Agricultural trade reform in the WTO
Special treatment for developing countries

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main findings

Trade liberalisation and developing countries

- Genuine trade liberalising reform of highly protected agriculture in developed countries is important for improving economic and social conditions in developing countries.

- However, many developing countries themselves have significant barriers to trade of their own.

- The preoccupation of countries, be they developed or developing, with increasing their exports while maintaining barriers to imports is costly for their economies.

- Multilateral trade liberalisation remains the best outcome for most countries for advancing their economies overall, particularly for long term economic growth.

- The example that developed countries set in agricultural trade liberalisation and reform is important if developing countries are to embrace trade liberalisation. Changing the forms of support but not the levels is unlikely to be convincing evidence of a genuine commitment to reform by developed countries.

Importance of ‘special and differential’ treatment

- Many developing countries are concerned about the potential costs to some of their people from substantial and immediate trade liberalisation.

- Adjustment difficulties would differ markedly among developing countries, depending on the growth, structure and diversity of their economies, labor mobility and the availability of capital. So there is a case for differing treatment.

- ‘Special and differential’ treatment as permitted under the current WTO agreements provides an opportunity for developing countries to spread adjustment costs over a longer period while taking advantage of the wider benefits to their economies from more open markets.
Slower liberalisation provides time for developing countries to implement the types of domestic programs and policy reforms that will improve the overall efficiency, competitiveness and flexibility of their economies.

- If the appropriate domestic policies are not implemented, sectors that can currently only compete by virtue of protection will fall further behind, while unprotected industries that are supposed to benefit from trade reform will be constrained.

- The longer that domestic programs and liberalising reforms are delayed, the longer it will take for developing countries to realise the benefits from reform.

**Market access**

- Impacts of trade liberalisation differ between countries. If protection was low before the reforms, the liberalisation would raise commodity prices and farmers would benefit. If protection was high before the reforms, adjustment pressures may arise.

- Some of the proposals advanced for new and additional special and differential treatment in the present WTO agricultural negotiations could lead to increased protection in developing countries. This would result in costs to both developing and developed economies, and would further depress and destabilise world prices.

  - If special safeguards for developing countries were adopted to obtain agreement in WTO negotiations, it would be important to structure them in ways that limit potential damage to world markets and trade. Otherwise, special safeguards could further depress world prices and trigger additional protection in other countries.

  - If additional trade preferences were extended to selected developing countries, the outcome would be inherently discriminatory and inefficient. It may provide short term gains to the chosen countries but at a cost to other suppliers, many of which would be developing countries.

  - If developing countries were to increase their tariffs progressively with degrees of processing (relative to those applied in developed countries), they might increase their production and export of processed agricultural products but at an additional cost to domestic consumers and lower aggregate incomes both domestically and globally.
Domestic support

- Most developing countries have relatively low levels of domestic support for their agriculture. Such support is mainly in categories that are exempt from limitations on the grounds of being considered to be minimally distorting. Current special and differential treatment exempts additional forms of support, such as input subsidies to low income or resource poor farmers, from reduction commitments.

- There is substantial room under present WTO rules and special and differential provisions for additional domestic support to be applied in developing countries where that support is regarded as necessary by members.

- A large share of domestic support by developing countries has been in infrastructure, research and training, which is important for these countries’ agricultural and general economic development.

Food security, adjustment and domestic policies

- Food security can usually be advanced more through open trade coupled with targeted arrangements, such as social security and infrastructure development, than through import barriers or subsidies.

- Trade reform will be more effective in advancing economic conditions if underpinned by markets and institutions that function well. If other sectors can readily grow, adjustment pressures for people leaving agriculture will be eased where protection is reduced.

- Trade liberalisation is only one part of necessary reforms to advance economic development.

- The issue of special and differential treatment should be evaluated in relation to the timing, scope and resources available to developing countries to reduce the costs of adjusting to more open markets.
Currently, negotiations are under way in the World Trade Organisation (WTO) on a new agreement on agriculture. These negotiations have become part of a wider trade round since it was agreed in Doha in late 2001 that such a round should occur. The Doha Ministerial Declaration emphasises the importance of international trade in promoting economic growth and alleviating poverty. It undertakes to make positive efforts to ensure that developing countries ‘secure a share in the growth of world trade commensurate with the needs of their economic development’ (WTO 2001a).

Most of the distortions to international agricultural trade and markets have arisen from protection by developed countries (Tyers and Anderson 1992). Such distortions emanate from a combination of barriers to imports, market distorting domestic subsidies and export subsidies. They hurt the economies of many developing countries through restricting their access to markets and by subjecting their farmers to competition from subsidised products. However, many trade distorting protection policies are also being pursued by developing countries, slowing both their own development and that of their trading partners, including other developing countries.

Developing countries constitute the majority of WTO membership. Consequently, the positions they take in the present negotiations are likely to be critical if real trade liberalising reform is to be achieved. While governments of many of these countries also intervene substantially in their agricultural sectors, it is generally considered that these countries experience differing conditions from developed countries and that these conditions warrant special treatment. Agricultural adjustment costs and food security loom large in developing countries’ concerns about trade liberalisation.

The differing treatment for developing than for developed countries that is incorporated in WTO agreements is termed ‘Special and Differential’ (S&D) Treatment — see Michalopoulos (2000) for the evolution of S&D treatment in the context of changing views on how trade policies can help development.
Special and differential treatment arises in two main areas under the Agreement on Agriculture. One is through allowing developing countries to reduce their barriers against imports by less than the agreed cuts for developed countries. The other is through allowing developing countries to reduce their market distorting forms of domestic support by less than developed countries. The lesser and slower reductions provide a longer time frame for implementing trade reform in developing countries. Least developed countries (LDCs) are exempt from reduction commitments altogether.

Following the adoption of the Doha Ministerial Declaration, several developing countries, and also some nongovernment organisations on their behalf, are advancing proposals for additional and/or revised special treatment in the present WTO negotiations on agriculture. These generally call for an extension of the special treatment that is already provided, while some advocate the incorporation of a separate ‘development box’ in the Agreement on Agriculture. Some of these proposals call for trade liberalisation by developed countries while reserving the right of developing countries to provide substantial protection — and, in some cases, even to increase it.

At the same time, there is considerable confusion about the nature of S&D treatment as it is currently applied. The objectives in this report are to:

- clarify what the S&D provisions in the present WTO Agreement on Agriculture are;
- examine the reasons for special treatment and to provide an assessment of some of the proposals for S&D arrangements that have been advanced for the current WTO negotiations;
- analyse the effects that different levels of market access reform would have on economic conditions in developing and developed countries;
- appraise the broad economic effects of S&D arrangements for domestic support*; and
- draw conclusions on policies to address food security problems that are advanced as a prime reason for extending S&D treatment of developing countries.

* A more comprehensive analysis of S&D arrangements for domestic support has recently been published by ABARE (Roberts, Jotzo and Perry 2002) and is available on ABARE’s web site (www.abareconomics.com).
Overview of present WTO market access and domestic support arrangements

General agreement

Under the present WTO Agreement on Agriculture, it was agreed that WTO member countries, other than LDCs, should reduce both their barriers to market access and their market distorting forms of domestic support to agriculture. The agreement has now been implemented by developed countries, while the implementation period for developing countries will conclude in 2004.

Market access

For market access, it was decided that all barriers to trade should be subject to a process of tariffication. Forms of economic barriers against imports other than tariffs, such as import quotas and variable import levies, were converted to their tariff equivalents. These tariffs were then bound — that is, the members undertook not to increase their applied tariffs above those levels, except by negotiations, with compensation for affected trading partners (Young 1994). It was then agreed that these tariffs along with those that were already bound were to be reduced over an agreed period of time.

An additional element of the agreed changes was that developing countries that did not have bound tariffs for particular commodities in September 1986 were allowed to nominate ‘ceiling bindings’ for those commodities. These ceiling bindings then became their bound tariffs, from which the agreed cuts would apply. Such ceiling bindings could be higher than the applied tariffs at the time (Young 1994).

To ensure that access by exporters to import markets was not reduced, importing countries undertook to maintain at least current access levels and to provide minimum access opportunities up to agreed proportions of base (1986–88) consumption levels. These provisions were put into effect through a system of tariff rate quotas under which tariffs charged on quantities below...
specified levels were lower than tariffs on quantities that might enter above those levels.

**Domestic support**

For domestic support, it was agreed that WTO members should reduce their amounts of market distorting domestic support for agriculture as a whole. This distorting support is represented by an Aggregate Measurement of Support (AMS).

The AMS comprises support to producers through administered internal commodity prices that are above constant benchmark world market levels and forms of subsidies that are not exempted. These nonexempt subsidies are considered to be market distorting, being related to production, prices or input use.

A wide range of subsidies and other forms of government support have been exempted from inclusion in the AMS on the grounds of them being production limiting (termed ‘blue box’ exemptions), or being considered to be minimally market distorting (termed ‘green box’ exemptions). In addition, members are allowed exemptions where support is considered to be market distorting but below agreed ‘de minimis’ proportions of the value of production. These exemptions are available for each of product specific and non product specific support.

The forms of domestic support that qualify for blue box, green box and *de minimis* exemptions under the present agreement can be provided by both developed and developing countries. However, the developing countries have not been using production limiting blue box arrangements, probably because they are generally concerned to ensure supplies of food for their people and also because of the high budget costs with such arrangements.

The green box support that is exempted on the grounds of it being considered to be minimally distorting includes provision of many government services and infrastructure, domestic stockholding for food security purposes, domestic food aid, a range of subsidies for regional and environmental assistance, decoupled direct income support, income insurance subsidies, disaster relief and investment aids.

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Special treatment for developing countries
Special provisions for developing countries

The special needs of developing countries are addressed in the present WTO Agreement on Agriculture through the following provisions (WTO 1993, 1995).

Market access

- Developing country tariff reductions are two-thirds of those for developed countries, with average reductions of 24 per cent and minimum cuts for any particular item being 10 per cent. The comparable cuts for developed countries are 36 per cent and 15 per cent. The cuts for developing countries are over ten years compared with six years for developed countries.

- The implementation period for minimum access commitments for developing countries is ten years compared with six years for developed countries.

- A special provision is made for developing countries enabling them not to tariffy imports for a primary product that is the predominant staple in the traditional diet, subject to the following conditions: that imports comprised less than 3 per cent of base (1986–88) consumption, no export subsidies had been provided since the base period, and effective production restraining measures had been in place. Under such conditions, minimum access opportunities should be provided for 1 per cent of base period (1986–88) consumption in the first year of the implementation period, rising to 2 per cent by the fifth year. The minimum access commitment would then rise in equal annual instalments to reach 4 per cent in the tenth and final year of the implementation period.

Domestic support

- AMS levels for developing countries are to be reduced by 13.33 per cent over ten years, whereas the cuts are 20 per cent over six years for developed countries.

- Investment subsidies generally available to agriculture in developing countries and agricultural input subsidies generally available to low income or resource poor producers in developing countries are exempt from limits or cuts, as is support to encourage diversification from growing illicit narcotic crops (Article 6.2 of the Agreement).
The thresholds for *de minimis* exemptions for distorting support measures that are used are 10 per cent each for product specific and non product specific support, totaling a maximum of 20 per cent of the value of agricultural production. The corresponding exemptions for developed countries are 5 per cent each for commodity specific and non commodity specific support, giving a total potential amount of 10 per cent.

LDCs designated by the United Nations are exempted from reduction commitments under the agreement. At present there are 49 countries on the United Nations list, of which thirty are WTO members (box 1).

<table>
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<tr>
<th>Box 1: Least developed countries that are members of the WTO and exempt from reduction commitments</th>
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<td>Angola</td>
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<td>Lesotho</td>
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<td>Madagascar</td>
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These provisions mean that developing countries, which undertook to implement a program of trade liberalisation and domestic reforms along with developed countries when they adopted the WTO Agreement on Agriculture, will be able to adopt those reforms more slowly and with smaller cuts than developed countries.
**opportunities for achieving benefits from S&D**

The provision of S&D treatment in WTO agreements is now well established and accepted by the membership, with developing countries committed to lesser cuts to tariffs and domestic support than developed countries and with the least developed countries not required to make commitments.

With economic gains from trade generally arising from reducing trade barriers and market distorting support, what then should be the ongoing role for S&D treatment?

A first step is to identify the main underlying problems that developing countries face. Clearly, developed countries’ protective barriers against imports harm developing countries’ economies. But the problems are much wider than that. Internal economic structures and institutions in developing countries often impede the efficient functioning of markets. In practical terms this means that farmers in these countries may not have the same scope as those in developed countries to recognise market opportunities, either domestically or internationally, and to act on them.

For countries to take advantage of trade liberalisation to advance their economic well being, markets need to be working well so that resources can flow readily from less productive to more productive activities.

Stiglitz (1999) points out a range of problems in developing countries that result in poorly functioning markets, including government regulations, rigidities in labor markets and lack of access to capital. He noted that such poorly functioning markets could result in inadequate job creation to employ people who lose their livelihood in the restructuring that follows trade liberalisation: ‘Moving workers from a low productivity sector to unemployment does not increase output.’ The effect on overall economic welfare for the country would depend on how large the distortions were in the low productivity sector and elsewhere in the economy, and how many people were involved.
The underlying causes of these shortcomings need to be addressed if the potential benefits from trade liberalisation are to be realised. It is here that S&D treatment can play a role. By not requiring developing countries to liberalise as rapidly as developed countries, they are given some breathing space to address the inadequacies in their internal economies and policies that limit the benefits that they can obtain from more open markets. However, such delays come at the cost of not obtaining the benefits as quickly.

Of course the extent of these problems varies widely between developing countries, but there are particular areas where reforms can have high payoffs in making markets operate more effectively. Such areas include reforms to land titling institutions to make property rights more secure, reforms to judicial institutions to enforce contracts, reforms to corporate governance and reforms in the provision of infrastructure and in ensuring its availability to vulnerable groups (World Bank 2002). In addition, improvements in education and training are clearly important in providing the expertise to develop a wider range of economic activities and for assisting in the process of adjustment.

Where market based reforms are instituted along with institutional and legal reforms, the situation of farmers can be improved. An example where market oriented policy reforms have helped farmers is the deregulation of agriculture in Indonesia since 1998. Montgomery et al. (2002) demonstrate that farmers in Indonesia now receive a higher percentage of the final market price of their products and that real prices for their products are higher than previously. This has resulted from the dismantling of local monopolies, monopsonies and quotas and the elimination of many distorting taxes and levies. For Vietnam, Che, Kompas and Vousden (2001) find that the country’s rapid change from being a large importer of rice to being the world’s second largest exporter occurred largely as a result of more competitive markets brought about by trade liberalisation, as well as earlier domestic market reform.

S&D provisions that are well designed should help provide the time, scope and opportunity to prepare developing countries for the ongoing process of adjustment. If the opportunities that they present are not taken, those countries will fall further behind in achieving the benefits from trade liberalisation. If, instead of seeking to make both internal and external reforms to obtain the benefits from more efficient resource use and trade, countries backslide toward greater protectionism and take the route of increasing
their barriers to trade, it will be to their own cost. This will be demonstrated later in this study by a modeling analysis of trade liberalisation for agriculture.

Stiglitz (1999) observes that developing countries have been adept at learning from developed countries how to use additional highly market distorting protection measures such as antidumping and countervailing measures. He warns of the danger that if support for liberalisation in the developing world falters, even greater inequalities between rich and poor countries are likely to emerge, with even more people in poverty.

Unfortunately, many of the proposals that have been made by some developing countries to the present WTO negotiations on agriculture could, if adopted, result in such backsliding (see box 2 for a list of some such proposals for market access and domestic support).

**Box 2: Selected proposals advanced by some developing countries and nongovernment organisations**

**Market access**

**Access to developed country markets**
- Developed countries should provide quota free and tariff free access to products from low income resource poor farmers in developing countries.
- There should be mandatory filling of tariff quotas by developed countries.
- Tariff rate quotas (TRQs) by developed countries should eventually be abolished.
- In the interim, there should be a substantial expansion of TRQs administered by developed countries.
- Low income developing countries should be given special preferential access to developed country TRQs.

**Food security crops in developing countries**
- Basic food security crops should be exempt from tariff reductions or other commitments.
- There should be a right to renegotiate (upward) the low tariff bindings that apply to food security crops where those bindings are currently low.

**Tariff bindings**
- Developing countries should be able to adjust their tariff bindings by relating them to the trade distorting policies of developed countries.

Continued ➔
## Box 2: Selected proposals advanced by some developing countries and nongovernment organisations continued

- Developing countries with domestic support below *de minimis* ceilings should be allowed to maintain ‘appropriate’ levels of tariff bindings to protect rural populations.
- Developing countries should be allowed to reevaluate and adjust their tariff levels, allowing them to raise their tariff bindings to protect food security when cheap imports threaten domestic producers.
- All tariff reductions made by developing country members should be made from the basis of their bound, rather than applied, rates.

### Special safeguards, antidumping and like measures

- Special safeguards providing automatic increases in tariffs, with a provision to impose quantitative restrictions under specified circumstances in the event of a rapid increase in imports or decline in prices, should be allowed.
- There should be greater flexibility to reevaluate and adjust tariff schedules, with a view to overcoming the negative effects of cheap subsidised agricultural imports.

### Minimum access

- Developing countries should be exempt from any obligation to provide any minimum market access.

### Domestic support

#### AMS levels

- Developing countries should be allowed to offset negative product specific support against positive non product specific support.

#### De minimis

- *De minimis* support ceilings for commodity and non commodity specific support in developing countries should be doubled to 20 per cent each.

### Expanding article 6.2 S&D exemptions

- Subsidised credit and other capacity building measures should be permitted as exemptions when provided to low income or resource poor farmers.
- Measures should be taken to increase domestic production of staple crops for domestic consumption.
- Spending on transport costs from surplus to deficit parts of a developing country should be permitted as exemptions for food security crops.

### Expanding access to green box exempt measures

- Greater flexibility should be granted to developing country members to increase their levels of domestic support within the framework of green box (Annex II) measures.
Some important developing country considerations for S&D treatment for agriculture

Differences among developing countries

While the most obvious difference between developed and developing countries is the large disparity in average incomes, other general differences may be recognised. Many more people rely on agriculture for a living in most developing countries than in developed countries and agriculture contributes a larger share of overall economic activity (figure A). Also, most developing countries have less developed social security systems than developed countries. Many have institutional frameworks that are not well adapted to modern market based economies and inadequate infrastructure that can increase the costs and reduce the overall net benefits from more open markets. An example is where inadequate port facilities prevent imports even when tariffs or other economic barriers are lowered.

It is also critical to recognise that large differences apply among developing countries in incomes, the contribution of agriculture to the economy, the balance between large and small farms and particularly in the rate of growth and variety of other sectors in their economies. All of these factors can influence the degree of adjustments of people and resources that may arise from trade liberalisation and the ease with which the adjustments can be accommodated. Differences in the economic structure of countries are also important — for example, agricultural trade liberalisation affects net exporters of agricultural products differently from net food importing countries.

A

Key indicators: differences between country groups

<table>
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<tr>
<th></th>
<th>Least developed countries</th>
<th>Developing countries</th>
<th>High income OECD</th>
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</thead>
<tbody>
<tr>
<td><strong>Contribution of agriculture to GDP</strong></td>
<td>60</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td><strong>Rural population as share of total</strong></td>
<td>20</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td><strong>Income per person (US$’000 ppp adjusted)</strong></td>
<td>5</td>
<td>60</td>
<td>50</td>
</tr>
</tbody>
</table>
S&D treatment and trade liberalisation

Generally, trade liberalisation that reduces agricultural protection around the world results in higher world market prices (Tyers and Anderson 1992). This should reduce adjustment pressures on farmers where their returns reflect world prices. In countries and industries where agricultural protection and support have been low, this provides additional opportunities for agricultural development.

However, in countries where agricultural industries have been protected from import competition and where commitments are made to reduce barriers to trade, the protected products can encounter increased competition from imports. Such competition can adversely affect the incomes of farmers in the previously more protected parts of the sector, forcing them to adjust their operations and, at the extreme, to leave farming.

These adjustment pressures are not limited to developing countries. However, the implications of farm adjustment for people in developing countries may be more adverse because of inadequate social security systems and, in some circumstances, fewer employment opportunities elsewhere. Consequently, there can be reasons to allow greater flexibility for governments in developing countries to assist vulnerable groups of farmers than in developed countries — an argument made, for example, by Oxfam Community Aid Abroad (2002).

Apart from enabling easier adjustment by farmers, there are several other reasons why differential treatment for developing countries might be seen as justified:

- Lesser cuts in tariffs for developing countries over longer periods can reduce the rate of rural–urban migration, which can reduce the strain on often underdeveloped urban amenities in developing countries.
- Tariffs on trade are one of the few administratively convenient ways of collecting revenue for governments in many developing countries.
- Input subsidies have come to be relied on by low income, resource poor farmers in some developing countries, and their withdrawal would cause hardship for this already disadvantaged group.
- Food insecurity is a problem in many developing countries and special measures may enable developing countries to address it.
Yet, there is a danger that emphasising these factors can discourage the very changes that are necessary to advance overall economic adjustment and development. Counterarguments to the above points include:

- Reducing agricultural tariffs can increase the rate at which people leave farming. If higher incomes can be earned in nonagricultural activities, overall benefits will arise. Not all labor released from farming need necessarily be absorbed in industrial jobs in urban centres that have inadequate infrastructure; for example, the rural nonfarm sector has been expanding in many countries (Lanjouw and Lanjouw 2001).

- Although tariffs on trade may be important for raising revenue in developing countries, low tariffs on a wide range of traded products would be less costly in economic terms than high tariffs concentrated on agricultural products and a few other items.

- Input subsidies are a highly inefficient form of support. Typically, the costs to providers exceed the benefits to recipients.

- Food insecurity can be addressed in ways that are more effective than through domestic agricultural protection (see chapter 7).

Locking resources and employment into traditional structures of farming can slow the process of adjustment to more highly productive activities both within and outside agriculture and reduce longer term economic growth.

However, some developing countries have far less dynamic economies than others. For example, some countries in sub-Saharan Africa have very narrow industry bases, with markets that are not operating efficiently. These countries face substantial challenges in developing a combination of institutional, legal and educational reforms to provide an economic environment that is conducive to more ready transfers of labor and other resources to alternative activities when protection is withdrawn from particular activities. People and resources that may be displaced from agricultural activities in such countries if protection is withdrawn might be expected to adjust less readily than in developing countries that have more dynamic economies where markets function more efficiently. Where countries are classified in the least developed countries group, their special conditions are addressed in the present WTO Agreement on Agriculture through that group being exempt from commitments.
Food security

In contrast to developed countries, where the purchasing power of most individuals, the existence of extensive and efficient food distribution and storage systems, and the strength of social security arrangements can ensure food security, there are real problems of food insecurity in parts of many developing countries. The definition of food security from the 1996 World Food Summit is ‘when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life’ (FAO 1996). Food insecurity occurs when these conditions are violated.

Food insecurity stems from a lack of affordability caused by poverty and from a lack of food availability. In turn, lack of availability can result from a number of factors, prominent among which are climate and weather, disruption to supplies from war and civil strife, and inadequate transport and storage infrastructure to service isolated areas. A clear distinction should be made between food security and self sufficiency. Trade can make an important contribution to assuring food supplies. Trying to achieve food security by highly supporting domestic production in the name of self sufficiency can be costly and self defeating in economies where comparative advantage lies in other industries.

Expectations of developed country liberalisation and demands for S&D treatment

While domestic political factors can and do impede liberalisation and attaining the associated economic benefits for societies as a whole, international cooperation, such as through WTO negotiations, can provide a means of reducing those negative factors through coordinated action. Countries’ concerns about competition from others’ subsidised products could be alleviated if support were reduced or eliminated in other countries as well. Also, world prices would rise, reducing adjustment costs to farmers. These factors would ease the path to reform.

Obtaining freer access to developed country markets is clearly trade liberalising and in the interest of global economic development and growth. However, the expectations of many developing countries for trade liberalisation by developed countries under the current WTO Agreement on Agriculture have so far not been met. For example, in a proposal to the current
agricultural negotiations on S&D treatment and a development box, a group of eleven developing countries observed that subsidies in OECD countries increased between the beginning of the WTO Agreement on Agriculture and 1998. They also observed that import barriers in developed countries had risen, and that developing countries that have not traditionally provided subsidies have not been allowed to do so (WTO 2000a). That same group proceeded to recommend a list of measures for developing countries that would enable them to increase support and protection, largely unconstrained.

The WTO Agreement on Agriculture includes provisions that enable developed countries to meet commitments to reduce market distorting support simply by changing the forms rather than the levels of support. Also, commitments to reduce tariffs were from bound rates that were calculated by most countries in ways that inflated base levels, a process that some people have called ‘dirty tariffication’ (Ingco 1995). A combination of countries being able to shuffle support from market distorting measures to ‘production limiting’ or ‘minimally distorting’ measures that were exempted from cuts or limitations, along with substantial unused ‘water in the tariff’ (that is, bound tariff rates exceeding the actual level of tariff protection), has enabled major developed countries to maintain high levels of support.

The changes in forms of support in developed countries have generally been to measures that are less distorting than formerly. However, the rules agreed for the exemptions on grounds of them being production limiting or minimally market distorting are being applied in ways that maintain definite market distorting elements. In fact, there has been a major reorientation of support by both the European Union and the United States to these production limiting and supposedly minimally distorting arrangements.

Such has been the scale of the support provided by the developed countries and so liberally are the WTO rules being applied, that it is entirely understandable that some developing countries are questioning the commitment of major developed countries to the reform process. They can see that agricultural support in the OECD countries, in particular the European Union, the United States and Japan, in the late 1990s had risen once more to levels similar to the extreme levels that prevailed in the mid-1980s (OECD 2001).

Furthermore, there have been policy changes recently in developed countries that are cementing high levels of support. This has been particularly the case with the 2002 US farm bill that provides for substantial increases in US
support beyond levels that prevailed before there was a major upsurge from 1998. It is expected that the United States will claim that much of the support is ‘decoupled’ — not linked to production, prices or inputs. Such decoupled payments are exempted from limits or cuts in the WTO Agreement on Agriculture, on the grounds of them being minimally distorting — that is, they are not expected to significantly influence production, consumption or prices.

The decoupled, and therefore supposedly minimally market distorting, status of many of the payments in the new farm bill is questionable because the bill provides for growers to update the area and yield bases on which the payments are made. Such updating creates expectations that farmers can obtain greater government payments if they plant more now and over the next few years, enabling them to increase bases when they are next updated (Roberts and Jotzo 2001).
issues in the current negotiations

There is a wide range of interests and objectives that have been expressed by developing countries in the WTO negotiations on agriculture, especially since the Doha declaration. While some focus on liberalisation and market access to developed countries, others pursue expanded S&D provisions in a variety of areas (see Kaukab 2002). In this section, three distinct issues in the negotiations are analysed: special safeguards for developing countries, trade preferences and tariff escalation.

Special safeguards for developing countries

India (WTO 2001b) and a group of developing countries (WTO 2000b) have proposed that all developing countries should be able to apply special safeguards against imports when they threaten to disrupt domestic industries. In the current agreement, special safeguards have been allowed where countries have converted nontariff barriers to tariff-only protection, and where they have designated items in their schedule of commitments for these safeguards to be applied (WTO 1995). Of the present WTO membership of 144 countries, 39 countries can provide special safeguards for some or many agricultural products. Of these 39 countries, 25 are developing countries (WTO 2002).

Characteristics of special safeguards

Special safeguards involve the temporary triggering of increases in tariffs under specified conditions when there is a surge in the volume of imports of the relevant product or when prices fall to below specified levels. In the present agreement, there are schedules relating the extent of the additional tariff, to the degree to which import volumes exceed those in a previous period or the extent to which import prices fall below levels in a base period.

Special safeguards have much in common with variable import levies that increase automatically when import prices fall. However, the special safeguards are a truncated form of such levies, with the degree of truncation depending on the rules for triggering them and the scale of temporary tariff increases that can be applied.
Variable import levies are an automatically countercyclical mechanism that was widely used by the European Union until the end of the Uruguay Round when they were outlawed. They are extremely disruptive to trade and to agricultural adjustment internationally as they render domestic production and consumption virtually unresponsive to world price signals. When world prices fall, for example, indicating high export supplies relative to import demand, variable levies increase by as much as the prices fall. This means that the low world prices do not provide signals for producers in the country applying the levies to produce less and their consumers to consume more, thereby preventing them from contributing to alleviation of the low prices. The mechanism throws an additional burden of adjustment onto exporting countries.

Special safeguards have many of the same effects as variable import levies, although within the limits and according to the schedules of tariff increases permitted.

Arguments might be made for the application of special safeguards in developing countries on the grounds that farmers in those countries do not have access to the same risk management tools to insure against sharp short term price reductions as those in developed countries. As market institutions are often underdeveloped, most farmers are not able to sell forward or hedge to secure price levels. They are therefore fully exposed when internal prices fall in response to a temporary influx of imports and sharp price reductions (Foster and Valdés 2002). The possibility of low border prices and the lack of instruments to ameliorate downward price risk are often factors in political pressure against trade reform by import competing farm groups.

Also many farmers in developing countries have few financial reserves to cushion them against sharp reductions in prices, so poor farmers can face deprivation and food insecurity when such falls occur. As well as some farmers in these countries being exposed in these ways at the time when prices fall, sharp temporary price reductions can impair the ability of farmers to produce subsequently. As their resources become so depleted when they face periods of low prices, they are restricted in their ability to produce in the next year or season, thereby reducing production capacity and, it is argued, food security in the next period. It is also claimed in India’s proposal (WTO 2001b) that it is time consuming for governments to avail themselves of general safeguards via the WTO Agreement on Safeguards, and by the time such safeguards may be invoked, much damage can be done to the livelihoods of affected farmers.
These arguments are primarily internal to the countries that face periodic low prices for imported commodities. They do not take account of the food security of groups other than farmers in the importing countries. Also, they do not take account of the wider international ramifications of their use by developing countries that together may constitute a very large group of producing and trading nations that account for large proportions of world trade in agricultural products. There can also be problems with the present safeguard arrangements triggering increases in tariffs when imports rise sharply in percentage terms, even though the absolute volumes of such imports can be small.

Special safeguards play a ‘pot holing’ role of ‘filling in’ internal market prices when there are sharp increases in imports or sharp reductions in world prices. As such they result in higher average prices for food to both domestic producers and domestic consumers in importing countries over time. They protect domestic producers, but at a cost in terms of higher food prices to domestic consumers. They are another form of import protection.

Their automaticity is part of the appeal of special safeguards as protective measures. This is in contrast to antidumping cases that can be difficult to prove and sustain in the WTO, especially for developing countries with few administrative resources.

**Effects of special safeguards**

**Price effects**

It is important to consider that, by their nature, special safeguards would usually be triggered when world supplies are large and world market prices are depressed. If developing countries that contribute a large part of world import demand implement increased tariffs when world market prices are low, there will be various effects.

The higher tariffs will mean that production in the countries imposing the safeguards will be higher than otherwise and import demand by the countries will fall. This in turn further depresses world prices, exacerbating negative impacts on producers in the countries that do not apply safeguard measures. Some of those would be developing country exporters. Furthermore, the price insulation of producers in the countries imposing the safeguards over time will result in higher long term average prices in those countries, increasing their production and reducing their consumption. This has a longer term
depressing effect on world prices. The result will be world market prices that are periodically even more depressed than if the safeguards were not applied, and lower average world prices over time. The lower average world price would result in costs to exporting countries but lower import prices for agricultural importers.

**Potential for retaliation**
Another effect of the safeguards is their potential to trigger additional protection in other countries. Some major, wealthy developed countries that already have high agricultural support would almost certainly respond to the lower and more variable world prices by increasing both their level of support and its ability to offset periodic reductions in world prices. Even exporting countries that have so far provided little support to agriculture would face political pressures for agricultural assistance when faced with lower and more variable agricultural prices. Such reactions would, in turn, further

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**Box 3: Measures for limiting the harmful effects of special safeguards on trade**

If special safeguards were extended to many more countries, the problem of safeguards being triggered simultaneously by many countries when world supplies are large and market prices are depressed could be limited if:

- quantity and/or price trigger points were set so that it would require very large increases in import quantities or reductions in import prices before the safeguards could be implemented;
- the schedule for permitted increases in tariffs for various degrees by which imports increase or prices fall were set in a way that offset only a relatively small proportion of import price reductions; or
- the number of countries and commodities to which special safeguards were applied could be limited.

Some specific suggestions on how special safeguards could be designed to limit market disruption have been made. For example, Konandreas 2000 (quoted in Foster and Valdés 2002) suggests that:

- special safeguards could be allowed only for countries and commodities for which bound tariffs were less than some threshold — alternatively, the upper limit for tariff increases under special safeguards could be inversely related to the bound tariff; and
- the option to apply special safeguards could be limited to countries with domestic support levels below some threshold.
depress and destabilise world prices and trade. There is a danger that
preparedness to accept the rights or abilities of large particular groups to
additional protection can escalate protection generally — the antithesis of
the desired outcome from WTO agricultural negotiations.

Special safeguards are a form of highly market distorting protection, when
provided by either developed or developing counties. If it were necessary to
provide them generally to developing countries to facilitate an agreement
being reached in the WTO, both developed and developing countries need
to be clear that it will be at a cost to most of their economies, and that cost
could become larger than they might initially think. Some of the means that
might be pursued to limit the harmful effects of special safeguards on world
trade, and market price levels and variability are indicated in box 3.

Countries that have applied import tariffs for particular agricultural commodi-
ties that are well below their WTO bound rates can already raise import tariffs
within their bound limits whenever they wish. Under such conditions, the
addition of special safeguards could be largely redundant.

Trade preferences

But what if, instead of these economic costs of protection being directly
borne by the developing countries, they could be borne by someone else.
This happens when others provide special treatment to particular countries
through preferential access to their markets.

Trade preferences are inherently inefficient relative to nondiscriminatory
access. They allocate market access according to political criteria rather than
through efficient market forces. They run contrary to one of the two found-
ing principles of the modern multilateral trading system. Those principles
are the reduction of barriers to trade, and ‘the elimination of discriminatory
treatment in international commerce’ (preamble to GATT 1947; WTO 1995).

In the present WTO negotiations on agriculture, the European Union has
proposed that ‘developed countries and the wealthiest developing countries
[should] provide significant trade preferences to developing countries, in
particular the least developed’ (WTO 2000c). This is consistent with the
‘Everything but Arms’ initiative by the European Union to extend full free
access to its own market for all products from the least developed countries,
except rice, sugar and bananas. For the latter ‘sensitive’ items, full
implementation of tariff cuts would be delayed until 2009, and it seems likely that there will be further attempts to delay implementation as that time approaches. A recent quantitative study shows that nearly all of the benefits to the least developed countries would arise from greater access for sugar and rice (UNCTAD and the Commonwealth Secretariat 2001).

Preferential access has a strong superficial appeal to exporting countries. For those who receive it, access to markets is enhanced. That access is usually to countries where protection is high, and prices received under it are often well above those obtainable on world markets. However, it often increases production in high cost areas that become dependent on its continuation. It can focus resources on lobbying for its continuation rather than on adjusting to more efficient activities. It can stifle innovation in other sectors and result in economies having a very narrow focus. It diverts export opportunities away from more efficient producers, many of which will be other developing countries, and reduces global incomes (Topp 2001).

**Tariff escalation**

In addition to adjustment pressures on farmers, food insecurity and restricted access to markets in developed countries, developing countries have expressed concerns about the composition of trade in agricultural commodities. They observe that, on a world scale, trade in agricultural products is increasingly in higher valued processed and transformed products. At the same time many are concerned that their own exports remain primarily in unprocessed basic agricultural raw material products (WTO 2000b). There is a long established downward trend in the terms of trade for basic agricultural products and the declining real prices are directly reflected in the living conditions of large numbers of people in developing countries (Tyers and Anderson 1992; WTO 2000b; Oxfam International 2002).

A number of factors contribute to developing countries not obtaining a larger share of trade in processed agricultural products. Large agricultural processing industries have become established in developed countries, such as in western Europe and north America along with the ready availability of large regional concentrations of agricultural raw material supplies from the farming industries that are well established in those regions. Many of those farming industries are heavily supported and protected, providing a continuing base for reliable supplies for processing. Also, the industrial and research bases in developed countries are well suited to establishing and maintaining
processing industries. Generally, health and safety standards are high, which along with other technical advantages in these countries enable consumers to have confidence that the processed products will be safe.

However, not all factors favor the location of agricultural processing in developed countries. In many instances, characteristics of developing countries can favor agricultural processing industries. For example, many developing countries have a comparative advantage in labor intensive activities. As agricultural processing activities can be labor intensive, developing countries can have a comparative advantage in some processing activities provided they have access to a large and reliable supply of raw materials, either domestically or through trade.

As well as many developed countries having established large agricultural processing industries, they have structured their trading arrangements in ways that perpetuate imports of raw agricultural products rather than processed products. In the European Union, for example, most agricultural imports are under preferential access arrangements where the imported items are either raw materials or are only at the first stage of processing, such as with raw sugar or meat in carcass form. Tariff escalation, under which tariffs rise as products become more highly processed, is also a factor contributing to the establishment and growth of processing of agricultural products in developed countries (WTO 2000b).

Tariff escalation is an issue not only in the development of processing of agricultural products in developed countries but also in developing countries. Many countries seek to expand processing of agricultural products both to increase export opportunities in an area of expanding global trade and to foster employment in rural areas. Support of processing through tariff protection at the expense of consumers can be a politically more attractive, less transparent means of pursuing such goals than providing it at the expense of taxpayers through the budget. Escalating degrees of protection as products progress through the processing chain entrenches protection at a cost to domestic consumers, and to the domestic and global economies.

Tariff escalation might be reduced overall internationally if larger cuts can be negotiated for high tariffs than for low tariffs. If, on the other hand, developing countries were able to increase tariffs under S&D arrangements, the degree of tariff escalation could rise relative to that in developed countries.
The present S&D provisions for market access enable developing countries to reduce their barriers to trade by less than developed countries do. This approach is consistent with the objective of reducing barriers to trade in both developed and developing countries, but taking into account special considerations for developing countries. However, some of the proposals that have been advanced could be used to avoid reductions in protection, or to increase protection in developing countries.

While benefits from agricultural protection could flow to farmers and other rural landholders, others within the economy are also affected. Consumers pay through higher prices, while agricultural protection also imposes costs on other activities that compete with agriculture for resources. Internationally, if many countries increase import barriers, world demand falls and most countries will be affected.

Five scenarios analysed

To illustrate the effects on aggregate incomes of developing and developed countries from differing levels of agricultural protection arising from the application of differing S&D arrangements, five hypothetical policy scenarios have been formulated. It is emphasised that these scenarios bear no relationship to any proposals for the negotiations. They are purely illustrative.

The effects in each scenario are quantitatively analysed using ABARE’s global general equilibrium model, GTEM — global trade and environment model (for details of the model, see www.abareconomics.com/htdocs/research/climatechange/gtem.htm). The purpose is to assess and illustrate which of the policy scenarios will allow groups of countries to secure economic benefits, in terms of higher aggregate community incomes, from market access reform. Five scenarios are considered.

**Scenario 1: Tariff cuts all around** — Developing countries reduce applied tariffs by 20 per cent on agricultural imports while the developed countries undertake a deeper cut of 30 per cent. This scenario is consistent with the
approach within the WTO Agreement on Agriculture under which the developing countries undertook to reduce their tariffs by two-thirds of the reductions of the developed countries.

Scenario 2: Tariff cuts in developed countries only — Only developed countries undertake market access reform, entailing a 30 per cent cut in tariffs. This is consistent with a proposal for special and differential treatment, under which developing countries are exempt from any obligation to increase market access while access to developed countries’ markets is liberalised.

Scenario 3: Tariff cuts in developed countries, more barriers in developing countries — Developing countries raise their tariffs by 20 per cent, while developed countries cut theirs by 30 per cent. This represents a situation in which developing countries can adjust their tariffs upwards for reasons that have been stated in some proposals for the revision of S&D treatment.

Scenario 4: No tariff cuts in developed countries, more barriers in developing countries — This scenario corresponds to a situation where reforms to agricultural trade are derailed. Developed countries make no reforms, and developing countries increase tariffs by 20 per cent.

Scenario 5: More barriers all around — This represents a ‘worst case’ scenario where WTO disciplines break down and both developed and developing countries increase protection. It is assumed that both developed and developing countries increase their applied tariffs by 20 per cent.

These scenarios represent progressively less liberalisation and increasing protection. Whereas the first scenario could be seen as representing the outcome of a successful trade liberalising round, the fifth scenario represents a systemic failure of the WTO, with increased protection everywhere.

Impacts on groups of countries
Impacts on incomes and trade are estimated for three groups of countries:

Developed countries — North America, Europe excluding the former Soviet Union, Japan, other high income Asian countries, Australia and New Zealand.

Medium income developing countries — Latin America, former Soviet Union, northern and southern Africa, the Middle East including Turkey, China and most of south east Asia.

Special treatment for developing countries
Low income developing countries — India, Pakistan, Sri Lanka, Bangladesh, Viet Nam, and sub-Saharan Africa excluding southern Africa.

The findings based on these broad definitions may not hold for every individual country in each group. Reasons for this include differing factor endowments, differing degrees to which individual countries currently obtain preferential access to others’ markets, differences between agricultural exporting and importing countries, differing uses of technology and a number of other factors affecting individual countries.

Effects on incomes

When every country implements trade liberalising reforms in agriculture as in scenario 1, all of the three categories of countries considered — developed countries, medium income developing countries and low income developing countries — gain (figure B). The developing countries that reduce their barriers to trade in agriculture by 20 per cent are projected to gain in total by about US$5 billion a year by 2010, with most of the gains being by medium income developing countries. Such benefits are over two-thirds of the US$7 billion a year gain by the high income countries that undertake a deeper cut in tariffs. A reason for the larger gains from liberalisation by developed countries, and also for higher gains by middle income developing countries than low income developing countries, is their comparatively higher base levels of income.

Moving from scenario 1 to scenario 2 where the further opening of markets is limited to developed countries, it can be seen that all three groups still
gain. However, the gains are smaller. The benefits to developed countries arise from improved allocation of resources away from highly supported agricultural activities while developing countries benefit from both greater access to developed country markets and improved terms of trade. This result underscores the validity of developing countries’ calls for greater access to developed country markets.

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**Box 4: Country categories in this modeling application**

**High income countries**
Australia, Canada, high income Asian countries (Republic of Korea, Chinese Taipei, Singapore, Hong Kong), Japan, New Zealand, United States, western Europe (EU–15, EFTA and Central European Associates)

**Middle income developing countries**
Argentina, Brazil, China, former Soviet Union, Indonesia, Malaysia, Middle East and Turkey, north Africa (Morocco, rest of north Africa: Algeria, Egypt, Libya, Tunisia), Philippines, Rest of Latin America, South African Customs Union (Botswana, Lesotho, Namibia, South Africa, Swaziland), Thailand

**Low income developing countries**
India, rest of Africa (sub-Saharan and southern Africa: Malawi, Mozambique, Zambia, Zimbabwe, Angola, Tanzania, Mauritius, Uganda, Benin, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, Cote d’Ivoire, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Liberia, Madagascar, Mali, Mauritania, Mayotte, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, Sudan, Togo, Zaire), rest of Asia (Sri Lanka, Bangladesh, rest of south Asia), Viet Nam

**Rest of world**
Afghanistan, Albania, Andorra, Bermuda, Bosnia and Herzegovina, Brunei, Cambodia, Croatia, Cyprus, Pacific Islands, Gibraltar, Greenland, Guadeloupe, People’s Democratic Republic of Lao, Macau, Macedonia, Malta, Marshall Islands, Monaco, Mongolia, Myanmar, Democratic People’s Republic of Korea, Papua New Guinea, San Marino, Yugoslavia

Notes: Original country listing is taken from Dimaranan and McDougall (2001). The cutoff point for countries in the low income category in terms of income (GDP) is approximately US$500 per person in the aggregate regions of the model. However, some countries with per person incomes above this threshold are included in the low income category, and some low income countries in the middle income category. This is because they are aggregated within broader groups in the database.

The low income developing countries category includes a number of least developed countries that have no reduction commitments under the WTO. Nevertheless in the modeling scenarios they are assumed to change their tariffs along with other developing countries.
However, gains from greater access to developed country markets could be wiped out if developing countries increase protection of their own agricultural markets. In scenario 3 where developed countries continue to liberalise but developing countries actually increase protection, developing countries lose — despite having greater access to developed country markets. That is because, with their own increase in agricultural protection, resources are moved away from less supported activities toward the now more highly supported and less cost efficient agriculture. An important additional reason why developing countries as a group lose is because the benefits from agricultural trade between developing countries are also reduced. This is shown more fully in the next section.

If negotiations fail, and developed countries do not liberalise while developing countries increase agricultural protection (scenario 4), all groups of countries would lose. Because trade is restricted, none of the groups considered would be able to exploit their comparative advantage as well as previously, thereby devoting a larger proportion of their resources to high cost protected agricultural items.

Finally, under scenario 5, where increased protection takes hold in both developed and developing countries, significant economic costs would be experienced all around as all three groups of countries direct more resources into protected agricultural industries at the expense of otherwise more profitable pursuits.

The dollar gains or losses in gross national product to low income developing countries as a result of trade liberalisation or additional protection are small in comparison to those for middle income developing countries and developed countries. This is substantially because of the much larger base levels of income in the latter two groups. To gain a greater appreciation of the relative effects of changes in protection for these groups, the simulation results are shown in percentage terms in figure C.

It can be seen that with trade liberalisation in scenario 1, the greatest percentage gains arise for the middle income developing countries, while marked gains also arise for low income developing countries. For scenario 2, similar gains would apply for all three groups. Such gains reflect the characteristics of their economies, including the orientation toward agriculture, and the demand for their products.
With the failure of developing countries to liberalise, and with them increasing agricultural protection in scenarios 3 to 5, both middle and low income developing countries would lose substantially in percentage terms. In scenario 4, where developed countries fail to liberalise, and developing countries increase agricultural protection, the percentage losses to the developing countries are greater than those for developed countries, as protection hurts their own economies. The effect is deepened in scenario 5 where developed countries also increase agricultural protection.

Trade flows

Developing country exports

Substantial trade flows in agricultural products have been established over the years in both directions between developing and developed countries. What is perhaps less well known is the extent to which trade in agricultural products has developed between developing countries. More than 40 per cent of total agricultural exports by developing countries is now to other developing countries.

Agricultural exports to other developing countries, relative to exports to developed countries, have increased for all major geographic groupings of developing countries (figure D). Because of this, changes in protection in developed and developing countries will not only affect trade in agricultural products between these groups but also within the groups. This is apparent from the results of the analysis of the five scenarios that is reported in figure E.
If, for example, all countries were to liberalise their agricultural trade (scenario 1, figure E), there would be a marked increase in the volume of agricultural exports from developing countries to developed countries. And there would also be appreciable increases in developing country exports to other developing countries.

If developed countries liberalise, but developing countries do not (scenario 2), appreciable gains in exports from developing countries to developed countries are projected. However, such gains would not be as large as if both groups liberalised (scenario 1), partly because income growth in developed countries would be smaller. However, developing country exports to other developing countries would fall slightly because of the lack of trade
liberalising reform in developing countries, and the diversion of more exports to developed countries. These effects on developing country exports are intensified in scenario 3 where developing countries increase agricultural protection. In this case, developing countries would lose important export opportunities in other developing countries.

If there were no liberalising reform in developed countries and developing countries increased agricultural protection (scenario 4), exports from developing countries to all groups, both developed and developing, would decline. From this it is evident that a strategy by developing countries to increase agricultural protection on the grounds of special and differential treatment, if developed countries do not reform their agricultural policies, would be harmful to the trade of developing countries. And as shown from figure B, not only would the trade of developing countries suffer, but their aggregate incomes would also fall. If the developed countries were to join the developing countries in increasing protection, as in scenario 5, exports by developing countries to all markets would fall significantly.

What if developing countries take the liberalisation initiative?

One of the major concerns of developing countries in the present WTO agricultural negotiations is that they have observed very little real liberalisation by developed countries. For example, the highly protectionist 2002 US farm bill can be seen as evidence of a lack of commitment of a major developed country to trade and other agricultural policy reform. A natural reaction of other countries, including developing countries could be ‘if they don’t liberalise, then why should we’? Given the commitment in the WTO to S&D treatment for developing countries, some developing countries could even argue that the lack of reform by developed countries should justify an increase in protection by developing countries.

Most of the proposals for special and differential treatment for developing countries have been to enable those countries to reduce protection by less than developed countries, or even to increase it. It is important to assess whether such an approach would really provide economic benefits to developing countries, particularly when faced with persistent protection in developed countries. Basic trade theory would suggest otherwise, with economic benefits going to countries that liberalise more.
To assess the effects of trade liberalisation by developing countries while developed countries do not reduce barriers to agricultural trade, a further scenario (scenario 6) has been simulated. Under this scenario, developing countries reduce all their agricultural import barriers by 20 per cent while developed countries do not liberalise. It should be noted that under present S&D arrangements, such a scenario would not be possible as the philosophy behind the arrangements is that developing countries should not have to implement as many commitments as developed countries.

In figures F and G, a simulation for this scenario is compared with that for scenario 4, under which there is also no further reform in developed countries, but developing countries increase barriers to trade. Incomes in
developing countries would increase when they liberalise, despite there being no trade liberalisation by developed countries (scenario 6).

The benefits to developing countries from their agricultural trade liberalisation would arise largely from improved resource allocation and increased trade between developing countries. The gains to developed countries arise largely from greater market access to developing countries and greater demand in those countries as a result of higher incomes that flow from the liberalisation.

Broad conclusion on reform to market access
The effects on income from both trade liberalisation and trade restrictions are clear from the above analyses — more open trade generates income while trade restrictions reduce income. Furthermore, increasing protection for whatever reason, be it because others maintain high protection because it is considered desirable for social reasons or because it is considered to be politically desirable to ‘advance development’, is likely to reduce incomes in the countries resorting to protection. Such protective policies, whether applied by developed or developing countries, spill over and adversely affect other countries. In contrast, trade liberalising policies, by either or both developed or developing countries, increase incomes and trade.

The analysis shows that if trade reform is slow or stalled in some countries, the best response for most of the remaining countries in terms of policies that generate the highest incomes, is not to increase protection in a retaliatory fashion, but to take a leadership role and reduce distorting protection.

One size does not fit all
The kinds of benefits from liberalisation that are indicated by the foregoing modeling results depend on assumptions that when resources are displaced from one sector, they move readily into others. Indeed, a prime driver of economic growth from trade liberalisation is the improved efficiency of resource use through displacement of resources that were inefficiently used in protected industries, to more efficient uses in other activities. Whether such ready movement does in fact occur depends on whether there is sufficient growth in the economy and alternative activities available to absorb resources displaced through trade liberalisation.
This important qualification applies to a marked degree for some developing countries, particularly a number in sub-Saharan Africa. In some countries in south east Asia by contrast, economic growth has been relatively rapid, economic structures have been flexible, and demand for labor and other resources has been sufficient to enable relatively rapid and substantial adjustment between activities.

The large differences in economic activity and growth rates, and in structural economic reforms between different developing countries highlight the inadequacy of a ‘one size fits all’ approach to S&D treatment in agricultural trade reforms. However, it does not alter the conclusion that the economies of many developing countries would benefit from trade liberalisation and that if S&D provisions that enable countries to maintain or increase protection were applied, they would result in lower incomes in most countries. Stiglitz (1999, p. 7) concludes that:

‘trade liberalisation is essential for successful development, and progress in trade liberalisation depends on a new round that is truly balanced and inclusive … if the new round is seen as unbalanced and support for liberalisation in the developing countries falters, then we are likely to see the emergence of even greater inequalities between the rich and the poor countries, and even more people in poverty’.
In providing assistance to agriculture, governments face choices in mechanisms to use. They can limit imports through tariffs or other restrictions to market access, or they can pursue domestic support arrangements that involve subsidies to farmers or some forms of internal price support. In the WTO Agreement on Agriculture, S&D arrangements apply for both market access and domestic support as shown in section 2.

To place domestic support under S&D arrangements into perspective, ABARE carried out an analysis of domestic support as notified to the WTO by the 41 developing countries that have reported such support.

An analysis of domestic support and S&D arrangements as they relate to domestic support has been published in a separate ABARE study (Roberts et al. 2002). The main findings from that analysis were:

- Levels of domestic support in developing countries have been low, with all but eight of the countries notifying support below 10 per cent of their agricultural value added.

- For most countries, the total level of domestic support used has been well below even the de minimis threshold (10 per cent of the value of production for each of commodity specific support and non commodity specific support). This even includes support that is already exempted under the green box, which is by far the most widely used form of support by all of the countries considered.

- Levels of domestic support vary markedly between developing countries. More than a third of the countries reported levels of less than 3 per cent of value added in agriculture. In contrast, Trinidad and Tobago, Venezuela, Namibia, South Africa and Zambia reported levels more than three times the developing country median. The Republic of Korea, which has many economic characteristics more in line with developed countries than developing countries but which still claims developing country status for WTO agricultural arrangements, notified domestic support equivalent to 31 per cent of agricultural value added over the period 1995–99.
More than half (56 per cent) of domestic support has been green box support in categories that are not restricted. Expenditure on infrastructure, research, training and extension has been prominent, accounting for 53 per cent of total green box support. These categories of expenditure are necessary for the development of efficient agricultural sectors, both to establish the capacity to produce agricultural products and to sustain the growth of competitive industries.

Specific S&D exemptions for investment subsidies and input subsidies to low income, resource poor farmers have been only a small part (5 per cent) of total domestic support. Some forms of that support such as input subsidies are blunt, inefficient instruments to deal with complicated domestic problems.

Most developing countries are not constrained under current WTO rules and have substantial scope to address adjustment concerns and development needs, both within current de minimis exemption levels and under exempt categories in the green box and present S&D arrangements.
options for addressing food insecurity

There is a common thread through many proposals by developing countries that staple food crops should be exempted from limits on, or reductions in, support under WTO arrangements. Some advocate increasing support for staples. It appears that the prime motivation is to provide food security in developing countries where farm populations are large. However, it is unclear whether protection for otherwise uncompetitive staple or other crops actually increases food security for communities as a whole. Such protection may increase domestic production and supplies to farm families, but it increases prices or taxes and comes at a cost to others in the society. David (1999) shows how policies to expand rice and corn production have harmed the food security of the nonfarming poor in the Philippines.

At the consumer level, food security is to a large degree an issue of affordability, and food insecurity is mainly associated with poverty (Thompson 1999). Protecting producers from cheaper imports can thus harm food security for the poor. Diaz-Bonilla, Thomas and Robinson (2002) point out that ‘increasing protection for food crops acts as a regressive tax, with a larger incidence on poor consumers, and benefits accrue mostly to larger farmers’.

Price support to farmers producing staple crops can only address the problem of food insecurity for society overall if those farmers constitute the dominant food insecure group. In addition, if this group were large, effective price support would need to be very high if the transfers were to be sufficient to make much difference, imposing high costs on nonfarm groups. Where most production is and remains by subsistence farmers, price support will have little effect on those farmers.

Policy instruments
Governments can use many policy approaches to address food insecurity, with differing effects on different groups. In table 1, effects on food security for these groups are related to factors influencing food security, namely income effects, price effects for food purchases, access to domestically produced supplies and access to imports.
Import restrictions, including tariffs and direct restriction of market access, raise internal prices and increase domestic farmers’ production and incomes. The higher incomes improve farmers’ food security, but the higher prices would at least partly offset the improvement. Others in society would be less food secure as they would face higher food prices and reduced effective incomes. Although they would have greater access to domestically produced food, imports would fall by more and overall consumption levels would be reduced. Food security for society is likely to be reduced although some farmers would be more secure.

The impacts of domestic subsidies depend on the form of the subsidies. They increase farmers’ incomes, thus improving farmers’ food security. The effects on incomes of groups other than farmers would be negative because of the cost of supporting farmers. Overall, the effects on food security would depend on the extent of the subsidies and the incidence of food insecurity in farming and nonfarming communities.

### Impacts of selected policy approaches on food security

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<tr>
<td>Domestic subsidies</td>
<td>better</td>
<td>none</td>
</tr>
<tr>
<td>Targeted social security</td>
<td>better for poor</td>
<td>none</td>
</tr>
<tr>
<td>Rural infrastructure</td>
<td>better</td>
<td>better</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Others in society</th>
<th>Economic access</th>
<th>Physical access</th>
<th>Society overall</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Income effect</td>
<td>Price effect for food purchases</td>
<td>Access to domestic supplies</td>
</tr>
<tr>
<td>Import restrictions</td>
<td>worse</td>
<td>worse</td>
<td>better</td>
</tr>
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</tbody>
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Special treatment for developing countries
Targeted social security increases incomes of both poor farmers and other poor people, enhancing their access to food from domestic or foreign sources. Overall physical access to food for society would remain largely unchanged. However, distribution chains in poor regions could improve as a result of higher incomes for poor people. Social security systems come at a cost to better off and more food secure groups, but would improve food security overall if they are well targeted.

Provision of rural infrastructure would enhance the food security of farmers, by increasing their incomes and their access to food supplies. Others in the society that have to pay for the infrastructure would encounter lower incomes. However, that income effect could be reduced, or even offset, if the infrastructure reduced the transport and handling costs. Overall, food security should be increased.

This broad brush approach suggests that targeted social security and the provision of rural infrastructure would be more effective in addressing food insecurity than domestic subsidies to farmers, and especially increased tariffs. However, the effects depend on the relative size of agriculture in the economy and relative numbers of farmers and in nonfarmer groups that are vulnerable to food insecurity.
concluding comment

S&D treatment for developing countries addresses the greater problems that those countries face with adjustment following agricultural reform and with food security, than developed countries face. Furthermore they have fewer resources to address those challenges than developed countries. Their societies should therefore be subject to less stringent adjustment pressures from trade liberalising reforms through the WTO than developed countries.

Even so, S&D treatment should not be considered as a crutch with which to maintain market distorting protection. A good form of S&D treatment provides a means of progressing toward more open and less distorted markets globally — not of impeding progress toward such an outcome.

The economies of developing countries collectively, and of most of them individually, will gain from trade liberalising reforms, irrespective of whether developed countries also gain. However, it is clear that developing countries will benefit more if developed countries also open their markets more and reduce market distorting support. Substantial trade liberalising reform by developed countries is an absolute prerequisite for success in the present WTO agricultural negotiations.

It is therefore critical that major developed countries show real commitment to trade liberalisation and reducing levels of agricultural support, rather than just changing the forms of their support. Such commitment is essential if developing countries are to agree to open their markets and to reduce their own support.
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