

Trade and the Global Economy: The role of international trade in productivity, economic reform and growth

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HM Treasury contacts

This document can be accessed from the Treasury Internet site at:

www.hm-treasury.gov.uk

For further information on the Treasury and its work, contact:

Correspondence and Enquiry Unit
HM Treasury
1 Horse Guards Road
London
SW1A 2HQ

Tel: 020 7270 4558

Fax: 020 7270 4574

E-mail: public.enquiries@hm-treasury.gov.uk

Department of Trade and Industry contacts

This document can be accessed from the DTI Internet site at:

www.dti.gov.uk

For further information on the DTI and its work, contact:

Enquiry Unit
Department of Trade and Industry
1 Victoria Street
London
SW1H 0ET

Tel: 020 7215 5000

Fax: 020 7215 0105

E-mail: dti.enquiries@dti.gov.uk

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FOREWORD

International trade has been a major driver of global growth and prosperity over the last fifty years. As trade has expanded, global incomes have grown. Open economies have been able to harness the power of trade to boost competitiveness and productivity, helping improve living standards and sustain economic growth.

But the successes of the last half century should not lead us to be complacent. Despite major reductions in trade barriers, protectionism continues to be a major drag on our economies and a barrier to lifting developing countries out of poverty.

Protectionism imposes a double burden on tax payers and consumers. In the case of European agriculture, the cost to tax payers is about €50 billion a year, plus around €50 billion a year to consumers via artificially high food prices – together the equivalent of over £800 a year on the annual food budget of an average family of four. Furthermore huge distortions in international agriculture markets prevent the world's poorest countries from trading in the products they are best able to produce. Continuing barriers to trade are costing the global economy around \$500 billion a year in lost income.

With the benefits so clear, and the costs so substantial, why is there not a greater constituency for further progress in reducing barriers to trade? Why is the current round of trade talks in the WTO failing to make faster progress?

Part of the answer lies in the mercantilist approach which some participants take to trade negotiations. While opening new export markets is rightly seen as a success, opening economies to imports is often (wrongly) seen as a 'concession'.

This paper aims to show why such an approach is deeply misconceived. It is openness to imports which brings the dynamic benefits that help drive productivity in our economies. And it is imports which bring direct benefits to consumers and producers through access to a wider range of goods and services at lower cost. Of course exports are vital to our economy. But imports matter too.

Protectionism is hurting both our economies and those of developing countries. We need urgently to open our own markets, and put an end to unfair subsidy practices which distort world markets particularly in agriculture and labour-intensive goods where protection is highest and developing countries are most competitive. We need to face our historical responsibilities and help those developing countries whose export revenue has become increasingly dependent on our byzantine preferential regimes, and who could face significant adjustment costs during the transition to a fairer world trading system. And we need to assist developing countries to design carefully sequenced trade reform packages, integrated into development and poverty reduction strategies and supported by international aid flows to help them overcome serious capacity constraints and capture the potential benefits of more open markets.

Border protection and export subsidies are two of the most distorting ways to support farmers, depressing world prices and making them more volatile while depriving efficient farmers of access to the world's largest markets. In 2002 the EU sugar regime

lowered the value of Brazil, Thailand and South Africa's sugar exports by over \$700 million – countries where nearly 70 million people survive on less than \$2 a day. And we cannot continue to plead that reforming agriculture would cause us unbearable pain: developing countries stand to benefit significantly from agricultural reform, but the main beneficiaries will be our own economies.

The EU should show leadership. The EU has, as a result of reforms this year and last in which Margaret Beckett played a leading role, already taken steps to tackle trade distorting domestic support, and should continue to do so. We warmly welcome Pascal Lamy and Franz Fischler's recent proposal to put all export subsidies on the table for negotiation.

But we believe the EU can and should go further. The EU should agree to further significant agricultural reform so that border protection is substantially reduced and export subsidies are no longer an issue for world trade by 2010, and to reduce all agricultural tariff peaks towards the maximum level for non-agricultural products.

This will allow an orderly adjustment to a less protected and more competitive environment. And with CAP spending already at €50 billion per year, we cannot argue that we lack the resources to manage an effective transition.

Not all countries will benefit in the short term from a multilateral reduction in trade barriers. For some the costs of this preference erosion will be substantial.

The IMF has already taken an important step in establishing a new facility to help countries which face balance of payments problems as a result of preference erosion. We should seriously consider supplementing this with additional grant resources, designed to help the most vulnerable countries adapt and reap the benefits of more open global markets.

More broadly, some of the world's poorest countries will face serious constraints in managing the transition to more open markets and capturing their benefits. They need carefully designed and sequenced trade reform packages, integrated into development and poverty reduction strategies and supported by aid flows, in order to ease capacity constraints and help manage change.

Together, these two steps – real movement on agriculture and additional support to help the most vulnerable countries adjust – could make a real contribution to unlocking the potential of the Doha Development Agenda. Without such progress, we continue to put the global recovery at risk.

Trade negotiations should not be seen as a game in which we win only where others lose, but as a collaborative effort to reduce barriers to trade to the advantage of us all.



Rt Hon Gordon Brown MP
Chancellor of the Exchequer



Rt Hon Patricia Hewitt MP
Secretary of State for Trade and Industry

INTRODUCTION AND SUMMARY

Trade and the global economy

1.1 The world today is significantly more economically interdependent than it was fifty years ago. World trade has expanded, with exports growing from \$84 billion in 1953 to \$6,272 billion in 2002. Much of the increase has been in trade between industrialized countries. But developing countries and emerging markets are playing a growing role: exports from developing countries as a whole accounted for 29 per cent of world trade in 2001.

1.2 This expansion in the volume of world trade over the past half century has been supported by a steady decline in trade barriers, helping to sustain global growth and enable economic development. As trade barriers have fallen, the structure of international trade has also changed. New information and communication technologies have had, and continue to have, a profound effect. Some services which previously could only be provided domestically can now be traded internationally. Finer differentiation between products designed to meet specific consumer needs has led to a rise in intra-industry trade – where countries exchange goods which fall into the same broad industrial classification but differ in their specialized features. In addition, technological advances have allowed companies to slice up production processes, locating different stages of production in different regions or countries.

1.3 These developments offer major new trading opportunities for all economies. They also imply change. Resources are shifting away from traditional industries and into new ones; and the process of change will continue, as developing countries increase their share of world trade. The global benefits from the continued expansion of world trade are potentially substantial. A good pro-poor outcome of the current round of multilateral trade negotiations could boost global income by over \$500 billion. The complete elimination of all agricultural and manufacturing tariffs could yield benefits of over \$1,000 billion annually.

1.4 However, doubts about the advantages of greater openness to trade are feeding a persistent protectionism and putting these benefits at risk. While expanding export markets are widely accepted as beneficial, increases in imports can be seen as threatening, replacing domestic production with goods and services from abroad. Governments are often under pressure to respond by protecting sectors from international competition. At a global level, progress on the current multilateral trade round has thus far been slow.

1.5 This paper aims to show why continuing reductions in trade barriers are important for the UK, for Europe and the rest of the industrialised world, and for developing countries where trade has the potential to make a significant contribution to poverty reduction. It addresses openness in the relatively restricted sense of openness to trade in goods and services. A comprehensive Government White Paper, to be published later this year, will look more broadly at both trade and investment, and will set out how the Government intends to translate the importance of trade openness into specific policy actions including the implications for the Doha Development Round in the World Trade Organisation (WTO).

Trade productivity and growth **1.6** Both economic theory and countries' experience show that economies which trade more tend to grow faster (chapter 2). Income growth depends importantly on a country's capacity to raise its productivity. Openness to trade – both exports and imports strengthens - the drivers of productivity, by enabling a more efficient allocation of resources; by providing greater opportunities to exploit economies of scale; by exposing the domestic economy to greater competitive pressures; by rewarding innovation and providing access to new technologies; and by increasing incentives for investment. Taken together, these factors mean that openness to trade can play an important role in raising the long-run sustainable rate of productivity growth in the economy.

1.7 Notwithstanding the approaches of many trade negotiators, the dynamic effects of openness derive from exposure to imports as well as from opportunities to export. It is the extra competition and innovation which imports bring that helps boost productivity. Moreover, openness to imports increases choice and reduces costs not only for consumers (where the benefits can be considerable), but also for producers. In short, restrictions on imports penalize exporters. It follows from this that the mercantilist approach in which many trade negotiations proceed – a zero-sum game where success is defined solely as accessing as many new export markets as possible, while opening home markets is seen as a “concession” – is so misguided.

1.8 Openness to trade has helped promote structural change in the UK economy, enhancing processes already underway due to technological advances, and allowing domestic resources to shift from less productive to more productive uses. In Europe too reductions in trade barriers have boosted economic performance: EU GDP is estimated to be nearly 2 per cent higher as a result of the creation of the Single Market. But the EU still has a long way to go in reducing barriers to trade with the rest of the world, particularly in agriculture. Increased external openness is an integral part of the Lisbon Agenda to promote economic reform within the EU.

1.9 Globally, countries which have moved more rapidly towards more outward-looking trade policies have found it easier to sustain high rates of productivity growth. Different countries have pursued different approaches to trade reform. But while the precise mix of policies have varied from country to country, the key is to move clearly and consistently towards greater openness – imports as well as exports.

The costs of protection **1.10** Despite the manifold benefits of openness to trade, trade protection remains a significant problem (chapter 3). Although barriers to trade have fallen significantly over the last half-century, particular sectors and products remain subject to high levels of protection. Average import tariffs between OECD countries are around 3 per cent; but tariff peaks reach 506 per cent in the EU, and 350 per cent in the US. The highest tariffs are typically levied on goods from the developing world.

1.11 Agriculture is heavily protected worldwide, imposing substantial costs on both developing countries and our own economies. Industrial countries' total support to agriculture exceeds \$300 billion annually. In Europe alone the Common Agriculture Policy (CAP) costs taxpayers some €50 billion a year, plus another €50 billion in extra consumer costs through higher food prices. The global benefits of significant agricultural liberalisation could be as high as \$350 billion by 2015.

1.12 In addition to imposing substantial costs on taxpayers and consumers in home countries, developed country protectionism also significantly constrains developing countries' ability to compete fairly in the global market-place, hindering their efforts to improve standards of living and reduce poverty. Some of the most damaging anti-development practices include:

- ⌘ border protection and export subsidies, depressing world prices and making them more volatile while depriving efficient farmers of access to the world market. In 2002 the EU sugar regime lowered the value of Brazil, Thailand and South Africa's sugar exports by over \$700 million – countries where nearly 70 million people survive on less than \$2 a day.
- ⌘ tariffs that escalate as raw commodities are processed into higher value-added goods. Tariff escalation has strong anti-development effects by discouraging poorer countries from diversifying into higher value-added exports and deterring investment in building up supply-side capacity in their economies.
- ⌘ tariff peaks – high levels of protection for specific products. Among non-agricultural products, the EU has 135 tariff lines over 15 per cent and about 600 tariff lines between 10 and 15 percent, many in labour-intensive products in which developing countries have a comparative advantage. The US has 230 tariff lines above 15 per cent, and Australia has nearly 800.
- ⌘ product standards which effectively prohibit imports from developing countries, such as EU quality standards on dairy products which require them to be manufactured from milk from cows kept on farms and milked mechanically. Developing country agricultural exporters often rank such standards above tariffs and quotas as the most important barrier to trade with the EU.
- ⌘ anti-dumping measures which allow countries to impose retaliatory tariffs on low-cost imports, and which tend to be used in sectors of importance to developing countries such as textiles, clothing and steel.

1.13 Whether its aim is to support agriculture, encourage investment in key sectors or safeguard employment, OECD trade protection is typically an inefficient, expensive and ultimately ineffective way of achieving these objectives:

- ⌘ The CAP is the EU's most expensive single policy, costing a typical family of four the equivalent of £832 a year. But despite this, farm incomes in the EU have continued their steady decline relative to non-farm incomes.
- ⌘ The cost to the consumer of protecting employment in the EU's 22 most protected sectors is eleven times the average wage. And rising steel tariffs in the US have failed to prevent steel producer employment from falling by more than 5 per cent.
- ⌘ For every dollar of aid given to selected developing countries by the US and EU through sugar preferences, \$2.75 of economic damage is done to other developing countries whose exporters are denied access to US and EU markets.

1.14 The political difficulty of dismantling protectionist mechanisms means they tend to persist long after they have ceased to be economically justified. The stated objectives of protectionist policies can almost always be achieved more cheaply and effectively through alternative policies. Targeted income support and retraining for those leaving declining industries can achieve the same objective as import restrictions (i.e. preventing unemployment) at much lower cost, and with much greater benefits in terms of labour market flexibility and the productivity of the economy as a whole. Additional incentives for R&D-intensive sectors provide a more direct means of compensating companies for spillover benefits than protection.

1.15 The global welfare gains from significant liberalisation in agriculture alone could reach \$350 billion. The estimated gains from reducing protection on manufactured goods range from \$190 billion for partial liberalisation to \$644 billion for full liberalisation. The impact of further opening up of services trade is harder to quantify, but could be extremely significant. In short, while estimates vary according to different models used, the order of magnitude is compelling. Reducing protection would make a very substantial contribution to global welfare.

Capturing the benefits and managing change

1.16 Changes in the structure of production and employment are an intrinsic part of capturing the benefits of greater openness to trade. This requires flexibility in labour, product and capital markets; and social policies which, while providing adequate support, help manage change rather than preventing it (chapter 4). The relationship between flexibility and openness is mutually reinforcing: openness can help increase flexibility in the economy. The European Union in particular must press forward with its economic reform agenda, alongside greater openness to trade, as part of the drive to improve productivity and competitiveness.

1.17 Governments have a vital role to play in creating flexibility – equipping their economies to benefit from the dynamic opportunities which openness to trade generates. Investment in education and training enables individuals and firms to respond positively to change. Economic reforms which reduce the regulatory burden on business, encourage competition and promote enterprise and innovation have a strong mutually reinforcing relationship with trade openness.

1.18 Flexibility and fairness should be advanced together. Social safety nets are very important in supporting individuals dislocated by trade reform, and can help maintain support for change through difficult transition periods. But social protection should contribute to flexibility – by linking it to opportunities to acquire new skills, for example. The focus should be on enabling individuals to re-enter the labour market as quickly and smoothly as possible.

Capturing the benefits of trade in low income countries

1.19 Trade has the potential to lift millions of people out of poverty (chapter 5). Developing countries stand to gain substantially from further reductions in trade barriers. A significant reduction in developed country barriers to trade in agriculture could benefit developing countries by up to \$75 billion a year – significantly more than total annual aid flows.

1.20 But developing countries have to overcome significant capacity constraints in order to capture the benefits of more open trade. In many low-income countries, low levels of human, physical and institutional capital seriously constrain their economies' capacity to respond to the signals from international markets. High transaction costs – for example transport, insurance, customs procedures, communication costs – often dwarf the impact of formal trade barriers. Low-income countries also typically have much higher barriers to the entry and exit of firms, and poor access to financial services.

1.21 Overcoming these capacity constraints will require significant resources in addition to current aid flows. Given the public good nature of many of these investments (especially those in education and health), it is unlikely that private investment will fill the gap. It is therefore critical that trade reform in developed countries is accompanied by increases in aid flows through mechanisms such as the International Financing Facility. Aid and trade will then reinforce each other, with a substantial impact on development and poverty reduction.

1.22 Developing countries also face specific problems in managing the transition to more open markets in their own economies. For those dependent on preferential access to rich country markets, erosion of the value of those preferences through multilateral reductions in trade barriers could have a significant effect, necessitating profound structural change. Low-income countries also tend to be more heavily reliant on tariff revenue; and they are more vulnerable to balance of payments short-falls.

1.23 This suggests carefully designed and sequenced trade reform packages, which are integrated into development and poverty reduction strategies, and supported by significant additional international aid flows for investment in physical, human and institutional capital would help ease capacity constraints and help manage change. Eliminating quota restrictions and customs exemptions, reducing non-tariff barriers and reducing tariff dispersion to the minimum are likely to be sensible first steps in most developing countries' trade reform programmes.

1.24 Developed countries have an important role to play in providing the resources for the investment needed. This includes direct assistance to facilitate adjustment in those countries badly affected by the loss of preferential margins; and substantial additional resources to allow countries to build a pro-trade infrastructure, and boost their social spending in education and health.

2

TRADE, PRODUCTIVITY AND GROWTH

2.1 This chapter explains how openness to trade helps drive productivity improvements and hence economic growth. It looks at how openness has operated in practice in the UK economy to promote structural change and increase productivity; and at how Europe has benefited from reductions in barriers to trade. It shows how a mercantilist approach to trade negotiations, which ignores the benefits from openness to imports, misses some of the most important gains from trade. Finally, it looks at the impact of openness on growth in other countries, including the conclusions we can draw from cross-country regression analyses of openness and growth.

Openness and productivity

2.2 Income growth depends crucially on a country's capacity to raise its productivity, i.e. its capacity to find new ways of making more effective use of the resources which it has available. This means developing techniques which enable existing goods and services to be produced more efficiently, or which expand the range or quality of goods and services which can be produced.

2.3 In the United Kingdom, the Government's strategy to raise domestic productivity has focused on five key drivers of productivity performance:¹

- ⌘ improving competition, to sharpen the incentives for producers to develop and adopt more productive techniques
- ⌘ promoting enterprise, to encourage the adoption of innovative processes and products
- ⌘ supporting science and innovation, to promote the development of new technologies and more efficient ways of working
- ⌘ raising skill levels to create a more productive workforce
- ⌘ encouraging investment, to increase the stock of physical capital used in production.

2.4 Globalisation and trade expansion will impact on the importance of these drivers for future prosperity. For example, a continued pace of technological advance that drives globalisation and innovation will further increase the demand for a highly skilled workforce with the ability to absorb and generate new ideas and adapt to changing techniques and shifting product demand.

¹ More detail on the Government's approach to productivity in the UK can be found in the series of publications "HM Treasury: Productivity in the UK", numbers 1 through 5, published between 2000 and 2004 by HM Treasury, and available electronically at www.hm-treasury.gov.uk/documents/enterprise_and_productivity/ent_index.cfm

2.5 Openness to trade strengthens the drivers of productivity through six important (and mutually reinforcing) routes:

- ⌘ **more efficient allocation of resources.** Trade enables each country to specialise in the production of those goods and services which it can produce most efficiently. Countries can raise overall consumption by exchanging their surplus production for the surplus production of other countries which have a different comparative advantage.²
- ⌘ **economies of scale.** In the absence of trade, economies of scale are constrained by the size of the domestic market. Trade removes this constraint, allowing industries and firms to produce on a more efficient scale than would otherwise be possible.
- ⌘ similarly, trade increases incentives for firms to **innovate**, because the rewards from successful innovation will be proportionately greater if firms are selling in larger (i.e. export as well as domestic) markets. Where highly productive firms expand as a result of exports, this boosts the productivity of the economy as a whole.
- ⌘ **greater competition.** Trade openness exposes domestic firms to greater competition. This helps to encourage exit from the marketplace of the least productive firms; reduces monopoly rents; drives down margins; and reduces prices for consumers. Competition further reinforces incentives to innovate, helping to create more competitive firms which can then compete more effectively in world markets.³
- ⌘ **access to new technology.** Trade can provide direct access to goods and services that incorporate new technologies, particularly where more open trade regimes have led to different stages of the production process being undertaken in different countries.⁴
- ⌘ **incentives for investment.** Better access to imports and to export markets increases the scope for productive investment by creating new business opportunities. Foreign direct investment (FDI) enables technology and innovation developed abroad to be applied to domestic production, enhancing competition and leading to a faster diffusion of more efficient and innovative processes.⁵

² Comparative advantage refers to those activities which a country can undertake most efficiently. For a more detailed explanation see, for example, Krugman and Obstfeld (2003)

³ For example, Szanami et al (1995), citing Richardson (1989), note that “when the reduction of import barriers undermines domestic monopolies, oligopolies, and cartels, freer trade yields significant additional benefits”. Many other sources support this, including detailed work in Messerlin (2001)

⁴ See, for example, Coe & Helpman (1993) and Eaton & Kortum (1995)

⁵ See, for example, Proudman & Redding (1997)

2.6 There are four key points in this analysis, discussed in more detail below. First, trade operates by enhancing the existing processes which drive economic growth. Second, the benefits from trade derive as much from increased access to imports as from greater access to export markets. Third, foreign investment provides an important channel through which countries can benefit from technologies developed in the rest of the world, and from the different costs of resources across countries. Fourth, the pace of structural change is likely to be faster in open economies, with the full benefits of trade openness accruing to economies that can easily redeploy labour and capital between firms and from declining to expanding industries.

**Enhancing
existing
growth-
promoting
processes**

2.7 In a closed economy, the speed and pattern of economic development is determined by the labour, capital, natural resources and technology available in the domestic economy. This has implications for all five drivers of productivity growth. Competition is limited by the number of firms that are viable. Innovation, enterprise, investment, and the development of skills are limited by the prospective returns which can be earned by selling to the domestic market.

2.8 In an open economy, these constraints are less binding, and economic growth can proceed more rapidly. International trade allows domestic resources to be transferred away from goods and services which can be produced more efficiently abroad, and into goods and services which can be produced more efficiently at home. Competition is greater, promoting greater efficiency; and access to foreign as well as domestic markets raises the prospective returns to investment, innovation, enterprise and skills development.

2.9 In practice, economies are neither wholly closed nor completely open to international trade, but somewhere in between. Consequently all countries can benefit from reforms to trade policies that increase their exposure to foreign competition and their participation in global markets.

**Imports as
well as
exports**

2.10 The growth-enhancing effects of trade derive from exposure to imports as well as gaining larger markets for exports. Imports are critical for the dynamic competition and technology effects listed above (paragraph 2.5). Imports also provide direct benefits to consumers by allowing access to a wider range of goods at lower prices, rather than restricting consumers to those goods and services which can be produced domestically. Conversely, seeking to restrict imports would require transfer of domestic labour and capital into import-substituting activities, regardless of whether this represents the best use of these resources. Unrestricted access to imports also supports exports by reducing the prices of essential production inputs.

2.11 The mercantilist approaches which characterize many trade negotiations ignore these benefits from imports. The purpose of negotiations is mistakenly taken to be expanding export opportunities while minimising demands for greater openness to imports. This view can result in a defensive approach to trade negotiations in which negotiators aim to extract substantial “concessions” from other parties, while offering little in return. Such a strategy entails a high risk that negotiations will break down. Recognition of the benefits from increased trade warrants adopting negotiating strategies that are more conducive to reaching a deal that can benefit all parties. A defensive approach is self-defeating since it fails to recognize the long-term incompatibility of simultaneously pursuing policies to promote exports while restricting imports.

Foreign investment **2.12** Openness to trade can directly affect the amount of foreign investment that a country attracts. For example, access to imported inputs and to export markets may be critical in determining the viability of an investment project. In such circumstances, countries with substantial barriers to trade may attract less foreign investment than they otherwise would.

2.13 The relative importance of factors determining an individual firm's decision to invest will differ across industries. In some cases, foreign investment will act as a substitute for trade, for example when investment abroad is a more profitable option for supplying foreign markets than exporting domestic production. But in other cases, foreign investment may stimulate cross-border trade, for example when locational factors (relative cost of production in the home and foreign market, the availability of skills and of production inputs in each location, the distribution costs applicable to each location, and the size of local markets) lead firms to divide their production process across two or more countries.

2.14 In either case, barriers to trade affect investment decisions. Where investment decisions are primarily influenced by trade barriers rather than by the inherent economic advantages of production in a given location, there may be a risk of investors increasing resistance to trade reforms (because they have a vested interest in maintaining the relevant barriers), reducing competitive pressures in the longer term.

Structural change **2.15** Changes in the structure of employment and production are a necessary part of economic development and flow not just from openness to trade but also from technological developments and changes in consumer preferences. The benefits of structural change are apparent in hindsight, but often resisted as they occur. For example, the "lump of labour" fallacy – namely, that there is a fixed amount of work to go around in any given economy – has often led to concern that technological improvements will lead not just to a reduction in the number of people needed to complete a particular task, but to a reduction in the number of working people needed in the economy as a whole. This can lead to delays in implementing technological innovations which have important potential productivity benefits.

2.16 Such fears have not been borne out by experience. While new technology has displaced workers from particular tasks, firms and industries have responded by taking on expanded or different priorities, and employment levels have remained high. Similarly, countries which are open to trade maintain high levels of employment by redeploying labour and capital into the production of goods and services which are valued in competitive markets. The process of redeployment inevitably brings transitional costs, which may fall particularly heavily on those least well equipped to cope with change – for example those with non-transferable skills. But the outcome for the economy on a whole is clearly positive; and there is a great deal governments can do to minimise transitional disruption to individuals' lives (see chapter 4).

2.17 Changes are currently particularly striking in trade in services. Until recently, international trade has been much greater in goods than services. The distribution of production and consumption of services is now changing, as advances in technology and substantial declines in communication costs mean that an increasing range of services can be produced remotely and traded internationally.

2.18 The relocation of some service sector jobs to countries with a more competitive ratio of labour cost to skills – ‘off-shoring’ – presents an opportunity, as well as a challenge, for developed economies. As with trade in goods, increasing imports of services produced more cheaply abroad means that the overall costs of services fall. This provides direct benefits to consumers, and lowers the cost structure of businesses, allowing them to raise profits and increase employment and investment.

2.19 Higher productivity and a lower cost structure also bring second round benefits that permeate through the economy. These include releasing labour to be reallocated into higher value-added and higher skill jobs. However, the extent to which these benefits are realised will depend on the domestic response to the challenge of foreign competition in services, including the availability of appropriate opportunities for upskilling workers. Where a large proportion of the workforce is engaged in low-skilled and low wage activities which are exposed to direct competition, a comprehensive programme of skills enhancement becomes an essential element of any response.

2.20 Many firms in different sectors are taking advantage of the opportunity to source cheaper services through imports. Providers of computer, financial, and general business services in particular are benefiting. Firms use different levels of offshore contracted services, ranging from back-office processing and customer contact functions (including call centres) through to wider corporate functions, knowledge management services and research and development. McKinsey Global Institute have estimated that the potential cost reduction for businesses from importing less skill-intensive services is between 30 and 50 per cent.^{6,7}

Importance of economic flexibility

2.21 Changes in the structure of production and employment are an intrinsic part of capturing the efficiency and productivity benefits of greater openness to trade. It is for this reason that flexibility – the ability of individuals and firms to respond to economic change efficiently and quickly – is an important concomitant to open markets. Chapter 4 highlights how flexible and well-functioning labour, capital and product markets enable structural change to occur while maintaining high levels of employment.

Trade and productivity in the UK

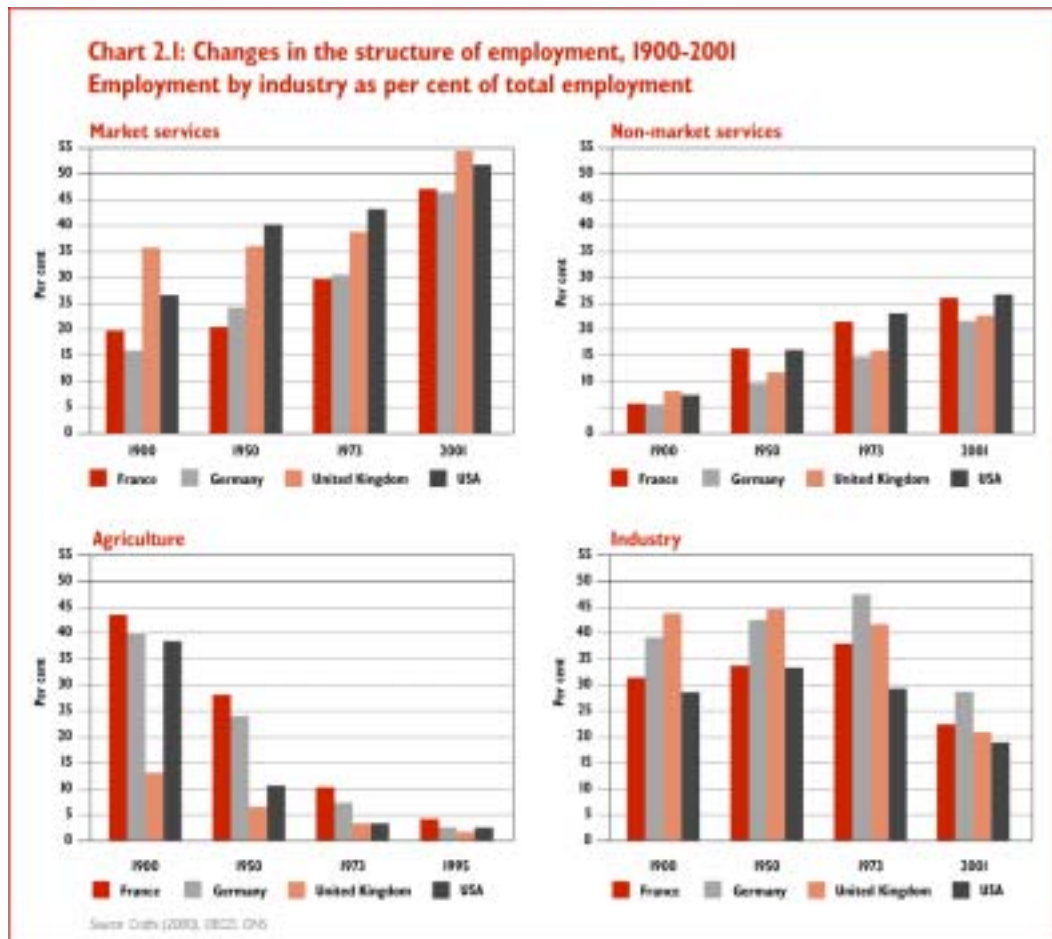
2.22 Trade has contributed to changes in the structure of output and employment in the UK as elsewhere. Over the last century developed countries in general have seen a significant shift in industrial structure away from agriculture and manufacturing and into services (see chart 2.1). Technological innovations have been the main driver, enabling productivity advances. Improvements in agricultural productivity in the first half of the century freed up labour resources which were then deployed elsewhere. Subsequent advances in manufacturing techniques allowed a further reallocation of labour resources into services sectors.

⁶ The labour cost differential is typically much greater than half (a software developer in India earns around a tenth as much as a software developer in the US); but importers often need to invest in additional management and compensate for infrastructure bottlenecks in order to ensure the imported service meets their needs. These additional costs tend to reduce the overall saving from a potential 90 per cent from labour costs alone to the 30 to 50 per cent range.

⁷ For a more detailed treatment of offshoring see DTI (2003) and the forthcoming White Paper on Trade and Investment.

2.23 The UK's openness to trade has enhanced the process of structural change, enabling the economy to shift resources into those activities in which it is more productive. Openness to trade allowed the UK to meet demand for products made more efficiently elsewhere through imports rather than through domestic production, thus releasing resources for use in production of greater value to the economy (see box 2.1).

Competition 2.24 Greater trade openness also provided strong incentives to improve efficiency, as firms increasingly faced competition from imports as well as domestic competitors. Competition is a key driver of “productive churn”, the process by which resources and market share are reallocated from inefficient to more efficient producers. Formation of new firms, closure of their less productive rivals, and the transfer of resources between existing plants and firms are all part of this process (economic research suggests that, particularly in developed economies, productivity gains from trade openness tend to be associated more closely with expansion and contraction of firms than with major contractions of whole industries).⁸ For the UK, these elements of productive churn may together have accounted for around half of labour productivity growth, and as much as 90 per cent of total factor productivity growth over a twelve-year period.^{9,10}



⁸ See, for example, Wacziarg & Wallack (2003), Bernard, Jensen & Schott (2003), Bernard, Eaton, Jensen & Kortum (2000)

⁹ Total Factor Productivity (TFP) attempts to measure underlying productivity, taking account of the inputs used in production, where inputs are generally labour and capital.

¹⁰ Disney et al (2000) cited in HMT (2002)

2.25 Trade openness also helped UK firms to respond more effectively to competition by providing access – through imports – to a wider range of value-for-money intermediate inputs of both goods and services. The critical role played by intermediate inputs and imported production equipment is evident in virtually every UK sector. For example, high-tech and capital-intensive manufacturing in the UK depends on high-quality imported electronic equipment; pharmaceutical companies import basic chemicals as intermediate inputs; and even businesses in perishable sectors such as food processing often import packaging materials. In all these sectors imports allow final prices to remain low and help keep UK firms competitive.

Innovation 2.26 In addition, the potential of larger markets, alongside increasing exposure to competition, has provided strong incentives for firms to innovate, moving quickly to take advantage of productivity-enhancing technologies. The automotive sector in the UK is a good example of a sector in which FDI helped this process to take place (see box 2.2).

Box 2.1: UK comparative advantage: textiles manufacturing vs business activities services

In general developed countries have a comparative advantage in the production of capital and skill intensive, rather than labour intensive, goods and services. The production of textiles is relatively labour intensive; so in a developed economy greater openness to trade in textiles would be likely to result in reallocation of resources away from domestic textiles production and into other activities.

This is indeed what happened in the UK. Between 1970 and 2003, the weight of textile output in manufacturing output fell from 9.4 per cent to 3.6 per cent. The weight of textile employment in manufacturing employment also fell – from 12.3 per cent in 1985 to 5.6 per cent in 2003. The fact that the textile industry's employment weight in manufacturing is higher than its output weight suggests that the manufacture of textiles is relatively more labour intensive than the average for the manufacturing sector.

As relative domestic output fell, the value of textile imports as a percentage of domestic production rose – from 50 per cent in 1983 to 74 per cent in 2002. At the same time, textile exports as a percentage of production rose from 29 per cent to 51 per cent. This suggests that domestic demand for textiles switched from domestically produced goods to cheaper imports; but that at the same time textile manufacturers managed to slow the relative decline in output by exploiting new export opportunities.

Trade has impacted differently on high-skill sectors in which the UK has a comparative advantage. These sectors have absorbed the resources released from less competitive sectors. For example, between 1985 and 2002 the renting and business activities services sector increased its share in total services output from 21 per cent to 33 per cent.¹¹ At the same time, its employment share grew from 14 per cent to 19 per cent. The fact that its employment share is lower than its output share indicates that this sector is relatively less labour intensive than the services sector as a whole. The fact that the output share grew faster than the employment share suggests that productivity in this industry was growing faster than the average for the services sector.

Between 1991 and 2002, the value of exports from the renting and business activities sector as a proportion of domestic output in that sector rose from 10 per cent to 16 per cent. At the same time, imports increased their share from 6 per cent to 9 per cent. This suggests that the sector benefited significantly from the opening of export markets and competed successfully with potential imports. This example also shows that a successful and expanding domestic sector is fully compatible with rising imports.

¹¹ The increase in this sector's output was driven almost entirely by business activities rather than renting, based on the increase in relative shares of services gross value added. "Market research and management consultancy", "computer services" and "other business services" sub-sectors made the greatest contribution. (Source: ONS).

Box 2.2: Innovation in the UK automotive sector

In the late 1980s and early 1990s, three Japanese automotive giants set up operations in Britain to supply the European market. While many factors were involved in their decision to locate in Britain, trade openness was clearly critical, both in providing access to export markets across Europe and in allowing sourcing of inputs from supply chains in Japan and across the world, as well as in Britain.

However, their arrival also highlighted the poor state of the UK auto supply industry. An industry report¹² suggested that while some Japanese plants could simultaneously achieve outstanding levels of productivity and quality, no UK plants could do the same, and many achieved neither. These “world class” plants were twice as productive and with significantly higher output quality than the UK plants, as well as having much more streamlined supply chains. Even against other European suppliers the UK was not a strong performer: a large proportion of components by value were sourced elsewhere in Europe.

Over the next decade, the Japanese-owned manufacturers encouraged the auto supply industry to set up links and learn directly from Japanese suppliers. The result was a sharp increase in the rate of innovation and adoption of best practice techniques by UK firms. An estimated 385 companies in the sector have taken part in collaborative activities as part of an industry forum set up to facilitate this exchange of knowledge, with typical savings per company of £250,000 per year. Key performance metrics have all seen strong improvement.¹³

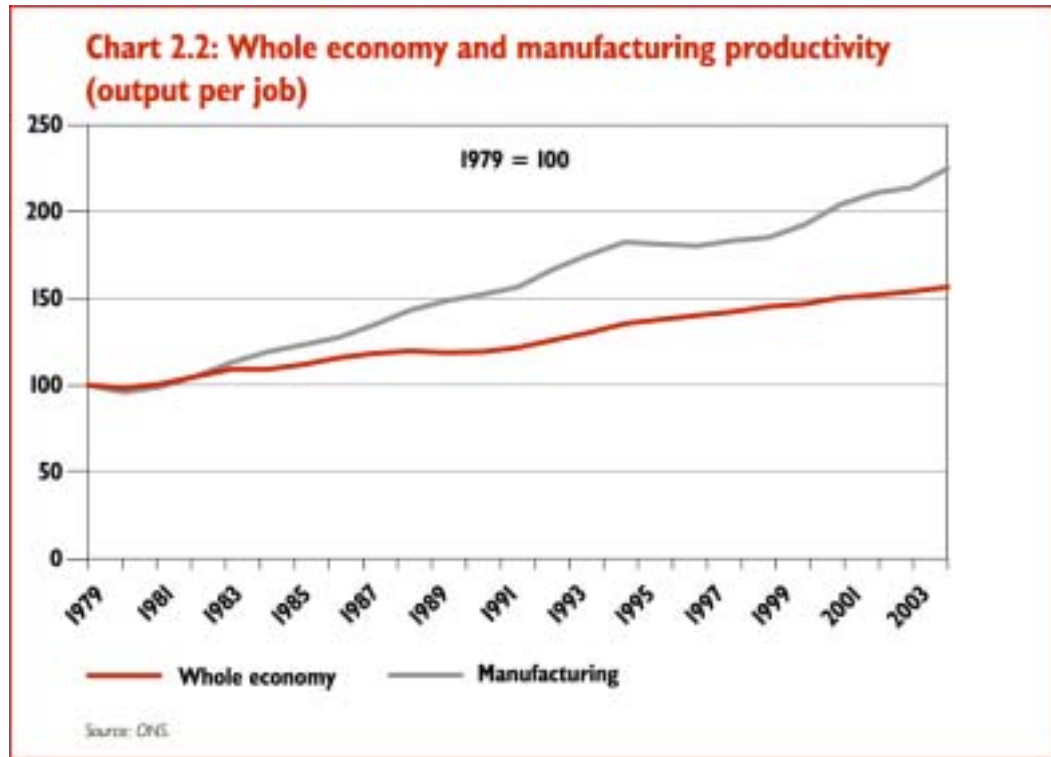
Increasing competition from Japanese and other European automotive suppliers in both domestic and export markets was already forcing the UK sector to innovate and improve efficiency. FDI offered the opportunity to speed up the process, resulting in a more streamlined and productive sector.

2.27 The impact on the economy of these structural shifts, due to both trade and technological change, has been strongly positive. Wages in both manufacturing and services have increased, reflecting productivity gains (chart 2.2). Employment as a whole has risen. Those regions which depended heavily on manufacturing have maintained their share in total employment, reflecting the creation of new jobs in non-traditional sectors. At the same time, consumers have gained access to a wider range of goods and services, with improved quality and value for money. GDP and real household income levels have continued to grow.¹⁴

¹² Anderson Consulting (1993)

¹³ DTI Manufacturing strategy (2002)

¹⁴ ONS



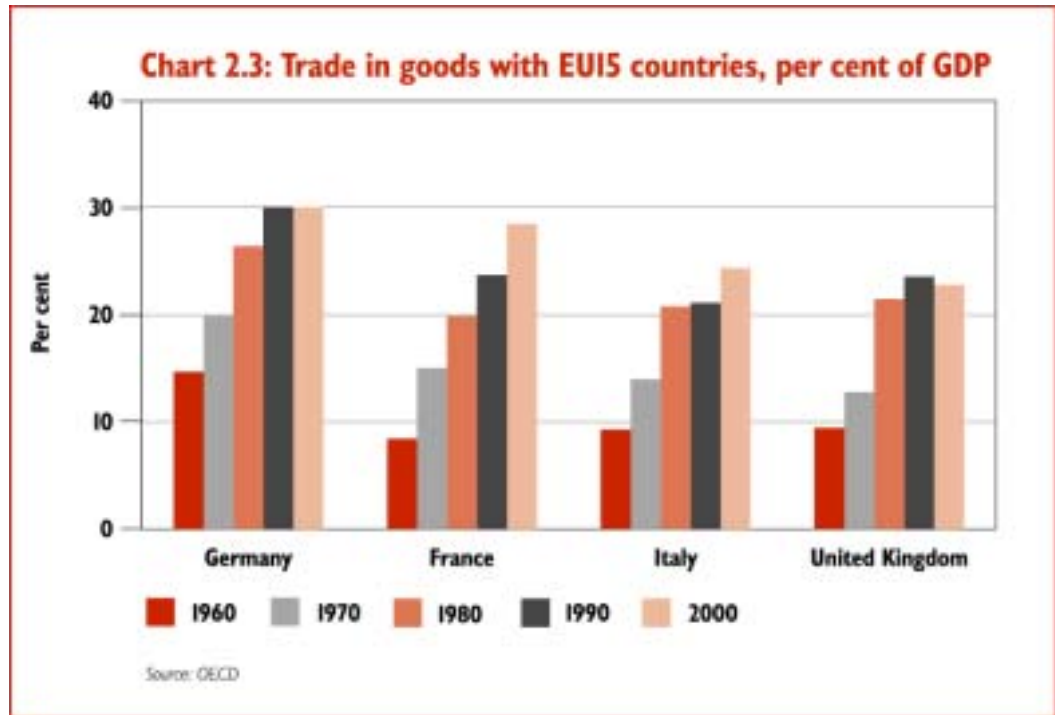
Trade and growth in Europe

2.28 In Europe, increased openness to trade helped drive productivity and economic growth after the Second World War, in particular in the “Golden Age” of European growth between 1950 and 1973. In Western Europe, export volumes were actually lower in 1950 than they had been in 1913, reflecting the legacy of the two world wars and of the protectionist trade policies pursued in the interwar period. Since 1950, Western European trade has expanded at around 6.5 per cent per annum, and by over 8 per cent per annum between 1950 and 1973, spurred by multilateral reductions in trade barriers and the formation of the European Union. During the 1950-1973 period GDP per capita in Western Europe grew by 4.1 per cent per annum, compared with only 1.3 per cent per annum in the late nineteenth century. Economic historians have concluded that progressive reductions in trade barriers were instrumental in the strong European economic performance after 1950:

*“With regard to trade policy, defined widely to include industrial policy, a strong consensus emerges which will be familiar to economists examining post-war trends in the wider world. Outwardly oriented development and relatively free trade seem to promote growth in the long term”.*¹⁵

2.29 The formation of the European Economic Community (EEC) in 1958 and the European Free Trade Area (EFTA) in 1960 reduced trade barriers within Europe, notably on trade in industrial products. The EEC established a customs union, in which tariffs and other explicit restrictions were eliminated on trade between member countries, and a common tariff applied to trade with other states. The EEC and EFTA both provided European producers with easier access to each other’s markets, leading to a strong expansion in intra-European trade (chart 2.3).

¹⁵ Crafts and Toniolo (1996a) in Crafts and Toniolo (eds)



2.30 The growth of trade within industries, rather than between industries, played an important part in this expansion – and continues to do so. Intra-industry trade now accounts for about 70 per cent of European trade.¹⁶ Access to larger markets has allowed producers to exploit economies of scale, enabling greater product differentiation in order to meet consumers' needs more precisely.

2.31 European countries which pursued less open policies in the 1950s did not advance as rapidly as their neighbours (see box 2.3). More inward looking policies meant that those countries became more reliant on the resources and the growth potential of their own domestic market, with less scope for generating competition and realizing economies of scale. These constraints shaped both the speed and the pattern of those economies' subsequent development.

The Single Market Programme

2.32 In the mid 1980s the European Union embarked on the Single Market programme, further reducing the impediments to cross-border trade within the EU. The costs incurred in exporting to other EU states were cut by adopting standard administrative documents, and by abolishing border checks on the movement of goods. The programme also tackled other non-tariff barriers by a combination of agreeing technical standards at the EU level for some goods, and by mutual recognition of national standards in other areas. Evidence suggests that the initiative delivered significant benefits, although some barriers to trade persist. The European Commission estimate that by 2002 EU GDP was 1.8 per cent higher as a result of the creation of the Single Market. In addition, the market has increased the ability of EU firms to compete in global markets, and made Europe a more attractive location for foreign investors. European consumers have benefited from a wider range of goods and services, and from lower prices.¹⁷

¹⁶ OECD (2002)

¹⁷ European Commission (2002a)

Box 2.3: Trade policy and economic performance in France, Spain and Ireland

In **France**, stringent import quotas were in place through much of the 1950s, and tariff levels were notably higher than in neighbouring European countries. The reduction of trade barriers after 1958 seems to have played an important role in enabling labour productivity to grow by 4.6 per cent per annum between 1958 and 1973.

Trade barriers fell significantly in the 1960s, following the formation of the European Economic Community, and as a result of the Dillon and Kennedy trade rounds. This led to a substantial re-orientation of French trade: between 1958 and 1968, the share of French exports going to former colonies fell from 38 per cent to 14 per cent, while the share going to OECD countries rose from 47 per cent to 70 per cent. Import exposure of the domestic market rose from 8 per cent in 1959 to 17 per cent in 1971, contributing to an increase in competition, and led to French firms becoming more innovative.

Spain also moved away from an inward-looking policy at the end of the 1950s. Until then, economic policy had aimed at rapid industrialisation through import substitution based on import quotas, exchange controls and extensive state control of production and investment. GDP per capita grew by 3.5 per cent per annum between 1950 and 1960, but the inward focus meant that Spanish industry could not compete on international markets. Low exposure to foreign competition hindered innovation and the adoption of technological advances made in other countries, undermining Spain's ability to catch up with the leading European economies. The stabilisation plan adopted in 1959 led to the abolition of the system of multiple exchange rates, and the replacement of quotas on 90 per cent of imports by a (still high) tariff.

The opening of Spanish markets proceeded gradually with average effective protection estimated at 34 per cent in 1980. GDP per head grew by 6.3 per cent per annum between 1960 and 1973. This was accompanied by increased integration with the international economy, with exports rising from 6 per cent of GDP in 1959 to 11 per cent of GDP in 1974, and foreign investment accounting for 6 per cent of fixed capital formation over the same period.

Ireland adopted an import substituting industrial policy during the 1930s. Industrial employment and output rose rapidly between 1932 and 1937, but this initial success was not sustained. Between 1950 and 1960 the growth of GDP per capita averaged 2.2 per cent per annum, much lower than the 4.7 per cent per annum achieved in Western Europe. Ireland's industrial structure was characterised by a large number of small firms, with limited potential to exploit the economies of scale that would have enabled them to survive without protection.

The establishment of the Anglo-Irish Free Trade Area in 1966 and Ireland's entry into the European community in 1973 brought a gradual but progressive reduction in trade barriers. The ratio of merchandise trade (exports and imports) to GDP rose from 69 per cent in 1960-73 to 106 per cent in 1974-89. Between 1965 and 1980 GDP per capita grew by 3.8 per cent per annum, more strongly than in Western Europe as a whole.

Sources: France: Sicsic and Wyplosz (1996); Spain: Prados de la Escosura and Sanz (1996); Ireland: O'Grada and O'Rourke (1996).

2.33 While the European Union has been very significant in promoting cross-border trade between its members and within the wider European Economic Area, it has been less aggressive in removing trade barriers with the rest of the world. This has been particularly the case in agriculture, but also in labour intensive manufacturing such as textiles and footwear and processed agricultural goods. Export subsidies for European products have depressed prices in the rest of the world, compounding the adverse effects of European policies for other countries. European citizens have also paid a cost, in terms of higher taxes, higher consumer prices and a less competitive market (see chapter 3).

Flexibility in Europe

2.34 Periods of rapid economic growth are typically periods in which there are substantial changes in the structure of output and employment – especially when GDP growth is accompanied by rapid trade growth, and labour and capital are redeployed into exporting industries. If new employment opportunities are not created sufficiently rapidly, the process can be potentially costly both to individuals and to the economy as a whole. Rapid growth in Europe in the 1960s was underpinned by smooth adjustment in labour, product and capital markets. This was reflected in high rates of investment, the absence of inflationary wage pressures and a low rate of unemployment.¹⁸ However, the flexibility of European markets in the 1960s was subsequently eroded, particularly in labour markets. At the Lisbon European Council in 2000 European leaders instituted a programme of economic reform that aimed to raise the employment rate in Europe, and create a dynamic knowledge-based economy. Such reforms are also necessary to enhance Europe's capacity to compete in international markets.¹⁹

External Openness and the Lisbon Agenda

2.35 Trade openness has a continuing role to play as a catalyst for competition, innovation and modernisation in Europe – necessary if Europe is to achieve its goal of becoming the most dynamic knowledge-based economy in the world by 2010. Removing the significant regulatory and other barriers to trade within the EU, especially in services, is essential. The March 2004 European Council conclusions noted that the mid-term review of the Lisbon Agenda on economic reform should look at the role of external drivers of growth, competitiveness and employment. External openness to trade is a vital component of the strategy to achieve the Lisbon targets.

Beyond Europe: global growth and developing countries

2.36 The expansion of trade in the UK and Europe was part of a wider movement towards more open markets in the period following the second world war. The link between openness and economic performance can also be seen on a global scale. Trade barriers rose substantially following the First World War as countries reverted to protectionist policies in order to promote domestic output and employment (table 2.1). This led to a marked slowdown in the pace of world trade growth: the volume of trade grew by only 40 per cent between 1913 and 1950, compared with some 400 per cent between 1870 and 1913. As a proportion of GDP world trade fell significantly – on one estimate trade volumes fell from 22 per cent of world GDP in 1913 to just 9 per cent of GDP in 1938.²⁰

¹⁸ See Eichengreen (1996) in Crafts and Toniolo (eds) (1996)

¹⁹ See HM Treasury (2004)

²⁰ Esteveadoral, Frantz and Taylor (2002)

Table 2.1: Average tariff levels in selected countries

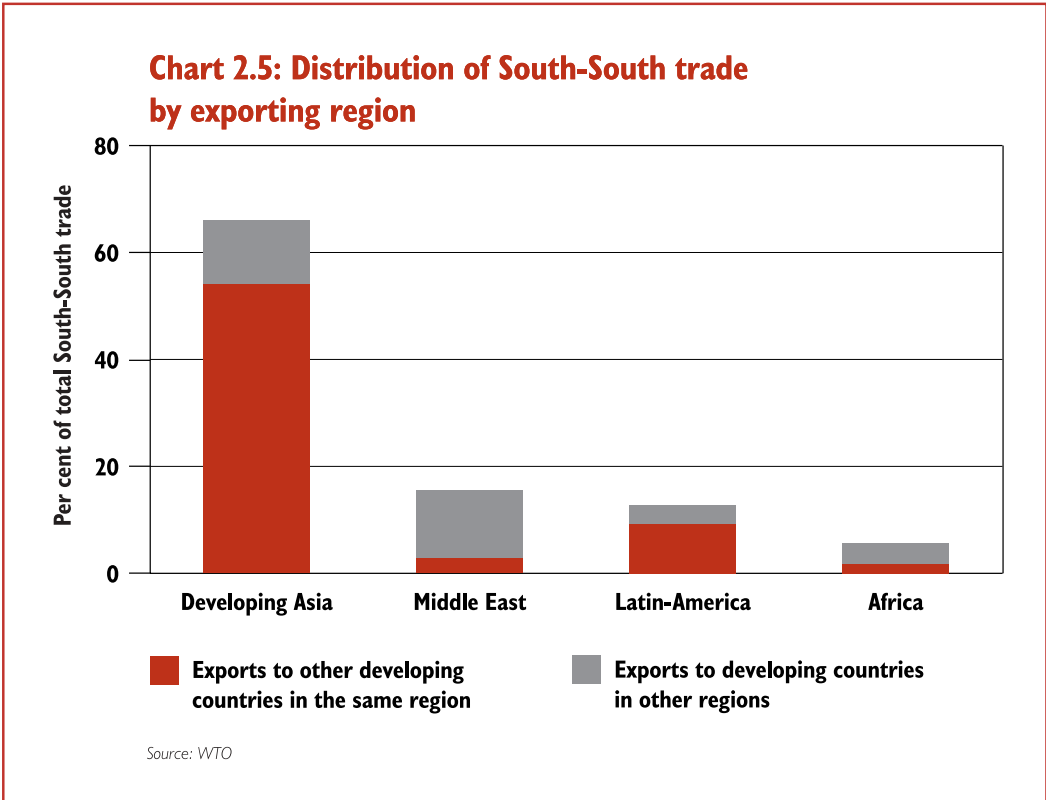
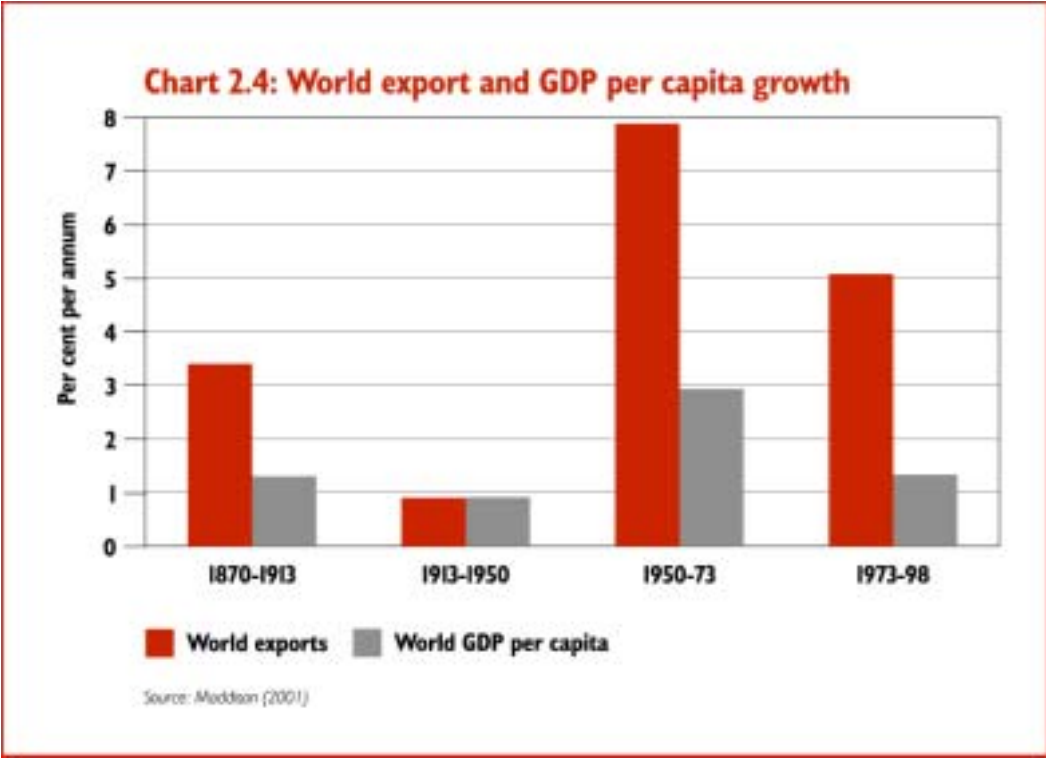
	1925	1931
France	9	38
Germany	15	40
Italy	16	48
United Kingdom	4	17
United States	26	35

Source: Irwin, D (2002)

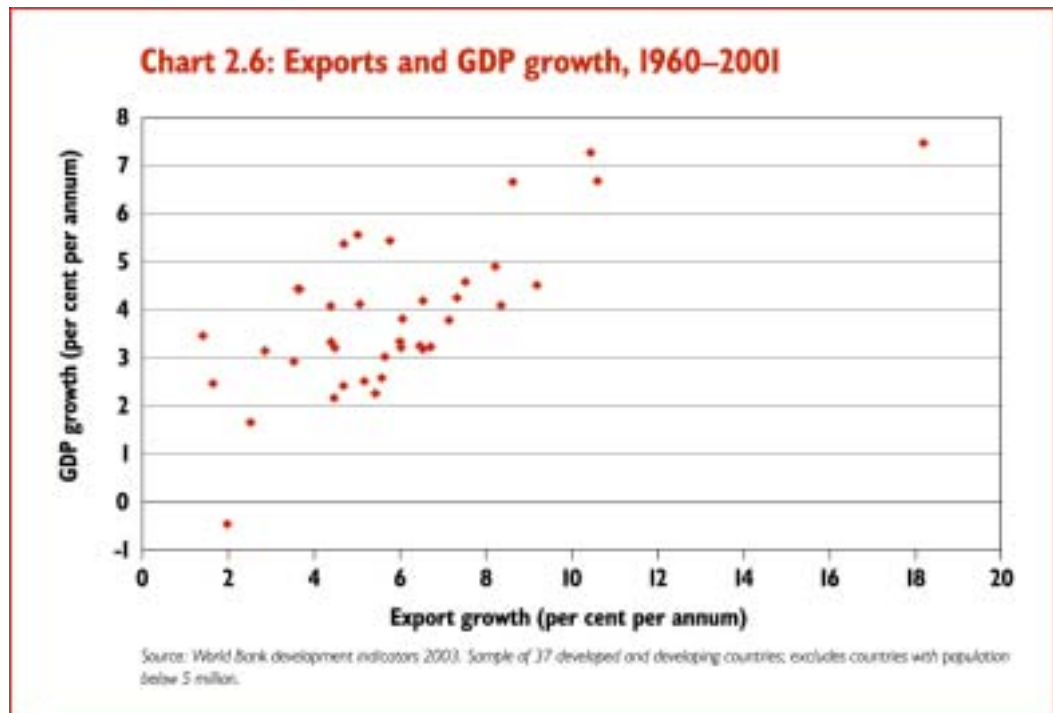
The GATT 2.37 After the second world war, governments began consciously to adopt more outward-looking policies. This impetus led to the establishment of the General Agreement on Tariffs and Trade (GATT) in 1947, which provided a framework for progressive mutual reduction in tariffs. The original GATT negotiations were long and arduous, and came close to collapse on many occasions, reflecting the tensions which exist between the benefits of trade and the economic changes associated with opening markets.²¹ Despite these tensions, the first GATT negotiations succeeded in reducing tariffs by around 20 per cent; and the framework for multilateral trade negotiations thus established led to further reductions of around 35 per cent in the Kennedy Round (1964-67) and 33 per cent in the Tokyo round (1973-79). These reductions applied primarily to manufactured goods: substantial barriers to trade remained in agriculture, textiles and services. The benefits flowed mainly to developed economies with developing countries remaining largely outside the GATT process. Nevertheless, as trade barriers fell, both global trade and global income per capita increased. In particular, the strong growth of both exports and output between 1950 and 1973 stands in marked contrast to the weak performance of both in the first half of the century (chart 2.4).

Emerging Markets and Developing Countries 2.38 As trade barriers fell in the industrialised world, some developing countries also began to open up to trade, leading to the emergence of new markets and contributing to substantially accelerated growth in the more successful economies. From the early 1980s to the late 1990s average tariff rates in developing countries halved, from around 30 per cent to 15 per cent. Over the same period, trade volumes increased significantly, and the composition of developing country exports changed: the share of manufactured goods in developing countries' exports rose from around 25 per cent to over 80 per cent in 1998. Trade between developing countries became – and continues to be – increasingly important, growing twice as fast as world trade: 10 per cent versus 5 per cent between 1990 and 2001. However, these flows are concentrated among emerging markets in Asia: Africa's share of South – South exports is extremely small (see chart 2.5).

²¹ In general, the benefits of greater openness to trade tend to be spread across the population and to build over time, whereas the costs are more highly concentrated and more immediate. As a result, the impetus for trade reform has tended to ebb and flow, depending on how confident policy-makers have been in their economies' ability to make short-term adjustments and grasp the opportunities which a more open trade regime provides.



2.39 The fact that developing countries took longer to move towards more open policies in part reflected a strong commitment to import substitution in many countries – restricting imports of manufactured goods in order to shift demand towards domestic production, with the aim of promoting rapid industrialization. These strategies had mixed results (see chapter 3). In a number of countries, import substitution enabled domestic industries to develop. However, in the medium term, continuing such policies meant that development was constrained by the limited resources and markets which the domestic economy could provide. These effects were compounded by continuing protectionism in developed countries, which prevented developing country producers from accessing lucrative markets. Longer-term success required countries to draw on resources which could be supplied more cheaply by the rest of the world, and to exploit economies of scale by producing for foreign as well as for domestic markets.



2.40 Countries which moved more rapidly towards more outward looking trade policies found it easier to sustain high rates of productivity growth (see chart 2.6). For example, Korea in the 1960s, Chile in the 1980s and India in the 1990s all experienced a rapid acceleration in growth, following the adoption of reforms including substantial reductions in their barriers to foreign trade:

- ⚡ during the 1960s, Korea dismantled its import restrictions and reoriented its industrial policy towards export industries (see box 2.4). Between 1965 and 1985 import volumes grew by 16 per cent per annum, and GDP per capita by 7.7 per cent per annum, compared with only 3.4 per cent per annum for Asia as a whole. By 1985 Korean GDP per capita was around 2½ times higher than in Asia as a whole, whereas it had been only 8 per cent higher in 1965.

- €# between 1975 and 1979, Chile eliminated all quantitative restrictions and trade controls and reduced its tariffs substantially. Between 1980 and 2000 import volumes grew by 6 per cent per annum, and GDP per capita by 2.7 per cent per annum, compared with only 0.4 per cent per annum in Latin America as a whole. By 2000, Chilean GDP per capita was 69 per cent higher than the Latin American average, compared with only 6 per cent higher in 1980.
- €# India began to dismantle its import restrictions during the 1980s, and continued with a far-reaching reform programme in 1991, including a reduction in tariffs from 85 to 25 per cent. Trade grew strongly, with import volumes rising by 7 per cent per annum. GDP per capita grew by 3.9 per cent per annum between 1985 and 2000, up from 1.5 per cent per annum between 1970 and 1985.

Box 2.4: Export-led growth in South Korea²²

Despite a severe shock to the economy in the Asian financial crisis, South Korea has seen strong growth in both output and trade over the past three decades and a massive improvement in living standards. This was achieved through a mix of export promotion, trade and investment liberalisation and industrial protection. These were accompanied by strong investment in education, and a high adaptability which enabled South Korea to deal effectively with changes to its economic structure, including the loss of formerly competitive sectors to lower-wage economies.

In 1965, Korean GDP per capita was only 8 per cent higher than the Asian average. By 2000, it was over 3½ times higher. This remarkable advance has been accompanied by strong increases in international trade. Import volumes have grown at 15 per cent per annum since 1965.

Until the 1960s, South Korea exerted strict controls over imports. However, this import substitution policy failed to lead to the development of domestic industry. Instead, it led to excess capacity in the primary sector, which continued producing goods for which there was little demand.

From 1962, the government instituted a number of export promotion measures, as well as allowing a depreciation of the won through a floating exchange rate. Industrial policies supported industries with the potential to thrive in export markets through export subsidies and directed credit. At the same time, restrictions on imports were cut substantially, exposing Korean industry to international competition. The number of items automatically approved for import rose from zero in 1963 to 63 per cent in 1964, and many import quotas were abolished in 1967. Tariffs were also cut sharply, with the effective tax on imports falling from nearly 40 per cent in 1960 to 8 per cent in 1967.

In the 1970s, South Korea faced increasingly strong competition from lower-wage economies in labour-intensive light industries. The government therefore gradually reduced the export promotion schemes in favour of policies specifically targeted at developing heavy and chemical industries.

²² Based mainly on Choi (2002) and Irwin (2002).



2.41 Approaches to import liberalization in these countries differed: in Chile there was an across-the-board reduction in tariffs; in Korea tariffs were reduced only gradually but the government implemented complex (and administratively demanding) schemes to compensate exporters for the additional costs which import barriers imposed. In other countries export processing zones have been used, though not always successfully (see box 2.5). However, in all three cases reductions in barriers to imports were an important part of the drive to increase exports. Early reductions in quantitative restrictions on imports were particularly important (identified as a “vital first ingredient” in a detailed study of trade reforms in developing countries).²³ Moreover, the direction of travel was consistently towards greater openness, suggesting that establishing a clear and credible direction in favour of reform is as important – if not more important – than the pace at which specific reforms are implemented.

Cross-country studies

2.42 These lessons from individual countries’ experience are largely borne out by cross-country studies, the majority of which have found a systematic link between openness and growth (see box 2.6 for an explanation of the limitations of this type of study). For example, Sachs and Warner (1995) found a positive relationship between a simple summary measure of openness and growth, concluding that annual GDP growth rates in open economies were two percentage points higher than in closed economies. Edwards (1998) considered nine different measures of trade openness and found that in 17 out of 18 regressions, countries which were identified as more open had higher rates of productivity growth, and that in 13 of these instances the effect was statistically significant. Frankel and Romer (1999) suggest that an increase of one percentage point in the ratio of trade to GDP is associated with an average increase in income per person of at least half a per cent. Dollar and Kraay (2004) divide a sample of 73 developing countries into “globalisers” and “non-globalisers”, using criteria based on trade as a share of GDP and reductions in average tariff rates,²⁴ and show that the average growth rate in GDP per capita since 1980 has been higher for the globalisers than for the non-globalisers. Lewer and van den Berg (2003)²⁵ review the results of a large number of cross-country and time series regressions, finding that on average a one percentage point increase in the growth of exports is associated with a one-fifth percentage point increase in economic growth.

²³ Papageorgiou, Michaely and Choksi (1991)

²⁴ This excludes the 24 countries that were members of the OECD in 1990, together with five “early liberalisers”, namely, Chile, Hong Kong, Taiwan, Singapore and South Korea.

²⁵ This brings together results from 196 cross-country and 402 time series regressions of real GDP growth on real export growth, and 37 cross country and 57 time series regressions of real GDP per capita growth on real export growth.

Box 2.5: Export Processing Zones

Export Processing Zones aim to promote exports and stimulate foreign direct investments (FDI) by offering exemptions from import tariffs, alongside other tax incentives, to particular industrial zones, sectors or factories. The success of China, Korea and other East Asian countries in creating sustainable export growth through EPZs has encouraged many other countries to follow suit. The International Labour Organisation estimates that by the late 1990s there were more than 850 EPZs across the world.

Experience with EPZs, however, has been mixed, particularly in low and middle income countries. For example, while the Mauritian EPZ is considered a clear success and a key factor in explaining Mauritius' outstanding economic performance compared with the rest of the region, other African countries such as Zimbabwe, Senegal, Madagascar and Cameroon have failed to benefit substantially from EPZs.

Mauritius' success can be explained by its particularly strong business ties to Asia, the division between political and economic elites which enabled it to capture the rents from preferential access to EU markets relatively efficiently, and the very high level - up to 50 per cent - of the equity of firms in the EPZ owned by Mauritian nationals.²⁶

On the other hand, the Dakar EPZ, established in 1974, never managed to take off. By 1990 it was employing only 600 workers. As in many EPZs, while the government provided significant tax and customs incentives, it failed to reduce the burden of other business regulations such as minimum employment and investment floors, and consequently failed to attract both national and foreign investors.

Kenya's garment EPZ shows both the short-term benefits and the long-term risks of "footloose" investment. In 2000, the US implemented the African Growth and Opportunity Act giving Kenya duty and quota free access to the US. FDI in the Kenyan garment EPZ increased by 42 per cent in 2001, mostly from entrepreneurs already experienced in exporting to the US and relocating production from the Middle East and Sri Lanka. This led to a boom in exports. The sustainability of the sector, however, will be highly uncertain once the Agreement on Textiles and Clothing (ATC) is phased out at the end of 2004.

EPZs can be a useful transition mechanism towards increased openness, but they require high quality institutions to implement them effectively; a clear and credible reform path leading to integration into the domestic economy; and an overall investment friendly environment. Research suggests that EPZs have often failed because institutions and governance have not been able to manage the rent-seeking, corruption and inefficiency risks inherent in the high degree of selective interventionism embodied in EPZs.²⁷ In addition, the Kenyan example highlights the broader difficulties which discretionary – and distortionary – preferential market access schemes cause developing countries (see chapter 5).

²⁶ Subramanian and Roy (2001)

²⁷ Subramanian and Roy (2001)

Box 2.6: Measuring trade barriers in cross country studies

The prediction that countries which are more open to trade will experience higher income levels or higher growth rates has been tested using econometric techniques. Important difficulties in such research include constructing appropriate measures of openness, and establishing conclusively the direction of causality.

Simple measures such as the volume of international trade to GDP provide a proxy indicator of trade barriers. Other things equal, lower barriers to trade should lead to higher trade volumes. Hence although trade volumes do not measure barriers to trade directly, they should reflect the impact of trade barriers, including those that are not easily measured. Measures of trade as a proportion of GDP need to be adjusted to take account of a country's size, since large countries will be able to supply a greater range of goods and services from within their own borders, and hence have a lower propensity for international trade than smaller countries.

Other measures of trade distortion have included tariff levels, measures of non-tariff barriers, the difference between blackmarket and official exchange rates and cross country differences in price levels for tradable goods. However, such measures remain imperfect, in that they are unable to capture adequately the different forms that trade barriers can take. This is particularly true for non-tariff barriers: for example, differences in product standards can deter cross-border trade but are not easily incorporated into a summary measure of a country's openness to trade.

Another limitation of these cross-country studies is their inability to isolate the effect of openness conclusively from that of other factors which tend to accompany trade reform. Policies correlated with growth (openness, macroeconomic stability, rule of law, effective institutions) tend also to be correlated among themselves. This means that it is very difficult to disentangle the effects of openness from the effects of other associated policies.

2.43 More recent cross-country analysis suggests that the extent of the boost to growth associated with a more outward orientation depends on the context in which the policy change occurs – see for example Rodrik and Rodriguez (2001) and Wacziarg and Welch (2003).²⁸ Where other obstacles, such as political instability, poor macroeconomic policy or insecure property rights are the dominant constraint on economic growth, reducing trade barriers may yield limited benefits (box 2.7). Conversely, measures to improve the domestic business environment and strengthen domestic institutions can boost growth, even without a reduction in trade barriers. This underlines the importance of placing trade reform in the context of broader development strategies, particularly in poor countries where the institutional environment is typically less developed (see chapter 5).

²⁸ Rodriguez and Rodrik (2001) in Bernanke and Rogoff (2000); and Rodrik, Subramanian and Trebbi (2002)

Box 2.7: Conclusions from Wacziarg and Welch (2003)

Wacziarg and Welch found that on average, countries which opened their economies to trade between 1950 and 1998 increased their GDP growth rates by 1.4 per cent a year, rising to 2.5 per cent for those which opened between 1990 and 1998. Among 24 developing countries, around two-thirds experienced increases in the growth rate of GDP per capita after moving from being closed to open, but a third saw GDP per capita growth rates decline – often because political and macroeconomic instability undermined economic performance.

They considered the context in which trade reforms occurred for 13 of these 24 countries,²⁹ and drew the following conclusions:

- # Countries which sustained and deepened their trade reforms over time were more likely to see sustained improvements in GDP per capita growth rates.
- # The evidence on the success of specific approaches to trade reform was mixed. In particular, Indonesia, Taiwan and Korea all successfully pursued growth strategies that combined an outward-oriented development model and industrial policies, but this strategy has been less successful in other countries.
- # However, coherence of the reforms matters. In Israel and the Philippines, domestic policies which insulated domestic producers from the effects of trade reforms hampered the ability of countries to benefit from trade reform.

The context in which reforms are introduced is also important. Restrictive macroeconomic policies, currency overvaluation and political instability can prevent trade reforms from boosting economic growth, at least in the short term.

2.44 Reforms are also likely to yield greater benefits if they can be sustained and deepened.³⁰ This suggests the possibility of self-reinforcing circles. Countries which institute reforms in unfavourable circumstances may see little or no benefit in the short-term, which may then undermine the support for existing and further reforms. By contrast, countries which introduce reforms in favourable circumstances may find it easier to sustain and build on support for their programmes. In the case of India, the failure of earlier attempts at reform meant that the easing of restrictions proceeded cautiously after 1985, followed by more far-reaching reforms in 1991.³¹

²⁹ The thirteen countries and the date from which they became open economies on the Sachs and Warner measure are: Poland (1990), Ghana (1985), Uganda (1988), Taiwan (1963), Chile (1976), South Korea (1968), Indonesia (1970), Colombia (1986), Philippines (1988), Hungary (1990), Mexico (1986), Botswana (1979) and Israel (1985).

³⁰ Wacziarg and Welch (2003)

³¹ Panagariya (2004)

Conclusions

In summary:

- ⌘ Increasing openness to trade can play a critical role in helping to raise the long-run sustainable rate of productivity growth.
- ⌘ Trade operates by enhancing the existing processes which drive economic growth. Changes in the structure of production and employment are an intrinsic part of capturing the efficiency and productivity benefits of greater openness to trade.
- ⌘ The mercantilist distinction between the benefits of exports and imports is false, and is harmful not least when it hinders progress in trade negotiations. The dynamic effects of openness derive both from exposure to imports and from opportunities to export. Moreover, restrictions on imports penalize exporters by increasing their production costs compared with international competitors. Consequently, it is easier to sustain an export-led strategy when there are no restrictions on imports.
- ⌘ The evidence of the last fifty years bears this out. In the industrialized world, the reduction in trade barriers following the second world war led to an increase in trade and faster economic growth. Globally, those countries which moved consistently towards a more open trade regime have been able to sustain rapid economic growth, becoming the emerging markets of the last few decades.
- ⌘ The clarity of direction and consistency of trade reform matters. Within this, different countries have pursued different mixes of policies (e.g. the Korean approach combining liberalization with intervention, or the Chilean model). But in general, the more complex the policy mix, the greater demand on institutional capacity, and the less likely trade policy reforms are to succeed in the absence of other reforms.
- ⌘ The context in which trade reform occurs matters: without macroeconomic and political stability, reductions in trade barriers may deliver little or no benefit and risk undermining support for further reform.

PROTECTING MARKETS

3.1 In practice, no country has opened its markets completely to international trade, despite the potential benefits of doing so. This chapter looks at the reasons why governments choose to protect markets, the forms such protection can take, and its economic consequences. It argues that while protection can make sense as a short term measure, in the medium to long term the costs almost always outweigh benefits by a significant margin; and the aims of protectionist policies can often be achieved more efficiently through means other than the imposition of trade barriers. Moreover, protectionist policies often become politically difficult to dismantle. Governments introducing systems of protection as a temporary measure may find themselves locked into such policies far beyond the point at which they have achieved their initial objectives.

3.2 This chapter focuses in particular on industrialised economies. Despite the steady reduction of average tariffs over the past half-century – most notably in manufactures under the GATT – industrial economies still have a high and costly degree of protection on specific products. In agriculture, there are still extremely high tariffs on some products: tariff peaks reach 506 per cent in the EU and 350 per cent in the US.¹ In non-agricultural products, the EU has 135 separate tariffs in excess of 15 per cent in the vehicles, footwear and fish sectors; the US has 230 such tariffs and Australia has nearly 800.² Anti-dumping measures are used widely to boost protection further: the average tariff rate for anti-dumping duties in 2001 was 23 per cent, and a number of imports to the EU are subject to anti-dumping duties above 50 per cent. Peak tariffs, escalating tariffs, anti-dumping duties and product standards remain highly significant and damaging forms of protection in industrialised countries, often affecting poor countries disproportionately.

Types of protection and reasons for protecting markets

3.3 Governments choose to protect markets in different ways and for different reasons. Types of protection range from direct restrictions on trade (border tariffs, quotas) to policies which may not have controlling trade as their primary objective but nevertheless have a significant impact on the freedom with which goods, services and people can enter markets – for example product standards and immigration controls (see box 3.1). Some of the most common rationales for protecting markets are:

- ⚡ Import substitution and infant industry policies as part of industrialization strategies;
- ⚡ Controlling the standards of products and services entering home markets, including for cultural, health or environmental reasons;
- ⚡ Responding to (or retaliating against) trade-distorting actions by other countries, including dumping of cheap goods, and the impact of domestic subsidies in third countries;
- ⚡ Protecting jobs in sensitive sectors, or attempting to protect aggregate domestic employment.

¹ World Bank 2003

² WTO consolidated tariff schedules database

Box 3.1: Types of trade barrier

Tariffs are a tax on goods applied at the border. On the whole tariffs have come down over the last 50 years, but they continue to play a key role in trade policy, particularly in agriculture and in labour-intensive manufactured goods such as clothing and footwear. Tariff peaks (very high tariffs on specific products), and escalating tariffs on higher value-added products are particularly distorting, with the latter sometimes concealing the degree of protection present in final goods.

Quotas are still widely used on many goods – e.g. sugar, textiles and clothing – to control the volume of imported goods entering a market.

Export subsidies of various kinds are still common for agricultural products, to help sustain a wide margin between internal market and world prices.

Trade-distorting domestic subsidies to support producers are used in many countries across a wide range of agricultural, industrial and services sectors.

Product standards cover an important and diverse range of non-tariff barriers. Some are imposed on precautionary safety grounds, e.g. restrictions on genetically modified foods and hormone-treated meat, limits on low frequency emissions from electrical equipment. Others are practical or cultural, e.g. metric labelling, European content requirement for TV broadcasts. While some may be justified, others may act simply as protectionist measures.

In **services trade**, barriers range widely, stretching for example from non-recognition of professional qualifications, through ownership requirements (e.g. for access to the single aviation market), to complex and opaque procedures for the establishment of companies or subsidiaries.

Import substitution and infant industry policies

3.4 Infant industry and import substitution arguments rest on the premise that industrial development can proceed more rapidly when domestic industries are shielded from international competition. On this argument, protection provides industries with time to hone their use of the relevant technology and to realise economies of scale within the domestic market, eventually reaching a point where they can compete with foreign firms in both domestic and international markets without protection.

3.5 The experiences of the countries which industrialized in the nineteenth and early twentieth centuries gave added weight to these arguments. In the United States, Germany and Russia trade barriers were seen as enabling domestic industries to grow. More recently, the experiences of Korea and China have shown how limited import substitution strategies can support development (see chapter 2).

Limitations of import substitution policies **3.6** However, import substitution policies have not been universally successful, and are not a sustainable long-term option. A series of case studies³ has highlighted their limitations in a range of countries. Sheltered from competition, protected industries have weak incentives to improve their productivity or expand the range of goods and services they offer. Moreover, import substitution policies may favour industries that do not have the ability to compete in international markets. Consequently, these industries will depend solely on the domestic market, constraining their ability to exploit economies of scale. In addition, the trade barriers required to protect industries impose costs on other parts of the economy – consumers and businesses – hampering development in other sectors.

3.7 Import substitution policies necessarily entail an opportunity cost. They imply that domestic resources are being inefficiently employed in the production of goods and services which would be less costly to produce abroad, at the expense of the production of goods and services which could otherwise be profitably produced for both domestic and foreign markets. The important question is the extent to which this cost persists in the medium-term. Effective mechanisms are needed to ensure that protected industries become progressively less reliant on protection. Whereas the incentives to earn an adequate return on capital guides private sector decisions on whether to continue with an investment project, decisions on public sector projects are subject to wider influences, including from vested interests. The risk with import substitution policies is that countries maintain their support for domestic industries when those industries are failing to develop the competitive capacity that had been anticipated, so that the economic costs extend into the medium and long term.

Political barriers to reform **3.8** A major difficulty encountered by import substitution policies is devising an appropriate exit strategy (see box 3.2 on sugar). The costs of trade reforms tend to be immediate and concentrated on particular sectors or industries, while the benefits tend to come through more slowly and to be widely dispersed across the economy, particularly through lower prices and increased choice for consumers. This disparity can mean that a reform programme may be difficult to implement politically. These problems will be more acute for countries whose existing trade regimes are highly distortionary, implying that reforms will entail significant structural change. One implication is that the costs associated with restrictive trade policies may well be greater in the longer term than in the short term. A second implication is that where existing policies are restrictive, the pace of reforms may be constrained by the economy's ability to make the required adjustments in labour, capital and product markets.

Better alternatives for promoting investment **3.9** Where trade protection is used more generally as a tool for promoting investment in key industrial sectors, there is a serious risk of resources being allocated inefficiently, leading to poorer economic performance – as evidenced by the high costs outlined throughout this chapter. Maintaining a stable macro-economic environment which reduces uncertainty and helps firms plan ahead is likely to be much more effective in ensuring the desired quality and quantity of investment. This could be complemented by targeted programmes to tackle market failures, such as extra incentives for R&D-intensive industries to compensate them appropriately for spillover benefits; or support to small firms where they might be unable to access appropriate finance.

³ Krueger (1978), Bhagwati (1978), Papageorgiu et al (1991)

Box 3.2: European sugar production: The long-run costs of import substitution

Since its beginning, sugar beet production in the EU has been determined by government intervention rather than by market economics and comparative advantage, and is today more a reflection of historical than contemporary pressures.

Sugar first became a major product in Europe when the West Indies started to provide sugar from sugar cane to domestic European markets at affordable prices. However, during the Napoleonic Wars in the early 1800s, Europe became cut off from colonial sugar. Napoleon decided to alleviate the shortages by investing in the commercialisation of the recent German innovation of producing sugar from beet. In 1811, he decreed that French farmers should grow sugar beet; banned sugar imports; and subsidised farmers and scientists working on new varieties and extraction methods. Within two years, France was growing about 65,000 hectares of sugar beet and producing around 3,350 tonnes of refined sugar. Other European countries affected by the blockade followed suit.

Although the refined product, white sugar, is identical, the cost of sugar production from beet in the EU is on average much higher than the average cost of producing sugar from cane in the world's major cane sugar producers. The average cost of sugar production from EU beet is 20 US cents per pound; for cane sugar this figure is as low as 6 cents.⁴

The difficulties faced by sugar beet in competing with cane sugar led to the emergence of protectionist policies in the late 19th Century. Over the course of the 20th Century transport costs have fallen steadily making sugar beet even less competitive and encouraging increasingly protectionist policies in most developed nations.⁵

At the start of the 21st century Europe is no longer vulnerable to being cut off from essential supplies in the way it was in the 18th, a point reinforced by a recent European Commission⁶ report which concluded that full liberalisation of the sugar sector would not threaten the security of supply. Nonetheless, EU sugar beet production continues to be heavily protected. With the EU sugar price two to three times the world price, EU sugar producers receive annual support of €2.3bn⁷ (1999-2001 average) much of which comes from the consumer.

The global net gains from liberalisation of world sugar have been estimated at \$4.7bn a year, with net gains to Western Europe of around \$1.5bn.⁸ Nevertheless, the sugar regime has been extremely resistant to reform.

⁴ USDA (2001)

⁵ Mitchell (2004)

⁶ European Commission (2003)

⁷ OECD (2003a)

⁸ Borrell and Pearce (1999)

Standards for products and services

3.10 Governments routinely regulate the quality of goods and services which can be sold in their markets, in order to inform consumers (for example labelling requirements) and ensure that basic health and safety standards are met (for example product standards, qualification requirements for professionals). Such standards are applied to both domestic and imported goods and services, and so to that extent do not constitute a formal barrier to international trade. However they can have a disproportionate effect on exporters, who may be required to comply with a range of different standards in different markets. In addition, standards may be used deliberately in specific cases as a form of disguised protectionism.

Identifying excessive protectionism

3.11 Identifying where standards are protectionist is not straightforward, given that they have a legitimate policy goal in ensuring quality and correcting market failures. In general, standards are protectionist when they are set higher than needed to achieve the specified policy goal. For example, it was estimated that the impact of changes in EU standards on aflatoxin levels in food would reduce the health risk to the EU by approximately 1.4 deaths in a billion, yet reduce African exports of cereals, dried fruits and nuts by more than 60 per cent (\$670 million) compared with international standard regulations.⁹ Another EU quality standard which effectively prohibits trade from developing countries requires that dairy products be manufactured from milk from cows kept on farms and milked mechanically – a technology out of reach of small producers in developing countries. For developing country agricultural exporters, such standards are often ranked above tariffs and quotas as the most important barrier to trade with the EU.

Impact on developing countries

3.12 Product standards and regulations are a major concern for developing countries, and a growing one: their use has risen over the past decade.¹⁰ Notifications to the WTO of new technical standard barriers have increased from around 10 – 20 a year in the early 1980s, to over 400 in 1999. Low and middle income countries reported between 1996 and 1999 that more than half their potential exports into the EU of fresh and processed fish, meat, fruit and vegetables were prevented by barriers posed by such standards. Given that developing countries' capacity for testing, certification and labelling of products is less than that of developed countries, it is harder for them to reach mutual recognition agreements. Product standard barriers can thus be effectively biased against development.

Impact on developed countries

3.13 Standards and other technical barriers to trade can also be a significant cost to exporters from developed countries. For example, regulatory barriers between the EU and US include:¹¹

- ⚡ Different standards for automobile safety, implying that car manufacturers have to produce different models for different markets and forego potential economies of scale.
- ⚡ The US does not recognise the EU as a country of origin. Tyres imported in the US marked “made in the EC” are not acceptable and have to be relabeled or follow additional procedures.

⁹ Otsuki et al (2001)

¹⁰ Maskus, Wilson, Otsuki (2000)

¹¹ Vandenbussche et al (2003)

≠ The EU and the US take different positions in terms of recognition of air crew and pilot qualifications, hindering the integration of air services.

Impact on EU-US trade **3.14** The impact of such barriers on EU-US trade is important, particularly in sectors such as transport, telecommunications and financial services. Welfare gains from enhanced regulatory cooperation would be significant. For example, Lloyd's estimate that US insurance laws, which require them to have additional cash collateral obligations to enable US insurers to take credit on their balance sheet for the reinsurance purchased from them (as non-US reinsurers), represent an opportunity cost of \$150 million per annum.

3.15 A recent study by the Centre for Economic Policy Research concluded that full liberalisation of transatlantic trade could lead to an annual income gain of up to two per cent of GDP in the EU and up to one per cent of GDP in the US. The study recommended that the EU and US consider strengthening cooperation to help prevent non-tariff barriers, such as domestic regulation, becoming an increasing source of trade disputes. Non-discrimination between domestic and foreign suppliers, recognition of the equivalence of other countries' regulations and reliance on internationally harmonised standards as the basis for domestic regulations are key to reducing the trade restrictiveness potential of standards and regulations. The OECD will now be taking forward work to analyse further the potential benefits of closer economic cooperation. This work will help to identify priority sectors where greater cooperation would yield the most immediate economic benefits.

Sourcing products **3.16** In some cases countries attempt to control the source of goods and services, as well as (or as a proxy for) standards. In the past these practices have included sourcing staple foods only from countries with which the importer has a good political relationship. Current concerns focus much more commonly on defence equipment, where countries tend to source only from reliable allies for national security reasons, and then only when they are unable to build their own domestic production capacity.

Responding to the trade-distorting policies of others

Responding to OECD subsidies **3.17** Countries which have significant production potential in specific sectors can find this potential undermined by the trade-distorting policies of other countries. In particular, OECD subsidies can prevent developing countries from exploiting their production potential in agriculture, by barring access to the world's biggest markets and by undercutting prices in domestic as well as export markets. This can act as a brake on development and in some cases lead to major contraction in domestic production capacity as subsidized imports replace domestic activity.

3.18 For developing countries producing largely for domestic consumption, but facing competition from subsidised OECD imports, imposing tariffs could protect domestic production and so preserve productive potential in sectors which would be competitive absent OECD subsidies. However such policies are not cost-free: imposing tariffs raises prices for consumers and has potentially significant effects on the domestic economy as a whole. They also rely on a firm expectation that OECD countries' protection regimes will be dismantled in the relatively short term. Moreover, the calculation of costs and benefits will differ for different products: for example, the cost of switching production from one arable crop to another in the face of subsidized competition tends to be relatively low (implying that switching crops is a better option than raising tariffs), while switching between arable and animal husbandry sectors may involve significantly higher costs.

3.19 Under these specific circumstances there could be a rationale for the temporary imposition of tariffs equivalent to the expected impact of liberalisation on world prices. However developing country tariffs are generally set at higher levels. For example, average dairy tariffs in non-OECD countries are estimated to reach 74 per cent – three times as high as the increase in world milk prices expected from full liberalisation of the dairy sector.¹² A similar situation exists for sugar, where full liberalisation is expected to raise world prices by around 8 per cent, but applied tariffs reach 100 per cent in India, 66 per cent in China, 65 per cent in Thailand and 18 per cent even in Brazil, the most efficient sugar producer in the world. Higher tariffs may be justified by the need to manage the pace of change in agricultural sectors which provide employment for many poor people (see chapter 5), and some countries may have a strong interest in maintaining domestic food production where security of supply is threatened by conflict; but high tariffs are not a cost-effective response to OECD subsidies.

3.20 Moreover, imposition of domestic tariffs is only a plausible response to OECD subsidies for countries producing largely for domestic consumption. Countries producing for export face a more limited choice. For example, raising cotton tariffs in West Africa will not help cotton exporters, who are estimated to lose around \$250 million per annum from unfair competition from heavily subsidized cotton from the EU, US and China.¹³ The only way to “correct” for this distortion would be for West African countries to subsidise their own cotton production. The costs, however, would be high; and in practice such an option is out of reach for poor countries where agriculture represents a sizeable percentage of GDP, and tax revenues are small. Moreover, for large countries – those with sufficient market share to affect prices – part of the subsidy would be offset by further downward pressure on world prices induced by increased production motivated by the subsidies themselves. This risks triggering an increase in rich country protectionism, leading to a vicious circle of increasing subsidy and economic distortions without delivering benefits.

3.21 The inherent difficulties, economic costs and risks for developing countries in maintaining their agricultural sectors in the face of subsidised OECD competition are considerable. This makes the need for a rapid end to distortive trade barriers in OECD countries all the more urgent.

Anti-dumping measures as protection

3.22 One common trade-distorting practice is the ‘dumping’ of surplus produce on world markets to protect high domestic prices. ‘Dumping’ occurs when products are exported at a price lower than ‘normal value’.¹⁴ When dumped imports threaten to damage domestic industry, countries may put in place temporary anti-dumping measures – effectively higher tariffs to raise the prices of dumped imports.

3.23 Anti-dumping measures are, however, subject to abuse. As tariffs have fallen, countries have used anti-dumping measures not only as temporary protection against dumped imports, but also as an alternative to tariffs to protect uncompetitive domestic industries. Developing countries are both the main targets and the prime users of anti-dumping: most anti-dumping measures are taken by developing countries against other developing countries (table 3.1), and anti-dumping actions tend to be concentrated in sectors of importance to developing countries (notably textiles and clothing, and steel). However, developed countries are also significant users of anti-dumping, with, for

¹² Gibson et al (2001)

¹³ Goreux (2003)

¹⁴ This can be determined in several ways but is generally related either to the price at which goods are sold in the home market or to production costs.

example, the EU initiating 262 actions and the US 292 actions between 1995 and 2002.¹⁵ As with tariffs, anti-dumping measures can cause trade diversion to less efficient suppliers, leading to a welfare loss.

Table 3.1: Anti-dumping actions initiated between 1995 and June 2002

Initiated by	Initiated against			
	Industrial Economies	Developing Economies	Transition Economies	All Economies
Industrial economies	198	494	127	819
Developing economies	357	649	138	1,144
Transition economies	4	6	6	6
All economies	559	1,149	271	1,979

Source: *Global Economic Prospects 2004*

3.24 Although average tariffs have fallen in recent years, the use of anti-dumping has tended to rise. In industrial economies, some anti-dumping duties are seven to ten times higher than average most favoured nation (MFN¹⁶) tariffs. For example, in the EU, the average MFN tariff for non-agricultural products is 4 per cent, yet anti-dumping duties averaged 23 per cent in 2001. A number of products, mostly from developing or emerging market countries, are subject to duties above 50 per cent, including certain iron and steel products from Ukraine, Poland, Mexico, China, India and Malaysia; silicon carbide from China; and PET film from India.¹⁷ In the US, the average non-agricultural MFN tariff is 3.3 per cent, yet historically anti-dumping duties have been much higher, averaging nearly 30 per cent from 1980 to 1993.¹⁸ In emerging markets such as Argentina, Mexico and Peru, anti-dumping duties can be even higher – sometimes in excess of 300 per cent.¹⁹

3.25 As a consequence of their increased use, their discriminatory nature and the discretion allowed under current WTO anti-dumping rules, the growing use of anti-dumping measures could pose a significant barrier to achieving the benefits of multilateral liberalisation, potentially counteracting the benefits of further reductions in tariff levels.

¹⁵ Calculations from European Commission Statistics/WTO

¹⁶ The Most Favoured Nation (MFN) tariff level is the level applied by one WTO member on goods from another WTO member, in the absence of a bilateral/regional trade agreement between the two countries.

¹⁷ European Commission

¹⁸ USITC

¹⁹ GEP (2004)

Protecting jobs

3.26 An explicit desire to slow the pace of change in specific sectors is the major rationale for many protectionist policies. Fear of job losses is the main driving force. The pressures to protect jobs may be particularly acute under circumstances where:

- ⊘ the impact of a reduction in trade barriers is likely to be concentrated disproportionately in specific regions, particularly if skill levels and labour mobility in those regions are lower than average;
- ⊘ the sector affected represents a relatively large share of total employment;
- ⊘ the sector affected provides employment for a high concentration of poor people – see chapter 5;
- ⊘ those affected have a strong political voice, and are able to exercise influence over government decisions;
- ⊘ policy-makers have vested interests in businesses which may be affected by greater openness to trade.

Studies of the costs of job protection

3.27 Some of these factors are more important economically than others: vested interests are a poor economic basis for trade policy, for example. Governments also have a responsibility to ensure adequate social safety net provision to help mitigate transition costs, and to assist individuals through investment in reskilling. But even where there is a good a priori case for slowing the pace of trade-induced change, the experience of the last century tends to show that protectionist policies persist for longer than necessary to achieve their initial objectives; and that the real costs of such policies – including the consequent effects on other domestic sectors – are often neglected in policy making.

3.28 A series of studies by the Institute for International Economics²⁰ has looked at the cost of protection across five developed economies, based on data from around 1990. While there has been some reduction in overall protection in the intervening period, the studies still provide a good indication of the costs to consumers and to the whole economy of attempting to save jobs. In practice, despite some reductions, many of the most sensitive sectors in developed economies remain highly protected.

²⁰ Hufbauer & Elliott (1994); Sazanami, Urata & Kawai (1995); Kim (1996); Yansheng, Zhongxin & Shuguang (1998); Messerlin (2001)

3.29 The studies use two measures for assessing the cost of saving jobs through trade protection. The **consumer cost** measures the additional cost to both final consumers and intermediate consumers (i.e. downstream industries) due to artificially high prices. This figure is important because it includes both costs due to inefficient production and net transfers from consumers to both producers (effectively a subsidy) and government (effectively additional taxes). The **total economy cost** is smaller, because it offsets the benefits of higher prices to producers and the government against the costs to consumers. It therefore only measures costs due to inefficiencies. All costs are expressed in currency terms from the time of the data sets – around 1990 – except where indicative 2004 equivalents have been given.

3.30 In the US, the studies estimate that 192,000 jobs were saved in the 21 most heavily protected sectors, at a weighted average cost to consumers of \$170,000 per job – more than six times the average annual compensation of manufacturing workers at the time. In more than a quarter of the most protected sectors the consumer cost per job saved was estimated to be above \$500,000 per year, and in one sector above \$1,000,000. The overall cost to the economy was estimated at an average \$54,000 per job (\$76,000 today), with four of the 21 sectors showing total-economy costs of more than \$100,000 per job each year, and two at around \$250,000. Moreover, the hourly wages of production workers in these protected sectors were at or below the average manufacturing wage in two thirds of cases.

3.31 A similar pattern emerges in the EU. In the 22 most protected EU sectors the studies estimate that 244,000 jobs were saved (representing only 3 per cent of the total employment in these sectors), at an average consumer cost of €211,000 per job each year - €292,000 at today's prices and eleven times the relevant average wage. However, this average hides a wide disparity in the costs of protection in each sector: the estimated cost of protecting one job in the three particularly highly protected sectors (photocopiers, dairy products and air transport) exceeded €3,000,000. In terms of overall costs to the economy, the average cost per job saved was estimated at €46,000 (€64,000 at today's prices), with the three most protected sectors registering costs above €700,000 per job.

3.32 Japan is little different. Data from 16 highly protected sectors estimates that a total of 180,000 jobs were saved (roughly 10 per cent of employment in those sectors, but only 0.3 per cent of total Japanese employment). Consumers paid on average ¥83 million (\$600,000²¹ in 1989; \$790,000 at today's prices) each year per saved job – about seventeen times average worker earnings - and as much as ¥330 million (\$2.4 million) in one sector. The total average cost to the economy was ¥13 million (\$94,000 in 1989; \$123,000 at today's prices) each year per job.

Job losses in other sectors

3.33 In addition to raising direct costs for final consumers, protecting jobs in inefficient industries may well lead to greater job losses in other sectors. In particular, businesses which rely on outputs from the protected industry will suffer. The steel industry is a good example (box 3.3). When job losses occur in other countries the protectionist policy can, at a national level, represent a benefit purely in terms of jobs saved; but often, as in the steel case, the domestic effect will also be very strong. In many cases, protection fails even in its primary objective: for example, despite significant protection in the textiles and clothing sectors in the UK and EU, employment has continued to fall steadily.²²

²¹ At appropriate exchange rates based on the data set

²² See box 2.1 in chapter 2

Better ways to protect individuals **3.34** The high cost per protected job – often a significant multiple of average earnings – is important not only because of the burden it places on the rest of the economy, but also because it strongly suggests that more effective methods of protecting individuals from unemployment could be offered at substantially lower cost. Intensive re-skilling and relocation packages could be provided at lower cost than continuing protection, equipping individuals to cope effectively with future change and enabling the economy’s overall resources to shift into more productive sectors.

3.35 For example, in the UK, a Rapid Response Service can be called in to provide specially tailored help where a large number of redundancies may be likely within one firm, industry, or geographical area. This provides, among other things, information, advice and guidance to workers facing redundancy; re-training programmes; and consultancy for the company concerned. The focus is on increasing the speed of delivery in order to mitigate potential impacts quickly and effectively.²³ This enhances flexible labour markets and allows the economy to progress towards an efficient allocation of resources while still protecting workers. A number of other developed countries operate similar schemes.

Box 3.3: Steel: the costs of protection

Protection of steel industries in industrialised countries – including through tariffs and the use of state aids – has been in place for prolonged periods over the past century, mainly in response to difficult economic conditions and as a compensatory measure against protection by others. While this may have helped the industry in the short term, it has also acted to dampen competitive forces and the drive to innovate. Although overcapacity is difficult to define and measure, protection certainly allows uneconomic firms to survive unreformed for longer, tending to encourage continued excess production and make it harder for all firms to make a profit over the economic cycle. As a result, despite the consolidation and restructuring in many countries in recent decades, there remains considerable variation in production efficiency across plants and countries.

In the 1960s, when the US steel industry faced competition from modern European plants built in the wake of wartime destruction, the US implemented a system of “voluntary” quotas on steel imports from Europe and Japan. The estimated cost was \$4.4-6.8 billion annually. The Trigger Price Mechanism of the 1970s compounded the problem. The mechanism allowed the government to set minimum prices for steel imports, at an estimated cost of \$9.6-38.4 billion over the four years they were in place. “Voluntary” quotas affecting 20 steel producing countries were put in place in the 1980s. Since then there has been a steady stream of trade cases²⁴ effectively limiting international competition in steel production. Most recently, steel safeguard tariffs were put into force from March 2002 to December 2003.

Did recent tariffs benefit the US domestic industry and the economy as a whole? Producers benefited from higher prices, but despite this many firms in the industry still struggled (and failed) to make profits, and the tide of steel producer bankruptcies was not stemmed. Productivity increased slightly, though it is difficult to assess this against the likely trend in the absence of tariffs. Meanwhile, high prices effectively taxed steel consumers – who represent a much larger share of US employment and GDP. Each steel job protected has been estimated to cost US steel consumers around half a million dollars.²⁵

²³ General forms of social safety nets available in developed and developing countries are covered in more detail in chapter 4.

²⁴ Under anti-dumping and countervailing duty provisions

Between March 2002 and July/August 2003 steel producer employment in the US declined by 6,000 (5.2 per cent); but steel consuming industries saw much greater job losses, with employment falling by 250,000 (6.2 per cent), more than twice the total number employed in steel production.²⁶

Europe continues to have its own problems. State aids were used to support the steel industry over a long period (see table), and recent consolidation in the UK and across Western Europe has not prevented producers from continuing to face difficulties.

In Eastern Europe, state aids have also been favoured and have encouraged uncompetitive production to continue. EU accession agreements have limited the amount of aid and forced it to focus better on restructuring, and some privatisations have taken place. However, the sector will still need to undergo significant restructuring to be internationally competitive without protection and support.

The steel industry is a good example of a sector where justification for protection on grounds of national interest has led to long-term protection and subsidy in many countries. These policies have often proved highly expensive and counterproductive, leading to severe negative effects on downstream industries and reducing incentives for the sector to become more efficient and competitive.

State aid to European steel industries²⁷ (millions DM)

	1975-9	1980-91
Belgium	2725	10017
France	2060	21710
Britain	13852	13275
West Germany	922	6058
Italy	4327	35059

Intra-industry movement and natural turnover

3.37 Fears of job losses can exceed the reality. In some sectors, gradual liberalisation is unlikely to displace workers faster than would otherwise occur through natural movement. Research is beginning to show that, particularly in developed economies, trade openness is associated more closely with expansion and contraction of firms than of entire sectors, implying that displaced workers may find new employment within the same industry.²⁸ Even where workers are forced out of a sector entirely, the overall number likely to be displaced from the most protected sectors in developed economies is much smaller than the natural turnover of jobs already present in these economies.²⁹

²⁵ Hufbauer and Goodrich (2002) and Francois and Baughman (2001)

²⁶ Hufbauer and Goodrich (2003b); Francois and Baughman (2003) also note that while the precise effect of steel tariffs on job losses in downstream industries cannot be determined, the tariffs were a significant contributor.

²⁷ Dr Ruprecht Vondran, President, German Steel Federation, Dusseldorf, 13 February 1992, cited in Owen (1999)

²⁸ See, for example, Bernard et al (2003) and Wacziarg and Wallack (2003)

The extent of continuing protection – and its costs

3.38 As a result of significant reductions in trade barriers over the last fifty years, average tariffs are now relatively low, particularly in OECD countries. Among the Quad (EU, US, Japan and Canada), the average applied MFN tariff for all products varies from 5.4 percent in the United States to 6.9 percent in Japan.³⁰

3.39 These low averages disguise much higher rates on some products, such as in agriculture, textiles and footwear, creating significant barriers to developing countries' exports. Tariff escalation and tariff peaks continue to be highly significant forms of protection used by developed countries, and are often biased against developing countries. The OECD estimates that the mean trade-weighted tariff applied by OECD countries to imports from other OECD countries is around 3 per cent. However, the mean trade-weighted tariff applied by OECD countries to imports from developing countries is over one and a half times higher, at 4.8 per cent. In addition, access to markets for many developing countries depends on a complex system of preferential trading arrangements, which are difficult to administer and heavily influenced by historical ties and geopolitical considerations (see chapter 5).

3.40 Applied MFN rates in developing countries tend to be much higher than in industrialised countries, and the use of preferential arrangements much lower. For example, average applied MFN rates in India and Bangladesh are around 31 per cent and 22 per cent respectively; in Gabon and Cameroon the average is just above 17 per cent; and in Argentina and Brazil it is over 13 per cent.

Tariff Escalation 3.41 Tariffs applied to raw commodities are often low, but tariff levels can rise considerably when applied to intermediate or final product goods. Tariff escalation is particularly strong for processed agricultural goods, where markets remain highly protected in developed countries (table 3.2). For example, the tariff on cocoa beans in the United States is 0 per cent, rising to 0.2 per cent for semi-processed cocoa, and 15.3 per cent on the final product. In the EU, tariff escalation on cocoa rises across the three stages of processing from 0.5 per cent, to 9.7 per cent, to 30.6 per cent.

3.42 By imposing a higher tariff on processed or semi-processed goods, tariff escalation has strong anti-development effects on trade, discouraging diversification into higher value-added exports, and deterring investment in building up supply-side capacity in developing countries. It also hides the true level of protection enjoyed by the processing industries in developed countries: by protecting (and therefore raising the prices of) their outputs more than their inputs, the effective subsidy to processing industries can be much higher than tariff levels suggest.³¹

²⁹ see estimates of job creation and reallocation across developed economies in various sources, including those in Hufbauer & Elliott (1994)

³⁰ For an explanation of MFN tariffs, see footnote 13 above.

³¹ This can be illustrated with a stylised example. In the free trade case, imagine a processing industry which buys intermediate inputs worth £50 (at world market prices) and turns them into final products which sell for £100 (also at world market prices). The industry value-added is the difference of £50, which represents returns to capital and labour invested in that industry. With a moderately escalating tariff structure of 0 per cent on inputs and 20 per cent on outputs, inputs still cost £50 but now outputs sell for £120 (since tariffs cause the domestic price to be equal to the world market price of £100 plus 20 per cent). The industry value-added is still the difference between output and input prices and has therefore risen to £70. The effective rate of protection experienced by the industry is 40 per cent (£70 compared to the original £50). In this example, the true rate of effective protection is therefore twice the applied tariff rate. This is significant because this is the rate which affects the returns to capital and labour, and therefore influences the decisions to allocate resources to this industry (with consequent domestic economic distortions and effects for other country producers).

Tariff peaks **3.43** In addition, tariff peaks – very high protection for specific products – remain widespread. Agricultural tariff peaks reach 506 per cent in the EU, and 350 per cent in the US.³² In the US the maximum tariff on final fruit products is 136 per cent, and in the EU 98 per cent, representing a significant barrier for countries trying to access these markets.³³ Even in non-agricultural products, where protection is generally much lower, high and peak tariffs are significant: the EU has 135 tariff lines over 15 per cent, in vehicles, footwear and fish sectors; and about 600 tariff lines between 10 and 15 per cent, in textiles, clothing, electrical machinery and fish. The US has 230 tariff lines above 15 per cent and Australia has nearly 800.³⁴ Tariff peaks also exist in low and middle-income countries.

Table 3.2: Tariff Escalation in the ‘Quad’ by 2-digit ISIC Industry

		United States 2001	EU (15) 2002	Canada 2002	Japan 2002/03
Food beverages and tobacco	1st stage processing	3.2	12.4	7.9	25.4
	Semi-processed	9.0	19.1	6.8	30.3
	Fully processed	13.1	18.8	34.3	22.6
Textiles and leather	1st stage processing	2.2	0.9	1.0	9.8
	Semi-processed	9.8	6.7	7.0	6.8
	Fully processed	10.3	9.7	13.5	12.0
Non-metallic mineral products	1st stage processing	0.0	0.0	0.0	0.0
	Semi-processed	2.3	2.9	0.7	1.5
	Fully processed	5.4	4.0	3.8	1.1
Basic metal	1st stage processing	0.3	0.0	0.0	0.4
	Semi-processed	2.1	1.9	0.9	1.1
	Fully processed	2.5	0.0	3.0	3.0

Source: WTO Annual Report 2003, Appendix, Table II.1

Agriculture **3.44** Agricultural trade faces the greatest barriers and distortions. Border protection – tariffs and quotas – permits artificially high prices which encourage farmers to produce much more than they would at world prices. Average ad valorem³⁵ agricultural tariffs in both industrial and developing countries are two to four times higher than manufacturing tariffs. The EU, for example, has average manufacturing tariffs of 4.2 per

³² World Bank (2003)

³³ World Bank (2003)

³⁴ WTO Consolidated Tariff Schedules Database

³⁵ Ad valorem tariffs are applied to imports as a percentage of their value. The amount paid therefore increases or decreases directly in line with world prices.

cent but average agricultural tariffs of 19.0 per cent, and the averages for a group of lower-income countries³⁶ are 13.2 per cent and 16.6 per cent respectively. Some applied tariffs can be much higher than this: the maximum agricultural tariff in the EU exceeds 500 per cent³⁷.

3.45 Average *ad valorem* tariffs are only a partial indicator of trade barriers. Actual levels of border protection are themselves very hard to calculate, since high-income countries in particular use other border protection methods. For instance, more than 40 per cent of tariff lines in the EU and US contain specific duties,³⁸ resulting in increased protection when world prices fall. Furthermore, border protection is not the only trade-distorting support given to farmers: export subsidies and domestic support can also distort trade.

3.46 Even though agriculture accounts on average for less than 3 per cent of GDP in high-income countries, these countries protect their agricultural sectors heavily. The OECD estimates that OECD farm gate prices were on average 31 per cent above world prices in 2002, with farmers shielded from competition from developing country producers.³⁹ Subsidies and protection rates among OECD countries vary considerably as do the methods of support. The producer support estimate (PSE)⁴⁰ is a measure frequently used to compare support across countries. In Australia and New Zealand, the PSE as a share of gross farm receipts barely reached 5 per cent and 1 per cent respectively in 2002. In Japan the figure approached 60 per cent. For the EU and US, the largest agricultural and food markets in the world, the OECD estimates were 36 per cent and 18 per cent respectively. Such high protection severely distorts world markets, and not only in agriculture.

**The Common
Agricultural
Policy**

3.47 The EU's Common Agricultural Policy (CAP) is a clear example of heavy protection in agriculture. The EU provides around €100 billion support to farmers annually. The CAP is the EU's most expensive single policy with an annual budget approaching €50 billion. On top of this, consumers pay another €50 billion a year through higher food prices.⁴¹ Production is significantly distorted: the CAP is estimated to have led to levels of production of crops and dairy products which are over 50 per cent higher than would have been the case without protection.⁴²

3.48 As for domestic support, the EU has recently taken measures to reduce the trade-distorting impact of the fiscal transfers it provides by beginning to break the link between production and receipt of payments for many important products, a process known as "decoupling". Further reform is still necessary to address domestic support which affects production, but it is the other two pillars – export subsidies and border protection – which are now in most urgent need of reform.

³⁶ Bangladesh, Guatemala, Indonesia, Kenya, Malawi, Togo, Uganda and Zimbabwe. Source: World Bank (2003).

³⁷ World Bank 2003

³⁸ Unlike *ad valorem* tariffs, specific duties are applied to imports as a fixed monetary amount per imported unit. Since the amount paid does not depend on present value, if world prices fall, the level of protection – as a proportion of the value of the imported goods – increases. If world prices have fallen as a result of global overproduction, this effect exacerbates the problem by dampening the effect of price signals – which would tend to reduce production – on production in the protected market.

³⁹ OECD (2003a)

⁴⁰ Annual monetary value of gross transfers from consumers and taxpayers to agricultural producers.

⁴¹ OECD (2003a)

⁴² Borrell and Hubbard (2000)

3.49 Export subsidies allow excess produce to be sold on world markets at prices well below EU internal prices and often below the cost of production. Border protection – using high tariffs and other barriers to keep international produce out – is also very significant, as discussed above. Together, these three pillars of agricultural protection give rise to a number of harmful effects, both to non-farmers in the EU and to efficient farmers elsewhere, including many in developing countries:

- ⚡ border protection results in a considerable loss of opportunity for efficient farmers in other countries – in the case of the EU and US, it blocks access to two of the largest markets in the world.
- ⚡ farmers in other countries are affected by world prices which are both lower and more volatile than they would otherwise be. All three pillars of support can give rise to these effects, encouraging overproduction, isolating farmers from world price signals, and cutting off a significant part of the market from the rest of the world. Export subsidies are a notable driver of lower world prices and increased volatility. The EU spent over €4 billion a year on export subsidies on average from 2000 to 2002, over half of which supported sugar and dairy products.
- ⚡ even without export subsidies and domestic support, significant border protection alone would continue to depress world prices, because protection reduces demand from the protected market for imports from the rest of the world. Indeed, empirical evidence suggests that, overall, tariffs have greater harmful effects than subsidies, with the notable exception of cotton.⁴³
- ⚡ all three pillars also cause large domestic welfare losses. Artificially high prices distort consumer choices and lower overall consumption, reducing welfare. The average family of four in the EU pays over £800 a year extra as a result of the higher prices and taxation supporting the CAP.⁴⁴ The poorest, who spend the greatest proportion of their income on food, are hardest hit.
- ⚡ the broader domestic economy suffers through misallocation of resources. High prices divert resources into agriculture from sectors where they could be used more efficiently, reducing productivity and economic growth. One study estimated that EU manufacturing output was nearly 5 per cent lower than it would have been without the CAP, and services output 2 per cent lower.⁴⁵
- ⚡ overproduction tends to lead to environmental damage: artificially inflated producer prices draw marginal land into production and tend to increase the intensity with which existing farmland is used.

⁴³ Tokarick (2003)

⁴⁴ Consumers' Association (2001)

⁴⁵ Borrell and Hubbard (2000)

Protection in the sugar sector **3.50** These effects can be well observed in sugar. Box 3.2 earlier in this chapter outlines the history of sugar production and protection in Europe. In 2000, at the end of the implementation period for the Uruguay Round, the *ad valorem* bound tariff equivalent for importing sugar into the EU was still 176 per cent, one of the highest in the world, keeping out sugar from efficient producers. In the same year, the EU spent over €1.4 billion subsidising sugar exports. In all, this encouraged overproduction with the results described above. A recent report⁴⁶ estimated the direct losses from the EU's sugar policy to Brazil, Thailand and South Africa at \$494m, \$151m and \$60m respectively – countries where 67 million people live on less than \$2 a day. One frequently cited study found that, in a fully liberalised market, EU production would be around 21 per cent lower, whilst world prices could be 38 per cent higher.⁴⁷ Instead of being a major net exporter, the EU would become a major net importer: exports would fall by 5 million tonnes and imports rise by 7 million tonnes. Removal of protection for sugar producers could also reduce sugar price volatility by around 30 per cent.

3.51 Multilateral liberalisation of sugar would bring the greatest gains: global net gains have been estimated at \$4.7 billion. Some developing countries, however, will lose out, particularly those receiving preferential access to the EU and US markets currently estimated to be worth about \$0.45 billion taking into account price effects and domestic distortions. As discussed further in chapter 5, although viewed as aid, such arrangements are very inefficient. It has been estimated that every \$1 of 'aid' given to select countries through sugar preferences costs EU and US economies \$5.17 and imposes \$2.75 worth of economic damage on other developing country exporters due to denied access.⁴⁸ Nonetheless the process of reducing preferences will involve difficult transitions in those countries directly affected and this will need to be well managed and appropriately supported, including by rich countries.

Estimating the costs

How costs arise **3.52** The costs of protection arise in a number of ways. Protection leads to higher prices for final and intermediate consumers, meaning that consumers who continue to buy protected products will pay more per unit purchased, and that, at the margin, some consumers will no longer buy the product concerned, thus reducing overall welfare. At the same time, artificially high prices, while they bring greater revenue to producers on each unit sold, also induce producers to make too much of a given product. This excess production at low efficiency is another cost to the domestic economy, and is caused by the diversion of resources from more efficient to less efficient sectors of the economy.

3.53 Protection also imposes external costs on trading partners. Countries with a significant share of world markets can affect world prices and other countries' exports, crowding out more efficiently produced exports in third country markets. In addition, where several large countries have protectionist policies (such as in agriculture), quantities traded freely on the world market may be only a small fraction of total world production, making prices volatile and more vulnerable to shocks such as weather events. This can have a profound impact on small countries, both exporters and importers.

⁴⁶ Oxfam (2004)

⁴⁷ Borrell and Pearce (1999). Mitchell (2004) includes a brief survey of recent studies.

⁴⁸ Borrell and Pearce (1999)

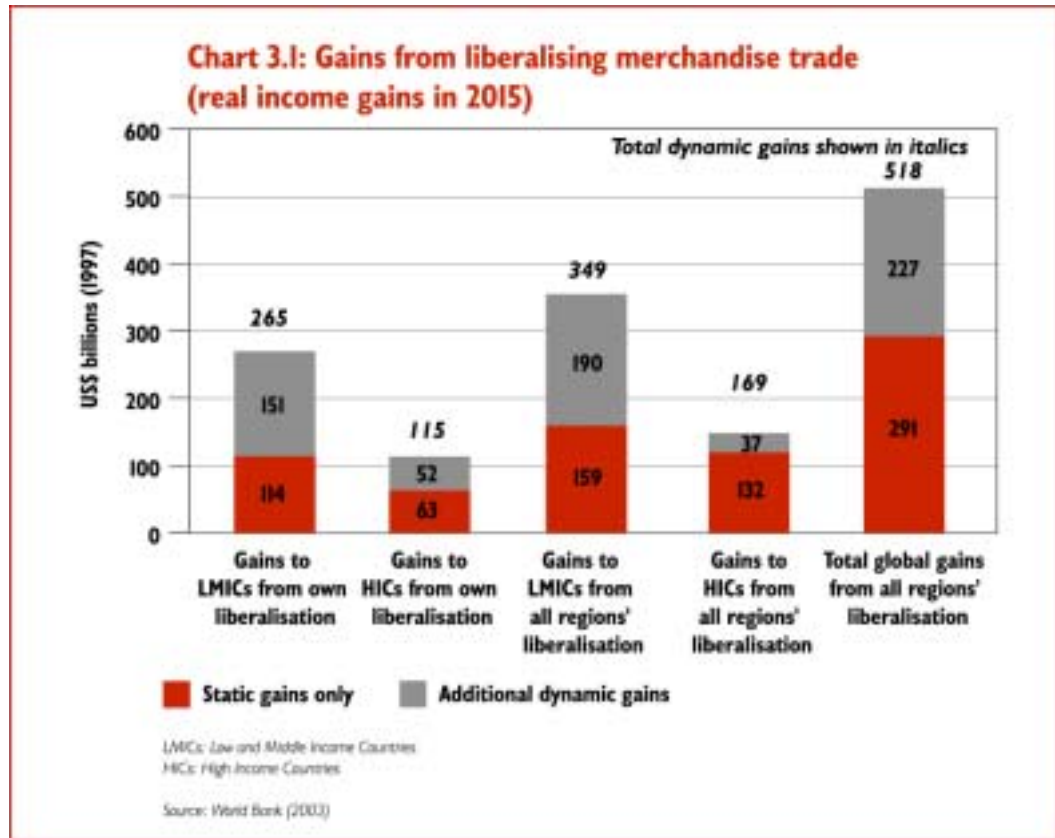
Economic models 3.54 Various studies have attempted to estimate the large-scale costs of continuing barriers to trade, by modeling the effect on global income of removing these barriers. Predicted changes to trade flows following a reduction or removal of protection are estimated using a general equilibrium approach, often on a global basis. This approach attempts to model the impact of resultant changes in prices and trade flows on the rest of the economy. Such studies come up with a wide range of estimates, based on different models of reductions in tariffs and other trade barriers, different assumptions about the competitiveness of markets, and the degree to which they iterate dynamic effects. But the models agree that, in aggregate, removing or reducing trade barriers would significantly reduce costs in both the developed and the developing world, generating substantial welfare gains. The precise figures vary from study to study; but the order of magnitude is compelling. A summary of the results of these and a number of other studies, along with more detail on their methodologies can be found in annexes A and B.

Global costs 3.55 Using a general equilibrium approach, OECD (2003) estimates global gains of up to \$98 billion a year from elimination of both manufacturing and agricultural tariffs. This increases to \$174 billion a year if measures to facilitate trade (e.g. improved efficiency at borders) are included.

3.56 The World Bank has modelled the impact of a substantial liberalisation of merchandise trade (agriculture and manufactures but not services) on the basis of a good pro-poor Doha Development Agenda outcome. Their model involves cutting agricultural tariffs to a maximum of 15 per cent for developing countries and 10 per cent for developed countries, and manufacturing tariffs to a maximum of 10 per cent and 5 per cent respectively, accompanied in both cases by cuts in overall tariff averages. This scenario – illustrated in chart 3.1 – shows that low and middle-income countries gain most, both from reducing their own barriers, and from a global reduction in barriers.

3.57 Overall, the World Bank estimates total global dynamic gains of \$518 billion per year by 2015, of which \$349 billion would be captured by developing countries.⁴⁹ This would reduce the number of people living on less than \$2 a day by 144 million, with sub-Saharan Africa seeing the greatest reduction – over 60 million. On a number of modelling scenarios, including removal of all barriers, developing countries gain between half and two thirds of total benefits in absolute terms. This represents an even more significant gain when expressed as a proportion of their GDP.

⁴⁹ 1997 prices



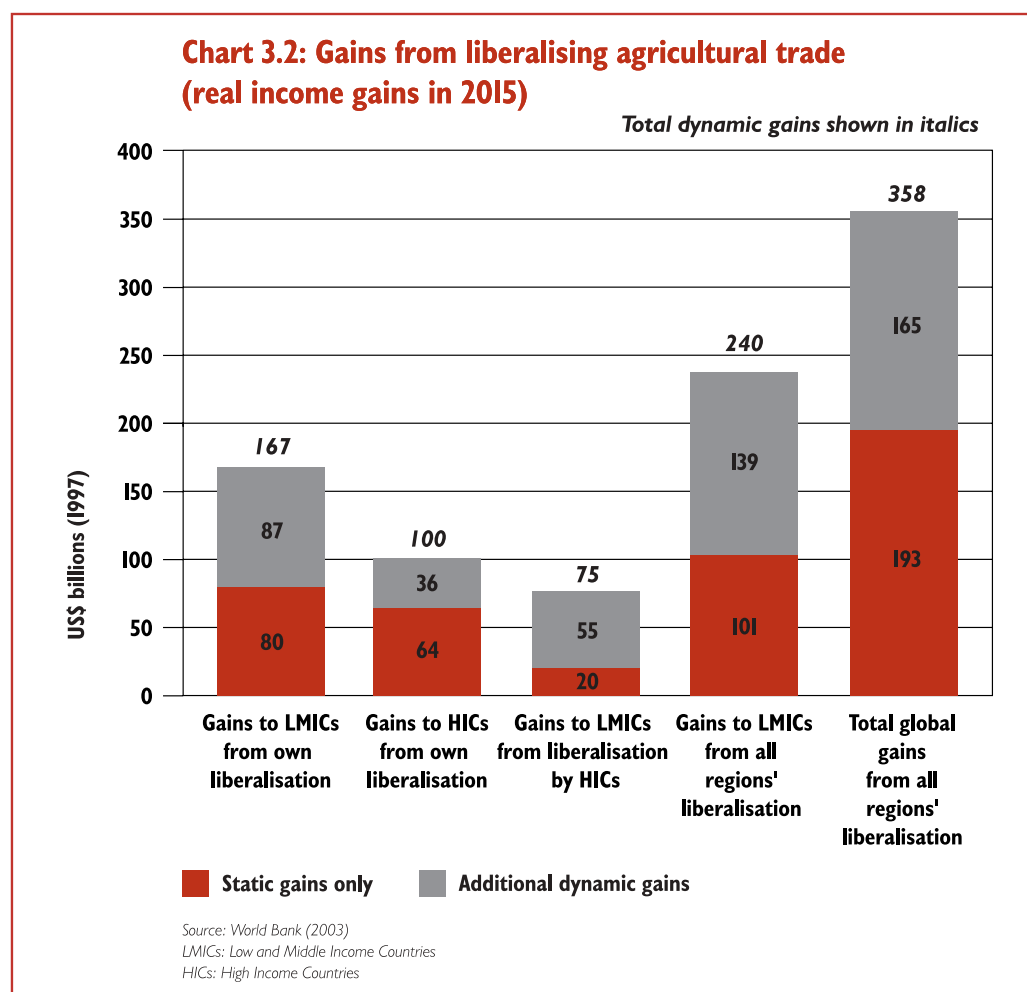
3.58 At the top end of estimates⁵⁰ Dessus et al (OECD 1999) estimate elimination of agriculture and manufacturing tariffs will yield benefits of \$1,212 billion per year, of which \$455 billion would accrue to non-OECD countries. This would represent a boost to OECD economies of an average 2.5 per cent of GDP, and an average of 4.9 per cent of GDP in non-OECD countries.

Agriculture 3.59 The benefits from removal of barriers to trade in agriculture alone are very large, reflecting the fact that agriculture is by far the most distorted sector in the world market. The effects of this protection include: denial of access to rich country markets for efficient developing country farmers; commodity markets characterised by small trade volumes and a small number of agents; high volatility of price and volume; generally depressed world prices; and high costs to the protected economy.

3.60 The World Bank estimates that, on a dynamic model, global welfare gains from significant agricultural liberalisation could reach \$358 billion by 2015. All regions stand to gain, with the largest gains accruing to those with the highest current levels of protection. As illustrated in chart 3.2, developing countries have much to gain from liberalisation by rich countries: of a total \$240 billion in potential benefits, \$75 billion comes from rich country liberalisation. A separate study shows that tariff barriers are much more distorting than subsidies for most products, with the notable exception of cotton.⁵¹

⁵⁰ Using a dynamic model which treats productivity as endogenous. For a fuller explanation of the approaches of different models, see annex A.

⁵¹ Tokarick (2003)



3.61 Once again, European protection to agriculture has a profound impact. The CAP alone has been estimated to cost the world economy \$75 billion annually.⁵² Empirical analysis confirms theoretical predictions that liberalisation would bring the biggest benefits to the liberalising country – for example, two thirds of the economic damage caused by the CAP is inflicted on the EU itself.

Industrial sectors 3.62 Protection in industrial sectors is much lower on average than in agriculture. Nevertheless, the gains from removing protection in manufacturing are significant. World exports of manufactures are \$4.5 trillion, or three quarters of global trade, so even a small cut in protection can produce large welfare gains. Moreover, tariff peaks on labour intensive goods remain high. Eliminating these would benefit those developing countries which are heavily dependent on manufactured exports. The estimated static gains vary considerably, depending on the degree of reduction assumed and the range of benefits taken into account. Estimates of global annual static income gains range from \$190 billion (under partial liberalisation) to \$644 billion (full liberalisation). Annual income gains for developing countries range from \$51 billion to \$192 billion.⁵³

⁵² Borrell and Hubbard (2000)

⁵³ Brown, Deardorff and Stern (2001) and Francois, (2000a)

Services 3.63 Estimates of gains from reduction in barriers to services trade are less precise, mainly due to the difficulty of accurately assessing current levels of protection (services trade is subject to a range of non-tariff barriers which are difficult to detect and quantify). Nevertheless, estimates of gains from removing protection in services trade exceed those from goods liberalisation – in some studies by a factor of five. Almost all studies conclude that developing countries have most to gain from removing barriers to trade in services. However, in many cases the benefits of opening markets in services will depend on developing countries putting in place appropriate regulatory frameworks, and this could represent a significant burden for the poorest countries (see chapter 5).

3.64 Relaxation of tight restrictions in industrialized countries on the temporary movement of people from developing countries could have a significant welfare effect for both developing and developed countries. One estimate calculates that if industrialised countries raised their quotas on the inward movement of temporary workers to three per cent of the labour force, world incomes would rise by nearly \$160 billion a year.⁵⁴

Pro-competitive effects 3.65 The majority of models of the gains from removing trade barriers assume that markets are perfectly competitive. In practice this is not the case; but trade openness itself can increase competition in markets. If these competition-enhancing effects are taken into account, the gains from greater openness are even higher. For example, Messerlin estimates that the costs of EU protection in goods and services, taking into account competitive effects, could represent as much as 7 percent of the entire EU GDP. Based on 2002 GDP, this amounts to €600-700 billion.⁵⁵

⁵⁴ Walmsley and Winters (2002)

⁵⁵ In Messerlin (2001), he extends his perfect-competition model of the costs of protection in Europe to examine the case where markets are imperfectly competitive, but where competition is strengthened by trade opening. This estimate of costs of protection in Europe alone is higher than some of the global figures quoted earlier in the chapter, including our central estimates from the World Bank based on a good Doha Development Agenda outcome. This is due not only to the inclusion here of competitive effects but also of the services sector, which many of the earlier quoted studies ignore or discount.

Conclusions

3.66 In summary:

- ⚡ import substitution policies have supported industrialisation in some cases, but have not been universally successful. Even where protecting domestic industry is a viable option in the short term, protectionist policies can easily become locked in far beyond the point at which they are economically rational. The aims of protectionist policies can often be achieved more efficiently through means other than the imposition of trade barriers.
- ⚡ product standards are a growing concern for developing countries, and can be abused as disguised protection as tariff barriers fall. Other significant harmful forms of protection by developed countries include tariff peaks, high tariffs and tariff escalation. Anti-dumping duties are used widely and can impose protection at much higher levels than ordinary tariffs.
- ⚡ despite significant reductions in tariffs, protectionist policies continue to impose substantial costs on both developed and developing countries. Estimates of the global costs of protection range from nearly \$100 billion to over \$1000 billion a year. Reducing global protection would make a substantial contribution to global economic welfare, and should be a high priority in global economic policy making.
- ⚡ World Bank estimates suggest that at least half of the benefits of removing protection would accrue to developing countries – significantly more than total global aid flows.
- ⚡ tackling barriers in agriculture is essential not only to reduce costs in developed countries but also to allow developing countries to compete fairly in the sectors in which they have comparative advantage.

4

CAPTURING THE BENEFITS AND MANAGING CHANGE

4.1 Chapter 2 showed how increased openness to trade can raise productivity and contribute to economic growth. This process typically involves changes in the structure of domestic production and employment, which in turn requires redeployment of labour and capital between firms and industries. As a result, an economy's ability to realise the benefits of openness to trade depends on the capacity of its labour, product and capital markets to respond to changes in supply and demand. Economies with more flexible markets will be able to undertake adjustment more easily and will be better able to respond to the challenges and opportunities provided by an open trade regime.

4.2 This section looks at the interaction between flexibility and openness to trade. It sets out what governments can do to enhance economic flexibility. It also stresses the importance of effective social safety nets to protect those who suffer short-term losses from changes in industrial structure and employment, and to equip them to re-enter the labour market quickly.

4.3 Low-income countries face particular problems in managing change, due to more limited institutional capacity, reduced human capital and less developed infrastructure. These issues are discussed in chapter 5.

The importance of flexible markets

4.4 To the extent that openness to trade enhances the process of structural change, it also increases the stress on an economy's mechanisms for ensuring that change leads effectively to economic growth, with minimal disruption to individuals' lives. The key to capturing the benefits from trade is ensuring that product, capital and labour markets are sufficiently flexible to react quickly to changed circumstances and reallocate resources efficiently in response to new incentives. For firms, this may involve altering prices or changing a product line. For workers, it may mean learning a new skill, a change in wages, or moving into a different job, possibly in a new location.

The impact of openness on flexibility

4.5 Trade openness itself can have a positive effect on flexibility. In product markets, openness to trade provides new business opportunities by making newer or cheaper products available to manufacturers and consumers. At the same time, competition from imports provides greater incentives and more pressure for domestic firms to respond to product market signals quickly.

4.6 In capital markets, openness to foreign direct investment can promote flexibility directly, by providing opportunities for capital to flow into a country to satisfy increased demand, which itself is the result of the emergence of new productive investment opportunities. This allows capital to be sought from a bigger pool than may be available domestically, relaxing a key constraint on investment and growth. At the same time, the inflow of capital increases incentives to reform the domestic investment framework; and the presence of foreign investors can act as an extra stimulus for more effective regulation. Market openness can also encourage domestic firms to demand more efficient regulation to compete effectively on world markets.¹

¹ OECD (1999)

Box 4.1: Aspects of Flexibility

Flexible **labour** markets:

- # wages can adjust to balance supply and demand
- # the labour force is equipped with appropriate transferable skills
- # creating or varying employment is not prohibitively costly for firms
- # workers can move geographically to find employment
- # working patterns meet the needs of employers and employees
- # labour force participation is encouraged
- # people are equipped to adapt to change
- # support is provided for those without employment.

Flexible **product** markets:

- # a competitive environment rewarding efficiency, adaptability, and a focus on consumer needs, and discouraging waste
- # a strong capacity for innovation
- # low barriers to entry allowing new firms to challenge incumbents
- # a regulatory environment in which constraints on business yield clear wider benefits and are not disproportionately costly.

Flexible **capital** markets:

- # borrowers have a competitive range of financing options available
- # investors can hold a diversified asset portfolio, in particular to hedge against a sector- or region-specific shock
- # there is sufficient borrowing and lending capacity on credit markets to allow households and business to smooth fluctuations in income.

4.7 In labour markets, higher demand can again be satisfied in part by openness. In this case, the common mechanisms are openness to temporary movement of workers and outsourcing of some tasks to workers who remain located in their native country. Both of these are common practice in many areas of business.

Flexibility and economic reform

4.8 Trade openness interacts strongly with domestic reform. Given that a more open economy is more exposed to global competition, the impetus to reform – to create an environment in which firms can operate more effectively – is greater. At the same time, the increased trading opportunities of a more open economy increase the rewards to successful reform. A domestic economy which encourages strong competition, rapid adoption of innovation, a culture of entrepreneurship and investment in both physical and human capital will find its firms have more capacity to do well both internationally

and domestically. New Zealand (box 4.2) is a good example of an economy which has benefited from an integrated programme of trade liberalisation and wider economic reform.

Box 4.2: New Zealand: the benefits of trade liberalisation alongside wider economic reform²

In 1984 the New Zealand Government initiated wide-ranging economic reforms. These were prompted by pressure on the public finances and declining relative economic performance following several economic shocks, attributed in part to excessive rigidities in the economy. The reforms included exchange rate liberalisation, fiscal restraint (including the removal of agricultural export subsidies) and a reduction in the degree of import protection. Trade liberalisation was seen as an important instrument in making the domestic economy more efficient. In contrast with the more common mercantilist approach, trade reforms were seen as an essential element of domestic policy, and were not undertaken with a view to extracting reciprocal concessions from trading partners.³

The reforms induced major structural change in several key sectors of the economy. For example, massive reductions in support to agriculture changed the incentive structure drastically and increased the importance of market signals. This led to some dislocation in previously sheltered groups: real farm incomes fell in the short term, but as farmers switched production in response to changes in input and output prices, incomes increased significantly again in the late 1980s.

Overall employment followed a similar pattern – declining between 1986 and 1991, but then recovering, largely due to creation of new jobs in services sectors. There were also longer term benefits: significant restructuring of both financial and labour markets in later stages of the reform programme left the workforce and the economy as a whole more flexible and better capable of adjusting to changes brought about by further tariff reform.

In economic terms the reforms are judged to have been highly beneficial. The average consuming household in 1998 was \$22 per week better off than if tariffs had been retained at 1987 levels – a 4 per cent boost to purchasing power. This is expected to rise to \$42 per week by 2010, or roughly an 8 per cent gain. The increase is due largely to reductions in consumer prices, e.g. 9 per cent for household appliances, 5 per cent for shoes, and 15 per cent for clothes.⁴ There have also been significant dynamic gains, contributing to improved consumer welfare through improved product quality, service and variety, increased firm-level and industry-level innovation and productivity, and increased technology uptake by firms. The increase in economic flexibility has made the economy more resilient and better able to deal with future shocks.

The New Zealand experience shows that trade liberalisation can play an important role in a wider programme of economic reform, and that economic flexibility is important in realising the benefits quickly. The rapid reform approach that New Zealand adopted allowed affected industries to assess quickly the long-term implications, and enabled them to make important long-term investment and restructuring decisions that may have helped speed adjustment. Where reforms reduced the prices of essential household products, those on low incomes in particular were able to benefit. However, where rapid reform led to negative effects on specific groups, who found it difficult to re-enter the labour market, social safety nets had an important role.

² Sources: NZIER (1999), NZ Ministry of Economic Development (2003), NZIER (1992), NZ Treasury, Bayley (2000), OECD (2003a)

Impact of limited flexibility **4.9** Economies with limited flexibility will be less well placed to realise the benefits from trade. Barriers to the creation of new enterprises, high costs in creating new jobs, a lack of transferable skills or a low ability to acquire them can all inhibit the reallocation of resources into new activities. Where market adjustment processes are very weak there is a risk of prolonged increases in unemployment, which are likely to reinforce the opposition to trade reforms from firms and employees vulnerable to foreign competition. Under these circumstances trade liberalisation may have to be undertaken gradually to ensure that transitional costs do not become overwhelming.

4.10 However, while gradual trade reform can help to limit dislocation effects when markets have a low adjustment capacity, it fails to address the underlying problem: namely, the limited ability of the domestic economy to respond to foreign competition. It is therefore a second best option. Under gradual reform participation in the global economy is more limited than it might be, with reduced opportunities to benefit from goods and services which can be produced more cheaply in the rest of the world. The emphasis therefore should not be on delaying reform, but on increasing the adjustment capacity of the economy.

Economic reform to promote flexibility

4.11 There is a great deal governments can do to promote flexibility. An approach which combines flexibility with fairness will ensure that all members of society have the support they need to achieve their full potential in a modern, dynamic economy.

Regulation **4.12** Governments must put in place a regulatory environment which encourages job creation, removes barriers to higher employment and activity rates, and promotes efficiency without imposing unnecessary burdens on the economy. This can include careful assessment of the tax system to ensure that distortions are reduced, that the burden on business is fair, and that any negative effect on growth is minimised.

Competition **4.13** Competition policy must help to create a dynamic economy which rewards efficiency, discourages waste and ensures that firms have strong incentives to deliver quality and choice to their consumers. Government action is critical in achieving this, and key policies are likely to include a strong competition authority and measures which help encourage new entrants into a diverse range of product and services markets.

Education and training **4.14** By investing in education and training, governments can help equip people to adapt to new and changing employment opportunities and strengthen flexibility in the labour market. This applies to investment both in education for school-age children and in continuing education for those already in the workforce. Strategies to support the creation of a skilled and adaptable workforce should be accompanied by public policies and incentives which help to promote action by employers, as well as targeted services to promote take-up by individuals.

³ OECD Economic Surveys, New Zealand, 1988/89

⁴ NZIER (1999)

4.15 Economies with a strong entrepreneurial culture have companies and individuals who are capable of identifying and developing opportunities offered by new technologies, new products and new markets. Governments should therefore consider measures to promote innovation and entrepreneurship including, where resources allow, tax and other financial incentives which help take account of the spillover benefits which accrue to the rest of the economy.

4.16 Given that some inflexibilities can be local, and that economic shocks can have locally concentrated impact, governments should ensure an appropriate focus on local solutions. This can involve policies which help workers move geographically to take advantage of all potential employment opportunities.

Economic reform in Europe

4.17 The important government actions outlined above are not limited to the national level. Where regional integration exists, co-operation in economic reform can help boost flexibility more than each country acting alone. Increasing economic flexibility is a key determinant of the European economy's ability to achieve productivity growth, and hence critical to the success of the Lisbon Agenda.

Reforms underway **4.18** Since the launch of the Lisbon strategy, Europe has taken important steps to improve the performance of its economy. Significant reforms have been introduced, including overhauls of the regulatory frameworks for telecommunications, energy and competition; reforms to the state aid rules; and steps to promote enterprise and innovation. The past year has seen a series of concrete steps taken, including:

- ⌘ **inter-institutional agreement on the need for better regulation**, with a new system of impact assessment, consultation and regulatory simplification;
- ⌘ **modernisation of EU competition policy**, including a simpler and more economically-grounded assessment of mergers;
- ⌘ **publication of the Employment Taskforce Report**, which highlighted the structural reforms needed to raise employment across the EU;
- ⌘ **adoption of a new Action Plan for research and development**, to support progress towards the Union's aim to raise levels of investment in R&D;
- ⌘ **agreement on a new Action for Growth Initiative** to mobilise investment in trans-European network infrastructure and in R&D and innovation; and
- ⌘ **reforms to the Common Agricultural Policy** that have the potential to reduce trade-distorting agricultural support.
- ⌘ **progress on the Financial Services Action Plan** which aims to establish an internal European market in wholesale and retail financial services.

4.19 Recognising their responsibility to show leadership in the drive for reform, many Member States have also taken tough decisions to implement important domestic reforms aimed at improving the flexibility of their economies. Though by no means an exhaustive list, examples include:

- ⌘ **the launch of Agenda 2010 in Germany**, with reforms to improve labour market flexibility and measures to promote business start ups, and recent proposals to enhance innovation and increase research and development;
- ⌘ **a package of reforms in France to promote enterprise** by simplifying and reducing the costs involved in setting up a new business. France has also significantly reformed its pension system to enhance sustainability;
- ⌘ **the launch of a new Innovation Council in the Netherlands** to strengthen the innovation climate and increase business R&D, and the launch of new targets to reduce the administrative costs and burden of regulation;
- ⌘ **introduction of more flexible forms of labour market contracts in Italy** and proposals to reform the pension system;
- ⌘ **reforms to increase public administration efficiency in Portugal**, and the establishment of a new competition authority; and
- ⌘ **reforms to encourage enterprise in Spain**, permitting new forms of finance, faster procedures for setting up a business and new guidance for entrepreneurs.

4.20 At the same time, many of the new Member States have continued to advance their comprehensive programmes of structural reform in preparation for EU membership (box 4.3), while many other Member States have implemented or are considering reforms to improve the sustainability, quality and efficiency of pension and health care systems.

Social safety nets

4.21 As discussed, trade openness delivers benefits through changes in the allocation of resources in the economy, both across and within sectors. Although this will lead to an increase in productivity, economic growth, and ultimately welfare improvements, economic restructuring also gives rise to frictional unemployment and other costs borne by individuals. In general, these adjustment costs should be temporary, and outweighed by the benefits at a whole-economy level. Economic flexibility, with good governance and effective institutional arrangements, will help to reduce the cost and length of the adjustment period. However, short-term adjustment costs can still be significant for individuals and vulnerable groups – particularly if the effects are sectorally or geographically concentrated – and communities and households may need assistance. Appropriate social protection instruments can smooth consumption patterns and prevent the most severe effects.⁵

⁵ World Bank

Purpose and form of social protection **4.22** Social protection serves several purposes. It can act as a mechanism to help mitigate risk and cope with shocks. Many elements of social protection can also act to enhance flexibility by enabling people to adapt to change by retraining or entering a new labour market. Protection can take the form of informal arrangements at a personal or family level, market-based arrangements such as private insurance, or public arrangements in the form of social insurance and protection. These forms of protection are not mutually exclusive, and may all contribute to the overall assistance available. Informal arrangements depend on the strength of family and social networks and offer limited insurance against risks that affect the whole community. Public provision allows for a greater diversification of risks. Effective provision depends on the institutional capacity of the state to finance and administer the insurance that is provided.

4.23 Where basic public protection exists, it can take the form of healthcare, social housing, affordable food provision, education or income guarantees. These ensure that people do not have to resort to coping strategies that are unproductive and harmful in the long run, such as taking children out of education, putting off access to healthcare at early stages of illness, and selling off income-generating capital assets.

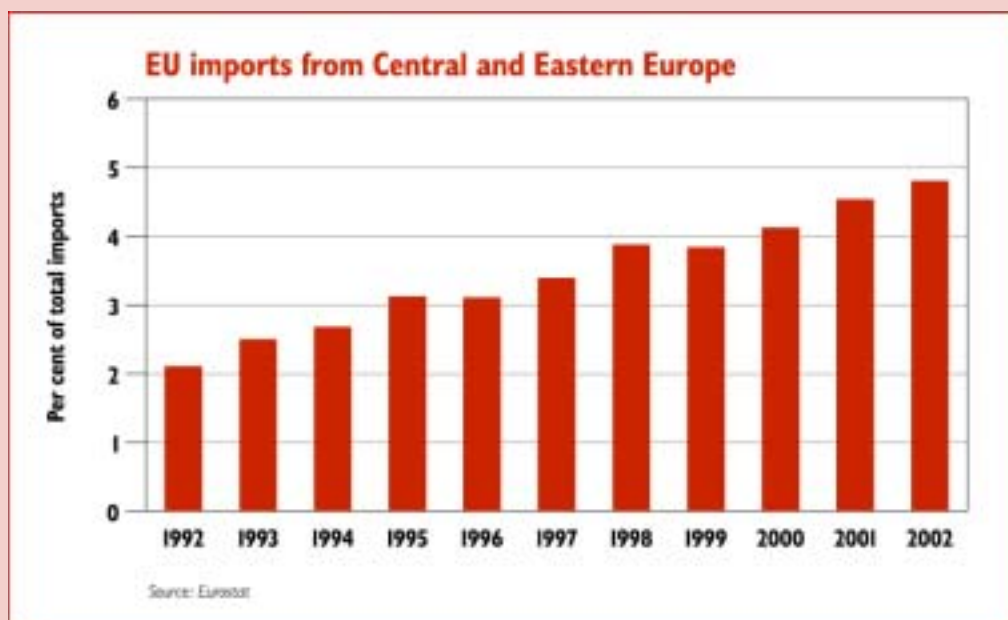
Developed countries **4.24** In developed countries in general, a minimum level of protection is guaranteed to reduce any costs to the individual of economic adjustment. Coverage of healthcare and social security is reasonably comprehensive in both the EU and the United States, provided through a variety of publicly and privately funded elements. In addition, some countries provide more targeted assistance where there are likely to be a large number of redundancies within one firm, industry, or geographical area.⁶

⁶ This is also discussed in Chapter 3 under the costs of protecting jobs through trade.

Box 4.3: Trade and economic reform in EU the new Member States

The ten new member states of the European Union have recorded strong economic growth over the past five years, averaging in excess of 3 per cent per year. This represents not only a return on policies put in place to promote trade, but also the benefits of a broader range of economic reforms over the past 15 years.

Total exports from the new member states rose by 90 per cent in real terms between 1995 and 2002, while imports – including new equipment to retool factories and consumer goods for consumption – rose by 103 per cent.⁷ Over the same period, economic integration with the 15 established EU member states (EU15) has increased. The share of EU imports from Central and Eastern Europe⁸ rose from 3.1 per cent to 4.8 per cent, while the share of new member states' imports from the EU15 exceeded 50 per cent. Meanwhile, investment flows from the EU15 into the new member states increased, mostly in the form of foreign direct investment. These elements are all inter-related: many companies invested in manufacturing facilities in new member states in order to export back into the EU15, and at the same time pushed up new member state imports of both equipment and intermediate inputs.



Both the growth in trade and in capital inflows were dependent on substantial reforms to the overall business environment. In the run-up to EU entry, the new member states prioritised the building of effective public institutions to support well-functioning markets. This was especially important in the eight former communist bloc states. Privatisation programmes launched in the early 1990s helped create market economies with prices set by the private sector rather than centrally and with increasingly free competition. These economic reforms were essential to creating a business environment more conducive to international trade and investment, and ultimately in accelerating growth.

⁷ Eurostat

⁸ This definition excludes two of the new member states, Malta and Cyprus, and includes some countries in Central and Eastern Europe that did not take part in the first wave of EU accession. However, it closely mirrors the pattern of trade flows between the new member states and the 15 established EU members.

Developing countries 4.25 Across developing countries, by contrast, there is generally a low level and a wide variation in social protection. While some emerging market countries are developing increasingly comprehensive protection, most of the poorest countries have little if any social protection in place at all. Even across emerging markets, the comprehensiveness of formal systems varies considerably. For example, South-East Asian countries had little formal social protection prior to the 1997 financial crisis, while increased urbanisation had reduced the effectiveness of family and community-based networks. The crisis made clear that an informal approach was no longer sustainable, and induced many countries to develop more formal mechanisms. However, countries throughout the region still face significant difficulties in seeking to increase coverage, particularly due to weak institutional frameworks and the presence of a large informal sector which reduces the tax base and complicates information-gathering.

Box 4.4: Social safety nets and flexibility in Mexico⁹

For Mexico, NAFTA¹⁰ has made a significant contribution to development and convergence with the US and Canada. NAFTA has helped raise exports and FDI. However the reduction of tariffs between Mexico and the United States led to some increases in rural poverty, particularly amongst maize producers. Mexican maize farmers, mostly producing on a subsistence or small scale basis, were unable to compete against larger American producers, who benefit from significant subsidies and are thus able to sell maize significantly below production cost. International maize prices in August 2003 were \$1.74 a bushel, with US production costs¹¹ at \$2.66 a bushel. In the face of this, Mexican farmers actually increased production of maize, but largely because they were unable to diversify into other products. There was a large flow of migration away from rural areas, with rural families relying heavily on remittances from relatives who had moved to cities.

Mexico introduced the PROGRESA¹² programme in 1997 as an integrated approach to rural poverty reduction. The programme is a good example of a social safety net that improves the flexibility of those bearing the costs of trade liberalisation, enabling them to adapt to new economic circumstances and improve productivity in the long run. The programme provides cash transfers, school equipment and nutritional supplements to households, which in return have to guarantee school attendance and regular preventive health care visits. This both encourages and enables the poor to strengthen their human capital, which should make them more adaptable to economic change in the future. In 1999, the programme reached 2.5 million households, and expenditure amounted to just 0.2 per cent of GDP. PROGRESA also improved efficiency in public spending: as the effectiveness of the PROGRESA programme became apparent, an inefficient subsidy on tortillas was phased out to provide extra funding to PROGRESA.

Finding new jobs 4.26 Beyond the basic level, unemployment insurance and labour market programmes that combine income support with assistance to find re-employment can help workers cope with industrial change, whether trade-related or not. They can also help match skilled workers to appropriate vacancies, enabling rapid and efficient re-allocation of labour in the economy. Active labour market policies have an essential role to play, although they can be expensive and need to be well targeted.

⁹ Inter-American Development Bank (2001)

¹⁰ The North American Free Trade Agreement, implemented in January 1994

¹¹ US Department of Agriculture

¹² Programa de Educación, Salud y Alimentación

4.27 The US provides an interesting example of a scheme established specifically to aid workers displaced by trade liberalisation. The NAFTA Transitional Adjustment Assistance programme and Trade Readjustment Allowances provide additional income support, after the standard 26-week period of unemployment benefit has expired, to workers deemed to have been displaced or had their hours reduced as a result of foreign imports or jobs moving abroad. Workers also benefit from paid training for new work, and financial help to support job search and relocation.

4.28 A clear benefit of any such scheme is that they can facilitate the changes that need to occur in the labour market in order to realise fully the benefits from trade. This entails that the schemes are designed to provide participants with the incentives and the skills needed to maintain their participation in the labour market.

Conclusions

4.29 In summary:

- ⌘ flexibility in labour, capital and product markets is a vital part of enabling economies to capture the benefits of greater openness to trade.
- ⌘ the relationship between flexibility and openness is mutually reinforcing: openness can help increase flexibility in the economy.
- ⌘ there is a great deal governments can do directly to promote flexibility. Reducing the regulatory burden, promoting competition, encouraging investment in science and skills, and supporting innovation and entrepreneurship will all help economies respond more effectively to the opportunities which trade openness offers.
- ⌘ the European Union in particular must press forward with its economic reform agenda, alongside greater openness to trade, as part of the drive to improve its productivity performance.
- ⌘ social safety nets have a crucial role to play in protecting those dislocated by trade reform. The focus should be on enabling individuals to re-enter the labour market as quickly and smoothly as possible. Flexibility and fairness should be advanced together.

5

TRADE IN LOW INCOME COUNTRIES

5.1 Trade has a crucial role to play in low income economies. The East Asian experience demonstrated the power of trade to drive growth and generate rapid and lasting reductions in poverty. Similarly, low income countries' growth prospects depend on their ability to expand and diversify their exports, and to increase access to key production inputs and boost productivity through imports. But many countries, particularly in Africa, have failed to achieve a sustained increase in trade. Least developed country (LDC) exports represent only a tiny share – 0.4 per cent – of world trade. LDCs' integration into world trade has actually declined in the last decade relative to other developing countries.¹

5.2 Lack of market access alone cannot explain this poor performance. Industrialized countries' trade policies remain biased against the products in which the poorest countries have most interest (see chapter 3). But LDCs, although still facing unfair competition from subsidised products, are exempt from many restrictions, and effectively have unlimited access to large parts of the European and US markets. The EU's "Everything but Arms" scheme, for example, provides free access to Europe for all LDC products except weapons (with transition periods for sugar, bananas and rice). In practice, however, most LDCs are unable to make full use of the preferential market access available to them. Complex rules of origin and high product standards account for some of the shortfall in the use of preference schemes. Capacity constraints within the poorest countries are also a major constraint – affecting not only their ability to take advantage of new export markets, but also their ability to realise the benefits of reductions in their own tariff barriers. Poor infrastructure, low human capital and constraints on the development of the private sector all hamper the economy's capacity to respond to the opportunities which greater openness offers.

5.3 If trade is to be an effective driver of growth in these economies, these constraints need to be addressed alongside trade reform, as part of a comprehensive growth-promoting and poverty-reducing development strategy. This will require substantial additional investment, from both domestic and external resources. For example, infrastructure alone is likely to need a doubling in current investment levels, from around 3.5 per cent of developing countries' GDP now to around 7 per cent.² This supports the case for substantial increases in international development assistance alongside continuing trade reform.

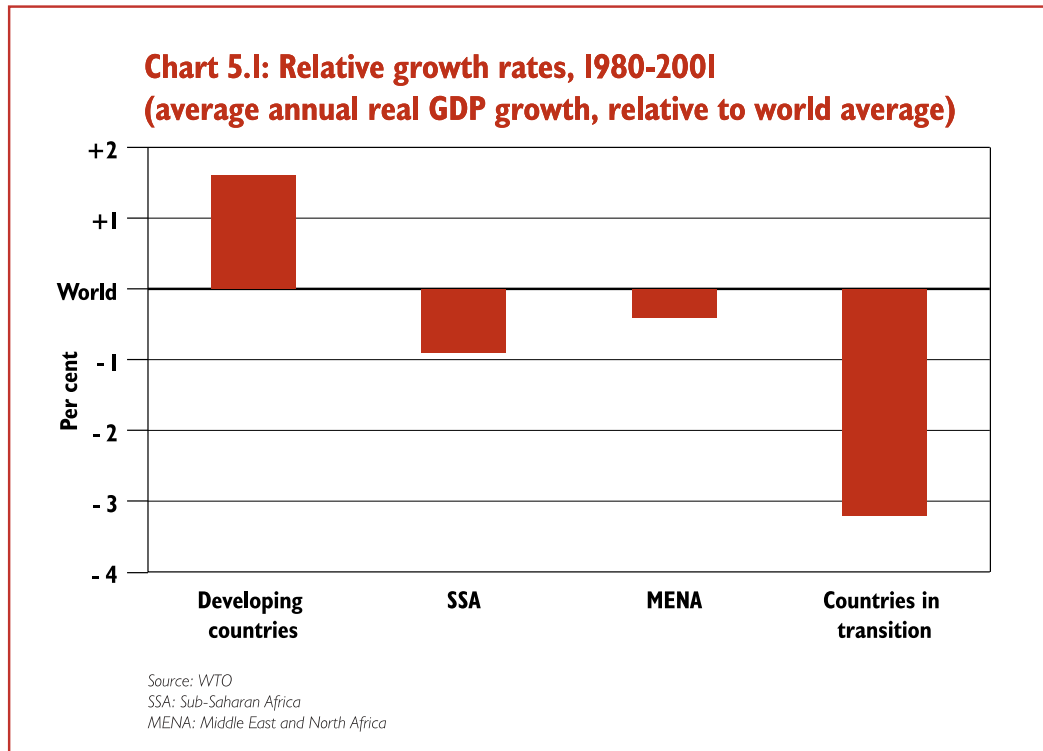
Those who have not gained from globalisation

5.4 The wave of globalisation which started in the 1980s has had unequal results among developing countries. Developing countries as a group have grown faster than the world average. But this positive figure conceals a wide disparity of performance. While some 24 developing countries – representing three billion people – have doubled their ratio of trade to income over the past two decades and experienced GDP per capita growth of around 4 per cent, the rest of the developing world – representing about two billion people – has become relatively poorer. This negative performance has been concentrated in three regions: the transition economies of Central and Eastern Europe

¹ LDCs' share of world trade declined from a 1985-90 average of 0.5 percent, despite a small increase in LDCs' share in world output (from 0.7 percent to 0.9) during the same period.

² World Bank Infrastructure Action Plan – Update 2004.

and the Former Soviet Union; the Middle East and North Africa; and sub-Saharan Africa (see chart 5.1).



Transition economies

5.5 The experiences of these three regions offer different perspectives on the interaction between openness and economic growth. The transition economies underwent a paradigm shift in moving from planned to market economies. This entailed deep reforms over a short period of time. Trade reform took place alongside rapid privatisation and radical political transformation. The result was major structural change; but the speed with which the changes happened outpaced the ability of governments, markets and individuals to cope. There was a dramatic decline in GDP, and a significant rise in poverty. In the Russian Federation, GDP per capita declined by nearly 40 per cent from 1990 to 1999. In 1989 about 14 million people in the Former Soviet Union and Central Eastern European Countries lived on less than \$4 a day. By mid-1990 that number had risen to about 147 million (UNDP, 1999).

5.6 It is impossible to isolate the impact of trade reform from the impact of the other accompanying far-reaching reforms in precipitating this loss of income. What is clear is that the legal, regulatory and institutional environment was insufficiently developed to manage the adjustment prompted by the whole range of reforms. The performance of the transition economies is now fast improving,³ suggesting that the bulk of the adjustment is over and the region will be able to sustain economic recovery. Export patterns have changed significantly, in terms of both destination markets and products – for example, the share of agricultural exports in Hungary's total exports has decreased from 22 per cent in 1990 to 8 per cent in 1999 (OECD 2001). Nevertheless, the substantial drop in GDP which these countries experienced was a very high price to pay for longer term prosperity – and might have been mitigated through a better designed reform process.⁴

³ See WTO Annual Report (2003c)

⁴ See Stiglitz (1999) for a more in-depth analysis of the reform process in transition economies.

Middle East and North Africa **5.7** By contrast the experience of the Middle East and North Africa (MENA) shows the downside of delaying or limiting trade and structural reforms. Prior to the mid-1980s, MENA countries had in place some of the most restrictive trade regimes in the developing world, including extensive and complex systems of import controls, tariff rates and exchange controls. These countries undertook some reform in the late 1980s and 1990s as part of wider economic reform programme; but the reforms were limited in scope, and did not lead to significant liberalisation. As a result MENA economies have remained relatively closed, with higher tariffs than developing countries as a whole and continuing quantitative restrictions. Where data is available, weighted average tariffs in MENA countries are more than double the international average.⁵ Simple average tariff rates in Morocco and Tunisia – two of the more committed reformers in the region – remain high at 33 and 30 per cent respectively.

5.8 This lack of reform has been reflected in a dramatic fall in exports per capita and in the region's share of world trade. In real terms, MENA's exports as a percentage of total world exports declined from 10.5 per cent in 1980 to 2.1 per cent in 1997. Its share of imports dropped from 6.9 per cent to 1.9 per cent. The region has failed to develop a significant manufacturing sector, and continues to be dependent on fuel exports.

Sub-Saharan Africa **5.9** Unlike the MENA region, Sub-Saharan Africa (SSA) has implemented significant trade reform, particularly since the 1990s. According to the IMF⁶ only 14 per cent of SSA countries are now classified as "trade restrictive", compared with 75 per cent in 1990. But SSA has failed to benefit from this process. On the contrary, SSA's share of world merchandise exports has halved, from 2.7 per cent in 1980-84 to 1.3 per cent in 1995-2002.

5.10 Many countries in SSA have faced common difficulties in diversifying their economies and export structure while managing a long-term decline in terms of trade.⁷ UNCTAD (2003 Report on Economic Performance in Africa: Trade Performance and Commodity Dependence) ascribes the loss of market share to both the inability of SSA countries to maintain their market share in traditional commodity exports, and their failure to diversify into more dynamic agricultural exports (such as horticulture) or manufactured exports: "*Africa's difficulties in maintaining market shares for its traditional commodities derive from its inability to overcome structural constraints and modernise its agricultural sector, combined with the high cost of trading.... As a result, it has lost its competitive advantage in producing cocoa, tea and coffee vis-à-vis the new and more competitive producers in Asia and Latin America.*" Growth in other commodities such as cotton and sugar has been heavily constrained by subsidies in OECD countries (see chapter 3).

The commodity trap **5.11** Most African countries depend on two or three primary commodity exports for the bulk of their foreign exchange earnings. As a result they have been heavily affected by price volatility and declining terms of trade. Between 1997 and 2001, the UNCTAD combined price index of all commodities fell by 53 per cent in real terms.⁸ This means that African commodity exporters would have had to double their export volumes in 2001 to maintain their foreign exchange income at 1997 levels. Such declines in price and loss of foreign earnings have often led to a deterioration of debt sustainability ratios

⁵ Nabli and de Kleine (2000)

⁶ IMF (2001)

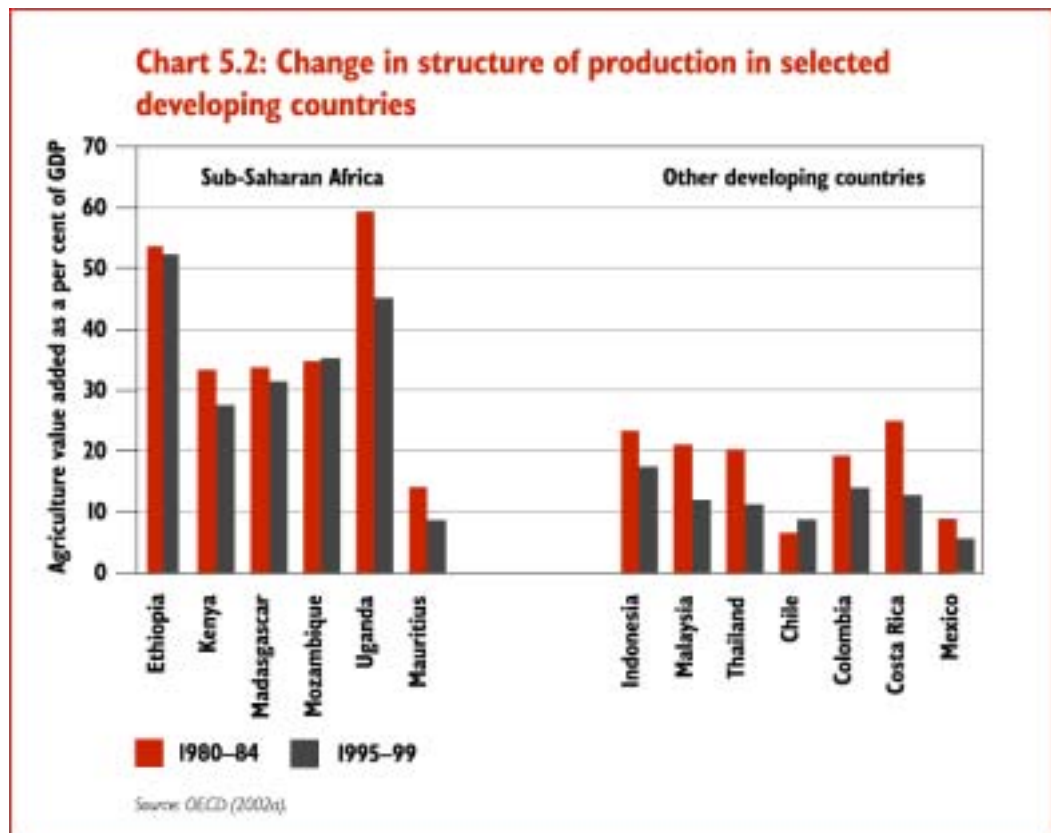
⁷ The relative price of a country's exports compared to its imports.

⁸ Deflated by the unit value index of manufactured goods exported by the developed market economy countries.

and limited the capacity of these economies to diversify their production and export structure – the “commodity trap”.

5.12 The lack of structural transformation in many SSA countries compared with the average in developing countries is striking. After decades of import substitution policies and structural adjustment programmes, production patterns in many countries have changed very little. Export structures have been even more static. Of the six countries shown in chart 5.2, only Madagascar appears to have started to diversify away from primary commodity exports into low-skill manufacturing, fuelled by FDI from Mauritius into textiles and clothing. This contrasts sharply with other developing countries, which – with the exception of Chile and to a lesser extent Colombia⁹ - have experienced major increases in exports of manufactured goods. Table 5.1 shows the level of commodity specialisation in these same SSA countries.

5.13 The commodity trap has proved, thus far, intractable. Previous attempts at international price stabilisation through international commodity agreements for crops such as coffee and cocoa have been unable to deliver sustainable price or earnings stability for commodity producers. Other means need to be developed to address the problem. As well as continuing efforts to enable commodity dependent countries to diversify, and reductions in developed country barriers to processed goods, there would be benefit in new mechanisms to curb price volatility, including the use of long-term producer contracts and making market-based risk management tools available to more farmers. Commodity dependence should also be factored into debt relief. The medium term viability of the HIPC (Highly Indebted Poor Countries) initiative within commodity dependent countries needs to be



⁹ It should also be noted that both Chile and to a lesser extent Colombia have been relatively successful in diversifying their agricultural exports into high-value added goods such as wine in Chile or developing solid brand recognition such as Colombian coffee.

assessed: the sustainability of this initiative may be predicated on higher export earnings which will be difficult to realize in practice. Finally, there is growing recognition that, post-liberalisation, there has been a decrease in the proportion of international commodity earnings accruing to producers (rather than traders and retailers). Competition policy and price transparency could in theory offer ways to address this but would be extremely difficult to implement at a global scale.

Table 5.1: Main exports of Six African Countries, 1998

	Commodities Accounting for 10% or more of total exports (%)	Share of non-energy commodities in total exports (%)
Ethiopia	Coffee (72)	83
Kenya	Tea (24), Coffee (20), Cut flowers (11)	83
Madagascar	Fish (14), Spices (12)	84
Mozambique	Fish (32), Cashew nuts (14), Cotton (10)	80
Tanzania	Coffee (21), Cotton (12), Cashew nuts (10)	86
Uganda	Coffee (74), Fish (11)	96

Source : ITC Trade Statistics

The need for domestic reform

5.14 On average SSA is still imposing higher tariffs than other developing countries, despite the 1990s reforms, suggesting scope for further reductions. Reduction of protection in OECD countries is critical. But in poor countries in general, and in SSA in particular, further international or domestic trade reform is unlikely to be fully effective without accompanying domestic reforms aimed at developing the private sector and reducing trade costs. The persistence of commodity dependency in the region suggests that liberalisation has failed to overcome domestic regulatory barriers and other supply bottlenecks, and hence failed to spur significant structural change and productivity growth. Results from an analysis¹⁰ of Gabon and Chad's response to liberalisation confirm that despite an expansion of incumbents' exports, there was no emergence of new exporters or sectors. Productivity growth was achieved through output growth rather than altering export orientation.

¹⁰ Barba et al (2002)

Capturing the benefits of more open markets

5.15 As the experience in sub-Saharan Africa shows, even under a significantly more open trade regime, poor countries find it difficult to capture the benefits from trade fully unless they can address major supply-side constraints. Overall development policy is beyond the scope of this paper, but we have highlighted some specific constraints particularly affecting trade capacity such as:

- ⌘ high transaction costs, including transport costs;
- ⌘ low human capital;
- ⌘ monopolistic distribution structures;
- ⌘ barriers to flexible entry and exit for firms; and
- ⌘ limited access to financial services;

5.16 All of these constraints require substantial additional resources in investment and technical assistance. However, it is highly unlikely that LDCs could attract sufficient private sector investment in these areas to make a difference. It is, therefore, critical that trade reform, both domestic and in OECD countries, is accompanied by substantial increases in aid. Trade and aid are mutually reinforcing, with each increasing the poverty reduction impact of the other. In order to ensure that low-income countries fully benefit from integrating into less distorted world markets, increases in aid flows and trade reform need to be pursued vigorously and in tandem. This is why the UK government is proposing the International Financing Facility (IFF) in order to release additional resources when they could be most effective.

Transport and Transaction costs

5.17 In many low-income countries, high transaction costs – transport, insurance, banking transfer fees, communication costs etc. – dwarf the impact of trade barriers. An average three-minute telephone call from a developing country to the United States costs three times as much as from an OECD country. For least developed countries the multiple is nearly five times. The variability in transport costs is even more striking. Shipping a standard 40-foot container from Baltimore to Rotterdam in 2002 cost \$ 1,500. Shipping the same container to Lima – a shorter distance – would have cost \$ 4,000, and \$ 13,000 to Beijing or Kathmandu.¹¹

5.18 This difference is due largely to the lack of competition in maritime services, particularly in the less transited routes; and to the differences in the efficiency of handling goods in ports. Inefficient ports can have a major impact. The effect of poorly functioning ports could have an effect equivalent to being 60 per cent further away from the country's main markets.¹²

¹¹ Busse (2003)

¹² Clark et al. (2001)

Box 5.1: Transport costs in Sub-Saharan Africa

Amjadi and Yeats assess the impact of transport costs on the relative decline of African exports. From the mid-1950s to the 1990s, SSA's share of global exports fell from 3.1 per cent to under 1.2 per cent, despite good market access to the EU, the US and Japan (tariffs on Africa's non-oil exports to the EC and US average under one-half of one percentage point. In addition, African exports received important OECD trade preferences which provide significant competitive advantages relative to similar goods from other countries). While transport costs have fallen in most developing countries, in Africa they have increased. According to Amjadi and Yeats, in 1990/91 net freight and insurance payments represented over 15 per cent of the total value of the region's exports. This figure hides wide variation, with the ratio exceeding 70 per cent in Somalia and Uganda. The 1990 net payments averaged 42 per cent for the 10 land-locked African countries (Burkina Faso, Central African Republic, Chad, Ethiopia, Malawi, Mali, Niger, Uganda, Zambia and Zimbabwe).

	Net Freight Deficit as a percentage of exports (%)		
	1970	1980	1990
All SSA	11	15	15.1
All developing countries	7.2	6.8	5.8

Source : ITC Trade Statistics

UNCTAD (1999) estimates total freight costs as a percentage of imports at 11 per cent for the whole of Africa, and close to 20 per cent in land-locked Africa, compared with less than 5 per cent in developed economies.

Clearly the impact of such high transport costs for African competitiveness is critical, and hampers the ability of the continent to participate in international production sharing which depends on just-in-time deliveries. Poor national transport systems also partly explain the lack of specialisation and market development in rural areas. It stops farmers from participating effectively in the wider market economy, encouraging them to continue subsistence farming and insulating them from international trade.

The literature mentions four main reasons for higher transport costs:

African's exports of **bulk commodities** are inherently subject to higher transport costs. But Amjadi and Yeats' analysis compares like with like and still concludes that Africa suffers disproportionate costs. **Transport policy** prevents competition and innovation in the sector. Bennathan estimated in 1989 that anticompetitive cargo reservation policies – a normal practice in most of the continent – could account for up to 50 per cent of the cost. During the 1990s, many transport services were privatised, but lack of appropriate regulatory frameworks failed to ensure the emergence of a competitive sector able to deliver lower prices.

The **drop in public investment** (from 12.6 per cent of GDP during the 1970-79 period to 5.6 per cent by 1990-1995), combined with a lack of private investment in infrastructure, has led to deterioration of transport facilities. The World Bank estimates that the value of the roads in sub-Saharan Africa has depreciated from USD 150 billion to USD 100 billion over the last decade.

Geographic considerations: most of SSA is characterised by its distance to major world markets, a very small coastline relative to its area (only 19 per cent of the population live within 100 km of the coast compared with over 40 per cent in Latin America and in East and South-East Asia), the highest proportion of population living in land-locked states of any continent and very low population densities limiting the scope for economies of scale and competition¹³

5.19 In countries with high transaction costs, a reduction in trade policy-induced barriers is unlikely to lead to a sufficient change in price incentives to ensure a response in domestic supply. Increasing the efficiency and competition in maritime services and increasing investment in trade facilitation and physical infrastructure should be key elements of any policy initiative aimed at ensuring that low-income countries integrate successfully into world markets.

Human Capital 5.20 Ill-health and a limited skills base can significantly constrain the potential for many countries to respond to opportunities for economic growth and trade. Many country studies show that primary education is of particular importance:

- ⌘ in Uganda, four years of primary education raised farm output by about 7 per cent;
- ⌘ in India four years of basic education increased economic returns to innovation by about one-third;
- ⌘ World Bank research in East Asia showed that primary school enrolment rates in 1960 were almost twice as important as investment levels in the context of growth performances in South Korea, Indonesia and Malaysia.

5.21 Research shows that education is a key factor that supports the rest of the development process and is therefore essential for economic growth¹⁴. The returns to society far outweigh the costs and early education has an especially great impact. The effects of education are also overwhelmingly irreversible – investing in human capital of this kind can empower an individual for the rest of his/her life, providing skills such as literacy which can boost lifelong incomes and work output. Studies also show a correlation between educated mothers and lower levels of child mortality within families. This brings benefits both immediately and in the longer term: higher survival rates strengthen the earning capacities across generations, thereby sustaining income and work output levels, and subsequently contributing further to overall economic growth.

5.22 Beyond primary level, secondary and tertiary education structures in many developing countries have tended to concentrate on the study of formal subject areas, rather than vocational or business management training. This has muted supply-side responses to international trade opportunities when barriers have been brought down.

5.23 Poor countries, and the most vulnerable people within them, can also face significantly different health challenges from those in industrialised countries. These

¹³ (UNCTAD, 1999)

¹⁴ Various studies as cited in Watkins, K (2000), Oxfam Education Report

stem from the type of disease prevalence, but also reflect countries' ability to promote preventative actions and reduce the disease burden. High prevalence rates of malaria and HIV/AIDS, are associated with lower rates of economic growth. Poor health affects national economies and household income - both through decreased productivity and directly through significant out of pocket expenditure as adults become sick and cannot work, and resources are spent on treatments and funeral costs. Children are withdrawn from school to become carers for the ill, reducing their education opportunities and thus perpetuating the vicious cycle of poverty. At a national level, HIV/AIDS significantly slows economic growth by destroying existing human capital and undermining family structures which support the education of children. It has been estimated that in Sub-Saharan Africa as a whole, growth rates could be cut by between 0.3 and 1.5 percentage points per year between now and 2015. Conversely, better nutrition and health is estimated to have been responsible for around 40 per cent of growth in developing countries.

5.24 Access to water and sanitation services is important for underpinning both health and skills development, and for releasing resources for more productive activities. Around 40 billion working hours are spent collecting water every year in Africa alone – time which could be used for other, more productive activities. Illnesses arising from poor water/sanitation have knock-on effects on families' incomes which have to be spent on treatment. A child dies every 15 seconds from diseases related to lack of safe water and sanitation access.

5.25 The cost of additional investment per year needed in order to meet the Universal Primary Education Millennium Development Goal is estimated at some \$10 billion. Some \$10 billion per year is estimated to halt and reverse the spread of HIV/AIDS, and an additional \$25 billion per year to combat maternal and child mortality. To meet the water and sanitation Millennium Development Goals, the estimated range is from \$18 billion to \$50 billion in additional aid per year.

Monopolistic distribution structures **5.26** Monopolistic distribution structures can prevent reductions in tariffs from translating into lower prices for consumers and producers. In poor countries, small and medium enterprises typically account for a relatively small share of overall output (17 per cent of GDP in low-income countries compared with 50 per cent in high income countries). Large companies are generally subject to very limited competitive pressure. As a result, in many developing countries large incumbent companies stifle entrepreneurial activity, taking advantage of weak institutional environments to raise anticompetitive barriers and protect their dominant position.¹⁵

¹⁵ UNDP (2004)

5.27 Dealers laws, common in many developing countries, protect exclusive relationships between foreign suppliers and local distribution firms.¹⁶ Distribution firms then use their monopoly to charge high prices, preventing consumers from accessing the benefits of increased openness to trade. For example, a reduction in import tariffs on fertilizer, intended to lower fertilizer prices, increase use and thus boost agricultural productivity, would fail to deliver if a monopoly distributor captured the benefit of lower prices and refused to pass them on to consumers. Under such circumstances farmers would have no additional incentive to increase their use of fertilizer, and thus the potential increase in agricultural productivity associated with greater fertiliser use would not occur. The economy would fail to capture the dynamic benefits of the tariff reduction: instead there would be an increase in the profits of the distributor and a loss of tariff revenue for the government.

5.28 While the existence of a competition law is not a comprehensive indicator of the effectiveness of competition policy,¹⁷ it is still significant that despite the spread of competition law in the 1990s in high and middle-income countries, no least-developed country enacted competition law between 1990 and 2001.¹⁸ Although the implementation of competition law might be difficult in countries with poor institutional capacity, an open competition policy is a vital instrument to ensure that the benefits of openness to trade (and FDI) are fully realised and not captured by vested interests (domestic or foreign).

Barriers to entry and exit of firms

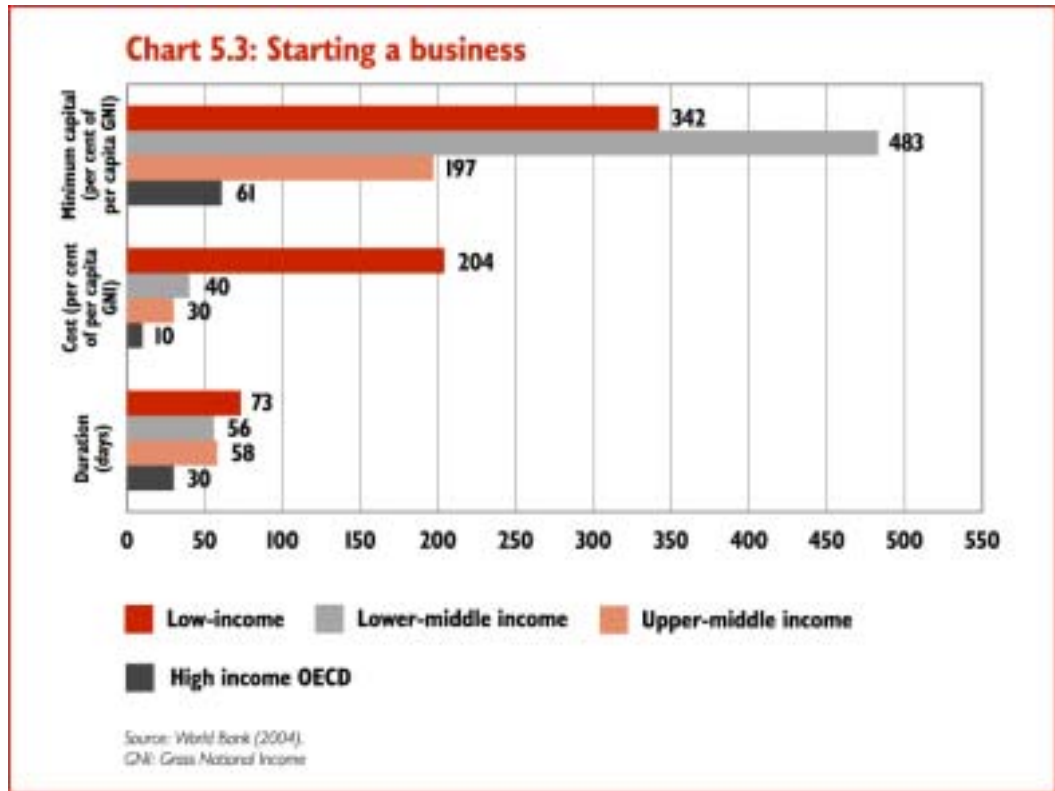
5.29 Barriers affecting the economy's ability to redeploy resources from less to more productive uses tend to be particularly high in poor countries. Recent research by the World Bank compares more than 130 countries on the basis of quantitative indicators of business regulation.¹⁹ Regulation in poor countries is more cumbersome in all aspects of business activity. The numbers of procedures, the cost of establishing businesses and the time taken to do so are significantly higher in low-income countries (chart 5.3).

¹⁶ See, for example, Singham (2001)

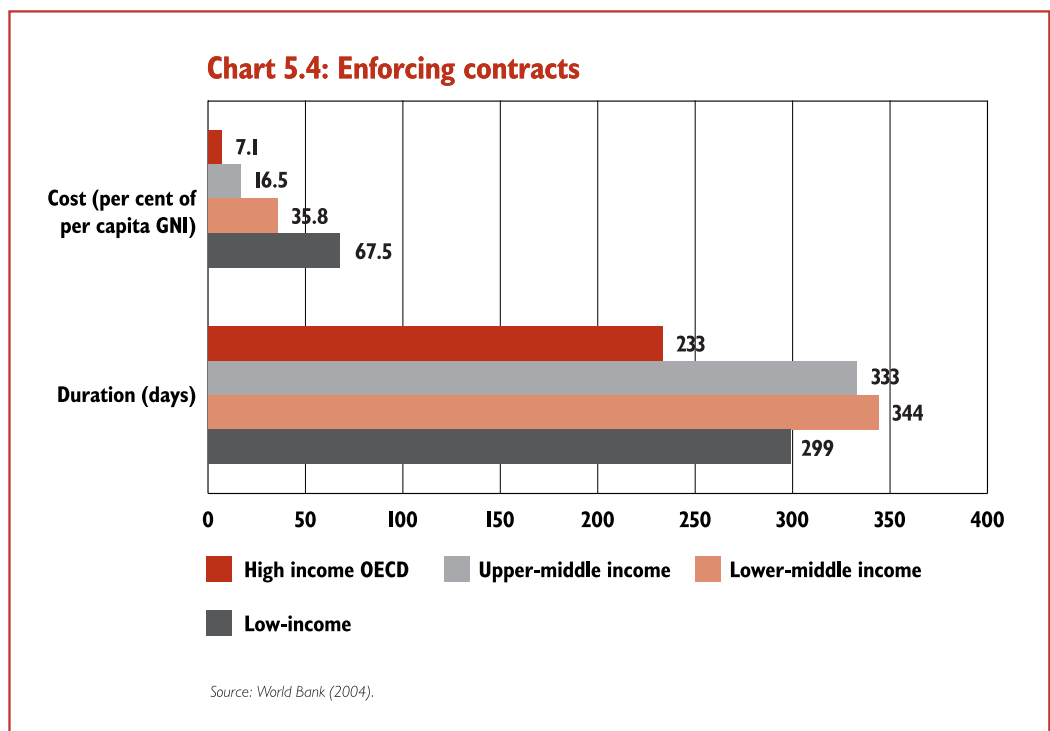
¹⁷ The instruments for competition policy are varied and include not only competition law, but also barriers to trade and FDI and regulatory barriers to entry and exit.

¹⁸ Clarke and Evenett (2003)

¹⁹ World Bank (2004)



5.30 The averages hide striking differences. While it takes two days and less than 1 per cent of annual income per capita to register a private limited-liability company in Australia, it takes 136 days and 325 per cent of annual income per capita in Burkina Faso. Minimum capital requirements – the amount that the entrepreneur needs to put into a bank account before registration starts – are particularly high in some low-income countries: in Ethiopia and Cambodia equivalent to 18 times income per capita; in Mongolia 20 times; in Yemen 17 times. In the US and UK the figure is zero.

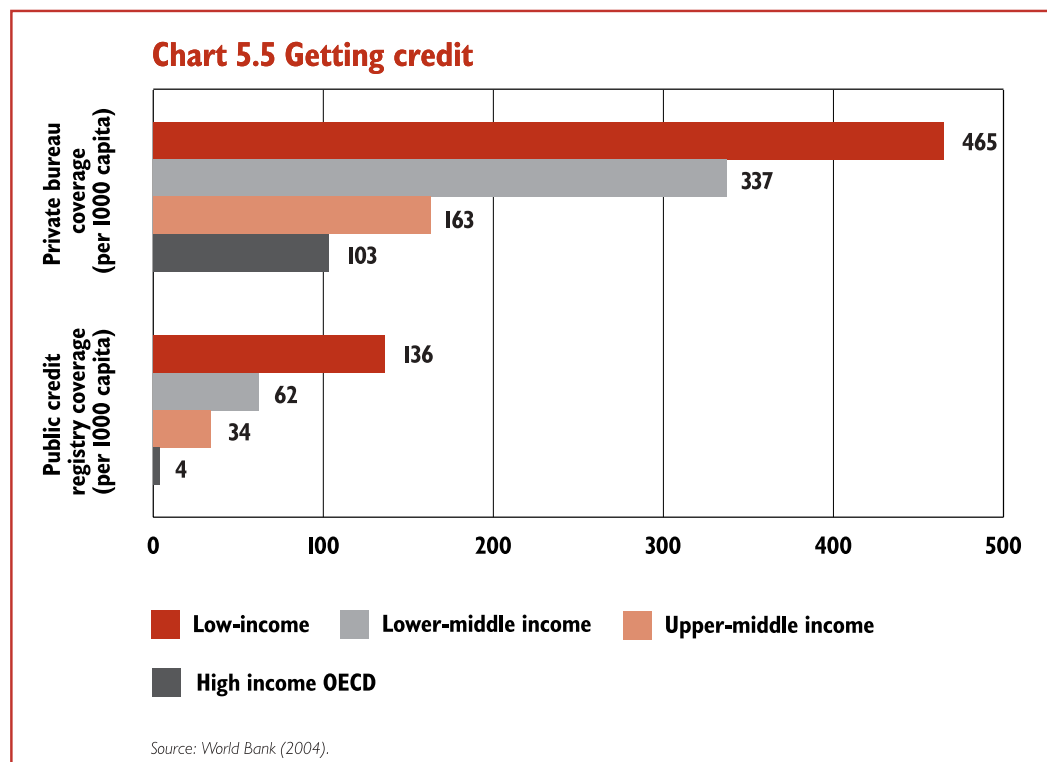


5.31 Exit costs are similarly distributed. On average in low-income countries closing a business costs twice as much and takes twice as long as in high-income countries. The result is that bankruptcy laws are often not used, creditors and workers are left with no legal recourse, and resources are wasted. Regulatory barriers to the expansion of businesses follow the same pattern. Chart 5.4 indicates the difficulties faced by businesses in low-income countries when seeking to enforce contracts and obtain credit.

Access to financial services

5.32 Uncertain and difficult access to credit constrains the private sector by hampering the ability of businesses to grow and enter into new ventures²⁰. Private credit provision is much greater in high income countries than in the poorest, rising from 12 per cent of GDP in low-income countries to 25 per cent in lower-middle income countries, 30 per cent in upper-middle income countries and 85 per cent in high income countries.²¹ Access to savings institutions for individuals and businesses is also very difficult in many poor countries.

5.33 Moreover, in many developing countries, in the absence of well developed systems, banks do not have access to enough information on the value of the property and the credit history of the potential borrower to allocate credit objectively, and have to rely instead on social networks to assess creditworthiness. Two types of institution are key to expanding access to credit and improving its allocation: credit information registries or bureaus, and enforceable legal rights for creditors. Chart 5.5 below shows the coverage of private bureaus and public registries – two different methods of information sharing – per thousand people, as an indication of banks' access to information about individuals' creditworthiness outside informal social networks or knowledge about existing/past clients.



²⁰ See also World Bank (2003a) for a more detailed analysis of the impact of financial systems upon the private sector.

²¹ UNDP (2004).

Managing change

5.34 Poor countries also face particular problems in managing the change associated with greater openness to imports. Specific issues include:

- ⌘ erosion of preferential access to OECD markets;
- ⌘ lost tariff revenue;
- ⌘ balance of payments problems; and
- ⌘ coping with the social costs of dislocation, especially in sectors which employ a large proportion of poor people.

Preference erosion 5.35 Preferential access to industrialised country markets has contributed to significant export growth in some beneficiary countries. Mauritius, for example, re-invested earnings from preferential access to the EU sugar market and diversified its economy into textiles and fisheries – two other products where preferential margins on exports to the EU are extremely high. But in general preferences have distorted economic incentives, encouraging specialisation in sectors which do not reflect long-term comparative advantage. For example, average sugar production costs in the main beneficiaries under the EU sugar protocol are nearly double those of leading non-subsidised exporters. In Jamaica, production costs are estimated at nearly three times the level of leading non-subsidised exporters. Despite guaranteed access to the EU market at artificially high prices, the Jamaican industry reportedly loses around US\$25 million a year, and is heavily dependent on government subsidies.

5.36 Moreover, preferences are usually extremely inefficient at transferring rent from the importer to the exporter. Heavily concentrated market structures, which are common in commodity markets, mean that a significant part of the rents is siphoned off by the importer or trader. The EU banana regime, for example, is a strikingly expensive mechanism for transferring resources to the Caribbean. One study estimated that transferring \$1 to Caribbean banana producers cost EU consumers over \$13²².

5.37 Finally, preferential access by its nature prevents non-preference receiving countries from accessing markets. In the case of the EU banana preference regime, this effect is so strong that every dollar in aid to preferred producers was estimated to harm Latin American producers by almost exactly one dollar.

5.38 Multilateral liberalisation leading to lower tariffs automatically reduces the difference between the preferential tariff and the MFN rate, therefore reducing the preferential margins and the overall value of the preferential regime. Removal of preferences through multilateral liberalisation would reduce world market distortions, encourage allocation of resources to those activities in which preference recipients can be most productive; and remove the bias against those countries which do not receive preferences – many of which include a significant proportion of the world's poor. However the process of reducing preferences will involve difficult transitions in those countries directly affected.

²² Borrell, (1996)

5.39 While the individual transition costs will be significant, the overall impact of preference erosion is unlikely to be large. Ianchovichina et al (2001) estimated that a 25 per cent reduction in average MFN tariffs would result in only a 0.2 per cent decline in base level exports for LDCs. Similarly, in direct response to calls for financing for preference erosion, Subramanian (2003) found less than a 2 per cent reduction in the exports of LDCs following a 40 per cent cut in average MFN rates on manufacturing and agriculture. Even when tariff peaks in Quad markets are reduced to 5 per cent, Hoekman et al (2002) estimate only a 0.2-0.5 per cent decline in LDC exports.²³

5.40 However, despite these minimal global effects, the impact on some individual countries could be substantial, leading to significant declines in exports (see table 5.2). This is particularly true when preferential arrangements include country quotas, such as the ACP-EU sugar protocol. In these cases, many countries will face both a decline in their terms of trade and, potentially, a significant loss of market share to more competitive producers.

Table 5.2: Percentage Decrease in Average Export Unit Values Following a 40 percent cut in preference margins as a result of a multilateral tariff reduction

Least Developed Countries		Other Developing Countries	
Malawi	6.6	Mauritius	11.5
Mauritania	4.8	St.Lucia	9.8
Cambodia	4.1	Belize	9.1
Bangladesh	3.9	St. Kitts and Nevis	8.9
Maldives	3.5	Guyana	7.9
Haiti	3.3	Fiji	7.8
Cape Verde	3.3	Dominica	5.5

Source: IMF (2004)

²³ All these simulations are of the impact of MFN reductions in the Quad markets. While Quad markets received over half of LDC exports in 2000, this narrow focus may mean that some important dynamics are excluded in the estimated effects.

5.41 The impact of the phase-out of the Multi-Fibre Agreement (MFA), in the context of the WTO Agreement on Textiles and Clothing (ATC), could be especially significant. The table below shows the relative impact in value and volume terms of the elimination of only 15 per cent of the restrictive quotas, implemented in 2002 (Phase II of the ATC). The table usefully indicates the magnitude of change to be expected from the dismantling of quotas, but cannot be used as a reliable guide to which countries will be most severely affected by the elimination of the rest of the quotas, since individual countries' competitiveness might vary significantly across the textile sector.

Table 5.3: Selected countries' Exports of Textiles and Clothing to the US and EU

(Products liberalised in Phase III of the ATC, Percentage Changes Jan-Sept 2001 vs. Jan-Sept 2003)

Exports to the United States			Exports to the EU (only for those categories where China had quotas)		
Origin	Change in value	Change in Volume	Origin	Change in value	Change in Volume
China	193.6	652.6	China	90.8	377.1
Pakistan	13.2	27.7	Romania	19.9	27.2
India	12.2	1.8	Czech Republic	7.8	1.3
Turkey	-9.5	-9.2	Turkey	-3	-22.8
Egypt	-20	-20	Tunisia	-4.3	-18
Mexico	-20.5	-10.8	India	-12.5	-9.5
Indonesia	-35.7	-36.3	Morocco	-12.7	-19
Cambodia	-43.2	-31.1	Sri Lanka	-21.6	-0.6
Bangladesh	-43.6	-41.9	Bangladesh	-41.2	-8.4
Philippines	-57.9	-53.8	Thailand	-44.8	-26.9
Sri Lanka	-57.9	-64.5	Vietnam	-49	6.6
Thailand	-62	-64.7	Indonesia	-50.1	-30.7

5.42 For those countries worst affected, preference erosion will represent a significant challenge. It will impact on their export revenue and balance of payments, and affect vulnerable social groups such as young women employed in textile factories or landless farmers in sugar cane plantations. In April, the IMF adopted a new Trade Integration Mechanism (TIM) to enhance its support to countries experiencing difficulties with their balance of payments caused by broad multilateral liberalisation. In particular, the TIM is targeted at mitigating the impact of preference erosion including the phasing-out of textile quotas, and at helping vulnerable countries deal with potential adverse terms of trade changes resulting from OECD agricultural liberalisation.

5.43 In some countries, sectors previously sheltered by preferences will have the potential to become competitive in world markets if they receive additional investment and undergo further restructuring. In other cases, the prospects will be much bleaker, and the only solution may be dramatic reduction in production or a move out of the sector altogether. Easier and more predictable access to IMF loans should help affected countries to undertake the necessary economic adjustment. However, the affected countries are likely to need additional transitional external assistance to increase their competitiveness or accelerate structural change and export diversification, and to implement effective social safety nets for the most vulnerable groups affected by major shifts in production patterns. It is critical that those resources are additional to existing global flows and do not substitute other assistance that would have been provided for other poverty reduction programmes or to other developing countries.

Lost tariff revenue **5.44** The share of trade taxes in total tax revenue is significant in many developing countries. Trade taxes represent 1.1 per cent of total tax revenue in OECD countries. In developing countries the average is close to 18 per cent – and over 35 per cent in Africa. The potential revenue loss through trade reform has been a serious factor in preventing many countries from making further reductions in tariffs. Revenue losses can be particularly serious if they coincide with increased demand for social safety nets – likely in a period of adjustment following trade reform.

5.45 In some cases, well-managed trade reform can ensure that the revenue impact is limited. Concentrating trade reform on the reduction of non-tariff barriers (which do not yield revenue), tariff peaks (where a tariff reduction might lead to increased revenue through an increase in imports), and the elimination of tariff exemptions will all minimize any negative effects on total revenue. However, in many cases maintaining revenue performance will require further fiscal reform and the establishment of alternative sources of revenue – reforms which are often complex, time-consuming and politically difficult.

Balance of payments issues **5.46** Trade policy reform can have a significant impact on the balance of payments in low-income countries. A deterioration, even in the short-term, of the trade balance can lead to temporary short-falls in the balance of payments, leading to macroeconomic instability and increased difficulties in meeting debt repayment schedules. If domestic supply is constrained by other trade costs and domestic rigidities as detailed above, there is a serious risk that a reduction in border barriers might lead to a persistent deterioration of the trade balance, requiring additional capital in-flows – private or public – to manage the balance of payments.

5.47 The need to attract capital flows can considerably complicate macroeconomic stability efforts. Where countries are reducing their own trade barriers, the process tends to be most effective and easiest to manage when accompanied by a depreciation or devaluation of the national currency, increasing the competitiveness of exports and mitigating the effect of lower tariffs.²⁴ However increases in capital in-flows are usually associated with increases in interest rates and currency appreciation.

²⁴ Shatz, Howarth and Tarr (2002)

5.48 A deterioration in terms of trade, as experienced by many SSA countries heavily dependent on agricultural commodity exports, or a fall in exports caused by more intense competition in export markets, could also have a serious effect on the balance of payments. While countries have some control over the pace of their own trade reform, there is little they can do to affect the depth or timing of third parties' reforms or world market developments, making these kinds of balance of payments pressures particularly difficult to manage.

Social costs 5.49 The social costs of dislocation and change are often acutely felt in poor countries. This is largely because their labour, product and capital markets are less flexible, and most have little or no effective social welfare systems to protect people through change. Economies that are less flexible incur larger adjustment costs in general, which can accrue disproportionately to poor regions, communities, women or children. Under these circumstances rapid structural change can have a devastating impact on human well-being.

5.50 It is in labour markets that the most severe constraints can arise. Foremost among these effects are longer and deeper periods of unemployment. In poor countries, the long-term effects of a temporary loss of income among the most vulnerable populations can have severe repercussions. Unemployment, even temporarily, within poor families can lead to the removal of children from school, sale of assets, a reduction in nutrition and health, and ultimately a longer-term reduction in productivity potential. Ill-health among Ugandans in 1992 noticeably increased the probability of being in poverty eight years later. The effect is similar to a drought that causes farmers to sell or consume their seeds or livestock, preventing them from returning to production once the rains fall.

5.51 The effects of unemployment are compounded by limited opportunities in alternative industries and weak structures for re-training. Under-invested primary and secondary systems also undermine basic literacy and numeracy skills essential to market flexibility. In addition, universal social protection systems – such as unemployment benefits – are weak or non-existent in most developing countries. Rural communities are particularly vulnerable. More targeted social protection systems are ad hoc and provide incomplete coverage. Traditionally, many communities have relied on strong social capital networks to cope with periods of stress. Increasingly, especially in Sub-Saharan Africa, AIDS is eroding these coping mechanisms.

5.52 Effective social protection systems are constrained by both government capacity and finance. In the UK and US, total government expenditure on safety nets as a proportion of GDP was 10.5 and 14.1 per cent respectively. By contrast, safety net spending was 0.3 per cent of GDP in both Rwanda and Niger. For Sub Saharan Africa as a whole, safety net spending was 1.4 per cent of GDP, and 4.6 per cent in the Middle-East and North Africa.²⁵ Broader social spending – on health and education, but also on social protection – may be further constrained if trade openness erodes fiscal revenues.

²⁵ Average figures for the period 1972-97 from Besley, Burgess, and Rasul (2003). Figures derived from the IMF Government Finance Statistics Yearbook, all years 1972-97.

Implementing reform

5.53 Some important conclusions emerge from the discussion above, which have a practical impact on the implementation of trade reform in poor countries and the priority which should be given to trade reform in countries' development strategies:

- ⌘ first, the impact of tariff barriers on trade is often dwarfed by other trade costs, particularly high transport costs;
- ⌘ second, capturing the benefits of openness through effective structural change is severely hampered in many countries by restrictions on the development of the private sector and by weak human capital due to poor health and lack of education;
- ⌘ third, the ability of poor countries to manage adjustment is constrained by institutional weaknesses and lack of financial resources.

Uniform Tariffs 5.54 Taken together, these barriers have prevented trade liberalisation from raising overall productivity in some poor countries. Nevertheless, in economies which remain substantially closed, or where trade barriers create major distortions between sectors, trade barriers reform can perpetuate and accentuate distortions, setting the economy on a path of lower productivity growth and increasing poverty. In particular, wide tariff dispersion distorts relative prices, increasing the risk that the economy's least productive sectors will capture any additional resources. The outcome could be an expansion of production in sectors with low or diminishing productivity.

5.55 This argues for moving towards a more uniform tariff structure, even if tariffs as a whole remain relatively high. The economic cost of a given tariff regime increases in proportion to the degree of dispersion²⁶. Martinez analyses the welfare effect of uniform tariffs under revenue-neutral conditions in 13 developing countries, and finds that in each case uniform tariffs enhance welfare.

5.56 A possible exception to this rule is for products of vital importance to the poor. There may be a case for higher protection rates in sectors which provide a living for substantial numbers of poor people. For example, in some Asian countries large sections of the poor are heavily dependent on rice production and consumption, but the rice sector is not internationally competitive. In such cases it may be prudent to reduce barriers more slowly than for the rest of the economy, allowing a longer period of transition. However delays in accessing cheaper imports will have a negative effect on consumers, who may also be poor; and the risk of efficiency losses offsetting distributional gains is high, particularly if the product is not effectively targeted on the poorest. In Indonesia for example some studies²⁷ estimate that reducing agricultural tariffs will lead to poverty increases, but others²⁸ show how the poor and the very poor have conflicting interests in rice liberalisation. Either way, higher protection rates should be viewed as a transitional measure, and should be coupled with measures to reduce dependency. Otherwise there is a real risk of isolating the poorest in low-productivity sectors, with little prospect of growth.

²⁶ De Melo and Grether (1997)

²⁷ Hertel et al (2003)

²⁸ Ravallion and van de Walle (1991)

Openness and institutional quality

5.57 Openness itself can provide additional incentives for improvements in institutional quality. Openness to trade raises domestic demand for better institutions and better physical infrastructure by highlighting the impact of non-trade barriers on development, and increasing the potential pay-off from reform. In Thailand, for example, an increase in the value of land associated with the country becoming a rice exporter spurred demand for the clarification of land tenure rights, leading to the development of land registries.²⁹ More broadly, World Bank research shows a clear link between openness and institutional quality: the top third of countries in terms of openness score about three times as highly on specific indices measuring rule of law and government effectiveness.³⁰

5.58 Research also shows a clear cross-country connection between low degrees of openness and levels of corruption.³¹ At its simplest level, a less restrictive trade policy based on simple, transparent and non-discretionary policies provides fewer opportunities and lower incentives for corruption. In particular, uniform tariffs are likely to maximise the indirect effects of trade policy on institutional quality. They are more transparent, they reduce rent-seeking and corruption, and are relatively easy (and therefore less costly) to administer. They can also be designed to maintain revenue while minimising internal distortions.

Unilateral protectionism

5.59 The costs of delaying trade reform will be higher in periods of global liberalisation. It is relative (not absolute) trade restrictiveness which affects most FDI inflows and the competitiveness of exporters. Moreover, since most low-income countries are too small to have an impact on world prices in products of interest to them, a unilaterally restrictive trade policy will do nothing to protect exporters from major changes in terms of trade.

Sequencing of trade and other reforms

5.60 Decisions on the pace of reform depend heavily on a country's own economic and political circumstances. In poor countries as elsewhere, trade reform and other domestic reforms are not alternatives, but are strongly complementary. This means that trade reform needs to be integrated systematically into countries' development and poverty reduction strategies, recognising both the need for institutional development and greater development assistance in order to capture the benefits and manage change, and the role of greater openness in reducing corruption and promoting institutional quality.

5.61 In some cases complementary reforms can be implemented fairly quickly – for example financial stabilisation policies. But in others – for example complex regulatory reform or changes in labour markets – implementation may be spread over several years. Under these circumstances the pace of trade reform may need to be carefully calibrated against the pace of other changes; but the overall direction of reform should remain coherently in favour of more open markets. Other important factors to take into account are the strength of vested interests, the need to maintain public support and the government's credibility, which together are likely to determine the time available to implement reform and the risks of reversal during the reform process.

²⁹ World Bank (2002a)

³⁰ World Bank (2002a)

³¹ Ades and Di Tella (1997, 1999)

Quantitative restrictions 5.62 In terms of the sequencing of trade reform itself, elimination of quantitative restrictions and the progressive convergence of tariffs at a low level should be the highest priority. Customs exemptions, quantitative restrictions and other non-tariff barriers are particularly distortive and should be removed as soon as possible. They are often arbitrary and non-transparent, and they encourage consumers and producers to overstock. Moreover, an initial shift from quotas to tariffs boosts government revenue by transferring the quota rents previously captured by importers to tariff revenue captured by governments.

Conclusion

5.63 In summary:

- ⚡ poor countries stand to gain substantially from further reductions in trade barriers; but they have to overcome significant capacity constraints in order to capture the benefits of greater openness. The agenda is broad: not only reducing barriers to private sector development, but also investing in physical infrastructure, human capital and institutional capacity.
- ⚡ trade reform needs to be sequenced , so that as growth accelerates, resources are attracted into productive areas, rather than protected sectors. Quota restrictions, customs exemptions, non-tariff barriers and high tariff dispersion are particularly distortionary and can harm the poorest most..
- ⚡ developed countries have a crucial role to play in supporting this process. Developed countries should open their markets in those sectors in which developing countries are most competitive – i.e. agriculture and labour intensive goods such as textiles. Emerging markets also have a fundamental role to play in improving market access for low-income countries.
- ⚡ all countries also need to ensure that anti-dumping and other trade defence measures are not used unfairly to protect domestic markets; and that product standards and other regulations do not represent disguised barriers to trade.
- ⚡ In addition developed countries can help provide significant additional development assistance to poor countries needing to undertake investment in human and physical capital to complement greater trade openness and lead to poverty reduction. This includes direct assistance to facilitate adjustment in those countries badly affected by the loss of preferential margins; and substantial additional resources to allow countries to build a pro-trade infrastructure, and boost their social spending in education and health.

A

STUDIES ASSESSING THE COSTS OF PROTECTION

A.1 Costs from trade protection arise in a number of ways, as outlined from paragraph 3.42 in the main text.¹ The costs of protection can be estimated by using models that take account of how barriers to trade affect production and consumption decisions of firms and households in both domestic and foreign markets. Depending on their complexity, models account for a combination of changes in prices, trade volumes, allocation of resources (capital and labour), production, consumption, terms of trade, government revenue and more. They provide estimates based on a particular scenario of reductions in tariffs and other forms of trade protection.

A.2 Such models estimate the total welfare change, expressed in monetary terms, resulting from the scenario they have used. It is often divided into effects on different countries, regions or economic sectors. The estimated gains represent the value of the increased consumption made possible by a reduction in protection, and combine the effect of changes to incomes and changes to consumer prices.

A.3 Of necessity, any model is a simplified representation of the real world, and the choice of modelling assumptions accounts for much of the variation in results obtained by different studies. Variation is also driven by uncertainty over the precise values of the parameters which determine the supply and demand of goods and services within each model.

A.4 Key choices will include the number of sectors and regions included ('dimensionality'), the elasticity of substitution between products,² and which variables are considered exogenous.³ Some degree of aggregation will also be necessary, and while this can help a model to focus better on specific countries, regions or production sectors, the model's applicability to other areas will be reduced. Estimates will also depend on whether reductions are taken to occur from bound or applied tariff levels.⁴

A.5 Assumptions about market structure are significant. In general, estimates of the costs of protection are greater in models that consider imperfect competition. This allows for product differentiation between firms as well as between countries and introduces market power effects. Estimates tend also to be higher in models that allow for increasing returns to scale, in which productivity rises as the scale of production increases. The potential gains from specialisation in the presence of larger markets are an important source of gains from openness in new trade theory. However, estimates of market power and scale economies required for such models introduce additional uncertainty as they expand the set of parameters which need to be specified.

¹ Some studies describe their results as costs of protection, others as potential benefits of liberalisation. We regard the two as equivalent: both measure differences in welfare between more protected and less protected markets. A potential benefit from liberalisation represents a current opportunity cost of protection.

² High elasticities tend to give rise to greater effects from liberalisation

³ *Exogenous variables* are those external to the model which are fed in as data inputs. Values of *endogenous variables* are calculated within the model and are its intermediate or final outputs.

⁴ Bound levels are upper limits agreed internationally, usually in the WTO. Applied levels are the tariffs actually imposed on traded goods, and can be far lower, especially in developing countries. Reductions in bound tariff levels can have little or no effect on applied tariffs for certain products and countries.

A.6 Models which consider dynamic effects, such as changes in investment, productivity and technological spillovers, tend to yield larger overall effects than models which do not. They are more accurate to the extent that they capture additional sources of protection costs which are ignored by simpler models. However, uncertainty about the magnitude of such effects contributes to the variation between different model results. In addition, dynamic effects are likely to build over time, and may have a limited effect in the short run.

A.7 Studies divide broadly into two types: Computable General Equilibrium (CGE) and Partial Computable Equilibrium (PCE).

A.8 CGE models take a broad approach, designed to estimate aggregate impact and take account of the interactions between different sectors. They generally divide the economies under consideration into production and consumption sectors and model changes to all sectors simultaneously. Most models in the literature are of this type, and Annex B summarises the results of a selection of recent CGE-model studies.

A.9 By contrast, PCE models⁵ generally consider the effects within a given sector, and generally do not attempt to model the effect of interactions between sectors. This can lead to an underestimation of the total effects, but the lower level of aggregation allows for more accurate modelling of specific industry demand and supply conditions as well as changes in trade barriers that have highly distortionary effects on certain industries. PCE models can therefore provide finer detail on the effects of trade liberalisation within particular industries, such as changes in prices, costs to consumers and the effect on jobs.

A.10 Results from all these models must be viewed as estimates only, and are inevitably dependent on the assumptions embedded in model. In particular, they take account neither of the political aspects that play a role in trade policy, nor intricacies specific to individual countries. Many general assumptions – efficient operation of markets, small effect of any rigidities constraining supply-side responses and of corruption or poor governance – may lead to overestimation, particularly in developing countries. Nevertheless, these models provide an indication of the potential benefits of trade reform and are important tools for understanding the implications of trade policy decisions.

⁵ Such as those used in the IIE studies referred to in Chapter 3

B

ESTIMATIONS OF GLOBAL WELFARE GAINS FROM TRADE LIBERALISATION

B.1 Models consider gains post implementation of Uruguay Round agreements. (Lippoldt and Kowalski, 2003, find gains of \$18bn still waiting to be realised from completion of UR)

Model	Base year ¹	Projection year	Scenario ²	Gains (US\$ billion p.a.) ³		Comments on distribution of gains
				Global	DC only ⁴	
Static, with perfect competition and constant returns to scale						
Lippoldt and Kowalski (OECD) 2003	1998		100%↔M tariffs	63.3	51.4	DCs gain more in absolute terms, as well as % of GDP
			100%↔M tariffs plus trade facilitation	139.5	73.0	
			50%↔A + M tariffs	41.1	28.2	DCs gain more in absolute terms, as well as % of GDP
			50%↔A + M tariffs plus trade facilitation	117.2	50.0	If include trade facilitation, DCs gain more as % of GDP, but not in absolute terms.
			100%↔A + M tariffs,	97.2	68.4	DCs gain more in absolute terms, as well as % of GDP
			100%↔A + M tariffs, plus trade facilitation	173.6	90.1	
			100% liberalisation in ICs; 50% liberalisation in DCs	63.2	62.0	DCs gain more in absolute terms, as well as % of GDP
			100% liberalisation in ICs; 50% liberalisation in DCs, plus trade facilitation	139.4	83.5	

¹ 1995 equates to GTAP 4; 1997 equates to GTAP 5; + indicates data for services also added (services are not included in GTAP); (+) indicates data set updated in some form but services not added.

² A = agriculture; M = manufacturing; S = services; ↔ indicates a reduction.

³ Welfare gains measured by Equivalent Variation

⁴ Throughout table DCs = developing countries; ICs = industrialised countries

Model	Base year	Projection year	Scenario	Gains (US\$ billion p.a.)		Comments on distribution of gains
				Global	DC only	
World Bank Global Economic Prospects 2002 (static version)	1997	2015	100% liberalisation in A by all	248	142	
			100% liberalisation in A + M by ICs only	124	75	
			100% liberalisation in A + M by DCs only	239	121	
			100% liberalisation in A + M by all	355	184	
World Bank Global Economic Prospects 2004 (static version)	1997	2015	A cut to 10% in ICs, 15% in DCs	193	101	
			M cut to 5% in ICs, 10% in DCs	98	58	
			A + M cut by ICs and DCs	291	59	
Anderson, Francois, Hertel, Hoekman, and Martin 2000	1995	2005	100% M liberalisation	254.3	108.1	
			100% A liberalisation	164		
Cernat, Laird and Turrini (UNCTAD) 2002	1997+		50%↔A applied tariffs	21.5		
			50%↔A applied tariffs in ICs only	9.6		
			100%↔A subsidies (tariffs unchanged)	-1.8		\$-2.2 loss for N Africa and Middle East; \$2.4 gain for W Europe. Net global loss.
			50%↔M applied tariffs	39.6		

Model	Base year	Projection year	Scenario	Gains (US\$ billion p.a.)		Comments on distribution of gains
				Global	DC Only	
Hertel and Martin 2001	1995+		33% \Leftrightarrow M applied tariffs	107.4		DCs gain more in relative terms
Shakur, Rae and Chatterjee 2002	1997	2005	36% \Leftrightarrow A + M tariffs; 36% \Leftrightarrow A subsidies in ICs	38		
			100% \Leftrightarrow A + M tariffs plus removal of subsidies by all	82.3		All gain except USA which suffers negative terms of trade effect
Van Meiji and Van Tongeren 2001	1997		100% \Leftrightarrow A tariffs and domestic A support	44.4		
			100% \Leftrightarrow M protection	78.3		
Diao, Somwaru and Roe 2001 (static version)	1997		100% \Leftrightarrow A tariffs and domestic support	31		
Dessus, Fukasaku and Safadi (OECD) 1999 (static version)	1995 (+)	2010	100% \Leftrightarrow A + M tariffs	82	18 ⁵	Both OECD and non-OECD groups gain 0.2% of GDP.
			100% \Leftrightarrow A+M tariffs by OECD; 50% \Leftrightarrow A+M tariffs by non-OECD	73	43	Non-OECD gain more as % of GDP and also in absolute terms.
			100% \Leftrightarrow A+M tariffs by OECD; non-OECD \Leftrightarrow A+M tariffs to 5% max.	81	37	Non-OECD gain more as % of GDP but not in absolute terms.

⁵ Breakdown of gains for Dessus et al model are to non-OECD countries

Model	Base year	Projection year	Scenario	Gains (US\$ billion p.a.)		Comments on distribution of gains
				Global	DC Only	
ABARE 2000	1997	2010	50%↔A support	53		
			50%↔A support plus 50%↔import protection in all other sectors	94		
Australian Department of Foreign Affairs and Trade 1999	1995		50%↔A barriers	90		
			50%↔M barriers	66		
			50%↔S barriers	250		
			50%↔barriers in all sectors	406		
			100%↔barriers in all sectors	750		
Static, with imperfect competition and increasing returns to scale						
Nagarajan 1999	1995		20%↔in all protection on M, A + S, plus trade facilitation	219		All gain. Over half accrue to DCs
			50%↔in all protection on M, A + S, plus trade facilitation	385		All gain. Over half accrue to DCs
Dee and Hanslow 2000	1995 (+)		100%↔A + M tariffs	133.5		
			100%↔S barriers	133.4		
Brown, Deardorff, Stern 2002	1995	2005	33%↔A tariffs + subsidies	-3		Most regions experience some loss (except EU/EFTA, S Asia, Thailand)
			33%↔M tariffs	163.4		
			33%↔S barriers	413.7		
			33%↔in A, M + S	574.0		Large + positive for all regions
			100%↔in A, M + S	186.0	370	

Model	Base year	Projection year	Scenario	Gains (US\$ billion p.a.)		Comments on distribution of gains
				Global	DC Only	
Dynamic Models						
Dessus, Fukasaku and Safadi (OECD) 1999 (dynamic version)	1995 (+)	2010	100%↔A + M tariffs	1212	455 ⁶	non-OECD gain more as a percentage of GDP.
			100%↔A+M tariffs by OECD; 50%↔A+M tariffs by non-OECD	912	292	non-OECD gain more as a percentage of GDP.
			100%↔A+M tariffs by OECD; non-OECD ↔A+M tariffs to 5% max.	1183	459	non-OECD gain more as a percentage of GDP.
Scollay and Gilbert 2001	1995		100%↔A tariffs	69.43		
World Bank Global Economic Prospects 2002 (dynamic version)	1997	2015	100% liberalisation in A by all	587	390	
			100% liberalisation in A + M by ICs only	273	124	
			100% liberalisation in A + M by DCs only	575	424	
			100% liberalisation in A + M by all	832	539	
World Bank Global Economic Prospects 2004 (dynamic version)	1997	2015	A cut to 10% in ICs, 15% in DCs	358	240	
			M cut to 5% in ICs, 10% in DCs	156	108	
			A + M cut by ICs and DCs	518	349	

⁶ Breakdown of gains for Dessus et al model are to non-OECD countries

Model	Base year	Projection year	Scenario	Gains (US\$ billion p.a.)		Comments on distribution of gains
				Global	DC Only	
Diao, Somwaru and Roe 2001 (dynamic version)	1997		100% \Leftrightarrow A tariffs and domestic support	56		
			50% \Leftrightarrow A protection	27		
François 2000	1995		50% \Leftrightarrow A, M + S protection	384		

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