounts for a small share of GDP, employment, and foreign exchange earnings. In much of the developing world the reverse holds true: agriculture is the major source of employment, income and exports. For middle-income developing countries, agriculture accounts for 17 per cent of GDP, rising to 35 per cent or more in the poorest countries (OECD 2000a:21). In Africa, agriculture accounts for about 70 per cent of overall employment (Binswanger 2001). According to the FAO, agricultural exports exceed one-third of the total in almost one-half of developing countries (FAO 2000). Such facts caution against the neglect of agricultural trade in any attempt to achieve more equitable globalisation.
Agricultural trade can enhance food security

Serious concerns have been raised about the possible consequences of an increase in agricultural exports from developing countries. Some of these concerns reflect broader concerns about globalisation: namely, that commercial trading opportunities will either bypass or further marginalise the poor, exacerbating inequality and poverty. Such views are not new. For many years a debate has raged between those who claim that export crop production leads to poverty and declining food availability, and those who argue, to the contrary, that increased earnings from export production can raise household incomes and increase food consumption (see Maxwell and Fernando 1989 for a review). That debate remains central to any assessment of the benefits – and costs – of agricultural policy reform in industrialised countries.

Recent years have witnessed some new variations in thinking on agricultural trade and poverty. The French minister for agriculture, Hervé Gaymard, has publicly contested the claim that the CAP is bad for developing countries, partly on the grounds that small farmers in poor countries should not be exporting. ‘Self-sufficiency in food,’ Gaymard and other European agricultural ministers wrote to the Financial Times, ‘is seriously undermined by the destruction of traditional agriculture in favour of cash crops’ (Gaymard et al 2002). Producer groups representing big farm interests in the EU have voiced similar views. Indeed, some of the sternest warnings against agricultural exports in developing countries comes from agencies representing some of the EU’s most heavily subsidised exporters. One recent contribution from the EU large-farm lobby argues for an anti-export strategy in developing countries, ostensibly on the grounds that volatile world markets will increase vulnerability. The same organisation argues against “weakening the CAP through the reduction of support subsidies,” suggesting that exports are good for farmers in the EU, but bad for their counterparts in poor countries (COPA 2003).

One subtle variant of this approach is a defence of preferential trade arrangements as an alternative to more open markets. The EU’s trade commissioner and agricultural commissioner have recently warned the poorest countries against seeking liberalisation in northern markets, ostensibly on the grounds that they will be displaced by producers in more advanced developing countries (Fischler and Lamy 2003). In this particular case, advocacy on behalf of the world’s poor serves a thinly-disguised ulterior motive: namely, defence of the Common Agricultural Policy through a strategy of divide and rule at the WTO. That said, the warning is not entirely misplaced. Supply-side constraints and dependence on trade preferences do limit the potential benefits of liberalisation for a significant group of countries. However, trade preferences are often weakly linked to poverty reduction objectives. They also frequently operate as an integral part of policy regimes that inflict damage on a large group of non-preferred countries, as in the case of EU sugar policies (see Part 3).

From a different perspective, some anti-globalisation advocates also argue against agricultural exports from developing countries. In a strident critique of Amartya Sen’s suggestion that agricultural trade might enhance the welfare of the rural poor, Vandana Shiva has written: ‘Export-oriented agriculture robs the poor of their land, their water, and their livelihoods. There is an inverse relation between increasing agricultural exports and declining food consumption locally and nationally’ (Shiva 2002). The assumption here, familiar from earlier debates on ‘cash crops versus food crops’, is that the production of food staples will be displaced by export crop production. Poor producers, on this account, are presumed to suffer increased vulnerability and lower incomes as a result of such production.
Such an assessment requires a high level of detachment from the evidence. When poor farmers have opportunities to produce for global markets they are often able to boost and diversify their income, create employment opportunities, and reduce vulnerability. For example, in Ghana low-income female farmers have been able to increase their income and extend their land rights by participating in cocoa production for export, in an inter-cropping system that includes food staples. Income and nutrition levels have both improved (Quisumbing et al. 2002). In central Kenya, Honduras and the Western Highlands of Guatemala, small farmers have benefited from new opportunities to earn income from producing high-value fruit and vegetables (Diaz Bonilla and Robinson 2001). The rapid growth of cotton cultivation in West Africa has been associated with improvements in income and other development indicators among smallholder farmers. Most of these farmers inter-crop cotton with maize and other staples, such as cow peas (Badiane 2002). Poor farmers are as likely to grow cotton as richer farmers and there is no evidence that income from cotton cultivation has weaker multiplier effects for rural income than for other crops. One study in Benin finds a ratio of 1:2.7 for the multiplier, with no evidence that cotton was proportionately more important in the income of richer than poorer households (Minot and Daniels: 7-8).

If it were true that export crop production necessarily expanded at the expense of domestic food production, there would be serious implications for poverty. But there is little evidence to substantiate such a claim. In Vietnam, rice exports increased rapidly in the 1990s, capturing 9-17 per cent of the world market. Rising incomes from exports supported wider forces adding to the dynamism of the rural economy, with the incidence of poverty falling from 70 per cent in 1987 to 32 per cent in 2000 (Government of Vietnam 2001). In Uganda, increased production and exports of non-food crops from the early 1990s boosted agricultural growth and incomes, creating a virtuous circle of increased investment, a rise in food crop production, and a decline in rural poverty from 60 per cent to 39 per cent between 1992-2000 (World Bank 2001).

In some marginal and arid agricultural areas, cash cropping is vital for survival. Many farmers grow trees that shade other crops and generate an income, while providing important social and environmental benefits such as protection against soil erosion. Commercial tree and food staple inter-cropping makes sense because it is often more efficient and sustainable than pure food crop enterprises, partly because of improved yields and partly because of the ease of storing and transporting tree products. Cross-country comparisons suggest export crop and food staple production are often positively correlated. One of the most comprehensive longitudinal assessments of food and cash crop production, involving 11 different sites, reached the following conclusion: ‘Most countries either manage a combination of growth in cash cropping and food production or fail to manage either’ (Von Braun and Kennedy 1994).

The benefits of trade are not automatic

While the case against agricultural exports is weak, it does not follow that the benefits of agricultural trade are automatic. Export agriculture can exacerbate inequalities – and globalisation is raising the barriers to market entry faced by the poor.

It is one thing to make a common-sense economic case for entering agricultural export markets. Other things being equal, if relative prices dictate a higher return at the margin from production of an export crop there is an obvious incentive to produce for export. But other things are not equal, including access to productive assets and the division of labour between men and women.
Export agriculture, like commercialisation in general, can exacerbate intra-household inequalities, with men increasing their cash income while women and children may lose part of their previous food supply and face increased labour demands. Similarly, export crop production may precipitate a land grab, in which the rich and politically influential dispossess the poor. The privatisation of land rights that often accompanies the commercialisation of farming can be a mixed blessing for the poor. Land privatisation can increase this risk. Individualised land rights can enable those with political power and better access to credit and technology to accumulate land at the expense of the poor (Binswanger, Deininger, and Feder 1995; Lipton and van der Gaag 1993). In some cases, export agriculture is highly capital-intensive, creates few jobs, can displace small farmers, and creates environmental destruction. Soya production in Brazil is often cited as an example (Cafod 2002). More recently, intensive prawn cultivation has been associated with severe environmental damage and social conflict in Bangladesh (WWF:2001).

What is clear is that poor farmers in general, and women farmers in particular, face high barriers to entry in export markets (see Killick 2001 and IFAD 2001). The rural poor typically have either very small plots or larger areas of low-quality land. Many lack access to water. Weak infrastructure raises the costs of marketing and inputs, making it difficult for farmers to compete against imports in urban markets, or to enter export markets. Remoteness raises transaction costs, reduces farm-gate prices, and reduces incentives to enter new markets. In other respects too, small-scale farmers face acute disadvantages. They rarely have access to credit or other financial services, and do not have access to the technologies and market information they need to respond to market opportunities. In each of these areas, women farmers face especially acute disadvantage, often reinforced by weak land rights and unequal intra-household relations. They have less access than men to education and training, and less command over resources such as land, credit and capital. In some countries, the sexual division of labour precludes women from control over income derived from cash crops. When irrigation was extended to rice cultivation in the Gambia, with associated requirements for inputs such as fertilisers, rice fields moved from female to male control (IFAD 2001:174).

The paradox of globalisation is that it is creating new opportunities for poverty reduction through agricultural trade, while at the same time reinforcing many of these structural inequalities. Poor farmers are often excluded from high value-added markets because they lack access to resources – such as credit and marketing infrastructure – vital to market entry. In Central America production of flowers for export has been dominated by large-scale commercial farms. Small producers lack the capital and other resources needed to enter markets (Thrupp 1995). Multinational processing firms and supermarket chains often reinforce the disadvantages faced by the poor. They occupy increasingly dominant positions as gatekeepers to markets, and small farmers often find it hard to meet their purchasing requirements for quality and just-in-time delivery. Supermarket procurement practices – such as delayed payment, purchasing from large-scale wholesalers, and short-term contracts – reinforce barriers to market entry (Reardon and Berdegue 2002: 381-82). Small farmers in Mexico have been bypassed by the expansion of agricultural exports, partly as a result of the bias of corporate US processors and retailers towards large-scale commercial farms.

Set against these cases, there are examples of small farmers who have successfully developed co-operative marketing arrangements that overcome the disadvantages of small-scale production (Delgado, Minot, and Wada 2001; IFAD 2001).

Public policy holds the key to the creation of more equitable market structures. Large commercial farms do not have automatic economic advantages. Indeed, there is considerable
evidence that small farms use resources such as land, labour, and inputs more efficiently – and that they respond rapidly to market opportunities. But in the absence of institutions that make markets work for the poor, globalisation can be expected to increase return to scale and exacerbate inequalities. That is why trade policy has to be seen as an integral part of national poverty reduction strategies. Land redistribution, recognition of communal land rights, development of marketing infrastructure, and provision of services to women farmers, all have a key role to play in extending opportunity. Measures to reduce costs to small farmers through improved transport infrastructure, access to inputs, market information, and credit are also vital. This requires an active state and market intervention. One of the legacies of the structural adjustment era is a widespread view that market liberalisation will automatically benefit the poor, linking them to markets through competitive private trading systems. The assumption is that 'free market' mechanisms will provide poor farmers with the information, inputs, and wider services they need to enter global markets. That assumption is flawed. In many cases, market liberalisation has been associated with the collapse of input, credit and marketing services of vital importance to the poor. This helps to explain why supply responses to liberalisation have been so weak in many countries (Jones 1998; Kasekende and Atingi-Ego 1999).

To briefly summarise, there is no question that production for export - like commercialisation in general - can marginalise the poor. New production and marketing systems have intensified the danger that any benefits from trade will bypass the poor. By the same token, participation in international trade can enhance the livelihoods of the poor, providing new opportunities for employment, income generation, and diversification. Specific outcomes will depend on the constraints facing poor producers, and the degree to which institutions and public policies succeed in overcoming the inherent disadvantages associated with poverty. Closing the door on trade in favour of production solely for local markets would deny poor households and developing countries the potential benefits of integration into global markets. The real challenge in this context is to develop responses that make trade work for the poor - and to change the policies that skew the benefits in favour of the rich. The agricultural policies of Northern Governments fit into this latter category.
2. **Agricultural support in the European Union and the United States**

The dominant tendency in agricultural policy over the past century in both the EU and the US has been the development and refinement of market intervention in various forms and guises (Cathie 1985). Governments have assumed an increasingly important role in determining the overall structure of production, trade, and distribution of farm income. Initially, the motivation was to protect rural livelihoods and food self-reliance. Current policies can be traced back to the experience of the Dust Bowl in the 1930s in the US and post-war food shortages in Europe. But whatever their original intent and policy variations, intervention policies have displayed an inbuilt tendency to generate large surpluses, along with associated problems of surplus disposal. Current tensions between the EU and the US at the WTO mark the latest phase in efforts to develop a set of multilateral rules for dealing with these problems.

**Average incomes conceal large inequalities**

Public policies have interacted with and reinforced other factors, including technological change, farm consolidation, and rural-urban migration, to transform the face of agriculture in industrialised countries. Rising productivity has enabled a rapidly diminishing number of increasingly large, highly capitalised farms to expand output, while food expenditure has declined as a share of disposable income.\(^1\) Technological change and public policy choice have combined to foster a 'get big or get out' syndrome in farming.

Increasing scale bears testimony to the syndrome. The average American farm has doubled in size over the past 40 years. Europe's four million farmers today produce more food than did the 15 million in the original six member states. The dairy sector graphically illustrates the twin process of rising productivity and concentration. Over the past two decades two-thirds of Europe's dairy farms have disappeared, while milk production has increased by a factor of three (European Union, Court of Auditors: 2001:10). In the US, the number of farms with fewer than 50 cows fell by 40 per cent between 1995-2001 alone. Just 5 per cent of farms now account for almost one-half of output (McElroy et al 2002).

Increased productivity has brought average farm income broadly into line with national incomes (OECD 2003). However, averages conceal large differences: income distribution is far more unequal in agriculture than in the wider economies of industrialised countries. In the US, almost half of farm households have both higher income and greater wealth than the average American household (McElroy et al 2002). Within this group, the 175,000 commercial farms with sales of over $250,000 a year represent 8 per cent of all farms, but account for 68 per cent of total output by value. At the other end of the spectrum, small farms (defined as those with sales of less than $250,000) account for over 60 per cent of the total number, but less than 10 per cent of output (Hoppe, R. 2001). Many of these farms record income levels below expenditure, pointing to the importance of non-farm income in the household economy.

Similar patterns of concentration have emerged in the EU. Eurostat data indicate that 226,300 farm holdings, about 3 per cent of the total, are 100 hectares or larger in size. These holdings

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\(^1\) In the United States, the percentage of disposable income allocated to food has fallen from 18 per cent in 1960 to around 10 per cent today (Economic Research Service 2001).
account for 53 million hectares out of 123 million under cultivation, and for something between 50 and 70 per cent of total agricultural production (IEEP 2002). Classifying European farms on the basis of gross margins provides a further insight into income inequalities. The largest 17 per cent of farms have incomes that exceed the EU average, while the smallest 60 per cent receive an income equivalent to less than half of that average (ABARE 2000).

Average incomes also conceal the scale of rural deprivation and poverty in industrial countries. While farm households may enjoy income levels that are on average close to those for the rest of society, there is a higher incidence of low income. In addition, the gap between the average income of households on low income and the average for the sector is wider than for the rest of society (OECD 2003:34). This indicates that agricultural policies have failed to adequately target those most in need, or to address problems of rural deprivation. In the US the rural poverty rate, defined in terms of a basic needs minimum income, is some 30 per cent higher than in non-rural areas (Jolliffe 2002). In the EU, low income is among the most potent forces driving the exodus of small farmers from the land: France alone has lost one-quarter of its farmers since the mid-1980s (OECD 2002a: 66).

Measured in economic terms, farming has become a marginal activity in most industrialised countries. Viewed from a different perspective, the farm sector is now the smallest link in a far wider agro-processing chain extending from input suppliers to food processors and retailers. Value-added increasingly takes place beyond the farm gate in a wider agri-food system. That system includes upstream industries supplying farmers with inputs such as machinery and chemical inputs, and downstream industries such as processors and retailers. In the UK, farming represents less than 1 per cent of GDP, while the agri-food sector accounts for almost 8 per cent (Curry et al. 2002). In the US, more than 80 cents in every dollar spent on food products in the US went towards value-added services and materials – transportation, processing, distribution, and labour (Martinez 2002). Smallholder farmers in industrialised countries have found themselves squeezed between price pressures from input suppliers and increasingly concentrated processing and retailing sectors. Their share in the retail price of food has declined, partly due to the rapid growth of value-added in processing and retailing, but also because of the weakness of farmers in the market place.

### Agricultural support in the EU and the US

There are wide variations in the systems of financial support geared towards agriculture in the EU and the US. These systems have been in a constant state of flux for the past decade, but there are two powerful elements of continuity: high levels of support and highly unequal distribution of support.

Industrialised countries spend just under $1bn a day supporting farm incomes – around six times the amount they dedicate to overseas aid. The EU and the US account for a large share of this overall support. Measured in terms of the OECD’s Producer Support Estimate

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2. In Britain farming accounts for only 0.9 per cent of GDP, compared with 8 per cent for the food sector broadly defined (Commission on the Future of Food and Farming 2002). In the US, farming accounts for a similar share of GDP and employment, but the agro-industrial system – spanning inputs, processing, manufacturing, and exporting – contributes an estimated 16 per cent of GDP (USDA 2002a).

3. This figure is based on the OECD’s Total Support Estimate (TSE). It captures the annual value of all gross transfers from taxpayers and consumers, regardless of their objectives or impacts on production, income, or consumption (OECD 2002: Table 111.2, p159).
they provide $152bn, or two-thirds of the total (Figure 1). Transfers to producers represents about one-third of the value of output in the EU and one-fifth in the US. About two-thirds of agricultural support in OECD countries is provided through policies that keep producers’ prices above levels that would otherwise prevail (OECD 2002b).

Governments frequently resort to creative subsidy accounting to paint each other in an unfavourable light (see Venemann 2002 and Fischler 2002 for an illustration). In recent exchanges, the US Agriculture Secretary has pointed out that the EU’s support to agriculture as measured by the PSE is higher in absolute terms, higher per hectare, and higher in relation to the value of output. The traditional European response is to point out that average PSE per farmer in the US is higher than in the EU; and that the $70bn American budget for agriculture is almost double spending under the CAP. In 2001 per capita overall support to producers reached $21,000 in the US compared with $16,000 in the EU (OECD 2002a).

These figures reflect differences in agricultural structure. The main difference between the EU and the US is that Europe has one third of the farmland area under cultivation in the US, while America has less than one third of the number of farms in the EU - 2 million as against 7 million.

National rivalry aside, PSE averages are misleading in at least one respect: support to US agriculture is heavily concentrated on a small number of major commodity programmes. The lion’s share is directed towards wheat, rice, feed grains, and cotton. These crops account for around one-third of the total value of crop output but some 70 per cent of budget outlays (Roberts and Jotzo 2002). The concentration of payments between producers is even more skewed. The one-quarter of farms classified as wheat, maize, soybean, and mixed grain operations jointly receive almost two-thirds of payments (ERS 2003). The upshot is that PSEs for some major crops in the US rival those of the EU (Figure 2).

The Producer Support Estimate (PSE) is a narrower indicator than the TSE. It measures the monetary value of transfers from taxpayers and consumers at the farm-gate level.
EU and US agricultural support policies have global implications, and for a simple reason: they are the world's key players in trade in agricultural products. Apart from being large import markets, they are the world's largest exporters. It follows that their policy interventions have an important bearing on prices for farmers elsewhere, including the developing world (Figure 3).
Government support has increased output for a wide range of crops more rapidly than domestic demand. The result: large surpluses and a dependence on exports to absorb them. Exports absorb more than one quarter of production of commodities such as wheat, rice, coarse grains and cotton in the US, and of sugar, dairy and meat products for the EU. The US is the world's largest exporter of coarse grains, feed grains, and cotton, and a major exporter of wheat and rice, as well as being a large import market. Similarly, the EU is a major exporter of sugar, dairy, meat, and cereals.

Price support and market access restrictions have a major bearing on the agricultural trade balances of the US and the EU. The US posts a large surplus in agricultural trade, typically in the range of $10-20bn. This surplus helps offset deficits in other areas (ERS 2003b). Representatives of the EU like to point to Europe's deficit in agricultural trade as an example of a commitment to open markets. Such claims face two fundamental problems. First, agricultural trade balance is a weak proxy for openness: matters of geography, history and competitive advantage are far more relevant. Second, over the past decade the EU has reduced its deficit from almost $7bn to $200m (EU 2002a). Exports (which are subsidised) have grown far more rapidly than imports (which face high tariffs).

To the extent that support policies in the US and the EU encourage production, reduce import demand, and generate exportable surpluses, they depress world prices. The impact on world markets will be determined by the volumes exported and their size relative to world trade: the larger the increase, the larger the price-lowering effect. In addition, policies that insulate producers from world prices have the effect of transferring adjustment costs elsewhere, destabilising world prices in the process (Tyers and Anderson 1992). This is especially true where support is counter-cyclical, or inversely related to market price trends.

**When is a subsidy not a subsidy?**

Under the Uruguay Round Agreement on Agriculture (AoA) the US and the EU, along with other industrialised countries, agreed to cut overall support to agriculture by 20 per cent. The move was widely heralded as a major breakthrough – and both parties have complied with the letter of the agreement. Yet average overall government support as measured by the PSE rose from an average level of $238bn in 1986-1988 (the reference period for subsidy reductions) to $248bn for 1999-2001. How did rich countries comply with the subsidy-cutting requirements of the AoA while increasing real support levels?

The answer to the conundrum is to be found in the terms of the AoA, which were dictated by the EU and the US. Under the AoA, a distinction was drawn between two different types of subsidy. ‘Trade-distorting’ government support was to be subject to WTO disciplines and agreed cuts. Other subsidies, defined as non trade-distorting and deemed to be decoupled from production, were exempt from these disciplines. For WTO purposes, trade-distorting subsidies are quantified through an Aggregate Measure of Support (AMS), which is subject to annual reduction commitments. More restrictive than the PSE, the AMS excludes a wide range of budget payments and other measures.

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5 The AMS is measured as the total value in nominal terms of (non-exempt) domestic support, including budget outlays and consumer-producer transfers. Non-exempt policies measured by the AMS include commodity-specific market price support, some government payments, and a range of commodity-specific transfers. It excludes explicit trade policies such as import restrictions not also tied to domestically administered price programmes (WTO 1994).
Figure 4 demonstrates why these apparently technical differences matter. It shows that both the EU and the US have cut their AMS payments, while maintaining broadly constant overall support levels. Much of the cut was a product of subsidy accounting: a large share of government support was simply removed through a process of redefinition. In the 1986-88 base period, the AMS for US agriculture represented 57 per cent of the PSE. By 1997 it had fallen to 20 per cent (OECD 2001a). The change was only marginally less dramatic for the EU. The ability of the EU and the US to maintain high levels of support while complying with WTO rules has profoundly important implications for the structure of competition between producers in rich countries and those in developing countries (see Part 3).

Support systems vary

The structure of agricultural support varies across countries and commodities. Market effects reflect differences in structure, as well as overall levels of support.

Industrialised countries protect their agricultural systems through a diverse array of policy instruments. In Japan, for instance, support is provided almost entirely through import restrictions that alter relative prices. Limited use is made of export subsidies. Within the EU, the Common Agricultural Policy (CAP) is built on a distinctively non-common set of regimes. The dairy and sugar sectors rely on import barriers to protect domestic prices, which are set well above world market levels. Both sectors rely heavily on export subsidies to dispose of the large surpluses generated through price incentives. By contrast, guaranteed prices in the cereals sector are set closer to world market levels, with producers compensated through direct payments based on land holding and levels of production. In the US, import barriers are high for both dairy and sugar products. Elsewhere, US support is concentrated on a range of direct payments. In 2000, these payments represented 50 per cent of the total net farm income as government support compensated producers for declining prices (ERS 2001).

Figure 5 illustrates the differences between systems of support in the EU and the US.
Static snapshots of current policies obscure important changes in the direction of policy reform. Both the US and the EU are shifting support away from traditional market interventions, such as the maintenance of high guaranteed payments, and towards direct payments. For example, the Agenda 2000 reforms in the EU introduced deep cuts in institutional prices for several products, with producers compensated through direct payments. These payments accounted for less than 10 per cent of total support at the end of the 1980s, but for almost 60 per cent at the end of the 1990s (European Commission 2002b). However, overall payments remain closely linked to productive capacity, with subsidies based on past production and land ownership. Expenditure on social and environmental measures – the so-called ‘second pillar’ of the CAP – remain limited, accounting for only around 5 per cent of the total CAP budget (European Commission 2001b).

The received wisdom on both sides of the Atlantic is that direct payments have less influence on production. Many are deemed to be ‘non-trade distorting’ and hence exempt from WTO subsidy reductions. That interpretation is highly questionable. Clearly, different support systems have different effects on production, consumption, trade, and prices. But many technically decoupled payments do influence production decisions at the margin, producing effects similar to market-based production and export subsidies – an issue to which we return in Part 3.

**Who benefits from agricultural support?**

Before turning to an assessment of the problems faced by producers in developing countries, it is worth considering the distribution of benefits from agricultural support. Producer subsidies generate winners as well as losers. Evidence from the EU and the US suggests that they do so on a highly regressive basis, with support inversely related to need.

Policy makers in industrialised countries like to point to a range of presumed benefits derived from agricultural support payments. Social equity figures prominently. In the EU, recent policy rhetoric has provided some imaginative new twists to some familiar old themes. One recent contribution to the *Financial Times*, signed by seven EU agriculture ministers, declared the CAP a central part of the European ‘social model’, emphasising its role in limiting market-based inequalities in income and protecting the rural way of life: ‘For us, agricultural products are more than marketable goods. They are the fruits of a love of the land…Europe should be proud of its model of European civilisation’ (Gaymard et al 2002). Agricultural policy rhetoric in
the US harks back to the spirit of Thomas Jefferson, with political leaders stressing the economic and moral virtues of small family farmers. To quote President George Bush following the authorisation of the controversial 2002 Farm Act: ‘They show the character and values that have made this country strong, values of love and family…and respect for nature’ (cited in House of Representatives 2002). Whatever the wider differences, there is, it seems, a similar unity of purpose in rationalising farm support programmes by reference to the interests of small producers.

Reality is more prosaic. Far from benefiting small farmers, agricultural support goes overwhelmingly to large-scale, capital-intensive agriculture, and for a good reason: support is closely correlated with production levels, or – in the case of direct payments – to land ownership. In other words, support levels are a function of output and assets. Given the highly unequal pattern of production described earlier, it is unsurprising that the support model produces highly regressive outcomes, with large farmers capturing a disproportionate share of support benefits.

The perverse distributional effects of farm support programmes can be illustrated by constructing Gini coefficients for the distribution of farm subsidies. There are obvious technical problems with this exercise. Subsidies are not a proxy for overall income, though there is a correlation. Data presents further problems. In contrast to the continuous income distribution data available for the construction of household income-based Gini coefficients, we only have grouped data for the distribution of subsidies. There is relatively little information available about intra-group distribution. However, the mean subsidy for any given range provides an indicative figure.

With these caveats in mind, we have constructed Lorenz curves and estimated Gini coefficients for the distribution of agricultural support in the EU as a whole, and individually for France, Britain, and the US. The results point to an extraordinarily high degree of inequality (Figure 6). Distribution of agricultural support in industrialised countries is far more unequal
than the distribution of income in the world’s most unequal countries. For example, Brazil and South Africa, two of the world’s most unequal countries, register Gini coefficients of 60. This compares with coefficients for the distribution of agricultural subsidies of 79 for the US, which operates the most unequal system, and 77 for the EU. Lorenz curves for distribution are shown in Figure 7.6

In one important respect, the Gini coefficient understates the degree of inequality in agricultural subsidy systems. Because the coefficient is based on distances from the mean, it is more sensitive to changes in the middle of the distribution curve than at the lower and

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6 The Lorenz curve represents the actual distribution from which the Gini coefficient is derived. It ranks incomes (or, in this case, agricultural subsidies) in ascending order and plots the cumulative percentage of total income against population share.
upper ends. In both the EU and the US there is a marked concentration at the ends of the distribution curve.

In the case of the EU, the data (summarised in Figure 8) reveals a gap between ‘social model’ principles and actual subsidy distribution. The CAP may be good for the grain barons of East Anglia and the Paris Basin, but it is of more dubious benefit to poor farmers in more marginal areas. The following facts powerfully demonstrate the scale of inequality:

- Just over one-half of EU agricultural producers — some 2.3 million farmers — receive €0-1,250 annually in direct income transfers, accounting for just 4 per cent of total payments. Around 5 per cent of farms receive one-half of total subsidies.
- France has one of the most highly skewed patterns of subsidy distribution in the EU, especially at the lower end of the range. Around one-third of farms receive €0-1,250 each year. Within this group one-quarter receive nothing (Government of France 2002). The 15 per cent of farms receiving in excess of €20,000 account for 60 per cent of total payments.
- Subsidy distribution in the UK provides the mirror image of that in France, with a marked bias at the upper end of the distribution range. Just 870 farms — less than 1 per cent of the total — receive 11 per cent of total subsidies, or payments in excess of €200,000 a year. The top 5 per cent of subsidy recipients account for over-one quarter of total payments. At the other end of the scale, one-quarter of all farms receive €0-1,250.
As in the EU, government support in American agriculture is highly skewed at both ends of the distribution curve (Figure 9). Contrary to its stated purposes, the support system is exacerbating, rather than closing, income inequalities. In 2001, 60 per cent of American farms received no government payments at all. Of those receiving payments, the bottom half of recipients accounted for 5 per cent of the total disbursed. By contrast, producers with sales exceeding $250,000 accounted for 7 per cent of farms, but for 50 per cent of receipts from government payments (McElroy et al. 2002:28). Given that this group has by far the highest net income in the farm sector, the system is highly regressive. Average household incomes on the farms in question are more than double the average national household income (Roberts and Jotzo: 58). The highest payments went to cotton farmers – a sector dominated by large-scale commercial operations. As in the EU, the much larger payments going to big rather than smaller farms arises because support has been related to production levels and land size.

Research by the United States Environmental Working Group, using records of actual payments to farmers, further illustrates the scale of inequity. Its analysis covers the main forms of direct payments provided under the previous Farm Act. For the period 1996-2000, the study identified 100 farms receiving subsidies in excess of $2.4m (Environment Working Group 2001). Commercial secrecy makes it impossible to conduct a similar analysis for the EU – pointing to an obvious area for governance reform.

The picture that emerges from a consideration of the facts on the distribution of agricultural subsidies is the opposite of that painted in public policy debates. Indeed, if policy makers were seeking to create a system of support designed to maximise inequality they would be hard pushed to better current arrangements.
‘Second round’ effects are equally regressive

Agricultural support systems further skew distribution through ‘second round’ effects created by leakage. By stimulating output, and hence demand for inputs, much of the finance pumped into agriculture is paid back out to input suppliers, or capitalised into land value. Only a small part of the overall benefits trickles down to farmers.

Not surprisingly, input suppliers reap a large share of any benefits associated with input subsidies. By encouraging high productivity, the CAP has stimulated demand for agrochemicals and farm machinery, creating serious environmental damage in the process. OECD estimates suggest that input suppliers capture respectively one third and one half of the gains generated through market price support and input subsidies (OECD 2003:28).

In the case of payments based on area, a large share of any payments is absorbed in increased land value. Since government payments contribute to farm income and the value of land is a function of future earnings expected from production and ownership, landowners capture a large portion of any transfer. Anticipated government payments explain why agricultural land value and land rent in the US has trended upwards since 1996, despite falls in commodity prices. One simulation analysis carried out by the USDA suggests that decoupled payments alone have accounted for an 8 per cent increase in land asset value. Farmers retained only 40 per cent of the benefit (Burfisher and Hopkins 2003). Research in the UK points to a similar inflation in land values associated with CAP payments (UK Ministry for Agriculture, Fisheries and Food).

Payments that effectively accrue to landowners are likely to have negative implications for equity. They are certainly of limited benefit to tenant farmers - a group that includes a large section of the poorest households. For these farmers higher land prices mean higher rents. About 40 per cent of EU farm land is tenanted (Thurston:19). In the US direct payments are determined on the basis of ownership of acres registered under farm programmes. Almost 60 per cent of these acres are rented, two-thirds of them by landlords outside of the farming sector (Burfisher and Hopkins 2003). This suggests not only a high degree of inequity, but also the transfer of agricultural support outside of the farm sector.

In addition to leakage, a large share of agricultural support goes to agribusiness interests. In the EU, dairy processing firms receive over $1bn a year to subsidise exports, and sugar processors receive a similar amount to export surplus sugar. Producers receive only tangential benefits in these cases.
3. The impact of Northern agricultural policies on poverty in developing countries

Small farmers and the rural poor in developing countries are largely invisible in agricultural policy debates in rich countries. Yet producer support systems in the US and in the EU have a direct bearing on poverty – and on prospects for poverty reduction. The main impact is through the effect they have on relative prices for things that poor people buy and sell. Changes in prices associated with agricultural production and trade policies in rich countries can make the livelihoods of poor people either more or less sustainable.

Capturing these effects is a hazardous exercise. Agricultural trade is just one among a broad range of factors that influence the markets in which poor people operate. Moreover, trade can generate contradictory effects. Measured in terms of short-run consumer welfare, higher producer prices can produce positive income effects for one group of households (producers of surplus) and negative effects for another (net consumers). To these complexities can be added another factor: global agricultural markets are complicated by a bewildering array of preferential systems that generate different effects in different countries.

With these caveats in mind, the impact of Northern agricultural support systems is still overwhelmingly negative. Restrictions on market access, subsidised over-production and export dumping act to depress and destabilise markets of vital importance to smallholder farmers in developing countries. This section examines the negative linkages.

Assessing the overall costs of northern agricultural policies

High levels of agricultural support and protection in industrialised countries affect developing countries in various ways. The immediate costs come through four principal channels:

- **Restricted demand**: Import controls designed to protect higher prices limit markets for agricultural exports from developing countries. High tariffs and quotas create import substitution effects, with producers in rich countries gaining market share at the expense of producers in poor countries.

- **Lower prices and price instability**: Where domestic support increases net exports, it increases supplies onto world markets, driving down international food prices. This hurts other exporters, including non-subsidising exporters in developing countries. Beyond this immediate price effect, agricultural support in industrialised countries insulates producers from world price changes, shifting the burden of adjustment to other countries. This instability can cause fiscal and balance-of-payments problems.

- **Lost world market share**: Direct or indirect export subsidies in rich countries artificially expand those countries’ share of world markets, with attendant losses for developing countries.

- **Domestic market effects**: When subsidised exports from rich countries enter the food markets of poor countries they create contradictory effects. Agricultural producers suffer welfare losses as a result of lower prices, while consumers make short-term welfare gains. This has important implications for food security.
The size and distribution of the costs associated with industrialised country agricultural support have been extensively analysed through general and partial equilibrium models. Standard practice involves simulating the effects of a given reduction in support. The results produced by such exercises are highly sensitive to assumptions. They depend on a large number of parameters whose estimated values are imprecise, not least because little is known about supply and demand elasticities under the scenarios being tested (Raikes 1988: 155). Even so, a broadly consistent picture emerges from a large number of studies.

Most simulations indicate that full agricultural liberalisation by industrialised countries would boost global agricultural trade and raise world prices (Anderson, Hoekman and Strutt 1999). This has raised concerns that liberalisation in industrialised countries will hurt food-importing countries, jeopardising the welfare of consumers and causing balance-of-payments pressures. However, the projected price increases are modest for most basic food staples, though somewhat larger for beef, dairy produce and sugar. In the case of wheat, rice, and coarse grains, projections point to price increases of between 1-8 per cent depending on assumptions (Valdes and Zeitz 1995; IMF 2002:89; Rosegrant and Meijer 2002: 10). In summary, the consensus to emerge from most modelling exercises is that the major impact of liberalisation on food staple will be on volume and the distribution of supply, rather than prices.

Assessment of costs and benefits for individual developing countries depends upon a further set of assumptions about supply and demand elasticities. Most projections suggest that if rich countries were to eliminate their agricultural support systems tomorrow, incomes in poor countries would rise. Estimated welfare gains for developing countries range from $8bn in the IMF model, to $16bn in the International Food Policy Research Institute's partial equilibrium model, and $40bn in a general equilibrium model prepared by the same institution (IMF 2002: 85; IFPRI 2003)). Most developing regions, with the notable exception of net food importers in North Africa, gain in both models, with Africa and Latin America achieving the largest gains. This results from an increase in exports and import substitution effects. The projected increase ranges from $10bn in sub-Saharan Africa to $46bn in Latin America (Diao, Diaz-Bonilla, and Robinson 2002a).

Questions can be asked about the relevance of modelling for policy debates at several levels. As already noted, there is clearly a strong speculative element involved. Moreover, some models suffer from serious design flaws. The IMF simulation fails to take into account Africa's trade preferences, thereby overstating both the level of tariffs faced by African exporters and, by extension, the potential gains from tariff reductions. Other studies underestimate the potential benefits of reducing production-distorting subsidies in rich countries by focusing on the more limited interventions covered under the AMS, rather than the PSE (Hoekman, Ng, and Oinarreaga 2001). The high level of aggregation involved in global simulations also raises questions about the political economy of reform. Most projections point to relatively small income gains (0.6 per cent of sub-Saharan African GDP and 0.1 per cent of GDP for all developing countries in the IMF model) from sweeping, and arguably implausible, policy reform scenarios. Viewed through a political economy of reform perspective, this could be interpreted as a dubious signal to send to Northern governments.

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7 General equilibrium models seek to capture the economy-wide effects of liberalisation, including cross-sectoral linkages within the agricultural sector. Partial equilibrium models differ in that they focus on supply and demand functions for individual commodity groups, while simplifying assumptions about spillover effects across commodity groups. For a description of general equilibrium modelling, see Hertel (1997) and Diao, Diaz Bonilla, and Robinson (2003).
Set against such an interpretation, econometric modelling may understate both the potential gains for poverty reduction and the costs of current policies. The understatement of gains derives from dynamic effects: new market opportunities could boost investment and create growth linkages. One study suggests that these dynamic effects would triple the static gains from liberalisation by developed countries (World Bank 2002). In addition to these broader dynamic gains there are grounds for anticipating wider benefits for the rural sector. As noted above, every additional $1 generated in the rural economy can raise incomes by as much as $3.

Further understatement of costs associated with northern agricultural policies results from the aggregating effects of global models. These tell us little about the costs incurred for specific commodities and by individual countries. As might be expected, the biggest costs in absolute terms are borne by countries that compete most directly with subsidising exporters. One simulation exercise has attempted to capture the impact of EU agricultural policies on Latin America, the region most subject to CAP-related market vagaries (Hoekman and Martin 1999:958). The exercise takes into account direct effects (import restrictions) and indirect effects (including the price-depressing effects of export subsidies). The impacts are particularly large for Argentina, which suffered losses of $2bn in 1999, or almost 1 per cent of GDP. In proportional terms, the losses were even larger for Uruguay, amounting to over 2 per cent of GDP. For countries facing chronic balance-of-payments problems, these are exceptionally large losses.

**Access to Northern agricultural markets**

The agricultural sectors of industrialised countries are among the most heavily protected in the international economy. High levels of protection restrict opportunities for developing countries and limit the overall expansion of agricultural trade.

Agricultural trade has lagged significantly behind trade in manufactured products. Although it increased in absolute terms during the 1990s, its share in total trade almost halved, to 10 per cent in 2000. This trend shows no sign of changing: agricultural trade expanded in the second half of the 1990s at less than one-third of the rate for trade in manufactured goods. Northern domination is another unchanging feature of the world agricultural trading system. Industrialised countries account for about three-quarters of both global exports and imports of agricultural products (OECD 2000a). Both shares have remained virtually constant over the past decade. Today, developing countries account for roughly the same share of agricultural exports as in 1980. The upshot is that the world's poorest countries are more reliant than rich ones on the slowest-growing sector of world trade - and they have been unable to expand their share of a slow-growing market.

Agricultural support policies in rich countries reinforce the agricultural trade trap. High tariffs, quotas, and other instruments associated with these policies severely restrict market opportunities for exporters in developing countries. The sheer complexity on import barriers makes it impossible to obtain a single unit for measuring the scale of import protection. Simple *ad valorem* duties are supplemented by specific duties in the form of fixed amounts payable on weight or volume, different rates are applied for in quota and out-of-quota imports, and seasonal marketing requirements produce further complications. In addition, most industrialised countries operate preference systems. These result in differences between Most Favoured Nation (MFN) duties and those applicable to other more preferred suppliers,
for instance under Generalised Systems of Preferences and the EU’s Cotonou agreement with African, Caribbean and Pacific (ACP) states.

With these various provisos in mind, it is still clear that agricultural tariffs far exceed average tariffs in most industrialised countries. Average applied tariffs on agricultural goods in the EU and the US are 22 per cent and 14 per cent respectively – some three to four times higher than tariffs on manufactured goods. Agriculture is marked by high rates of tariff dispersion and tariff peaks (defined as a level in excess of 15 per cent). In the EU and Japan, over 40 per cent of agricultural tariff lines covered under the Uruguay Round AoA fall into the tariff peak category. Average tariff or tariff equivalents on these lines are 28 per cent and 50 per cent respectively (Stevens and Kennan 2002:11). These averages conceal far higher levels of protection in some sectors. Many individual product peaks are exceptionally high. Maximum tariffs on fruit and nuts in the US exceed 200 per cent, and on meat in the EU 300 per cent (Hoekman, Ng, and Olarreaga 2002).

Tariff escalation, or duties that rise with each step of processing, is especially pronounced in agriculture. In the EU, fully processed food products face tariffs almost twice as high on average as tariffs on products in the first stage of processing (World Bank 2002: 70). In the US, Latin American exporters of processed tomato sauces face tariffs that are five times higher than those levied on fresh tomatoes (Stern 2003:33). Such practices undermine the efforts of developing countries to benefit from trade. Escalating tariffs create disincentives for investment in local processing, in effect transferring value-added and employment creation from poor to rich countries. They help confine developing countries to low value-added and slow-growing sectors of agricultural trade. This helps to explain why rich countries have been able to expand the share of processed agricultural products in their overall agricultural exports more rapidly than developing countries. For the least developed countries, the share has declined, from 27 per cent to 17 per cent (OECD 2000a).
Rich country preferences: a mixed blessing

It is sometimes claimed that agricultural protection does not bear heavily on developing countries, either because they do not produce temperate goods, or because of preferences. The EU in particular likes to argue that a high proportion of its agricultural imports from the poorest countries enter duty free because of arrangements under the Cotonou Convention with African, Caribbean and Pacific (ACP) states, and the Everything But Arms initiative (Fischler and Lamy 2003). Reality is more prosaic. While preferences do mitigate the effects of agricultural protectionism, product coverage is highly selective and governed by an arguably perverse rule: the most limited benefits are reserved for countries with the greatest capacity to export.

Agricultural trade relations between the EU and countries in Mercosur – Brazil, Uruguy and Argentina - illustrate the point (Bouet 2003). In Mercosur, average customs duties on agricultural imports are around 12 per cent compared with an average of 18 per cent under the EU’s GSP system. The level of preference over Most Favoured Nation rates averages 1 per cent. Typical tariff peaks in Mercosur are also much lower than in the EU. Tariffs peaks under the GSP are exceptionally high in products such as meat (69 per cent), dairy produce (57 per cent), edible fruit (20 per cent), processed vegetables (15 per cent) and cereals (72 per cent) where Mercosur countries have a strong competitive advantage.

Preferential margins are wider under the GSP for the US than in the EU, but a limited number of countries – twenty-nine in total - are beneficiaries in agriculture. High tariff peaks in the US help to explain imbalances in tariff levels with some of the country’s major trading partners. The average tariff or tariff equivalent levied by the US on Brazil’s 20 most important export products is three times higher than the Brazilian equivalent for the US.

Poorer developing countries enjoy bigger preference margins, but there are distinct limits to northern generosity. For example, the EBA initiative granted duty free access into the EU for all products from the least developed countries. This was an important initiative, even though most LDC imports already entered the EU market on a duty free basis. What was new about the EBA was the extension of duty-free access to agricultural goods covered by the CAP (Stevens and Kennan 2001a). Liberalisation was to be immediate, but not in all cases. Following intensive lobbying from producer groups and agribusiness interests, duty free tariff quotas were introduced for sugar and rice. These are to be gradually increased to 2009, when tariffs will be lowered to zero. Countries with the capacity to increase exports of sugar – such as Malawi, Zambia and Mozambique – lost export opportunities as a result. Over 85 per cent of the value of exports from the LDC in new product lines covered by the EBA to the EU in 2001 were in sectors subject to delayed liberalisation tariffs Brenton (2003). Of the 313 items covered by the Cotonou Agreement, almost two hundred face tariffs above peak levels. Sub-Saharan Africa is also a significant exporter of products facing tariff peaks in the US and Japan, including meat, tea, sugar, cotton and fruit and vegetables.

The potential benefits of preferential trade arrangements are further eroded by other factors. Complex rules of origin define the conditions to be satisfied for a product to be deemed as originating in the country seeking preferential access. The stated purpose is to restrict trade

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8 The EBA liberalised 919 product lines, mostly for agricultural goods covered under the CAP. Least developed countries exported to the EU in only 80 of these product lines, representing 0.5 per cent of
diversion. However, the sheer complexity of the rules, allied to limitations on value-added through the use of imported goods, can serve as formidable barriers to entry. Only around half of the imports from LDCs eligible for preferential access to the EU actually request preferential access. Phytosanitary rules impose another layer of constraints. In many cases, stringent health regulations on imported products are a legitimate response to consumer health concerns. That said, there is ample evidence to suggest that phytosanitary rules can serve as convenient protectionist purpose. The EU’s discovery of a phytosanitary risk associated with citrus black spot on fruit exported from South Africa is a recent illustration. The spot is a benign lesion appearing on fruit grown in the Eastern Cape and Limpopo – and has done since fruit exports to Europe started in 1925. No infection of European orchards has ever been reported. But the EU now operates a zero tolerance policy, impounding entire consignments if a single blemished fruit is found (Khan 2002).

From global to local: the costs of Northern dumping for small farmers

Unfair competition in global and local markets compounds the damage caused to small farmers in developing countries by exclusions from Northern markets. That competition derives from the use of production subsidies to generate large export surpluses, and the associated use of direct and indirect export subsidies to dump those surpluses overseas. EU and US agricultural trade policies frequently undermine the benefits associated with development assistance.

Cotton provides a particularly stark illustration (see Case Study 1). The US is the world’s largest exporter of cotton – and the world’s heaviest subsidiser of cotton production. In 2001 cotton farmers in the US were provided with government support amounting to $3.4bn, receiving more per capita than any other sector.

Farmers in Africa and other parts of the developing world are adversely affected. Subsidies in the US cotton belt translate into lower world prices and smaller world market shares. West Africa, a region in which 10-11 million people depend on cotton cultivation as a major source of income, lost an estimated $190m in lost export earnings in 2001 as a direct result of US subsidies (Oxfam 2002). In many countries, losses from unfair cotton trade have outweighed gains from development assistance. Mali lost more from falling cotton prices than it received in US aid; Burkina Faso lost more than it was given in debt relief under the Heavily Indebted Poor Countries (HIPC) Initiative. The price-depressing effects of US cotton subsidies translate directly into income losses at a household level, with attendant implications for poverty. In Benin, lower world prices associated directly with US cotton subsidies are associated with a 4 per cent increase in the national incidence of poverty (Minot and Daniels 2002).

Industrialised countries have in some cases partially offset the negative effects of agricultural support through preferential access schemes. For example, the EU allows preferential access to its sugar market for 17 African, Caribbean and Pacific (ACP) countries. Under this arrangement, the ACP countries receive EU guaranteed prices, rather than prices prevailing on world markets. The EU frequently cites the preferential sugar regime as an example of a poverty-focussed preference system. Such claims are difficult to square with reality, for two reasons. First, the vast majority of quota rents accrue to higher-income ACP states. While these rents have played an important role in the economic development of at least one ACP their total exports to the EU (Brenton 2003).
country – Mauritius – and provided a stable source of foreign exchange for others, the
distribution of benefits is clearly not poverty-focused. This is merely a reflection of the origins
of the sugar regime: it was conceived as a post-colonial arrangement for securing sugar
supplies, and not as a means of bestowing largesse on the world’s poor (McDonald 1996).
Second, a large group of developing countries lose out. High guaranteed prices in Europe
give rise to large export surpluses, which drive down world prices and push non-subsidising
exporters out of third markets; and high tariffs in Europe restrict entry to the EU market (Box
2).

Similar effects can be observed in the dairy sector. Through the CAP, Europeans spend the
equivalent of $2 per cow per day to subsidise the dairy sector – half the world’s population
lives on less. Around 50 per cent of total dairy support – $1.5-2bn a year – is earmarked for
export subsidies. These enable milk processors to bridge the gap between (high) internal and
(lower) world prices. European production and export subsidies matter to the rest of the world
for a simple reason: EU surpluses represent about one-quarter of the trade in skimmed milk
powder.

Dairy farmers in developing countries have faced serious problems from subsidised
competition in local markets. For example, in 1992 Jamaica reduced import tariffs on milk
powder from the EU. This was promptly followed by a surge in EU imports. Between 1992
and 2000, the volume of milk solids imported increased from 1,200 tonnes to 6,300 tonnes,
with the EU accounting for two-thirds of total imports in 2000. Local manufacturers have
shifted demand away from local supplies of fresh milk, in particular cutting back on purchases
from small farms in rural areas. Investment in the local infrastructure for collecting, processing
and selling milk and linking small farmers to urban markets appears to have broken down.
While there may have been some short-term gains in consumer welfare as a result of cheaper
supplies, cheap subsidised milk powder has severely compromised the livelihoods of farmers
in a potentially viable local industry, weakening economic linkages between the rural and
urban sectors (CAFOD 2002: 8-9; Novib 2002). Similar problems have been reported in the
Dominican Republic and East Africa (Oxfam 2002).

Implications for food security
For countries – and for households – that are net importers of food products, standard
consumer welfare models register lower food prices as a positive gain. The problem with
these models is that they fail to capture some of the more complex food security problems
associated with Northern policies that artificially depress import prices.

As noted earlier, presumed benefits in developing countries constitute weak grounds for
defending Northern agricultural support. Even full liberalisation would generate modest price
inflation effects. On the other hand, subsidised exports can cause serious problems. They
distort competition, destabilise prices, and expose countries liberalising imports to the threat
of sudden import surges, with potentially adverse consequences for balance-of-payments
stability and local markets. Moreover, while low food prices might bring benefits for poor
consumers, they are less advantageous for small farmers seeking to earn income from sales
of food surpluses. As the primary producers of food staples, women farmers stand to bear a
disproportionately from lower prices. There are also wider costs that have to be considered.
Subsidised exports from rich countries may reinforce a tendency to supply urban centres from
world markets, rather than from domestic rural areas. This in turn is likely to undermine
prospects for rural growth and weaken the linkages between the farm and non-farm linkages
vital for poverty reduction.
Subsidised exports from industrialised countries can create serious problems for small farmers in developing countries, destabilising local markets by flooding them with products sold at prices that bear no relationship to the costs of production. Control over tariff policy is an essential requirement for dealing with these problems.

Evidence from India is instructive (Gulati and Narayan 2002). Cost of production analysis indicates that India is a competitive producer of wheat and dairy produce. However, import liberalisation has created problems in both sectors. In 1997 tariffs on wheat imports were lowered in the face of pressure from domestic millers. This coincided with a sharp decline in world prices. The resulting surge in imports forced the government to raise tariffs from 0 per cent to 50 per cent. Imports of milk powders also increased, again prompting the restoration of higher tariffs and the introduction of import quotas. In both cases, import prices reflected the distortions associated with heavy subsidisation by exporters, notably the US (for wheat) and the EU (for dairy products). To put these distortions in context, the PSE for EU dairy farmers at the end of the 1990s was $17bn, equivalent to 44 per cent of the value of production. Wheat farmers in the US were receiving support estimated at $5bn, or just under half of the value of production (OECD 2002a). It is difficult to see an obvious market rationale to justify forcing Indian farmers to compete against such heavily subsidised competition.

Rapid import liberalisation under current market conditions can severely damage the interests of highly vulnerable small farmers. In 1995, Haiti cut import tariffs on rice from 50 per cent to 3 per cent almost overnight. Trade liberalisation led to a rapid increase in imports from the US, lowering domestic producer prices by around 25 per cent. Domestic production fell from 180,000 tons in 1986-89 to 105,000 tons in 1997-1999. From a position of near self-sufficiency in the mid-1990s, by the end of the decade imports accounted for two-thirds of local production (IMF 1999: 45. IMF 2000). Competitiveness in this case was a function of relative subsidisation. Government support to the rice sector in the US represented 40 per cent of the value of output at the end of the 1990s (OECD 2002a: 224). The World Bank (2002:43) continues to defend the decision to liberalise imports on the grounds that it lowered prices for the urban poor and generated efficiency gains. However, the external shock delivered to resource-poor rice farmers by the dramatic change in price pushed many to destitution, with damaging consequences for rural poverty (Oxfam 2002: 141-142).

The distributional consequences of import liberalisation depend on what the poor produce – and on whether the losses they sustain in one area are compensated by gains elsewhere. Clearly, outcomes will reflect country-specific circumstances. But liberalisation designed without reference to basic poverty consideration poses acute dangers to small farmers, even in middle-income countries.

The experience of Mexico under the North American Free Trade Agreement (NAFTA) demonstrates how import liberalisation can produce distributional outcomes that are bad for poverty reduction. Regional trade liberalisation has opened up markets in fruit and vegetables, generating a multi-billion-dollar export boom. However, the boom has been concentrated on large-scale, irrigated commercial farms in areas of the North Pacific coast and the valleys of El Bajio. The maize sector has experienced very different trends, with imports from the US growing rapidly. In volume terms, imports in 2001 were three times the average level for 1990-1993 and equivalent to one-third of domestic production (USDA/ERS 2002). Maize is the crop produced on around 60 per cent of rain-fed land by 2.4 million small farmers. Thus liberalisation under NAFTA may have benefited large-scale commercial
agriculture while creating severe adjustment pressures for low-income farmers in the maize sector (Appendini 1994: 59-78).

Policy makers in the US frequently point to NAFTA as a ‘free market’ model for wider application. They rationalise this model by reference to familiar trade arguments rooted in their theory of comparative advantage. Consider the following observation from a USDA report: ‘The outlook for US grain exports to Mexico is ripe with promise, because that country’s demand for wheat and feed grains continues to outstrip its production capacity. At the same time, Mexico’s policy makers are moving away from the concept of self-sufficiency and embracing greater market orientation’ (USDA 1999). But what does ‘market orientation’ mean in this context? In 2001, US maize growers received $6.2bn in direct payments under various government support programmes (USDA/ERS 2002a: 65). The OECD estimates total support for the same year at around one-third of the value of output. To put these numbers in a context relevant to Mexico-US agricultural trade relations, direct payments to America’s maize farmers for 2001 were some five times the total Mexican government budget for agriculture.\(^9\)

An important question in any debate on food security relates to the sustainability of food supply, including that delivered through imports. Sub-Saharan Africa faces especially acute problems in this area. There are currently 19 countries in the region where food imports account for more than one-quarter of export earnings (FAO 2001). In addition to commercial imports, sub-Saharan Africa is also heavily dependent on food aid, which accounts for around half of total imports by volume (Stevens and Kennan 2001:178). This is a source of danger. High levels of external debt, the stagnation of aid, uncertainties surrounding future world prices, and rapid population growth point to a precarious future.

Increased food self-sufficiency is clearly not a sufficient condition for enhanced food security. India and Brazil combine self-sufficiency in food with high levels of malnutrition. Even so, there are strong grounds for suggesting that increased self-sufficiency might be a necessary condition in sub-Saharan Africa. Those grounds extend beyond balance-of-payments considerations. There is a pressing need to connect rural Africa to urban markets in order to generate dynamic growth linkages (Kydd et al 2002: 16). The central role of women farmers in food staple production suggests that gender equity goals may also be served by an increased emphasis in this area. More generally, poverty reduction strategies need to place far more emphasis on developing the productive capacity of smallholder farmers. As Pinstrup-Anderson has written:

‘Sub-Saharan Africa in particular is unlikely to have the capacity to commercially import the difference between food needs and production. The central challenge in the next 20 years is to...increase the capacity of poorer countries to produce food, not only to increase their food supply, but to generate personal income and employment’ (Pinstrup-Anderson 2001).

National policies and international cooperation, rather than industrialised country agricultural reform, will be the primary factors deciding whether this challenge is met. But current practices in Northern agriculture do not help. Small farmers in Africa, as in other developing regions, are highly innovative and efficient given the state of their infrastructure and the wider constraints. However, they are not well equipped to compete against large-scale industrialised country producers backed by massive government subsidies. By artificially

\(^9\)The 2003 Mexican agricultural budget allocation was $1.2bn at the prevailing exchange rate (Government of Mexico 2003)
depressing the price of food imports, such producers shift relative prices against local producers, create disincentives for investment in food staple production, and systematically weaken rural-urban linkages. Chronic dependence on food imports in parts of West Africa can be traced to these effects (Andrae and Beckman 1985). Looking to the future, continued export dumping by rich countries will make it easier for African governments to continue their neglect of smallholder farmers and the rural infrastructure.
4. Changing patterns of agricultural support: from the Uruguay Round to the Doha ‘development round’

Multilateral trade rules can have important implications for competition between producers in rich countries and poor countries. The Agreement on Agriculture (AoA), adopted at the end of the Uruguay Round, began the process of extending WTO rules to agriculture. It established disciplines in three areas that have a direct bearing on prices and market shares: tariffs, domestic support, and export subsidies. Unfortunately, the agreement was crafted primarily to accommodate the interests of the EU and the US, rather than to address the concerns of developing countries.

In this section we show how the AoA blurred the distinction between different forms of subsidies, institutionalising an increasingly artificial distinction between ‘trade-distorting’ and ‘non-distorting’, or decoupled, support. The distinction is artificial because decoupled payments often include both a production and an export-subsidising component. While some aspects of the distinction remain valid in principle, in practice it has enabled rich countries to continue on a business-as-usual basis. Multilateral trade rules have remained an ineffective device for addressing the problems faced by developing countries outlined in the previous section.

The Uruguay Round Agreement on Agriculture (AoA)

The Uruguay Round AoA has been extensively analysed (Konandreas 2002; OECD 2001a; Hathaway and Ingco 1996). Built on a bilateral accord – the Blair House Agreement – negotiated in advance by the US and the EU, it extended WTO rules to agriculture in the following key areas:

- **Domestic support**: Financial support, other than for measures agreed to be exempt, was to be cut by 20 per cent. The amount to be reduced was termed the aggregate measure of support (AMS).
- **Export subsidies**: Taking 1986-90 as a base period, the value of export subsidies was to be reduced by 36 per cent and the volume by 21 per cent. The use of export credits and food aids to facilitate subsidised commercial exports was subject to weaker, voluntary disciplines.
- **Market access**: All tariffs and non-tariff barriers were to be turned into tariff equivalents, ‘bound’, and reduced by an average of 36 per cent (and a minimum of 15 per cent).

The importance of the provisos attached to domestic support reductions was not fully appreciated at the time, especially by developing countries. Three main categories of exemptions were allowed, all of them originating in the Blair House Agreement. These were as follows:

- **Green Box payments**: Deemed to be minimally trade-distorting, these include ‘decoupled’ payments not related to production, world or domestic market prices, and the provision of inputs, along with a wide range of measures – such as safety nets, insurance provision, infrastructure spending – provided as general services to agriculture.
• **Blue Box payments**: These had to comply with two basic conditions: (i) the formula for calculating payments had to be based on fixed areas and yields, and (ii) payments were made on the basis of 85 per cent or less of the base level of production. This corresponded to the existing US system, which was extended to the EU under the 1992 CAP reforms. Blue Box payments were included in the calculation of the AMS, but were exempt from subsidy cuts.

• **De minimis exemptions**: These enable countries to exclude some support from the AMS, up to a ceiling equivalent to 5 per cent of the value of production.

By any standards, the AoA was an act of considerable generosity to the EU and the US. Under the AMS reduction commitments, both retained the right to provide around $80bn in subsidies, in addition to unlimited Green Box and Blue Box payments. Moreover, the reference years chosen as benchmarks for measuring domestic support and export subsidy reductions were marked by low prices and historically high levels of export subsidisation. In other words, the base period subsidy was abnormally high, minimising the real cuts required.

In the case of export subsidies, a rollover provision allowed countries to carry forward unused subsidy allowances (OECD 2002a). In effect, export subsidy rights could be accumulated during periods of high prices. Additionally, there was no upper limit on the unit export subsidy that could be applied, so that the value and volume constraints did not apply simultaneously. This allowed for huge disparities in the rate of subsidisation between commodities and over time. In the case of domestic subsidies, AMS reduction commitments were aggregated across all commodities, thereby making it possible to reduce commitments in some areas while raising them in others.

Market access disciplines were similarly riddled with loopholes. Protection actually increased for some commodities as the bound rates agreed for the 1986-88 base period afforded higher protection than applied rates in the pre-base period. Special safeguard (SSG) provisions also allowed developed countries to impose additional tariffs for over 6,000 tariff lines in the event of an import surge or a fall in import price below a specified reference level (Tangermann 2001). The SSG is far easier to invoke than other safeguard provisions because it is not necessary to prove injury to domestic producers. Few developing countries are entitled to use the special safeguards measure.  

These various provisions amounted to major concessions for industrialised countries, effectively securing them the right to continue providing large, trade-distorting agricultural support measures. No comparable concessions were made to developing countries. Indeed, the round was marked by a concerted effort to erode the principle of special and differential treatment for poor countries.

**Green Boxes, Blue Boxes**

**and the restructuring of farm support**

The EU and the US have taken full advantage of the loopholes built into the AoA, shifting support towards decoupled payments. While the WTO is a multilateral body, there is a sense in which its rules on agriculture mirror the domestic reform concerns of its two most powerful members.

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10 This was because most did not apply tariffs to import barriers.
One of the most visible indicators of restructuring is provided by the surge in Green Box payments, especially in the US (Figure 12). Prior to 1996, the US linked direct payments to production programmes requiring farmers to set-aside a specified acreage, thereby placing associated subsidies in the Blue Box. From 1996, the set-aside and production requirements were removed, enabling the US to relocate subsidies in the Green Box. The transition reflected major adjustments in the system of farm support (see Orden 2003 for a comprehensive account). Briefly summarised, the 1996 FAIR act lowered guaranteed prices, or loan rates, and initiated a system of annual payments that farmers would receive over the lifetime of the legislation. Known as production flexibility contract payments, these were fixed in advance on the basis of production and yield in a given reference period. For WTO purposes, the payments were classified as decoupled on the grounds that they were not dependent on current production.

![Fig. 12 Green Box expenditure: the EU and the US 1986/88 - 1996 ($bn)](source: OECD 2001)

Shortly after FAIR legislation was enacted, crop prices began to fall sharply. Congress promptly responded with ‘emergency’ legislation that produced the Market Loss Assistance (MLA) programme. Between 1998 and 2001, MLA payments totalled around $27bn. In 2000, these payments accounted for over one-third of overall government payments to agriculture – and more than transfers linked by guaranteed prices support (Economic Research Service 2000). Although these emergency payments were classified by the US Department of Agriculture as ‘Amber Box’ AMS transfers, exemption was claimed under the de minimis provisions of the AoA.

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11 The loan rate is effectively a minimum price. It is so called because it represents the collateral value of a crop determined by government against which producers can secure a loan. If the market price falls below the loan rate, the government takes the crop in repayment for the loan.
It is not clear that payments under the FAIR act were less trade-distorting than previous payments. However, the terms of the AoA made it possible for the US both to sustain a massive increase in farm support in the second half of the 1990s and stay within the parameters of the AMS ceiling set under the Uruguay Round agreement. Figure 13 demonstrates this effect.

The 2002 Farm Security and Rural Investment (FSRI) Act, which governs legislation through to 2007, continues the previous direction of reform (Westcott et al 2002; Orden 2003). It includes three elements:

- **Market price support**: Provided through the loan rate system, this is deemed ‘Amber Box’ for WTO purposes.
- **Direct payments**: Arrangements are broadly similar to the FAIR system of payments: rates are fixed for each crop based on historical acreage and yields, and not tied to production. These are deemed Green Box by the WTO.
- **Counter-cyclical payments**: The *ad hoc* emergency payments introduced under FAIR have been institutionalised in a new programme of counter-cyclical payments. These are triggered when the market price for a commodity is lower than the level necessary to meet a specified level of producer income, or target price. Payments are therefore counter-cyclical in that they are related to world prices.

Both direct fixed payments and counter-cyclical payments are made on 85 per cent of base acreage, with one additional provision of critical importance: farmers are permitted to update their base acreage and yields. To the extent that this links payments more closely to recent production, it clearly undermines the notion of ‘decoupling’. Even so, projections for direct government support to agriculture in 2004 suggest that over one third of payments will be classified as Green Box for WTO purposes. If counter-cyclical payments are treated under the *de minimis* provision, the figure will be closer to two-thirds (Figure 14).
The trajectory of EU farm policy reform has broadly followed that of the US. Deep cuts have been introduced in guaranteed price levels for arable crops, with producers partially compensated through direct payments from the budget (Thurston 2002). These payments have been exempted from most WTO cuts under the Blue Box arrangements. Further reductions are envisaged under the Agenda 2000 reforms, with the European Commission seeking to move to a US-style decoupled payments system (Agra Europe 2002). Payments under the CAP budget, as distinct from the AMS, have remained roughly constant since the end of the Uruguay Round.

Decoupled export dumping
In theory, the AoA introduced stronger disciplines relating to export subsidies than for any other area of agricultural policy. Outcomes have been very different to those anticipated. ‘Decoupled’ payments falling outside of the scope of WTO rules have been directed towards sectors in persistent surplus, effectively supporting production for exports. The upshot: hidden export subsidies have been replacing direct export subsidies. European and American farmers continue to sell products abroad that would otherwise not be able to compete.

Part of the confusion surrounding export subsidies derives from definitional problems. For WTO purposes, an export subsidy is a payment that bridges the gap between (high) domestic prices and (lower) world prices. On this definition, export subsidies do not feature prominently in US farm support programmes, with only $80m in payments reported to the WTO in 1999. In the same year, the EU accounts for over 90 per cent of export subsidies reported to the WTO, or some $6bn. However, the EU has also dramatically reduced export subsidisation under CAP reform. While the unreformed dairy and sugar sectors continue to depend heavily on direct export subsidies, cereals are now exported without formal export subsidies. The overall export restitution component of the CAP budget has fallen from around one-fifth at the end of the Uruguay Round to only 14 per cent (European Commission 2001; European Research Office 2001). As in the US, this reflects a move towards the alignment of domestic guaranteed prices with world prices, with farm income support transferred to direct payment systems. Does this mean that export dumping is in decline?
If the point of reference is WTO rules, answering that question is more difficult in agriculture than in other sectors. Measuring dumping is a notoriously difficult – and politically sensitive – exercise. Under the WTO dumping is said to occur if the sale of goods in export markets takes place at a price below their normal value (Hoekman and Kostecki 2001: 316-18). Normal value in this context is usually defined by reference to price charged by a firm in the domestic market. For example, if a South Korean firm sells a car to America at a price lower than it charges at home, this would constitute grounds for an anti-dumping action by rival producers in the US. Alternatively, in cases where markets are too distorted to assess the normal price, a reasonable estimate for costs of production and profit can be used – the so-called ‘constructed value’ approach. This involves estimating costs of production and export, including transport and handling costs, and comparing the total with the export price. Applied to agriculture, the two obvious reference points are cost of production for exported goods and/or prices received by farmers. The latter are often difficult to establish since the unit value of agricultural production is determined by a range of interventions, including minimum guaranteed prices and a range of support payments. But whichever criteria are used there is a large gap between export prices and both production costs and producer prices, pointing to prima facie evidence of export dumping.

Export prices and costs of production

![Figure 15](image)

Evidence from the US underlines the scale of the gap between cost of production and export prices. The USDA prepares detailed annual estimates of production costs for all major commodity groups. These estimates include operation and non-operational costs. Figure 15 uses USDA cost of production estimates and associated transport charges as a reference point for assessing export dumping in 2001. It expresses export prices as a percentage of these costs. Briefly summarised, it shows that major export crops such as wheat, maize, rice, and cotton were being exported at prices between 20-50 per cent below the average costs of production. As research by the Institute for Agriculture and Trade Policy has shown, this is part of a consistent pattern that has intensified since the mid-1990s (IATP 2002).
Of course, it can be argued that constructed value is an accounting concept of little relevance to investment decisions. There is some truth in this argument. From the standpoint of any producer, what matters is marginal cost and marginal price. Opportunity costs for land and labour, and depreciation of assets, are not likely to influence planting decisions, at least in the short-term. Even so, for some crops exported in large quantities a large share of US production would not be feasible over the long-term at current price levels without high levels of support. This is true even of the wheat sector, where the US is a major exporter. Research by the USDA for 1998 found that only 15 per cent of farmers were able to produce wheat at or below the prevailing market price (Ali 2002: 6).

Cotton provides a particularly stark example of the gulf separating US export prices from real production costs. USDA data estimate average cost of production at 73 cents/lb, which is evenly divided between operating and overhead costs (Brooks 2001). In recent years, world market prices have fluctuated between 35 cents/lb and 50 cents/lb. In the absence of government support, even some of the lowest-cost US farms would be uneconomic at this price level. As shown in Figure 16 virtually no US cotton farm could cover costs at 2001 price levels, and only 10 per cent could operate at 2002 price levels. Despite this, the US has retained its dominant position in global markets through one of the deepest price slumps of the post-war period – and it has done so without recourse to export subsidies (as defined by the WTO).
This apparent defiance of economic logic has a simple explanation: direct payments to farmers (Figure 17). Cotton producers received $3.8bn in government support in 2001. Roughly two-thirds of this came in the form of price support and another third in Green Box payments. The end result was that US cotton producers were paid a unit price 48 per cent higher than the world market price. This is of some importance to Africa and other developing regions, not least because it means that millions of small farmers are competing in markets that are highly distorted by subsidised competition.

**Producer prices and export prices**

For reasons explained earlier, direct export subsidies capture only one part – a diminishing part – of the real subsidies used in the production and marketing of surplus crops. In both the US and the EU direct payments cover a large share of the difference between the income received by producers and the world price for the exported share of their output. In this respect, they share some of the key characteristics of export subsidies. An important question in the context of the WTO negotiations is how the export subsidy component in any direct payment should be measured. That question is made more pressing by the commitment to address the problem of export dumping in the Doha round. What is clear is that stronger disciplines on export subsidies will count for little if industrial countries retain the capacity to reallocate support into payments that produce similar effects, but are subject to weaker regulations.

As shown above, on any standard approach to constructing value through cost of production data there is clear evidence of export dumping. However, real production decisions are linked to marginal price. It follows that the relationship between producer price and export price is also important in any assessment of export subsidisation. Any gap between the real price per
unit paid to producers and export price can be considered as a de facto export subsidy, if not de jure in a WTO context. The obvious problem that arises is the construction of a real price. Income to producers in industrialised countries is composed of different elements, including a market price component and a diverse array of support payments. The ratio between these elements varies: for example, some direct payments are inversely related to market prices because they are designed to protect producer incomes under low price conditions. However, it is possible to estimate subsidy levels under different market price conditions by considering the stream of income that producers might anticipate for any given level of output. In effect, this approach requires converting all payments associated with production of specific crops into unit value equivalents (i.e., $/tonne of wheat and so on). It should be stressed that there are obvious problems of comparison between the US and the EU given the implications of different support systems for future production decisions.

One way of illustrating the unit value approach in the US is to consider the framework provided by the 2002 US Farm Act. The new legislation effectively sets two price floors: the Loan Rate and the Target Price. The Loan Rate is a minimum guaranteed price, defended through market intervention. The Target Price plays a different role. It indicates the price needed to achieve a politically determined minimum income level for producers. Target Prices provide the trigger for counter-cyclical payments. These are made when the sum of the market price (or the Loan Rate if the market price is lower) plus the automatic direct payments falls below the Target Price. In other words, the Target Price sets a minimum income that producers can anticipate, taking into account counter-cyclical payments and direct payments. Simulations carried out by the Economic Research Service of the USDA illustrate this by capturing market revenues and government programme payments under different price scenarios. For the maize sector, these simulations show that when prices fall below the Loan Rate, producers are guaranteed an income one-third above this level through direct and counter-cyclical payments (Economic Research Service 2002: 12).

Table 1
Implicit export subsidies in the US: selected commodities under 2002 Farm Act at 2001 prices

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Price levels</th>
<th>Implicit export subsidy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Loan Rate</td>
<td>Target Price (TP)</td>
</tr>
<tr>
<td>Wheat ($/bushel)</td>
<td>2.80</td>
<td>3.86</td>
</tr>
<tr>
<td>Maize ($/bushel)</td>
<td>1.98</td>
<td>2.60</td>
</tr>
<tr>
<td>Cotton (cents/lb)</td>
<td>0.52</td>
<td>0.74</td>
</tr>
</tbody>
</table>

Sources: USDA 2002 Table 19 (for Loan rates and Target Prices); Table 24 (for Export Prices; and Table 27 (for Export Volume)

12 The target price is used as a reference point for counter-cyclical payments. It defines the income level that market intervention and other support measures are aimed at achieving. Counter-cyclical payments come into operation if the market price falls below the target price (minus the rate set for direct payments).

13 The simulation assumes a producer growing 100 acres of maize.
For the US the gap between the Target Price (which defines anticipated income) and export price provides some insight into the extent of dumping measured by the unit value approach. Obviously, the gap varies according to fluctuations in world price. Table 1 sets out the relationship between the Target Price and the export price for three of the major US export commodities: wheat, maize, and cotton. It takes as a reference point the 2001 export price and establishes the gap between this price and the Target Price, which broadly corresponds to the income that a producer would anticipate under prevailing market conditions. For each of the three commodities, the 2001 export price was below the Target Price, pointing to an implicit export subsidy. The level of that subsidy ranges from 10-16 per cent for wheat and maize to 40 per cent for cotton. Column 5 converts the unit value of the subsidy into a $/tonne equivalent. Multiplying this unit value by the total volume of exports points to a high level of effective subsidisation, amounting to around $3bn in total. For wheat and maize this amounts to $1.1bn, rising to $1.9bn for cotton. As shown in column 8 of Table 1, these subsidies represent a significant share of the value of exports, amounting to 92 per cent in the case of cotton and 11-14 per cent for wheat and maize. Of course, both the level of export subsidy and the subsidy/value ratio would change under different export price conditions. But the important point is that the 2002 farm Act includes a very significant potential to provide de facto export subsidies that fall outside of the WTO definition. No US export subsidies were recorded for any of these crops in 2001.

Applied to the EU, measurement of the unit value of payments to farmers helps to dispel one of the myths that have accompanied CAP reform in the cereals sector: namely, that export subsidies have been eliminated. Under the old CAP regime, export subsidies filled the gap between domestic guaranteed prices and export prices, thereby conforming to the WTO model of a direct export subsidy. With reform, prices have been pushed down towards world market levels, removing the need for direct export subsidies in most years. Producers have been partially compensated for lower guaranteed prices through direct payments to farmers (see Podbury et al 2002). Figure 18 shows how the new structure has shifted the distribution of support, using 2000/2001 export prices and direct payment rates as a reference point. At these prices, a direct export subsidy of €40/tonne would have been required pre-reform. In 2000/2001, no export subsidy is required, but producers received a direct payment of €56/tonne. As a result their total income from exported production was higher. Figure 19 graphically demonstrates the inverse relationship between export subsidies and direct payments under the reformed CAP.
Converting direct payments into export subsidy equivalents is a relatively straightforward affair. Under the reformed CAP cereals regime, payments are provided through a formula that establishes a direct payment, or compensation rate, set in terms of €/tonne. Each EU country then calculates output-per-hectare for a period at the end of the 1980s. These serve as reference yields. Producers are then paid on the basis of their land area under cereals cultivation or set-aside from production. The formula for calculating payments is as follows: Land area x reference yield x direct payment rate. Because payments are based on a fixed yield in an earlier period rather than current production, they are not counted as market-based price support subsidies. Dividing the direct payments made on the basis of the formula described above by output in any given year provides a unit value subsidy in terms of €/tonne of cereals. Output can be calculated by taking area currently under-cultivation (minus set-aside area) and multiplying it by actual yield. We did this exercise by taking data for France, the EU’s main wheat producer.

14 In the late 1990s the direct payment rate was €54.3 per tonne, rising to €63 per tonne for 2001-02.
15 Producers above a certain size are required to remove part of their land from cultivation in order to qualify for direct payments.
16 I am grateful to my colleague Tom Lines for developing this methodology.
Table 2 shows the effective direct payment subsidy value expressed in €/tonne for French wheat, the main source of EU exports. It then converts this payment into an export subsidy equivalent, multiplying the financial amount by export volumes for the relevant years. The figures tell a very different story from the official record. Total export subsidies using the unit value method of calculation amounted to $2.2bn over the three-year period 1999-2002 – a period during which minimal direct export subsidies were recorded. These figures suggest that direct payments in the EU play a critical role in the subsidised transfer of cereals surpluses to world markets – and that the cuts in subsidised exports under CAP reform are largely illusory.

Table 2
Hidden export subsidies: EU wheat (1999-2001)

<table>
<thead>
<tr>
<th>Year</th>
<th>Real unit value of direct payment (€/tonne)</th>
<th>Wheat export volume (m tonnes)</th>
<th>Implicit export subsidy € (m)</th>
<th>$ (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999/2000</td>
<td>51.4</td>
<td>16.7</td>
<td>858</td>
<td>926</td>
</tr>
<tr>
<td>2000/2001</td>
<td>56.1</td>
<td>14.5</td>
<td>813</td>
<td>772</td>
</tr>
<tr>
<td>2001/2002</td>
<td>64.4</td>
<td>9.5</td>
<td>611</td>
<td>537</td>
</tr>
<tr>
<td>Total</td>
<td>40.7</td>
<td>2,282</td>
<td>2,235</td>
<td></td>
</tr>
</tbody>
</table>

Decoupling revisited

The facts of disguised export dumping call into question the analytical basis for maintaining current approaches to decoupling. New conceptual and analytical approaches are needed that take into account real subsidy effects, rather than WTO accounting arrangements.

Reduced to its essentials, the case for decoupling rests on assumptions about the relationship between income transfers and production. The elements of the case are well known. When the farmer is making planting decisions, so the argument runs, the marginal
revenue of additional production is not affected by programme benefits. This is because payments are fixed on the basis of yields and production in a past reference period. Thus the incentive price for output at the margin is unaffected. But even if it is true that direct payments may not change incentive prices, it does not follow that they do not influence production decisions and overall output. While payments may not alter marginal price incentives, they increase the current income of producers, and create expectation of future payments.

As for any increase in present or anticipated future flows on income, nominally decoupled payments can have important effects on investment, spending, and perceptions of future risk (Burfisher and Hopkins 2003; Joslin 2001). There are three obvious channels of influence:

- **Risk effects**: Direct payments may create insurance effects, changing producer perceptions of risk. This is especially true of counter-cyclical payments. Such payments reduce revenue variability because they provide variable payments that compensate for losses associated with falls in market price. Analytical work on this theme has shown that counter-cyclical payments create risk-reducing incentives to produce that are comparable to those generated by market-based interventions, though on a smaller scale (Hennesy 1998). Guaranteed support based on land ownership also strengthens land value and hence capacity to borrow and undertake investments (McElroy 2002).

- **Wealth effects**: A guaranteed stream of direct income payments may increase producers’ willingness to plant. It may also reduce liquidity constraints, enabling producers to increase investment in their operations, for example through the purchase of land, equipment, or inputs. Indirectly, guaranteed direct payments may make it possible for recipients to expand their access to credit. For example, they may raise the rental value of land and hence future income streams. In each case, there is clearly potential to stimulate output (OECD 2001c).

- **Land allocation effects**: As noted earlier, the FSRIA allowed farmers to update the base acreage on which direct and counter-cyclical payments are calculated. If updating today leads farmers to anticipate that future legislation will again update base acreage and yields, there is a clear incentive to build base acreage for the future. This raises the question of whether even fixed counter-cyclical payments can be considered to be production-neutral (Orden 2003; OECD 2001b).

Each of these effects is of special importance in the EU and the US, for two reasons. First, the scale of export production is such that any direct support that has an impact on production in surplus crop sectors includes both a production and an implicit export subsidy. Second, the level of financial resources directed towards a relatively small number of producers potentially generates far stronger production signals than in other countries.
5. **US export credits and food aid as disguised dumping**

With more stringent WTO disciplines being applied to export subsidies and, to a lesser degree, production-based interventions, there is a danger that countries will shift support to other measures not subject to WTO rules. Export credit and food aid programmes are natural transfer points for the continuation of disguised dumping practices.

While most industrialised countries operate officially supported export credit and food aid programmes, US practices are especially important, for two reasons. First, by virtue of the dominant market position of the US, any interventions it makes have global market effects. Second, the US is the world’s largest provider of food aid, accounting for some two-thirds of the total, and the largest user of subsidised export credit. Taken together, these programmes account for a significant share of overall exports in some key commodity groups. For example, concessional food aid and officially supported export credits have consistently accounted for over one-fifth of US wheat exports (Figure 20).

It is difficult to extrapolate export subsidy equivalent figures from credit and food aid programmes. However, it is clear that these programmes already include significant subsidised export financing. Total financing capacity through under the 2002 Farm Bill amounts to around $7.7bn. An additional $101m is provided through credit-based food aid programmes. The overall aim of export credit programmes is unambiguous. In the USDA’s own words: “Programmes are designed to develop and expand commercial outlets for US commodities” (ERS 2003a). Against this background, it is important that export credits and food aid figure prominently in any WTO negotiations aimed at addressing the problem of agricultural export dumping.
Export credits

The impact of government-supported export credit programmes is broadly similar to that of explicit export subsidies. They lower the effective purchase price paid by importers in favour of the exporting country, thereby encouraging diversion of demand. Government programmes typically include direct and indirect subsidies. The direct subsidy rate can be thought of as the difference between the interest rate and repayment period for importers backed by an official guarantee, and the market rate faced by those that are not. Indirect subsidies arise from the reduction of risk implied by government guarantees and credit insurance (Rude 2000; Hyberg et al 1995).

Industrialised countries rapidly increased the use of export credits following the Uruguay Round agreement. Government-sponsored export credits rose from $5.5bn in 1995 to almost $8bn in 1998 (OECD 2000b). While the overall subsidy element was relatively low, this was not the case for the US. Loan duration appears to have been the main factor: over 90 per cent of officially supported US credits were of more than one year in duration (compared with 2 per cent for the EU). OECD estimates suggest that the US accounted for the overwhelming bulk of world subsidies provided through export credit programmes at the end of the 1980s. This calls into question claims by the US that its agricultural export credit operations are commercial programmes, rather than export subsidies (Podbury et al 2001).

US export credit programmes matter to world agriculture, partly because of the dominant position of the country in world markets; and partly because of their sheer scale. The key credit programmes are the GSM-102 and the (much smaller) GSM-103 (these programmes are described in ERS 2003b). Both are essentially insurance programmes, underwriting credits extended by the private sector on agricultural exports, for up to three years and ten years respectively. Taken together, these are by far the largest agricultural export credit programmes in the world with $5.5bn allocated under the 2002 Farm Bill. Another important tranche of subsidised financing is provided through the Supplier Credit Programme. Designed to encourage US exporters to expand markets in areas where commercial financing is not available, the 2002 Farm Act doubled maximum credit terms under the programme to one year. The Caribbean, Central America and Hong Kong figure prominently among the markets targeted. Financial allocations under the various credit subsidy packages are geared towards commodities covered by farm support programmes: wheat, feedgrains, and protein meals account for over half of total allocations. This concentration on a narrow range of commodities, allied to a parallel concentration on strategic markets, has enabled the US to deliver high levels of subsidised support in relation to market price. Financing provisions for subsidised credit programmes are summarised in Table 3.
Table 3
Officially supported US agricultural export credit programs

<table>
<thead>
<tr>
<th>Programme</th>
<th>Funding ($bn)</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSM 102 / GSM 103</td>
<td>5.5</td>
<td>GSM 102 - Guarantees repayments of short-term credits (90 days to 3 years) extended by US exporters to foreign banks. GSM 103 - Guarantees repayments of long-term credits (3 to 10 Years) Both programmes widely used in developing countries.</td>
</tr>
<tr>
<td>Emerging Market Programme</td>
<td>1.0</td>
<td>Provides credit or credit guarantees to emerging markets to support market development.</td>
</tr>
<tr>
<td>Supplier Credit Guarantee</td>
<td>1.1</td>
<td>Provides short-term credit to foreign buyers in markets where commercial financing is restricted. 2002 Farm Act doubled credit terms to one year. Used in Latin America, West Africa and South East Asia in 2002.</td>
</tr>
<tr>
<td>PL 480 Title 1</td>
<td>0.1</td>
<td>Provides direct financing for sales or US agricultural commodities to developing countries. Financing is provided on concessional terms with credit up to 30 years and five year grace period.</td>
</tr>
<tr>
<td>Total</td>
<td>7.7</td>
<td></td>
</tr>
</tbody>
</table>

Source: Economic Research Service, 2002a

Export subsidy effects
There are serious methodological problems in attempting to derive export subsidy equivalents from officially supported export credit figures (see OECD 2000b; Wilson et al 1999). The OECD has attempted to calculate the direct subsidy element by comparing future payment streams for importers covered by officially supported export credits, and those not so covered (OECD 2000:13-14). For 1998, the period covered by the study, the effective US subsidy rate was estimated at 6.6 per cent. The Commodity Credit Corporation (CCC), the financing body responsible for the credit programmes, uses a different approach based on financial accounting. It calculates a subsidy rate that takes into account the terms of the loan, payment periods, fees, and the estimated amount of default. The time lag between credit provision and default introduces obvious accounting difficulties, but the inclusion of defaults is clearly a critical risk-related component that is important in determining real subsidies. For 1998, the CCC estimated the subsidy rate on credit programmes to be 9 per cent (OECD 200b).

Using the OECD and CCC estimates as parameters makes it possible to provide an indicative figure for the credit-based export subsidy built into the 2002 Farm Act. For the combined
programmes, the implied export subsidy component is between $508 and $693m. Actual subsidy payments will, of course, depend on the degree to which this capacity is utilised. To put this figure in context, it compares with $80m in direct subsidies reported by the US to the WTO (OECD 2002a).

Export credits are strategically used by the US to target key markets and products. Around one third of GSM-102 funds are allocated to high value-added exports. For the fiscal year 2003, around 40 per cent of credit guarantees have been allocated for use in Latin America, with Mexico accounting for just under half of this total. One obvious implication is that the US will be well placed to exploit any moves towards import liberalisation under regional and multilateral trade agreements. But the advantages conferred by export credits have implications both for local producers competing with US exports, and for rival exporters.

Current international rules regulating the use of export credits are exceptionally weak. These rules are set out in the OECD's Guidelines for Officially Supported Export Credits - a non-binding, voluntary arrangement from which any participant may withdraw at any time. The Guidelines set out a list of 'best endeavours', including broad commitments to avoid long-term credit provision and repayment periods. However, the maximum repayment time target for cereals is set at two years, and there are no effective provisions constraining interest rate subsidies (OECD 2000c)

**Food aid as a Trojan horse**

In a world where over 700 million people are malnourished, food aid is not an immediately obvious agricultural trade issue. Access to food is a fundamental human right – and food aid systems have a vital role to play in protecting that right. Food aid plays a vital role in alleviating suffering, responding to humanitarian emergencies, and supporting social development. All too often, however, food aid programmes are distorted by commercial export objectives. In some cases they are used to disguise the dumping of surplus commodities with a view to displacing local produce and fostering market development.

International food aid programmes can be traced back to the mid-1950s. It was during this period that American policy makers, faced with mounting agricultural surpluses, sought to create overseas demand through food aid. The predominant form of aid was not grants, but concessional finance provided under Title 1 of Public Law 480 (PL 480). This finance was aimed at overcoming liquidity constraints hindering imports and developing new markets. (Cathie 1985)

Many of the major recipients of aid over the following two decades – such as Mexico, Colombia, Korea, Taiwan, and the Philippines – subsequently became large commercial markets. Food aid became the 'Trojan horse' of commercial agricultural trade (Cathie 1985). At best, food aid provision was weakly related to need. During the world food emergency of 1973, when prices for cereals peaked at record post-war levels and many developing countries faced chronic food security problems, PL 480 shipments dropped to less than one-tenth of the level provided in the mid-1960s. The reason: commercial sales made surplus disposal unnecessary (Lappe and Collins 1980:293).

The central features of PL 480 remain intact, including the priority attached to market development (Ruttan 1993). Title 1 is still directed towards countries experiencing difficulties in financing commercial imports because of foreign exchange shortages. In all but name, it is
a subsidised export credit programme. Financing provisions include repayment terms of up to 30 years, low interest rates, and grace periods of up to five years (USDA 2001b). While local needs now figure in the US mission statement, eligible countries ‘also must demonstrate the potential to become commercial markets for US agricultural commodities’ (USDA/FAS 2003). Other programmes – such as Food for Progress and Section 416(b) – authorise the use of concessional finance to transfer surplus agricultural stocks overseas. Availability depends on US inventories, rather than any assessment of need.

In financial terms, government allocations for food aid are significant. For fiscal year 2002, foreign food assistance under the programmes administered by the USDA were valued at $598m, or slightly over one-half of total financing for food aid (USDA/FAS 2003). Current budget authorisations for Title 1 programmes amount to $176m. The 2002 Farm Act sets minimum annual commodity tonnage for the purchase of surplus produce and raises the financing ceiling for some of the key food aid programmes.

Food aid continues to provide an important outlet for US agricultural surpluses. There are large annual variations in aid disbursements, with supplies tending to decline as world prices rise and commercial outlets become available. In the high price period 1995-7, food aid accounted for between 4-7 per cent of US exports, rising to 12-20 per cent as prices weakened in 1999-2000.

Along with the surplus dumping the ‘Trojan Horse’ function of food aid has also continued. In the early 1990s, the Philippines was unable to sustain imports of high-protein soya meal because of foreign exchange difficulties. PL 480 was used to help finance the purchase of US exports. Ten years later, the Philippines was the largest market for US high-protein soybean meal, with American exporters accounting for 90 per cent of total imports (USDA/FAS 2001:7). The countries targeted under Title 1 as markets with a potential for high growth do not figure prominently in international assessments of countries needing additional food aid. For fiscal year 2003 the largest recipients will be Indonesia, Jordan, the Philippines, and Uzbekistan. In Latin America, Title 1 is heavily used to promote exports of wheat to El Salvador, Peru, and Guatemala (FAS/USDA 2002c).

While large sections of the US food aid programme are of limited relevance to the food-insecure people in poor countries, they are of great benefit to US corporations. Agribusiness companies are among the major beneficiaries of PL 480. Access to surplus agricultural stocks facilitated by concessional finance provides US traders with a powerful mechanism for expanding markets, often at the expense of local producers and other exporters. USDA records for PL 480 transfers illustrate the point (USDA/FAS 2002a). For the period May-September 2001 these show Archer Daniel Midland, one of the world’s largest grain traders, receiving Title 1 contracts worth $35m, around half of them for supplying corn and rice to the Philippines. The Cargill corporation was given access to another $9m in surplus commodities, principally for the Philippines and Indonesia.

Estimating export subsidy equivalents is even more difficult for food aid than for export credits. On the basis of financing arrangements and market destination, there is a strong case for arguing that the entire Title 1 programme represents an export subsidy regime - one that allocated $101m in 2002 (FAS/USDA 2002c). Including wider CCC surplus-purchasing activities aimed at expanding commercial markets would considerably magnify this figure.
Supply-driven food aid

Policy makers in the US frequently claim that, whatever the pre-history, current food aid policies are now governed by humanitarian imperatives. This claim is difficult to square with the evidence.

Even a cursory glance at the data raises fundamental questions about food aid priorities. For example, Ethiopia is at present threatened by a major famine, with 15 million people at risk. There are major shortfalls in international pledges of food aid. Yet the country receives approximately the same level of food aid from the US as Peru, which is seen as an important commercial outlet for dairy and other agricultural surpluses (USDA/FAS 2002b).\textsuperscript{17} Notwithstanding the very real food security problems faced by the poor in Peru, such priorities are difficult to square with any genuine assessment of need. Similarly, the $38m provided in food aid to the Philippines is more than the combined total allocated to Mozambique, Malawi, Swaziland, Zambia, and Zimbabwe, countries facing chronic food shortages because of drought and bad governance (USDA/FAS 2002b: Table 1). In southern Africa, as in eastern Africa, food aid transfers have fallen far short of the levels targeted by the United Nations.

If food aid supplies were responsive to need, they would rise when world prices were high and fall when they were low. The stated purpose of program food aid (as distinct from emergency aid) is to provide financial assistance to countries with balance-of-payments difficulties. Recipients would be expected to experience the greatest balance-of-payments problems when agricultural prices were high. In fact, evidence from the 1990s suggests that supply is inversely related to need: food aid volumes have been greatest at times of low world prices, and have declined in periods of high world prices. Programme food aid provides the

\textsuperscript{17} In fiscal year 2002 Ethiopia received $42.9 million in food aid while Peru received $40.5 million (USDA/FAS 2002c: Table 1).
greatest benefit when there is least need, and the least benefit in periods of greatest need. Figure 21 illustrates the relationship between world price and food aid transfers. As in earlier periods, the evidence strongly suggests that the scale of transfer is linked to the availability of domestic US surpluses, and to the availability or otherwise of commercial markets for these surpluses.

From a food security perspective, food aid volatility is a source of acute danger. Between 1992 and 1996 total US cereals shipments fell for four consecutive years, to less than one-third of the 1992/1993 level. When world prices for wheat rose by 30 per cent in 1994/95, American food aid fell by an equivalent amount as commercial markets offered more profitable outlets. The trend was thrown into reverse gear towards the end of the decade as world prices weakened. US food aid disbursements almost doubled in 1998/1999 when newly accumulating stocks of wheat were transferred to Russia and Indonesia (ODI 2000). Between 1999 and 2001 US grain shipments under the Food Aid Convention (FAC) more than doubled again, to 10.2m tonnes, as world prices collapsed and domestic surpluses accumulated.

Such facts suggest that the FAC, under which donors pledge to deliver specified annual amounts of food aid, has been largely ineffective in securing guaranteed and predictable supplies. For regions that are heavily dependent on food aid this poses acute problems, notably in the case of sub-Saharan Africa. Food aid accounts for a large, though declining, share of the region's cereal imports, representing around one-fifth of the total. In the 1980s, low world prices and the rapid build-up of stocks in industrialised countries guaranteed food aid availability well in excess of the minimum levels guaranteed under the FAC. But in the 1990s food aid shipments fell sharply, from 15m tonnes in 1992/93 to just under 9m tonnes in 1998/99 (Stevens and Kennan 2001b: 178). The fall in shipments was steepest for low-income food deficit countries, where transfers fell by 63 per cent. Supply-side factors, rather than changing nutritional or economic circumstances, appear to have been the factor behind the decline.

The case for WTO disciplines
Food aid will continue to play a critical role in international poverty reduction efforts. Provided in response to natural disasters, crop failures, or humanitarian crises, it can save lives and alleviate suffering. In some circumstances, the ‘monetisation’ of food aid through local sales can also generate financial resources for spending in key areas, such as health, education, and rural infrastructures. The problem is that the absence of effective disciplines on the use of food aid both undermines its effectiveness and exposes small farmers in developing countries to the threat of unfair competition.

At present, the only rules in place – as for export credits - are voluntary arrangements. The FAO’s Principles for Surplus Disposal set guidelines that include injunctions against the displacement of commercial imports and a requirement ‘that domestic production is not discouraged’ (FAO 1992). However, these are non-binding principles that have little real impact on food aid practices (Shaw and Singer 1996). Similarly, the USDA operates ‘usual marketing requirements’ under which the US government is required to consult with other countries to ensure that food aid sales do not disrupt normal commercial trade, or local markets. Like the FAO’s guidelines, these have done little to influence the use of food aid as a surplus disposal mechanism integrated into wider systems of farm support. To overcome these problems, food aid needs to be governed by binding multilateral disciplines, including more effective WTO disciplines on the use of export subsidies.
6. **From the Uruguay Round to the ‘development round’**

It is too early to assess whether or not the Doha Round of WTO negotiations will address the problems raised in this paper. Early signs are not encouraging. Eighteen months after their ministerial declaration, differences between the EU and the US have culminated in a deadlock.

It is important for poverty reduction efforts that this deadlock is broken. There are also less enlightened reasons for the EU and the US to negotiate constructively with developing countries. Article 13 of the AoA includes an arrangement known as the Peace Clause – in effect a moratorium on formal complaints against its key provisions. Under this arrangement, Green Box and, to a slightly lesser degree, Blue Box measures are largely exempt from challenge in the WTO. The deadline for the expiry of the Peace Clause is the end of 2003. After this date the full range of exemptions and special provisions introduced on behalf of Europe and the US in the Uruguay Round will be open to challenge. This raises the spectre of an endless stream of bilateral and multilateral disputes, which could in turn jeopardise prospects for progress in the Doha Round and destabilise the global trading system.

In this section we look at the issues at stake in four key areas, focusing on the proposals of the EU (European Commission 2002b and 2002c), the US (USDA/FAS 2002d), and the Chairman of the WTO negotiating group on agriculture, Stuart Harbinson (WTO 2003a). The areas are as follows:

- export measures
- domestic support
- market access
- the treatment of developing countries.

**Export measures**

As shown in the previous section, direct export subsidies have fallen since the Uruguay Round. They have been virtually eliminated in the US and almost halved in the EU, which remains the major subsidiser. However, serious problems remain. These relate to the shift in subsidy structure towards direct payments not classified as export subsidies, and the use of food aid and export credits by the US.

The US has proposed eliminating direct export subsidies – a no-cost option for itself. However, it has been considerably more cautious in its approach to export credits and food aid. Recent proposals call for export credit programmes to be permitted for arrangements involving interest and repayment periods of up to six months, and 30 months for developing countries, with a one-year grace period (USDA/FAS 2002d). Interest rates would be required to reflect borrowing costs for the government providing credit, thereby eliminating any assessment of the actual interest rate and risk premium subsidy in the borrowing country.

Constrained by the failure of member states to agree CAP reform measures that would eliminate the need to subsidise exports, the EU has proposed a 45 per cent cut in subsidies
over six years, and the elimination of export refunds on cereals. The latter option is now possible because intervention prices have been aligned with world prices, with the burden of income support shifted to direct payments. In fact, the EU could achieve a 45 per cent export subsidy cut with limited pain. This is because favourable world market conditions and reduced intervention prices have enabled it to build up considerable credit under the provisions of the AoA. Only around two-thirds of export subsidy entitlement was used in 1999. ‘Cashing in’ this credit would cut the real average reduction in subsidies to 20 per cent and leave $4bn in export subsidy entitlement intact.

Proposals from the WTO secretariat have fallen between the parameters set by the EU and the US. They are based on a complex formula that would reduce and eventually eliminate export subsidies over a six-year period from 2006-2013. Deeper cuts would apply in the early years. The Harbison proposals on the use of export credits are stronger than those proposed by the US. They envisage shorter grace periods, the application of full commercial interest rates plus a risk premium, and hedging for foreign exchange risk where credits are repayable in local currencies. However, export credits for developing countries would be subject to weaker repayment rules and, for basic foodstuffs, less stringent rules on repayment. If the aim is to protect developing country farmers against subsidised competition, this is the opposite of what is needed.

The most serious problem with all of these proposals is that they fail to address what is arguably the key policy challenge: namely, how to respond to the conversion of export subsidies into direct payments. As argued earlier in this paper, direct payments may be different to export subsidies, but they include a clear export subsidy component. More analytical work is needed to quantify this effect. More immediately, the agricultural trade negotiations need to revisit the increasingly artificial distinction between direct payments on the one side, and production payments and export subsidisation on the other. This is especially true in sectors that are in constant surplus production. Among the measures needed are:

- **The development under OECD auspices of an Export Subsidy Equivalent measure for direct payments.** A preliminary report should be delivered in advance of the Cancun ministerial meeting in September 2003.
- **An export subsidy prohibition and ‘early harvest’ of subsidy cuts.** A prohibition on direct and indirect export subsidies should be introduced by 2010. More immediately, the EU and the US should agree to ‘early harvest’ measures, including the phasing out of export subsidies on products of special significance to the world’s poorest countries. US cotton and EU sugar should be immediate priorities. The guiding principle for the prohibition on export dumping should be that agricultural goods are not exported at prices below the effective price received by producers, taking into account direct payments, or costs of production. This would bring agriculture into line with the basic principles of WTO anti-dumping rules: namely, no export at prices below costs of production or those received by producers.
- **A prohibition on export credit subsidies.** Export credits should be provided at full market interest rates and commercial repayment terms, taking into account market conditions in the importing country. No distinction should be made between developed and developing countries. An OECD committee should be created to monitor and assess implicit export subsidy elements in officially supported export credit programmes. New rules should come into force in 2005.
• **Elimination of export subsidies from food aid programmes.** Food aid should be provided exclusively through untied financial grants, to be used for the purchase of food by the recipient country. Where it is provided in the form of food stocks, this should be provided on grant terms within the framework of programmes operated by specialised United Nations food agencies, or non-government organisations. All ties between food aid and commercial aid programmes should be broken, including a prohibition on the use of export credits and ‘blending’ of food aid with commercial exports. As for export credits, new rules on food aid should come into operation by 2005.

Taken together, these measures would address some of the most serious problems associated with export dumping. They would also go some way towards restoring the spirit of international rules on dumping. In this context, it is worth quoting Article XV1 of the GATT, which stipulates: ‘If, however, a contracting party grants directly or indirectly any form of subsidy that operates to increase the export of a primary product from its territory, such subsidy shall not be applied in a manner which results in...more than an equitable share of world export trade in that product’ (Josling and Steinberg 2003: 23). As shown in Part 2 of this paper, it would certainly be difficult to square with this principle the dominant position of the EU and the US in commodity markets of concern to developing countries.

**Domestic support**

One of the key challenges to be faced in developing rules on domestic support is a revision of the distinction between ‘decoupled’ and ‘trade-distorting’ payments. As shown in Part 3, many ‘decoupled’ payments fulfil some of the critical functions of export subsidies: that is, they encourage production and facilitate sales overseas at prices below the effective price received by farmers.

Both the EU and the US are seeking to perpetuate current subsidy distinctions. Under the EU's proposals, 'trade-distorting' domestic supports would be cut by 55 per cent. The US wants to limit such supports to a ceiling of 5 per cent of the value of production. However, as indicated earlier, only around one-half of US government payments fall into the category of trade-distorting. And the scope of the EU proposal would depend on the fate of the Blue Box. What is clear is that a very large support capacity will remain intact under either scenario.

The Harbinson proposals challenge some of the discrepancies inherited from the Uruguay Round agreement. Blue Box payments of the type used mainly by the EU would be cut by 50 per cent (or alternatively be included in the AMS), and Amber Box subsidies by 60 per cent over ten years. For individual products, the AMS would not be permitted to exceed the average recorded over the period 1999-2000. But the proposals envisage the continuation of the Green Box system, in effect legitimising current US practices, and inviting the EU to go over to this model.

The Harbinson proposals are particularly weak on the question of *de minimis* payments. These would not be eliminated, but reduced by half – to a 2.5 per cent ceiling – over five years. This would leave both the US and the EU with a very large financing parameter because of the overall value of agricultural production. For 1999, a 2.5 per cent *de minimis* provision would have translated into a non-product-specific support entitlement of $4.6bn for
the US, creating a loophole to accommodate the counter-cyclical payments envisaged under the 2002 Farm Act.  

There is an obvious case for policy makers in rich countries to retain the right to support models of agricultural production that genuinely meet social and environmental policy goals, but without creating incentives for the production of large export surpluses. For example, the under-developed 'second pillar' of the CAP reform programme could be used to link income transfers to farm management plans geared towards less intensive agriculture. Against this background, more ambitious and forward-looking approaches are needed. These should include:

- **Narrowing of the Green Box**: Direct payments based on past production and land ownership should be treated as Amber Box measures, with an export subsidy component calculated and subject to full export subsidy disciplines. The Green Box should be redefined to include only measures that meet clearly defined public policy objectives and do not support surplus production.

- **Deeper cuts for Amber Box payments**: Amber Box transfers should be cut by a minimum of 70 per cent, with deeper cuts for payments targeted towards sectors in surplus.

- **Elimination of the Blue Box**: EU Blue Box payments should be subject to the same disciplines as Amber Box payments.

- **Redefinition of the AMS**: Support measures subject to reduction requirements should include all payments that generate over-production and export dumping, including those currently falling outside the AMS definition.

**Market access**

The market access agreement under the Uruguay Round gave considerable discretion to industrialised countries in determining their commitments – and a large number of loopholes to escape effective disciplines. Abundant use has also been made of ‘special safeguard’ provisions allowing for restrictions on imports. Tariff rate quotas (TRQs) were introduced to establish minimum access opportunities. However, the ‘fill rate’ for these quotas has fallen over time, pointing to widespread evasion of commitments (Konandreas 2002: 4). Each of these problems needs to be addressed in the Doha Round.

Conflict has so far centred on the broad approach to be applied in cutting tariffs and on the depth of cuts. There are two broad approaches: the so-called Uruguay Round and Swiss formulae. Under the former, so named because it mirrors the method adopted in the Uruguay Round, tariffs would be reduced by a specified average. The Swiss formula would apply an escalating approach: higher tariffs would be lowered proportionately more than lower tariffs. Most versions of the Swiss formula include a ceiling that not tariff could exceed.

Not surprisingly, countries with high average tariffs and a concentration of tariff peaks have tended to favour the Uruguay Round approach. Those with lower average tariffs and fewer tariff peaks advocate the Swiss approach. The EU and Japan belong to the former camp, the US – supported by the Cairns Group – are the major advocates for the Swiss formula.

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18 The value of agricultural production reported to the WTO in 1999 was $184.7bn, creating an entitlement of $9.2bn in *de minimis* payments (WTO 2003: 38).
The US has called for the harmonisation of global tariffs over five years below a ceiling of 25 per cent, coupled with a 20 per cent increase in tariff rate quotas. The EU has advocated a 36 per cent cut in average tariffs, with a 15 per cent minimum for any given tariff line.

The Harbinson’s proposal is hybrid of the Uruguay Round and Swiss formulae. It combines average tariff cuts with a sliding scale that would reduce higher tariffs proportionately more than lower ones. It envisages a three-tier model:

- The highest tariffs (in excess of 90 per cent) would be subject to an average reduction of 60 per cent and a minimum cut of 45 per cent.
- The middle band (covering tariffs of 15-90 per cent) would be subject to average cuts of 50 per cent, subject to a minimum cut of 35 per cent per tariff line.
- The lowest band (tariffs of less than 15 per cent) would be cut by 40 per cent, with a minimum cut of 25 per cent per tariff line.

These proposals have to be evaluated against the high levels of tariff peaks currently applied in agriculture. Clearly, any cut in tariff has to be assessed in the light of the initial height and the level after any agreed cut.

Thus viewed, the Uruguay Round formula proposed by the EU produces some distinctly unimpressive results. It would reduce tariffs of 100-150 per cent only to 64-96 per cent. The average tariff peak would be cut from 28 per cent to 18 per cent, and the average tariff in agriculture to around 15 per cent – still some four times the level for manufactured goods. It has to be emphasised that these figures are simple headline averages. They do not take into account the ample opportunity provided by the use of simple average formulae for creative allocation of tariff cuts. As noted earlier, industrialised countries took full opportunity of the opportunities provided in this area to minimise the real cuts associated with the AoA adopted at the end of the Uruguay Round.

The Harbinson proposals imply some adjustment costs, especially in the EU and Japan. For example, in the case of the EU they would leave import prices below guaranteed prices for the unreformed sugar sector. However, import prices for wheat would remain well above guaranteed prices, reflecting the shift in support towards direct payments (Horseman 2003). Such facts suggest that Harbinson’s framework would force the EU more rapidly in the direction of decoupled payments. But it would leave in place an impressive array of high tariffs. Those currently in the 100-150 per cent range would be lowered to a 40-60 per cent (Ruffer and Swinbank 2003).

Detailed analysis for the EU has identified 29 EU tariff line items for which tariffs will remain in excess of 50 per cent after implementation of the proposed Harbinson cuts, and another 62 products for which tariffs will be in the range 25-50 per cent. These tariff lines include products of major interest to developing country exporter. They include meat, sugar, a wide range of fruit and vegetables, and bananas (Stevens and Kennan 2003: 21-22). Japan would be left with 43 tariff lines in excess of 25 per cent and the US with thirty-one. Once again, the use of averages would also enable Northern governments to repeat the post-Uruguay Round practice of applying large tariff reductions in commodities representing a small share of output, trading this off for small reductions in tariffs representing a larger share of output.

Failure to reach agreement even on the Harbinson market access proposals, inadequate as they are, raises fundamental questions about the willingness of industrialised countries –
notably the EU and Japan – to expand market opportunities for developing countries. If the commitment to a ‘development round’ is to be realised, more ambitious approaches are needed. These could include action in the following areas:

- **Overall tariff levels.** All of the proposals would leave developing countries facing tariffs on agricultural goods far higher than average tariffs on trade between the OECD countries. There is a strong case for all industrial countries extending to Least Developed Countries (LDCs) and low-income countries the duty-free and quota-free model applied by the EU. For other developing countries a modified version of the Swiss formula could be considered: one option would be to set tariff ceilings in the range of 10-15 per cent for developing country agricultural exports.

- **Developing country preferences.** TRQs provide an opportunity to provide early market-opening opportunities for developing countries. The under-utilisation of existing quotas suggests that more could be done in this area. More generous provisions of TRQs for developing countries could help increase benefits from trade and reduce adjustment costs associated with the loss of preferences.

- **Tariff escalation.** None of the proposals adequately addresses the task of cutting tariffs on developing country exports that rise with the level of processing and value-added. One option would be a simple formula limiting the tariff on processed agricultural goods from developing countries to a level no more than, say, 1.10 times the level on the unprocessed goods.

### Special treatment for developing countries

The agricultural negotiations in the WTO have become a flashpoint for wider tensions over the status of developing countries. In principle, the right of these countries to special and differential treatment is universally recognised. That right implies that countries should not have to take on obligations that are not commensurate with their level of development. The Doha Ministerial Declaration reaffirmed that special and differential treatment measures ‘are an integral part of WTO agreements’ and that provisions in this area would be reviewed ‘with a view to strengthening them and making them more precise, effective and operational’ (WTO 2001). Nowhere is this more important than in agriculture. With vital issues of food security and national development at stake, it is imperative that WTO rules support poverty reduction strategies. But little progress has been made in negotiating provisions that respond to the problems faced by developing country governments and vulnerable populations. While less weight is now attached to (largely illusory) balance of payments problems that might affect food importing developing countries as a result of liberalisation in industrialised countries, no coherent framework has emerged for addressing the deeper links between agricultural trade and poverty.

### The problem of modulation

Most WTO agreements allow for a modulation of commitments. That is, they impose different obligations on different countries. Thus the AoA required developing countries to reduce tariffs by 24 per cent over ten years, while industrial countries were required to make cuts of 36 per cent over six years. Current proposals from industrial countries and the WTO envisage a continuation of this approach. For example, the EU advocates a repeat of the Uruguay Round formula. Following the same framework as applied to industrial countries, the Harbinson proposals envisage import tariff cuts ranging from 27 per cent (on tariffs under 20 per cent) to 40 per cent (on tariffs over 120 per cent), implemented over ten years. Domestic
support would have to be cut by 30 per cent over ten years, though payments to small-scale farmers for the purposes of supporting rural economies, and wider payments to maintain domestic production of food staples, would be treated as Green Box.

One departure from the Uruguay Round approach to modulation proposed by Harbinson, and broadly endorsed by most Northern governments, is the introduction of a new category of Strategic Products (SPs). Defined as products with an important bearing on food security, these would be subject to lesser requirements for cuts in import tariffs and domestic support. They would also be eligible for coverage under a new special safeguard mechanism to enable developing countries to effectively take account of their development needs, including food security, rural development and livelihood security concerns. Broadly, the special safeguard would allow for more flexibility in responding to surges of imports (see below).

The issue of country coverage for special treatment in agriculture raises issues of wider concern. An obvious starting point is that states suffering from high levels of food insecurity might expect inclusion. But for WTO purposes, eligibility depends on membership of one of two groups recognised as facing special problems. These are the 23 Net Food Importing Developing Countries (NFIDCs), identified on the basis of balance-of-payments problems faced in importing food, and the 49 Least Developed Countries.

An important question is whether this broad approach to modulation and country coverage is sufficient to address the problems of poverty and under-development at the heart of food insecurity. The answer is an emphatic ‘no’. There are serious problems in a number of areas: namely, tariff flexibility, the identification of Strategic Products, and country coverage.

**Tariff flexibility**

Insufficient attention has been paid to the modulation of tariff levels, partly because many developing countries took the opportunity to bind their tariffs at levels far above the applied rate, leaving room for flexibility. For example, India adopted an average bound tariff of 115 per cent, against an average applied rate of 34 per cent (Gulati and Narayan 2002: 4). Under the Harbinson proposals this would leave India with scope for retaining average tariffs in excess of 70 per cent, which is well above applied rates. However, countries that bound tariffs at lower levels could face problems. This group could include Brazil, Peru, Ecuador, the Philippines, Thailand and Egypt, all of which bound tariffs at less than 40 per cent (Konandreas 2002). In some cases – such as Thailand and Egypt – bound rates are already close to applied rates, limiting the scope for flexible tariff responses.

The dangers are readily apparent. Volatile world prices and high levels of subsidisation in rich countries have already exposed producers in a number of developing countries to import surges. As shown earlier, India was forced to raise the import tariff on wheat and dairy products when world prices collapsed in the second half of the 1990s. Other countries have also faced difficulties in coping with import surges. In Jamaica, the beef and sugar sectors were damaged by subsidised imports of ground beef and processed sugar at the end of the 1990s. Government was unable to respond because applied tariff rates were fixed under regional trade arrangements (FAO 2000). In other cases, agricultural import surges have exacerbated balance-of-payments difficulties and destabilised markets for smallholder farmers. Import tariffs are among the few instruments available to governments to protect their producers against what may be ruinous, and often heavily subsidised, competition.
An obvious question to raise in this context is whether it makes sense to liberalise imports in world markets that are so heavily distorted by Northern agricultural policies, past and present. That question takes on a special significance in relation to the livelihoods of small farmers and agricultural labourers. This is not to suggest that agricultural tariffs are in every case an appropriate vehicle for achieving food security goals. However, in many cases they may form an important part of a wider strategy aimed at supporting rural development and wider national food security goals. In a WTO context, rich countries spending $1bn a year on agricultural subsidies are not well placed to dictate rules requiring liberalisation elsewhere.

**Special Products for food security**

Poor people in rural areas secure entitlements to food through diverse livelihood strategies, including the production of food for their own consumption, cash crops for generating income, and off-farm employment (Dreze and Sen 1990). Redefining food security in terms of a small range of identifiable products would appear to be a particularly opaque way of thinking about the causes of poverty and malnutrition. There is an obvious sense in which, say, cassava in West Africa or rice in Vietnam can be thought of as a food security crop. But as the Government of India and others have pointed out, palm oil, rubber and cotton production also play a central role in supporting the livelihoods of millions of poor people. Leaving aside the issues of definition, there are serious political questions to be raised over the type of arrangements proposed by Harbinson. Developing countries would be required to submit their list of Strategic Products to the WTO, where they could be subject to protracted – and costly – legal challenge. For many of the poorest countries this prospect would act as a hidden constraint, closing down choices in public policy.

**Country coverage**

Realpolitik at the WTO dictates that the effectiveness of special and differential treatment will be inversely related to country coverage. This is for an obvious reason: namely, industrial countries are unlikely to accept far-reaching special provisions in countries they see as major markets. The logic of this starting point has prompted some to advocate a trade-off, with higher-income and large-population developing countries such as India and China accepting the need for weaker protection in the interests of securing stronger protection in poorer countries (Ruffer and Vergano 2002). That logic poses major risks in the areas of agricultural trade and food security.

The problem can be illustrated by reference to the LDC and NFIDCs group. Low per capita income and a high level of dependence on imports can cause problems of food insecurity, but they are not necessarily related. For much of sub-Saharan Africa, low incomes and import dependence are readily identifiable sources of food insecurity. By contrast, Brazil is a major food exporter, but has an incidence of malnutrition of around 10 per cent, with around 16 million people affected. As in other parts of Latin America, agricultural exports and (by comparison with LDCs) relatively high average income levels obscure high levels of rural poverty.

Viewed from a food security perspective, the grounds for excluding large countries from special and differential treatment are weak. India is not categorised as an LDC and the country is not a major food importer. But it is estimated that one-fifth of its population – 194 million people – are malnourished. The majority of the poor continue to live in rural areas. At first sight, China may appear to present a weaker case for special and differential treatment on food security grounds. The economy has grown five-fold over the past two decades, with average incomes quadrupling. Inequality has increased almost as dramatically as average
incomes, with the Gini coefficient rising from 34 to 41 between 1990 and 1999. One reason for the rise in inequality has been the relatively slow growth of average income in poor rural areas. Around 100 million people, or one quarter of the country’s rural population still live on less than $1 a day (Chen and Wang 2002: Table A6) Similarly, the grounds for excluding China on the basis of population size are weak: for all the success achieved in reducing poverty, it is estimated that 100 million people in rural areas of China continue to live on less than $1 a day.

As these cases demonstrate, there are no simple criteria for identifying countries facing major public policy problems in dealing with food insecurity. If absolute numbers in rural poverty is one factor, then India and China have claims that are more pressing than those of Africa: between them they account for over one third of rural populations living on less than $1 a day. High levels of rural poverty and malnutrition might also credibly be used to make a case for Brazil enjoying special and differential treatment rights. Some commentators have not unreasonably suggested adding average calorie supply to the criteria under consideration (Stevens 2002). However, even here there are problems: most obviously, averages disguise inequalities between groups and regions. Ultimately, the critical policy requirement is that each developing country retains sufficient flexibility to develop and implement food security policies decided at a national level. The Africa Group has called for all developing countries to retain the right to “modify their commitments if this is found necessary to protect the public interest in ensuring food security and alleviating rural poverty” (WTO 2002a: 13; 2003b). This starting point implies a departure from the wider multilateral principles of the WTO, in that it would allow developing countries a greater level of policy sovereignty. But the specific issues raised in the context of agricultural trade and food security merit rebalancing in this direction.

Ways ahead

Widespread malnutrition and vulnerability to food insecurity make special and differential treatment in agriculture vital to poverty reduction efforts. While trade policy is only one factor involved, it is nonetheless important. Unlike farmers in rich countries, poor farmers in developing countries have no access to safety nets, insurance systems, or welfare arrangements capable of protecting them against price declines caused by import dumping. Even temporary external shocks can have significant and long-lasting effects on the poor. Exposure to highly distorted and unstable markets has the potential to wreak havoc, raising fundamental questions about current approaches to import liberalisation.

Several developing countries have proposed the idea of a ‘development box’ or ‘food security box’ to encompass special and differential treatment provisions in agricultural trade (WTO 2002b; WTO 2002c). Specific proposals vary, but include the following elements:

**A special safeguard (SSG):** Under Article 5 of the AoA, industrialised countries retained the right to use a special safeguard (SSG) provision in the event of a surge in agricultural imports. In contrast with the WTO’s general safeguard provision, the SSG can be invoked without proof of injury or causal links (for example, between the injury claimed and import prices) to domestic producers. Two conditions are set for intervention under the SSG: a surge in import volume or a fall in import prices. Volume-based and price-based triggers are defined in the AoA (Ruffer and Vergano 2002: 7). Few developing countries have recourse to the SSG – and they have made limited use of general safeguard provisions. Only seven sought to initiate WTO ‘safeguard’ measures between 1995-2001, largely because of the cost and complexity of the processes involved (Konandreas 2002).
Because the SSG is automatic, it could provide developing countries with the flexibility to address the threat posed by cheap, often heavily subsidised imports, and to meet national food security goals. Each country could define trigger thresholds in its WTO schedule on the basis of national assessments for crops regarded as vital to rural livelihoods. The Government of India has created a structure for doing this, establishing strategic food security committees to market price trends in over 300 product groups (Gulati and Narayan 2002).

**A positive list approach:** Under the 'Strategic Products' approach, developing countries would be required to identify a group of products – a negative list – for special treatment. This approach should be turned on its head. Under a positive list approach, developing countries would identify which products would be subject to liberalisation, enabling them to exclude crops on food security grounds.

**Renegotiating tariff bindings:** Developing countries should be allowed to renegotiate tariff bindings on products identified as important to food security, taking into account problems faced with import surges. This would include staple food crops as well as commercial cash crops produced by significant numbers of poor producers.

**Alignment of WTO commitments with national poverty reduction plans:** WTO commitments should reflect the priorities and public policy objectives set out in national poverty reduction plans. In low-income countries, agricultural liberalisation commitments should be subject to an impact assessment to capture possible implications for the poor.

**Conclusion**

The Doha WTO round provides an important opportunity to address longstanding inequities in agricultural trade. Viewed in a broad public policy context, this has the potential to be a win-win scenario. Current agricultural policies are bad not just for developing countries, but also for the majority of producers, consumers, and taxpayers in the US and the EU. There are also high environmental costs associated with current practices. The central reform dilemma is well known. The losers from existing policies are politically unorganised, geographically diverse, and – in the case of small farmers in developing countries – lacking in voice. The winners are small groups of producers and agribusiness interests that combine financial power with high levels of political organisation. In the case of the EU, differences between countries add a further layer of complexity.

Ultimately, success – or failure – at Doha will depend on the extent to which Northern governments act on their rhetorical commitments to a new pattern of globalisation. The most immediately pressing issue is to make progress towards a WTO prohibition on export dumping. Such a prohibition will require far more stringent disciplines in other areas of subsidisation, including those currently defined as ‘decoupled’. Aligning domestic policies with such a prohibition would imply a fundamental shift in the direction of farm policy reform, both in the EU and the US, with a far clearer focus on strategies for reducing surplus production, while redirecting support towards more clearly defined social and environmental policy goals.
Dumping case study 1

The 'level playing field' in cotton: US subsidies and Africa

Cotton is a vital source of foreign exchange for some of the world’s poorest countries – and a crucial source of income for poor farmers in West Africa. It is also one of the most heavily subsidised crops in the US. Subsidies in America translate into poverty in Africa.

In 2001 world cotton prices fell to 39 cents/lb, their lowest levels since the great depression. Several factors contributed. Worldwide recession caused stagnation in demand, China reduced government stocks, and the US – the world’s largest exporter – posted record levels of production and exports. The ability of the US to expand output was a direct consequence of government assistance.

America’s 25,000 cotton farmers are first among equals in the harvesting of subsidies. Government spending on cotton reached $3.8bn in the 2000/2001 marketing year – roughly equivalent to the market value of output. Cotton producers receive the highest average payment per capita ($55,859) of any crop specialisation. In 2001/02, every acre of cotton farmland was worth $230 in subsidy, compared with $40-50 for wheat and maize. Almost three-quarters of total subsidy payments went to the largest 10 per cent of farms; the top 1 per cent collected one-quarter of the total. Just ten commercial farms received $17m in cotton subsidies between them.

Because the US is a major exporter, accounting for 40 per cent of the world market, its domestic subsidies depress world prices. The International Cotton Advisory Committee (ICAC) estimates that America’s cotton support policies reduced world prices by 26 per cent in 2001.

This price effect has important implications for the 10-11 million cotton-growing households in West Africa. Cotton is a major source of foreign exchange, household income, and employment in the region. The world price decline associated with US subsidies cost West Africa around $191m in lost foreign exchange in 2001. Falling cotton prices also exacerbated longstanding debt problems: Burkina Faso lost more ($28m) as a result of cotton subsidies than it gained in debt relief.

Deteriorating world prices also have implications for poverty at a household level. West African cotton-producing countries are among the poorest in the world, with average incomes ranging between $240-380 in countries such as Burkina Faso, Mali, and Benin. Over half of the population lives below the poverty line. Child death rates are exceptionally high. Income from cotton plays a critical role in the livelihoods of poor farmers and agricultural labourers. In Benin, which lost an estimated $33m in foreign exchange earnings, cotton accounts for around one-third of the value of agricultural output and a similar share of employment.

Using household income data for cotton producers, research by the International Food Policy Research Institute (IFPRI) has estimated that a price comparable to that associated with US subsidies results in:

- a 10 per cent decline in average income;
- a 12 per cent increase in poverty among cotton farmers and a 4 per cent increase in national poverty, resulting in some 250,000 people falling below the poverty line; and
• an 11 per cent increase in the depth of poverty.

US cotton subsidies starkly illustrate some of the double standards governing agricultural trade relations between rich and poor countries. West Africa is one of the world’s most efficient cotton producing regions. The IMF estimates that the sector can operate profitably at world price levels of around 50 cents/lb. Few producers in the US could compete at this price. Indeed, the USDA estimates average production costs at 75 cents/lb. Over the past decade, cotton has been an important success story in West Africa: output has almost doubled and exports have grown rapidly. While serious problems remain, notably in relation to the position of farmers in more marginal areas, the evidence strongly suggests that cotton cultivation has made an important contribution to poverty reduction. That contribution is being weakened by the price-depressing effects of US subsidies.

Political leaders in the US frequently advise their African counterparts to embrace free market programmes. They also espouse the virtues of a ‘level playing field’ in agriculture. Yet the subsidies provided to American cotton farmers represented over 90 per cent of the value of output in 2001 – a level that the IMF and its major shareholders would regard as intolerable in an African context. Expressed differently, US cotton subsidies exceeded the total national income of major cotton-producing countries such as Burkina Faso and Mali. Viewed from Africa, the ‘level playing field’ in cotton appears to slope downwards from the US cotton belt. (Figure 10).

Sources: Minot and Daniels (2002); Badiane (2002); Oxfam (2002); USDA (2002c)* McElroy (2002)
Dumping case study 2

The great EU sugar scam

EU sugar policies illustrate the costs associated with agricultural support programmes in industrialised countries – and the problems raised by preferential trade systems. High guaranteed prices, sustained through import restrictions, mean that over-production and export dumping are built-in features of the CAP sugar regime.

The EU is a high-cost sugar producer. Average costs of production amount to around $660/tonne, which is more than double costs in efficient exporting countries such as Brazil and Zambia. Despite this disadvantage, Europe is the world’s largest exporter of white sugar. In 2000-2001, exports reached 7m tonnes, accounting for 40 per cent of the global market. These exports were marketed at prices far below production costs and prices received by farmers. How does the EU achieve market domination given its uncompetitive cost structure?

The answer: through the use of a complex system of taxpayer and consumer subsidies (see Figure 11). Under the CAP, guaranteed intervention prices are paid for a set quota of around 12m tonnes. These prices are protected through tariffs of up to 140 per cent, making sugar one of Europe’s most protected products. The costs are borne by consumers who pay three times world market prices for sugar. In addition to quota sugar, European farmers produce a large amount of non-quota sugar, most of which is exported at world prices. This production is made possible by the high price on quota sugar, which covers the marginal cost of growing sugar over the quota. Some developing countries benefit from the regime. Under a preferential trading arrangement, 17 African, Caribbean and Pacific (ACP) countries are entitled to sell 1.7m tonnes of sugar in the EU market at guaranteed price levels.

These arrangements leave Europe with 50 per cent more sugar than is consumed in the domestic market – hence the high level of exports. In the official view of the European Commission, export subsidies play a minor role. The claim is that the sugar regime is ‘self-financing’. Technically, this is partially true. Direct export subsidies are used only to export an amount equivalent to ACP imports. Quota exports are financed through a small levy on producers. In effect, this means that a part of the subsidy that they receive from consumers in converted into an export subsidy. Non-quota exports amounting to almost 4m tonnes are not directly subsidised. But the production of this surplus is the result of cross-subsidisation between quota and non-quota sugar. In other words, export of non-quota sugar is facilitated by disguised consumer-financed subsidies. The argument that the EU is able to export non-quota sugar without subsidies may make sense in terms of internal accounting procedures, but it defies any common sense economic rationale.

The CAP sugar regime supports some politically powerful winners. Sugar processing companies lead the league table of vested interests. These companies – such as British Sugar and Sudzucker – are provided with a protected market that produces high returns for their shareholders. Profit margins in the sugar processing industry have been estimated by one investment bank at 28 per cent – far in excess of the average for the food and drinks sector. Large-scale farmers also benefit from the intervention price. Sugar beet is one of the most profitable crops grown in the EU and a major source of subsidies for big farms. In 2001 the largest sugar beet farms in the UK grew an average of 80 hectares of sugar, resulting in a subsidy of £59,260 per farm.

Developing countries are affected by Europe’s sugar policies through three channels:
• **Lower world prices.** It has been estimated that the CAP sugar regime lowers world prices by 15-20 per cent, lowering the value of exports from countries such as Brazil and Thailand on world markets.

• **Reduced market shares.** Subsidised exports from the EU keep low-cost sugar-producing countries out of valuable markets. In 2001, Europe exported 770,000 tonnes of white sugar to Algeria and Nigeria, closing market outlets for more efficient producers in southern Africa.

• **Restricted market access.** High tariffs and import quotas keep some of the world’s poorest countries out of the EU market, with attendant losses for rural incomes, employment, and foreign exchange earnings. Market access is being liberalised for the Least Developed Countries under the Everything But Arms initiative. However, liberalisation is being pursued through a gradual expansion of quotas – a concession to the sugar processing industry and the ACP. Mozambique is one of the countries that have been granted an export quota. However, with unrestricted access it could earn an additional $106m from sugar exports to the EU in 2004 — an amount equivalent to three-quarters of the EU’s development assistance to the country. To make matters worse, the EU is expanding quotas for LDC suppliers not by cutting domestic production, but by taking quotas away from ACP suppliers.

Some developing countries in the ACP group clearly benefit, though the distribution of quotas is only weakly linked to poverty. Just two countries – Mauritius and Fiji – account for half of the import quota, and LDCs for less than 4 per cent. There are also serious questions to be asked about the efficiency of resource transfer. ACP sugar industries benefit from a price premium equivalent to the gap between world and EU prices. But EU taxpayers paid traders $784m in 2001 to re-export an equivalent amount of sugar. The costs were roughly equivalent to the benefits received by preferred ACP suppliers. Leaving aside the clear absence of any poverty focus, the EU has to spend $2 to deliver $1 in aid.

Reform of the sugar sector is long overdue. One option for the short-term is to cut EU production quotas by 25 per cent. This would mean an end to EU exports and create scope for expanding market access for LDC exporters under the Everything but Arms initiative.

Source: Oxfam (2002a); Goodison (2001); Stevens and Kennan (2001)
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