TRADE AND DEVELOPMENT REPORT, 2005

New features of
global interdependence

UNITED NATIONS

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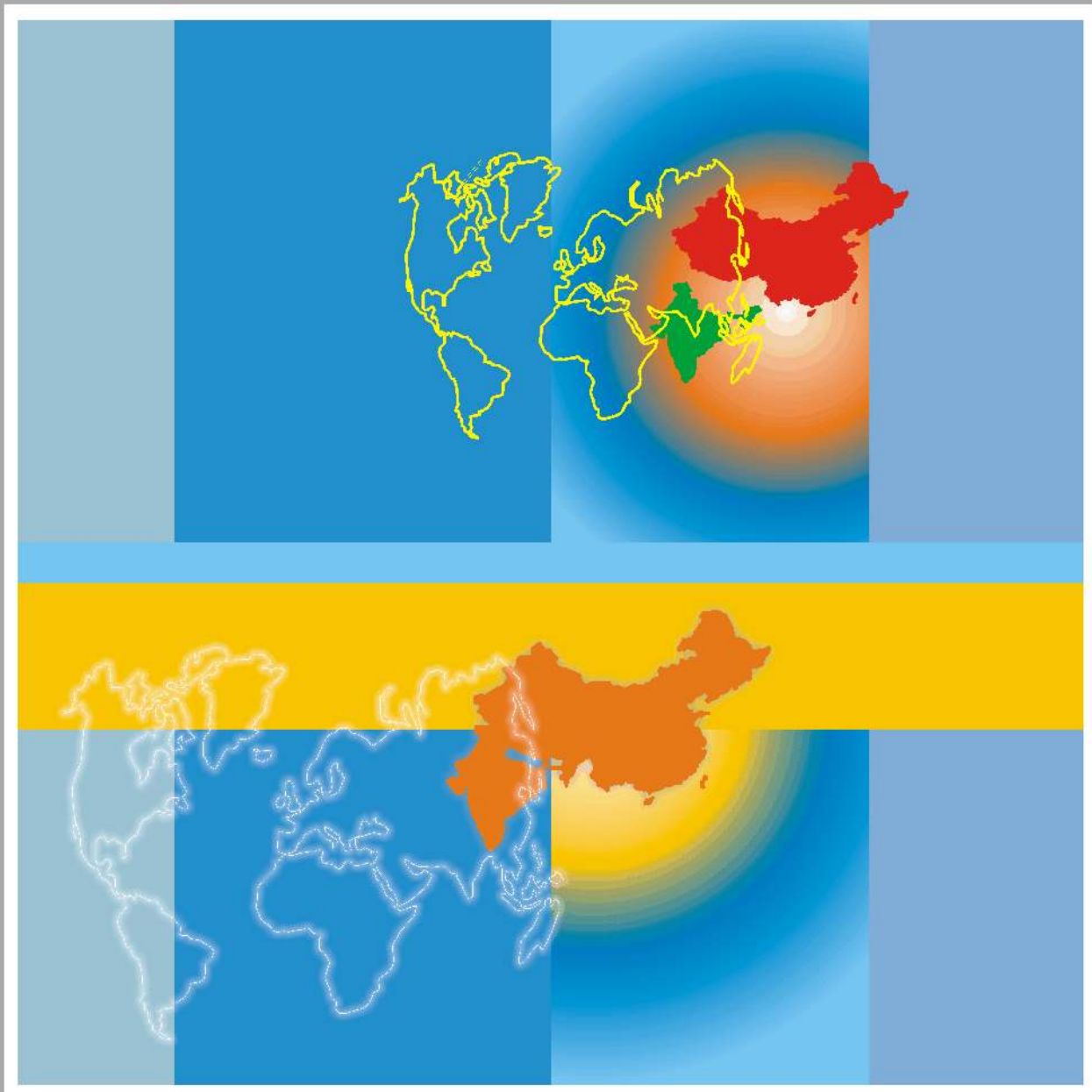
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FOREWORD

This year's *Trade and Development Report* demonstrates that the conditions for achieving the Millennium Development Goal of halving extreme poverty by 2015 have improved considerably over the past three years, as economic growth in the developing world has become more broad-based and embraced many of the poorest countries.

At a time when the forces of economic expansion in some major developed countries have been slackening, China and India have become major engines of growth for the world economy as a whole. Rapid economic development in both countries has helped reduce levels of extreme poverty at home, by generating employment and boosting incomes. It has also had positive effects beyond the two countries' borders, in particular in many other developing countries.

However, the *Report* stresses that progress remains far too slow in certain regions. In sub-Saharan Africa, which has the highest proportion of people living in extreme poverty, per capita income growth is still too low to make decisive progress. This only underscores the need for further action by the international community to achieve and maintain strong global growth dynamics with broad-based participation.

The recent rise in the prices of many primary commodities has provided some economic breathing space in commodity-dependent economies, but this must not lead to complacency. On the contrary, this breathing space should be viewed as an opportunity for many developing countries to accelerate the process of structural change and capital accumulation, and indeed to reduce their dependence on exports of such commodities. This would boost progress towards all development goals, and have positive effects in countries with more advanced manufacturing sectors that provide the machinery and equipment needed for such change.

Our challenge is to sustain the recent positive developments. The *Report* argues that it is important not only that the fast-growing Asian countries make the right policy choices, but also that developed countries take appropriate policy measures to overcome the persistent imbalances and inequities in the international trading system. A global approach, based on international action with the effective participation of developing countries in global policy coordination, is in the interest of all, developed and developing countries alike.

The Goals can still be reached – worldwide and in most, or even all, individual countries – but only if we break with business as usual. The information and analysis contained in this *Report* should contribute to the debate about how best to make the global partnership for development a reality – and how to help many millions of people realize their long-standing hopes to live in dignity and peace. In that hopeful spirit, I recommend this volume to a wide global audience.

Kofi A. Annan
Secretary-General of the United Nations

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Explanatory notes

Classification by country or commodity group

The classification of countries in this *Report* has been adopted solely for the purposes of statistical or analytical convenience and does not necessarily imply any judgement concerning the stage of development of a particular country or area.

The major country groupings used in this report follow the reclassification by the United Nations Statistical Office (UNSO). They are distinguished as:

» Developed or industrial(ized) countries: in general the countries members of OECD (other than Mexico, the Republic of Korea and Turkey) plus the new EU member countries which are not OECD members (Cyprus, Estonia, Latvia, Lithuania, Malta and Slovenia).

» The category South-East Europe and Commonwealth of Independent States (CIS) replaces what was formerly referred to as "transition economies".

» Developing countries: all countries, territories or areas not specified above.

The terms "country" / "economy" refer, as appropriate, also to territories or areas.

References to "Latin America" in the text or tables include the Caribbean countries unless otherwise indicated.

Unless otherwise stated, the classification by commodity group used in this Report follows generally that employed in the UNCTAD *Handbook of Statistics 2004* (United Nations publication, sales no. E/F.05.II.D.2).

Other notes

References in the text to *TDR* are to the *Trade and Development Report* (of a particular year). For example, *TDR 2004* refers to *Trade and Development Report, 2004* (United Nations publication, sales no. E.04.II.D.29).

The term "dollar" ($) refers to United States dollars, unless otherwise stated.

The term "billion" signifies 1,000 million.

The term "tons" refers to metric tons.

Annual rates of growth and change refer to compound rates.

Exports are valued FOB and imports CIF, unless otherwise specified.

Use of a dash (–) between dates representing years, e.g. 1988–1990, signifies the full period involved, including the initial and final years.

An oblique stroke (/) between two years, e.g. 2000/01, signifies a fiscal or crop year.

A dot (.) indicates that the item is not applicable.

Two dots (..) indicate that the data are not available, or are not separately reported.

A dash (-) or a zero (0) indicates that the amount is nil or negligible.

A plus sign (+) before a figure indicates an increase; a minus sign (-) before a figure indicates a decrease.

Details and percentages do not necessarily add up to totals because of rounding.

Abbreviations

ATC	Agreement on Textiles and Clothing
ASEAN	Association of Southeast Asian Nations
bpd	barrels per day
CIS	Commonwealth of Independent States
CPI	Consumer Price Index
ECLAC	Economic Commission for Latin America and the Caribbean
EIA	Energy Information Administration (United States)
EIU	Economist Intelligence Unit
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FDI	foreign direct investment
FFE	foreign funded enterprise
f.o.b.	free on board
GDI	gross domestic income
GDP	gross domestic product
GFCF	gross fixed capital formation
GNI	gross national income
GSTP	Global System of Trade Preferences
GTAP	Global Trade Analysis Project (model)
ICT	information and communication technology
IEA	International Energy Agency
IMF	International Monetary Fund
IT	information technology
LDC	least developed country
MDG	Millennium Development Goal
MERCOSUR	Southern Common Market
MFA	Multi-Fibre Arrangement
NBTT	net barter terms of trade

NIE	newly industrializing economy
NIIP	net international investment position
NPL	non-performing loan
OECD	Organisation for Economic Co-operation and Development
OEM	original equipment manufacturing
OPEC	Organization of the Petroleum Exporting Countries
PPP	purchasing power parity
R&D	research and development
RCA	revealed comparative advantage
REER	real effective exchange rate
RTA	regional trade arrangement
ROW	rest of the world
SARS	Severe Acute Respiratory Syndrome
SITC	Standard International Trade Classification
SME	small and medium-sized enterprise
SOE	State-owned enterprise
SPS	sanitary and phytosanitary
TDR	Trade and Development Report
TNC	transnational corporation
TRIPS	trade-related aspects of intellectual property rights (also TRIPS Agreement)
UN	United Nations
UN COMTRADE	United Nations Commodity Trade Statistics Database
UN/DESA	United Nations, Department of Economic and Social Affairs
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNCDB	United Nations Common Database
UNCTAD	United Nations Conference on Trade and Development
VER	voluntary export restraint
WTI	West Texas Intermediate (price – reference price for standard crude oil)
WTO	World Trade Organization
Y2K	year 2000

OVERVIEW

Looking at recent trends in the world economy from the perspective of the Millennium Development Goals (MDGs), the good news is that in 2004 growth in the developing countries was rapid and more broad-based than it had been for many years. Strong per capita income growth continued in China and India, the two countries with the largest number of people living in absolute poverty. Latin America has seen a rebound from its deep economic crisis, and a return to faster growth, fuelled by export expansion. Africa again reached a growth rate of more than 4.5 per cent in 2004. Moreover, relatively strong growth in many African countries is envisaged in the short-term, owing to continuing strong demand for a number of their primary commodities. The bad news is that even growth rates of close to 5 per cent in sub-Saharan Africa are insufficient to attain the MDGs, and that the outlook for 2005, overshadowed by increasing global imbalances, is for slower growth in the developed countries with attendant effects on the developing countries.

Since the beginning of the new millennium, the performance of the world economy has been shaped by the increasingly important role of China and India. Rapid growth in these two large economies has spilled over to many other developing countries and has established East and South Asia as a new growth pole in the world economy. Their ascent has been accompanied by new features of global interdependence, such as a brighter outlook for exporters of primary commodities, rising trade among developing countries, increasing exports of capital from the developing to the developed countries, but also intensified competition on the global markets for certain types of manufactures.

Global prospects and imbalances

The slowdown in global output growth in 2005 is mainly due to a deceleration in the major developed economies and some emerging economies in Latin America and East Asia. The temporary weakness in the United States economy has not been compensated by stronger growth performance in the euro area and in Japan. Both continue to lack the dynamism needed to redress domestic imbalances and to contribute to an adjustment of the global trade imbalance. Indeed, beginning in the second half of 2004, output growth in the euro area and Japan has slowed down markedly, causing forecasts for 2005 to be revised downwards. While greatly benefiting from the global expansion over the past three years, and especially the Asian boom, neither the euro area nor Japan has managed to revive domestic demand.

Another reason for concern about global economic prospects is the increase in oil prices, which have doubled since mid-2002, to reach $58 per barrel in July 2005, despite flexible supply adjustments on the part of oil producers. However, the much feared shock of surging oil prices on economic activity and inflation in developed countries, an impact of the kind witnessed in the 1970s, has so far not occurred, for two reasons. First, developed countries have become less oil dependent, as energy is being used more efficiently. At the same time, the share of services in their GDP has gained in importance at the expense of industry, where more energy is used per unit of output. Second, the recent oil price increase was not the result of a big supply shock, but of a gradual increase in demand. Under these conditions, the wage and monetary policy responses in the developed countries have been measured, and have not jeopardized price stability or output growth.

The recent surge in oil prices has a stronger impact on oil-importing developing economies, especially in countries where industrialization has led to greater dependence on oil imports. In Brazil, for example, the oil intensity of domestic production is 40 per cent higher than the OECD average; in China and Thailand it is more than twice as high, and in India almost three times as high as in the OECD countries. Therefore, it is primarily in developing countries where inflationary pressures resulting from further rising oil prices imply risks for the sustainability of the growth process. Even though inflation has so far been modest, monetary policy has already been tightened in some countries.

On the other side, not only oil exporters but also many developing countries exporting non-oil primary commodities benefited from increased demand and rising prices for their exports. Since 2002, strong demand from East and South Asia, in particular China and India, has been the main factor behind the hike in commodity prices. In the markets for some primary commodities, emerging supply constraints have also contributed to the strong price reaction. Asian demand for primary commodities, particularly for oil and minerals such as copper, iron ore and nickel, as well as for natural rubber and soybeans, is likely to remain strong, boosting the earnings of the exporters of these products. But further developments on the markets for primary commodities will also critically depend on how

much additional supply capacity will be created by recent new investments, how fast this capacity will go on-stream, and how commodity demand from developed countries will be affected by the need to correct the existing trade imbalances.

Despite the increasing importance of the fast growing developing countries for international commodity markets, developed countries, which still account for two thirds of global non-fuel commodity imports, will continue to play an important role. It is unlikely that the growing imports of primary commodities by China and India alone will bring about a permanent reversal of the declining trend in real commodity prices. Indeed, in real terms, commodity prices are still more than one third below their 1960–1985 average. Moreover, the sharp fluctuations in commodity prices constrain the ability of many developing countries to attain a path of stable and sustained growth and employment creation that could benefit all segments of their population and allow them to reach the MDGs.

The large global current-account imbalances represent the greatest short-term risk for stable growth in the world economy. The United States trade deficit has continued to grow despite the depreciation of the dollar: it has lost 18 per cent of its value on a trade-weighted basis since February 2002. And the United States current-account deficit accounts for two thirds of the combined global surpluses. The deficit has increased in recent years vis-à-vis virtually all its trading partners; the increase has been the most pronounced in trade with Western Europe and China. On the other hand, China's trade is in surplus not only with the United States but also with many other developed countries. However, despite these surpluses, China's imports from these countries have also increased rapidly, as have its imports from neighbouring countries and other developing countries.

A well coordinated international macroeconomic approach would considerably enhance the chances of the poorer countries to consolidate the recent improvements in their growth performance. Such an approach would also have to involve the major developing countries and aim at avoiding deflationary adjustments to the global imbalances.

East and South Asia as a new growth pole

Asia has been a region of economic dynamism over the past four decades, with different economies in the region successively experiencing rapid growth. The large size of the countries that entered this process most recently, China and India, has established the East and South Asian region as a new growth pole in the world economy. Due to the high dependence of these large Asian economies on imports of primary commodities for industrial output growth, in particular fuels and industrial raw materials, and the resulting linkages with other developing countries, variations in their growth performance will have strong repercussions on the terms of trade and export earnings of other developing countries. This inevitably raises the question of the sustainability of the pace of growth of these two economic powers in the medium and long term.

In terms of per capita GDP, both China and India still have a long way to go to approach the levels of the leading economies. Their potential for catching up is enormous. To realize this potential, it will be crucial for both countries to achieve further productivity gains in manufacturing activities

and ensure that all segments of their population participate in income growth. Broad-based income growth is essential for accelerating the eradication of poverty and gaining widespread social acceptance of the required structural changes; but wage increases throughout the economy in line with rising productivity are also a central pillar for the expansion of domestic consumption and, thus, the sustainability and stability of output growth. Fixed capital formation depends on favourable demand expectations in general, and not just on exports, which are subject to the vagaries of the world market and to changes in international competitiveness.

Shifting trade patterns in China and India

Sustained rapid growth and rising living standards in China and India have been accompanied by a dramatic increase in Asia's shares of world exports and raw material consumption. Given the large size of the Chinese and Indian economies and their specific patterns of demand, changes in their structure of supply and demand have a much larger impact on the composition of world trade than did those of other late industrializers in Asia during their economic ascent. The impact of China's growth on international product markets and global trade flows is already apparent. India's merchandise trade structure may follow a sequence of changes similar to that of China, with a lag of one or two decades, if industrialization in India gains the same importance in its further economic ascent as it did in the other fast growing Asian economies.

Metal use in China – and to a lesser extent in India – has strongly increased over the past few decades, particularly since the mid-1990s. In China, growth in the use of aluminium, copper, nickel and steel now exceeds that of GDP. Part of this recent increase coincides with very high rates of investment, especially in infrastructure. However, this recent rapid rise in China's intensity of metal use, and the concomitant increase in its imports of minerals and mining products, may well slow down once investment growth, especially in construction and infrastructure, decelerates. By contrast, India's intensity of metal use has remained fairly stable over the past four decades, reflecting the country's slower pace of industrialization and the relatively small share of investment in infrastructure in its GDP.

China's energy use has steadily increased since the 1960s, but at a slower rate than its GDP. Its future energy use will depend on how opposing trends play out: on the one hand, continued rapid industrialization, higher living standards and improved transport infrastructure will tend to further increase energy use; on the other hand, there remains considerable potential for the adoption of energy-saving technologies. In either case, China's energy demand is likely to continue to outpace the future growth of domestic supply.

Agricultural imports will be determined by a number of factors. To the extent that imports of raw materials for industrial use are needed as production inputs for the expanding domestic market, import demand will grow further. This is likely to be the case for rubber and wood. On the other hand, imports of cotton, which to a large extent have depended on the production of textiles and clothing for export,

can be expected to slow down as the composition of exports shifts to more technology-intensive products.

A continuous increase in average living standards and further progress in poverty reduction in China will also lead to higher demand for food and to a change in its dietary composition. So far, China has remained largely self-sufficient in all major food items. But with increasing consumption it is likely to become more dependent on food imports in the future, notwithstanding possible productivity and output growth in its domestic agricultural sector as a result of recent agricultural policy reforms. Given the size of its economy, even small changes in self-sufficiency ratios can have a considerable impact on China's agricultural imports.

Since the mid-1980s China has substantially upgraded its export basket, in which labour- and resource-intensive manufactures and, increasingly, electronics, have become dominant. China's exports still have a relatively high import content, but there are indications of a rise in the share of domestic value added in China's processing trade, particularly in the electronics sector. India has not experienced the kind of manufacturing export boom that has characterized the other rapidly growing economies in Asia. It has become a leading exporter of software and IT-enabled services, particularly to the United States, but it is highly uncertain whether their share in India's export earnings can rise much further. Over the next few years, the absolute value of these services' exports may continue to grow, but export dynamism in manufacturing is likely to become stronger.

The growth dynamics in China and other Asian economies have positive effects for many developed and developing countries. This is true for those countries that benefit directly from the surge in import demand from the fast growing Asian economies. It is also true for those that benefit indirectly through the positive growth effects in the economies of their main trading partners. Still others have achieved higher export and income growth as a result of the rise in commodity prices, even though their exports to the fast growing Asian economies are relatively small. But it also has to be recognized that China's increasing participation in international trade poses new challenges for many countries. Its weight in international markets due to the very large size of its economy may contribute to a fall in the export prices of manufactures that it produces and exports along with other developing countries, such as clothing, footwear and certain types of information and communication technology products. The rise of China's clothing exports, in particular, occurred at a time when several developing countries had adopted more outward-oriented development strategies, and many had developed production and export activities in the clothing sector partly in response to the quota regulations under the Multi-Fibre Arrangement.

There is little doubt that the pace of development in the populous Asian economies, and especially in China, requires accelerated structural change in many other countries – developing and developed alike. In some sectors, such as the clothing industry and, more generally, in activities at the low-skill end of the economy, the adjustment pressure is stronger than in others where there is less competition from low-wage producers with relatively high productivity. There are widespread fears in many countries that the pace of structural change could result in higher unemployment and lower output. Paradoxically, among the developed countries, those with large deficits in their trade balance, such as Australia, Spain, the United Kingdom and the United States, have performed much better in terms of domestic growth and employment than countries that have been recording large trade surpluses and greater competitiveness, such as Germany and Japan. Challenging the commitment of all countries to develop a global partnership for development and responding to the integration of large and poor countries by giving in to protectionist pressures would be counterproductive: most of the earnings of developing countries from their exports to the developed countries are translated into higher import demand for advanced industrial products, and thus flow back, directly or indirectly, to the latter.

The growing importance of South-South trade

Trade among developing countries has sometimes been promoted as an alternative to the traditional trade pattern where developing-country trade relies mainly on primary commodity exports to developed countries in exchange for imports of manufactures. The rapid rise in the importance of South-South trade, particularly over the past two decades, reflects a number of factors. First, there has been an upswing following the downturn of such trade during the 1980s. Second, the move towards the adoption of more outward-oriented development strategies, along with trade reform and regional trade agreements, in a wide range of developing countries has significantly improved access to their markets, including for imports from other developing countries. But the most important reason for the rapid growth of South-South trade is that output growth in some large developing economies, particularly China, has been much faster than in the developed countries. Moreover, these countries' buoyant growth performance has been closely linked with increasing intraregional specialization and production-sharing.

While increased South-South trade is a fact, recent developments in the developing countries as a whole require a careful assessment of the statistical data. Indeed, such an assessment calls for a number of qualifications to the prima facie impression that trade among developing countries has grown massively over the past decade or so, and that exports of manufactures account for much of that rise.

The growing role of developing countries in world trade flows appears to be the result, above all, of the above-average growth performance of a few Asian economies, and the associated shifts in the level and composition of their external trade. A substantial part of the statistical increase in South-South trade in manufactures is due to double-counting associated with intraregional production-sharing in East Asia for products eventually destined for export to developed countries. It is also due to double-counting associated with the function of Hong Kong (China) and Singapore as transhipment ports or regional hub ports. The important role of triangular trade in the measured rise of South-South trade in manufactures implies that the bulk of such trade has not reduced the dependence of developing countries' manufactured exports on aggregate demand in developed-country markets. As long as final demand from developed countries – notably the United States, which is East Asia's most important export market – remains high for products for which production-sharing within East Asia plays an important role, triangular trade and, thus, South-South trade, will remain strong. On the other hand, the economic rebound in Latin America has improved the prospects for South-South trade in manufactures that is not related to triangular trade.

The rise of South-South trade in primary commodities appears more modest in trade statistics. However, it has involved a larger number of countries than the strong rise of South-South trade in manufactures. It has allowed Africa, as well as Latin America and the Caribbean to recoup some of the market shares in total South-South trade that they had lost in the 1980s. Indeed, the rise in South-

South exports of primary commodities to the rapidly growing Asian developing countries is likely to evolve into the most resilient feature of what has come to be called the "new geography of trade".

The promotion of South-South trade remains a desirable objective for a variety of reasons. First, sluggish growth in developed countries and their continued trade barriers against products of export interest to developing countries implies that developing countries need to give greater attention to each other's markets to promote export growth in order to achieve their economic growth targets. Second, the vast size of the rapidly growing Asian economies reduces the need for developing countries to seek developed-country markets in order to benefit from economies of scale. Third, continued dependence on developed-country markets exposes developing countries to possible pressure that links better access to those markets with binding commitments to rapid trade and financial liberalization, protection of intellectual property and an open-door policy for FDI. More generally, it also entails the risk of increasingly narrowing the policy space for developing countries.

Terms of trade revisited

The recent and ongoing changes in international trade, with respect to both product composition and direction of trade, is affecting developing countries in different ways, depending on the product composition of their exports and imports. On the export side, the impact differs according to the shares of manufactures and primary commodities, and on the import side, it is especially the dependence on fuels and industrial raw materials that determines the outcome for individual countries.

The same factors that improved the terms of trade of some groups of countries, especially the higher prices of oil and minerals and mining products, led to a worsening of the terms of trade in others. In some countries, particularly in Latin America, but also in Africa, the positive effect of price movements on the purchasing power of exports was reinforced by an increase in export volumes; whereas in others, gains from higher export unit values were compensated, or even over-compensated, by higher import prices. Since 2002, economies with a high share of oil and minerals and mining products in their total merchandise exports have gained the most from recent developments in international product markets. The terms of trade of countries with a dominant share of oil exports increased by almost 30 per cent between 2002 and 2004, and those of countries with a dominant share of minerals and mining products in their exports increased by about 15 per cent. Terms-of-trade developments have varied the most among economies where agricultural commodities have dominated total merchandise exports. This reflects large differences in the movement of prices for specific products within this category, differences in the shares of other primary commodities in their exports and the share of oil in their merchandise imports.

Developing countries for which manufactures are the dominant category of exports, and which are at the same time net importers of oil and minerals and metals have seen a deterioration in their terms of trade in the past two or three years. The deterioration, due to the combined effects of rising prices of imported primary commodities and stagnating or falling prices of their manufactured exports, could well become a longer term feature in their external trade. There are two reasons for this: first, there are indications that the prices for their manufactured exports are falling relative to the prices of

the manufactures they are importing from the developed countries; second, prices for primary commodities are likely to remain strong as long as industrial growth remains vigorous in the large Asian economies and the imbalances in the developed world can be settled without entering into a recession.

Indeed, the terms-of-trade losses of exporters of manufactures among the developing countries are partly explained by the pace of the catch-up process in some of these countries, particularly in China and India. This process has been driven by higher productivity in the export sectors, which has given them a competitive edge and led to higher import demand. The variations in the global pattern of demand and their impact on individual countries have resulted in a redistribution of income, not only between developed and developing countries, but also, and to an increasing extent, between different groups of developing countries. However, it is important to recognize that a change in the distribution of real income does not necessarily imply absolute losses. As long as output growth is strong enough, all countries can gain in terms of real income, with some gaining more than others, depending on the structure of their exports and the international competitiveness of their producers: a terms-of-trade deterioration can be compensated by rising export volume. The probability for this to happen is much greater if exports consist of manufactures, for which the price elasticity of demand is high, than if they consist of primary commodities.

The productivity gains in Asia have led not only to higher company profits, but also to higher wages; they have also benefited consumers at home and abroad through lower prices. Higher export earnings, despite lower export prices, have enabled Asian countries to pay higher prices for imported inputs, which, in turn, has represented terms-of-trade gains for many primary commodity exporters. Moreover, exports from Asia also benefit from rising demand in those developing countries that have seen their export earnings rise thanks to growing Asian demand for their commodities.

Policies for managing the new forms of global interdependence

Although continuing growth in East and South Asia and recovery in other regions of the developing world are likely to sustain the demand for primary commodities, the basic problem of instability in these prices and their long-term tendency to deteriorate in real terms vis-à-vis the prices of manufactures, especially those exported by developed countries, remains unresolved. Therefore, it is imperative for developing countries not to become complacent about industrialization and diversification. There is a risk that the recent recovery of primary commodity markets could lead to a shift away from investment – both domestic and foreign – in the nascent manufacturing sectors of commodity-exporting countries in favour of extractive industries. While higher investment in that area may be beneficial in terms of creating additional supply capacity and raising productivity, this should not be at the expense of investment in manufacturing. Exporters of primary commodities that have recently benefited from higher prices and, in some cases, from higher export volumes, have to continue their efforts towards greater diversification within the primary commodity sector, as well as upgrading their manufacturing and services sectors. The recent windfall gains from higher primary commodity earnings provide an opportunity to step up investment in infrastructure and productive capacity – both essential for boosting development.

At the national level, this raises the question of the sharing of export revenues from extractive industries, which has always been a central concern in development strategy. Higher global demand and international prices for fuels and mining products have been attracting additional FDI to these sectors in a number of developing countries, and this may increase the scope in these countries for mobilizing additional resources for development. However, government revenues from taxes on profits in these sectors have typically been very low, partly due to a policy since the beginning of the 1990s of attracting FDI through the offer of fiscal incentives. Such a policy risks engaging potential host countries in "a race to the bottom" which, clearly, should be avoided.

Additional sources of fiscal revenue from primary export-oriented activities may be royalties, the conclusion of joint ventures or full public ownership of the operating firms. However, efforts to obtain adequate fiscal revenue should not deprive the operators, private or public, of the financial resources they need to increase their productivity and supply capacity, or their international competitiveness. Recent upward trends in world market prices of fuels and minerals and mining products as a result of growing demand from East and South Asia provide an opportunity to review the existing fiscal and ownership regimes. Such a review – which is already under way in several countries – and possible strategic policy adjustments could be more effective if oil and mineral exporting countries would cooperate in the formulation of some generally agreed principles relating to the fiscal treatment of foreign investors. Moreover, a higher share of the public sector or consumers in the rent generated by extractive industries does not automatically enhance development and progress towards the MDGs; it has to be accompanied by strategic use of the proceeds for investment that would enhance productive capacity in other sectors, as well as in education, health and infrastructure.

At the international level, recent increases in the prices of some primary commodities and improvements in the terms of trade of a number of developing countries may not have changed the long-term trend in real commodity prices or altered the problem of their volatility. Wide fluctuations in primary commodity prices are not in the interest of either producers or consumers. This has also been recognized by the IMF's International Monetary and Financial Committee, which, at its April 2005 meeting, *inter alia*, underscored "the importance of stability in oil markets for global prosperity" and encouraged "closer dialogue between oil exporters and importers". Although primary commodities other than oil may be less important for the developed countries, they are nevertheless equally, if not more important for those developing countries that depend on exports of such commodities. And since in many of the latter countries extreme poverty is a pressing problem, the issue of commodity price stability is of crucial importance not only for the achievement of the MDGs but also for global prosperity in general. Consequently, in the spirit of a global partnership for development, the international community might consider reviewing mechanisms at the global or regional level that could serve to reduce the instability of prices of a wider range of commodities, not just oil, to mitigate its impact on the national incomes of exporting countries.

In the short term, however, the central policy issue concerns the correction of existing global trade imbalances. It is often argued that the decision of central banks in the developing world, and in particular in Asia, to intervene in the currency market is the main reason for these imbalances. Indeed, most of the intervening countries explicitly try to avoid currency appreciation that could result from speculative capital inflows, in order to ensure that the international competitiveness of the majority of their producers is not put at risk. Most of the East Asian countries adopted a system of unilateral fixing of their exchange rates following the Asian financial crisis, while most Latin American turned to managed floating. In both cases, the aim has been to maintain the real exchange rate at a competitive level while gaining a certain degree of independence from international capital markets.

In the absence of a multilateral exchange rate system that takes account of the concerns of small and open developing economies, such unilateral stabilization of the exchange rate at a competitive level appears to be an effective means of crisis prevention. Individual central banks do have the capacity

for successful and credible counter-attacks when their own currency is under "threat" or pressure to appreciate. By contrast, they are practically powerless to stabilize an exchange rate that has come under threat or pressure to depreciate, even if central banks have accumulated huge reserves of international currency. It would require multilateral cooperation and policy coherence to address this type of asymmetry. The premature liberalization of capital markets has seriously heightened the vulnerability of developing countries to external financial shocks. Moreover, it has become clear that strengthening domestic financial systems is not enough to significantly reduce that vulnerability.

For a smooth redressing of the global imbalances, it is essential to avoid a recession in developed countries – where growth has been depending excessively on the United States economy – and a marked slowdown in developing countries. A scenario which seeks to correct the global imbalances, and most importantly the external deficit of the United States, through massive exchange rate appreciation and lower domestic absorption in China and other developing countries in Asia, will almost inevitably have a deflationary impact on the world economy. It will not only jeopardize China's attempts to integrate a vast pool of rural workers and, more generally, reduce poverty, but will also adversely affect the efforts of other developing countries towards achieving the MDGs.

By contrast, adjusting the global imbalances will be less deflationary if demand from the euro area and Japan grows faster. It should not be forgotten that much of the counterpart to the United States' external deficit is to be found in the surpluses of other developed countries. The current-account surpluses of the euro area and Japan with the rest of the world are mushrooming – despite rising import bills for oil and other primary commodities. Indeed, Japan and Germany together accounted for $268 billion or about 30 per cent of the combined global current-account surplus in 2004. This compares with an overall current-account surplus of $193 billion in East and South Asia. China, the country on which revaluation pressure has been most intense, accounts for just over one third of this amount, or less than 8 per cent of the combined global surplus.

International initiatives to alleviate poverty and to reach the MDGs should not ignore the importance of a smooth correction of the global imbalances so as to ensure the sustainability of the "Asian miracle". Indeed, further economic catch-up by China and India will have expansionary effects for most developing countries. Any slowing down or disruption of this process would carry the risk of intensifying global price competition on the markets for manufactures exported by developing countries, while weakening the expansionary effects resulting from the growing demand from Asia.

Supachai Panitchpakdi
Secretary-General of UNCTAD

CURRENT ISSUES IN THE WORLD ECONOMY

A. Introduction

The world economy is still growing at a steady pace but the risk of a relapse hangs in the balance. The moderate slowdown registered in the first half of 2005 indicates that the world's main engine of growth, the United States economy, may not be able to drive forward global growth without the support from other parts of the world. Meanwhile, the euro area is stuck in stagnation, and Japan's growth shows a moderate deceleration.

Growth performance in the developing countries was generally good and the populous East and South Asian countries, in particular China and India, acted as the second engine of worldwide growth. As a result of their vigorous expansion and their strong demand for imports of raw materials, many other developing countries have experienced windfall revenues from rising commodity prices and surging demand for intermediate products. Even Africa posted a growth rate of about 4.5 per cent in 2004 and it is expected to expand by close to 5 per cent this year. Although these growth rates allow for an increase in per capita income, in sub-Saharan Africa they are still insufficient to attain the Millennium Development Goals (MDGs) by 2015. Section B of this chapter assesses the global growth record and regional performances.

The sustainability of the present growth path is facing several threats. Serious multilateral action to unwind global current-account imbalances without endangering the growth process has been missing. Instead, political pressure on some countries to take unilateral measures is mounting, as analysed in section C of this chapter. It is shown that the European Union, in its own interest, should do more to accelerate domestic demand growth and enhance absorption.

Section D of this chapter focuses on the effects of the oil price hike on the world economy from a historical perspective. It shows that the direct impact of quickly rising oil-import bills on the developed countries has been much less pronounced than in the period which followed the oil price shocks of the 1970s. Moreover, there are so far no signs of negative indirect effects on inflation and interest rates. On the other hand, the oil price hike has had, and continues to have, a significant impact on the economies of many oil-importing developing countries.

Section E examines some aspects of the present economic expansion in China and India, and compares it with the rapid growth episodes experienced by Japan and the Republic of Korea

in the period following the Second World War. It highlights the role played by profit-investment linkages, the sectors driving the economy, the need of establishing a balance between expanding domestic and foreign demand, and the importance of supportive macroeconomic policies.

B. The world economy: growth performance and prospects

The world economy grew by almost 4 per cent in 2004, recording its best performance since 2000. Global growth continued into 2005 – albeit at a slower pace – and is expected to fall to around 3 per cent. Most of this deceleration is attributable to the slowdown in developed economies, although some developing countries are also showing signs of losing momentum. Developing economies as a whole are expected to grow by 5 to 5.5 per cent, down from 6.4 per cent in 2004 (table 1.1).

1. Economic activity in developed countries

Domestic demand was the main driving force of growth in the *United States* in 2004, with private domestic investment growing at a two-digit rate and personal consumption maintaining a significant rate of growth, especially in durable goods. The volume and value of United States exports grew at a brisk pace in 2004 and the first months of 2005, in part because of the real depreciation of the dollar. However, imports grew even faster and, as a consequence, trade contribution to gross domestic product (GDP) growth continued to be negative. Trade and current-account deficits widened, with the latter rising to 6 per cent of GDP in the last quarter of 2004, raising the question of

what supplementary policies would be needed if the United States current account is to be significantly reduced (see section C).

Annual growth in the United States is forecasted to be around 3.5 per cent in 2005 (Klein and Ozmucur, 2005). Indeed, personal consumption expenditures and fixed investment have slowed in the first quarter 2005.[1] It is an open question whether these are the first signs of a persistent deceleration of growth. On one hand, recent increases in labour income and corporate profits may support future private expenditure while, on the other hand, their positive effects may be offset by slower productivity gains, high energy costs, and the fading of temporary factors such as tax cuts and the depreciation of the dollar. Moreover, diminishing fiscal and monetary stimulus may eventually affect domestic demand. Fiscal policy is set to be less expansive than in previous years, as it aims to reduce the public deficit from 3.6 per cent of GDP in 2004 to 1.8 per cent by 2009. This may require some cutbacks in expenditure, especially if reforms involving fiscal costs, such as those associated with the social security system, are carried out while higher interest rates weigh on public debt services. Even if interest rates remain at historically low levels, rising rates may have a negative effect on the consumption of durable goods and on fixed investment. More generally, interest rate movements may have sizeable economic effects, as domestic debt levels in

Table 1.1

WORLD OUTPUT GROWTH, 1990–2005[a]

(Percentage change over previous year)

Region/country[b]	1990–2000[c]	1999	2000	2001	2002	2003	2004[d]	2005[e]
World	**2.7**	**2.9**	**4.0**	**1.3**	**1.8**	**2.5**	**3.8**	**3.0**
Developed countries	**2.4**	**2.7**	**3.5**	**1.0**	**1.3**	**1.7**	**3.0**	**2.3**
of which:								
Japan	1.4	0.1	2.8	0.4	-0.3	1.4	2.6	1.8
United States	3.4	4.1	3.8	0.3	2.4	3.0	4.4	3.5
European Union	2.1	2.9	3.6	1.7	1.1	0.9	2.1	1.5
of which:								
European Union-15	2.1	2.9	3.5	1.6	1.0	0.8	2.0	1.4
Euro area	2.0	2.8	3.5	1.6	0.9	0.5	1.8	1.2
France	1.7	3.2	3.8	2.1	1.2	0.5	2.1	1.5
Germany	1.6	2.0	2.9	0.9	0.2	-0.1	1.0	0.8
Italy	1.6	1.7	3.0	1.8	0.4	0.3	1.0	-0.4
United Kingdom	2.7	2.8	3.8	2.1	1.7	2.2	3.1	2.0
South-East Europe and CIS	**-4.3**	**3.4**	**8.1**	**5.6**	**4.9**	**6.9**	**7.5**	**6.0**
Developing countries	**4.8**	**3.5**	**5.4**	**2.4**	**3.5**	**4.7**	**6.4**	**5.4**
Developing countries, excluding China	**4.0**	**3.0**	**5.0**	**1.5**	**2.7**	**3.9**	**5.7**	**4.6**

Source: UNCTAD secretariat calculations, based on UNCTAD *Handbook of Statistics 2004*; United Nations, Department of Economic and Social Affairs (UN/DESA), Development Policy and Planning Office, Project Link estimates; national sources; IMF, *World Economic Outlook*, April 2005; JP Morgan, *Global Data Watch*, various issues; Economic Intelligence Unit (EIU), *Country Forecast*, various issues; and OECD, *Economic Outlook No. 77*.

a Calculations are based on GDP in constant market prices based on 1995 dollars.
b Region and country groups correspond to those defined in the UNCTAD *Handbook of Statistics 2004*.
c Average.
d Preliminary estimates.
e Forecast.

non-financial sectors reached $24.8 trillion at the end of the first quarter of 2005 – roughly twice the size of GDP.

Rising interest rates and/or a decline in housing prices may also affect other developed countries – such as Australia, Canada and the United Kingdom – where private consumption has been partly sustained by booming house prices and rising household indebtedness. This contribution to growth is most likely coming to an end as household saving ratios recover from their current low levels. Real appreciation has hampered export volumes and boosted imports in Australia and Canada, resulting in a negative contribution of net exports to GDP growth; however, these countries

have benefited from significant gains in terms of trade, in large part due to their primary commodity exports. Australia, Canada and the United Kingdom are expected to experience a moderate decline in their GDP growth in 2005, to a rate close to 2.5 per cent.

Economic growth in the *euro area* has slowed since mid-2004. Most forecasters have reduced the 2005 growth expectations (set in the Autumn of 2004) from 2 per cent to 1.5 per cent or even slightly below. The economic slowdown was mainly attributed to a fall in the growth rate of exports (induced by the appreciation of the euro) in concert with sluggish domestic demand in many countries. As pointed out by UNCTAD over the

past three years, the biggest European countries have not been able to reach a higher and sustainable growth path despite receiving enormous stimulus from the world economy. This inability is attributed to depressed domestic demand as a result of a mixture of deflationary wage policies (i.e. in Germany, where a 0.8 per cent growth rate expected in 2005) and losses of market shares (i.e. in Italy, whose GDP is expected to fall in 2005). France, with a more moderate deflationary policy than Germany, remains in the middle of the group, with growth forecasted at around 1.5 per cent. Spain is estimated to grow at a rate of about 3 per cent in 2005 owing to sustained domestic demand. As no fundamental changes in economic policy within the euro area are foreseen, an acceleration of growth in the near future cannot be expected. The 2005 outlook for the ten new members of the European Union is more upbeat and growth rates are expected to exceed 4 per cent.

All in all, Europe is not positioned to help reduce global imbalances in the next two years. Its overall current-account deficit is rather low (0.3 per cent of GDP) but the imbalances of countries inside the European Monetary Union increased dramatically in the last three years. For example, Germany's surplus of $110 billion (3.8 per cent of GDP), forecasted for 2005 by IMF (2005a), is much larger than China's surplus.

In 2004, *Japan* recorded a growth rate of 2.6 per cent, which was driven by private and public consumption, non-residential investment and brisk export performance. Growth was strong in the first quarter of 2004, but faded in the second half of the year, as domestic and foreign demand weakened. In the first months of 2005, high corporate profits and the reversal of the long-lasting downward trend in employment and wages indicate that the sluggishness of domestic demand in the second half of 2004 may be over. Recent data on export performance are, however, less positive. They show a year-on-year deceleration of exports in late 2004, due to a slowdown in electronics exports. This is partly related to rising foreign direct investment (FDI) and production relocation to China (see chapter II). As a result, in 2005 trade is not expected to make a positive contribution to real GDP growth as it had in 2004. The forecast for 2005 points to a moderate deceleration in real growth to 1.8 per cent.

2. *Economic activity in developing countries*

In 2004, all developing regions posted significantly higher growth rates than in previous years (table 1.2). With a GDP growth of 4.6 per cent, *Africa* continued to grow at the same rate as in 2003 – the highest level reached in about a decade. However, the overall figures for the region mask considerable differences across countries, with growth rates ranging from an expansion of 31 per cent (Chad) to a contraction of over 8 per cent (Zimbabwe). The strong growth performance in Africa was fuelled mainly by higher prices of primary commodity exports, particularly petroleum, on the back of strong global demand. Economic growth was also supported by greater political stability and the improved agricultural performance resulting from favourable weather conditions. The continued growth in domestic demand is also credited to increased levels of external resource inflows via aid and debt relief, with the latter contributing to lower fiscal deficits. The general level of inflation went down from over 10 per cent to about 8 per cent.

Real GDP growth in 2004 was widespread in both sub-Saharan Africa and North Africa. High oil prices underscored output growth in Central Africa, which recorded the highest subregional growth rate at just over 7 per cent, and North Africa, with a growth rate of around 5 per cent. Economic performance in East and West Africa benefited from a combination of higher agricultural output and rising commodity prices. However, economic growth in West Africa was subdued, due to political instability in Côte d'Ivoire and a locust invasion in Mali, Niger and Senegal. Despite higher growth in South Africa, the Southern African region recorded the worst economic performance of all the African subregions, largely due to the continued economic contraction experienced by Zimbabwe as a consequence of drought and economic uncertainties.

Twelve African countries posted real output growth of 6 per cent or more in 2004, eight of which are either oil exporters (Chad, Equatorial Guinea, Angola, the Libyan Arab Jamahiriya and Sudan), or are recovering from a very low base (Ethiopia, Sierra Leone and the Democratic Re-

public of the Congo). Thus, once again, most countries have fallen short of the 7 per cent annual growth rate that is needed to attain the MDGs. A modest improvement is expected in the region's economic performance in 2005 on the back of continuing macroeconomic and political stability and high commodity prices; although domestic prices and external accounts in oil-importing countries will continue to suffer from high oil prices. However, even in oil-exporting countries that have been growing at two-digit rates over the past few years, poverty levels will not be significantly reduced unless governments manage to channel a significant part of the oil revenues into financing of non-oil economic sectors (including social and economic infrastructure), where the great majority of population is employed.

West Asia performed strongly in 2004, reaching 6.2 per cent growth in comparison to 5.3 per cent in the previous year. These performances are directly related to the massive injection of windfall revenues flowing into oil exporting countries, which also benefited indirectly most of the other countries in the region through increased demand for their exports, capital inflows and workers remittances.

Export revenues of the major oil exporters in the region (excluding Iraq) reached $292 billion in 2004,[2] 32 per cent more than in the previous year, owing mainly to higher international oil prices. The volume of oil production also increased (4.2 per cent for the group as a whole), contributing significantly to real GDP growth. These additional revenues, on average, represented 12 per cent of these countries' GDP, and boosted domestic expenditure. In particular, government revenues augmented significantly, allowing for an increase in public expenditures and, simultaneously, a significant fiscal surplus. Part of the surplus has been used to accumulate reserves, but another part was used to reduce indebtedness. As in some countries (notably Saudi Arabia) the bulk of public debt is held by nationals, debt repayments have further expanded private liquidity and demand. Expansionary trends have continued into 2005. Oil prices rose by 30 per cent in the first half of the year; if such price levels persist, oil revenues will increase in 2005 at a similar rate as in the previous year. Oil production is set to increase further in Saudi Arabia and Kuwait, and

will probably be maintained at the current high levels in the Islamic Republic of Iran, Qatar and the United Arab Emirates. In addition, several investment projects are on line, covering the energy sector (oil, gas and refineries), infrastructure, telecommunications and real estate. At the same time, government expenditure is set to continue its upward trend; and it is aimed, in part, at addressing social problems related to high unemployment.

Other economies within the region, such as Jordan and Lebanon, also experienced accelerated growth in 2004, mainly driven by domestic demand that was stimulated by the expansion of regional tourism and higher workers remittances (ESCWA, 2005). Also, capital inflows into real estate investments boosted the construction sector. These countries managed to expand exports and profit from higher regional demand, including from Iraq. However, imports also expanded significantly and public debt remains high. These circumstances limited the room for manoeuvre of economic policies, making them highly dependent on continued inflows of capital, tourism and remittances.

Turkey posted a 8.9 per cent growth rate in 2004, propelled by strong domestic demand, in particular private consumption and fixed investment. An economic slowdown began in the second half of that year and extended into the first months of 2005.[3] However, GDP growth in 2005 is estimated to remain at around 5 per cent. Macroeconomic policy has to deal with the "twin" deficits problem. Overall fiscal balance remained negative in 2004, despite a primary surplus of 6.5 per cent of GDP, due to a public debt stock amounting to three quarters of GDP and high real interest rates. Moreover, although exports were growing significantly, the current-account deficit reached 5 per cent of GDP in 2004, as a result of booming imports and interest payments. These deficits remain a challenging issue for the Turkish economy. On the other hand, the continued reduction of interest rates by the central bank may play an important role in the sustainability of public debt and in preventing an excessive economic slowdown.

With 7.1 per cent growth in 2004, *East and South Asia* recorded its strongest expansion since the 1997 financial crisis. China led the boom with output growing by 9.5 per cent, but growth was

Table 1.2

**GDP GROWTH IN SELECTED DEVELOPING ECONOMIES,
SOUTH-EAST EUROPE AND CIS, 1990–2005[a]**

(Percentage change over previous year)

Region/economy[b]	1990–2000[c]	1999	2000	2001	2002	2003	2004[d]	2005[e]
Developing economies	**4.8**	**3.5**	**5.4**	**2.4**	**3.5**	**4.7**	**6.4**	**5.4**
Latin America	**3.3**	**0.2**	**3.8**	**0.4**	**-0.6**	**2.0**	**5.7**	**4.2**
of which:								
Argentina	4.1	-3.4	-0.8	-4.4	-10.9	8.7	9.0	7.5
Bolivia	4.0	0.4	2.3	1.5	2.8	2.9	3.6	3.5
Brazil	2.9	0.8	4.5	1.5	1.5	0.6	4.9	3.0
Chile	6.6	-0.8	4.2	3.1	2.1	3.3	6.1	6.0
Colombia	2.9	-4.2	2.9	1.4	2.5	2.0	4.0	3.5
Ecuador	2.2	-6.3	2.8	5.1	3.8	3.1	6.9	3.0
Mexico	3.1	3.6	6.6	-0.2	0.9	1.3	4.4	3.3
Paraguay	2.2	0.5	-0.4	2.7	-2.3	2.6	4.0	3.0
Peru	4.6	0.9	2.8	0.3	4.9	4.0	4.8	5.5
Uruguay	3.4	-2.4	-1.4	-3.4	-11.2	2.5	12.3	5.5
Venezuela	1.6	-6.1	3.2	2.8	-8.9	-7.5	17.9	8.0
Africa	**2.6**	**3.0**	**3.5**	**3.4**	**2.9**	**4.7**	**4.6**	**4.9**
of which:								
Algeria	1.9	3.2	2.4	2.1	4.1	6.7	5.8	7.5
Cameroon	1.8	4.2	5.3	4.6	4.0	4.0	4.8	4.5
Cape Verde	6.0	8.6	6.8	3.0	4.6	5.0	4.0	6.0
Côte d'Ivoire	3.3	1.9	-2.7	0.1	-1.2	1.8	-1.0	-1.0
Democratic Republic of the Congo	-4.9	-4.3	-6.9	-1.1	3.1	5.0	6.8	7.0
Egypt	4.2	5.4	3.5	3.2	3.1	2.8	3.2	5.0
Ethiopia	3.9	6.3	5.4	7.9	1.2	-3.8	11.6	6.0
Ghana	4.3	4.4	3.7	4.2	4.5	4.7	5.8	5.0
Kenya	2.1	1.3	-0.2	1.1	1.0	1.8	2.6	3.0
Morocco	2.3	-0.1	1.0	6.3	3.2	5.2	3.7	4.0
Nigeria	2.9	2.8	5.8	2.8	1.5	10.7	5.1	4.5
South Africa	2.1	2.0	3.5	2.7	3.6	2.8	3.7	4.0
Tunisia	4.7	6.1	4.7	4.9	1.7	5.6	5.7	5.0
Zimbabwe	2.5	-0.7	-4.9	-8.4	-5.6	-13.2	-8.2	-3.0
Sub-Saharan Africa	2.6	2.9	3.9	3.2	3.0	4.8	4.4	4.4
Asia	**6.0**	**5.3**	**6.6**	**3.2**	**5.5**	**5.9**	**6.9**	**6.0**
Asia, excluding China	**4.9**	**4.8**	**6.2**	**1.9**	**4.7**	**4.8**	**6.0**	**4.8**
West Asia	3.2	-0.6	4.6	-0.1	4.3	5.3	6.2	5.2
of which:								
Iran, Islamic Republic of	3.5	4.2	2.8	3.2	8.0	6.7	5.4	5.5
Jordan	4.6	1.5	2.7	3.5	4.9	3.0	6.2	5.0
Lebanon	6.3	4.0	2.0	1.4	2.0	3.0	4.0	2.0
Saudi Arabia	1.7	-0.8	4.9	1.2	0.1	7.2	5.3	5.5
Turkey	3.8	-4.7	7.4	-7.5	7.8	5.8	8.9	5.0
United Arab Emirates	2.6	2.5	5.4	5.0	1.6	6.3	5.9	6.0
Yemen	5.5	3.7	5.1	3.9	3.3	4.2	2.0	3.0
East and South Asia	6.6	6.5	7.0	3.9	5.7	6.0	7.1	6.1
of which:								
China	10.4	7.0	7.9	7.5	8.0	9.1	9.5	9.0
Hong Kong (China)	4.0	3.4	10.2	0.5	2.3	1.5	8.1	5.0
India	6.0	7.1	4.0	5.5	4.3	7.8	6.7	6.5
Indonesia	4.2	0.8	4.9	3.4	4.3	5.0	5.1	6.0
Malaysia	7.0	6.1	8.3	0.5	4.1	5.3	7.1	5.5
Pakistan	3.5	4.3	2.6	2.9	5.8	5.3	6.3	7.5
Philippines	3.3	3.4	6.0	3.0	4.4	4.7	6.1	4.0
Republic of Korea	5.8	10.9	9.3	3.1	6.4	3.1	4.6	3.5
Singapore	7.7	6.4	9.4	-2.4	3.2	1.4	8.4	2.5
Taiwan Province of China	6.3	5.3	5.8	-2.2	3.9	3.3	5.7	3.5
Thailand	4.2	4.4	4.6	1.8	5.4	6.7	6.1	4.0
Viet Nam	7.9	4.8	6.8	6.9	7.0	6.0	7.7	7.0

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Table 1.2 (concluded)

**GDP GROWTH IN SELECTED DEVELOPING ECONOMIES,
SOUTH-EAST EUROPE AND CIS, 1990–2005[a]**

(Percentage change over previous year)

Region/economy[b]	1990–2000[c]	1999	2000	2001	2002	2003	2004[d]	2005[e]
South-East Europe and CIS	**-4.3**	**3.4**	**8.1**	**5.6**	**4.9**	**6.9**	**7.5**	**6.0**
CIS	**-5.0**	**5.6**	**9.3**	**5.8**	**5.0**	**7.6**	**7.8**	**6.3**
of which:								
Belarus	-1.7	3.5	5.8	4.7	5.0	6.8	11.0	7.0
Kazakhstan	-4.1	2.7	9.8	13.2	9.9	9.2	9.4	8.5
Russian Federation	-4.7	6.4	10.1	5.1	4.7	7.3	7.1	6.0
Ukraine	-9.5	-0.2	5.9	9.2	3.6	8.5	12.1	6.5
South-East Europe	**-1.6**	**-4.4**	**3.8**	**4.6**	**4.4**	**4.1**	**6.4**	**4.8**
of which:								
Bulgaria	-1.9	2.3	5.4	4.1	4.8	4.8	5.6	5.0
Croatia	0.6	-0.9	2.9	3.8	5.2	4.7	3.8	3.5
Romania	-0.6	-1.2	2.1	5.7	4.9	4.8	8.3	5.5

Source: UNCTAD secretariat calculations, based on UNCTAD *Handbook of Statistics 2004*; UN/DESA, Development Policy and Planning Office, Project Link estimates; ECLAC, *Economic Survey of Latin America and the Caribbean 2004–2005*; ESCAP, *Economic and Social Survey of Asia and the Pacific 2005*; ESCWA, *Survey of Economic and Social Developments in the ESCWA Region 2005*; national sources; IMF, *World Economic Outlook,* April 2005; JP Morgan, *Global Data Watch*, various issues; EIU, *Country Forecast*, various issues; and OECD, *Economic Outlook No. 77.*

a Calculations are based on GDP in constant market prices based on 1995 dollars.
b Region and country groups correspond to those defined in the UNCTAD *Handbook of Statistics 2004*.
c Average.
d Preliminary estimates.
e Forecast.

also strong in most other countries in the region (table 1.2). Economic growth was generally fuelled by a combination of strong foreign demand and robust domestic demand. Exports have been a major driving force: in 2004, exports of goods from the region grew by 22 per cent in volume terms (table 1.3). China's exports led the expansion, with export volume growing by 33 per cent, but several other countries that participate in regional production networks associated with China also benefited from its strong export performance. The region's exports continued to grow at double-digit rates in 2004, partly as a result of the dynamism in the global market for electronics. In general, exchange rate stability helped to maintain international competitiveness in most countries, although in Singapore, Taiwan Province of China and Thailand, and recently in China as well, managed floating led to a moderate appreciation vis-à-vis the dollar. This softened the impact of the rising price of primary imports, without leading to a significant appreciation of the real effective exchange rate. Other countries maintained a fixed exchange rate vis-à-vis the dollar, or even depreciated their currency as in Indonesia. Only the Republic of Korea underwent a significant real appreciation of its currency, but so far this has not restrained exports from growing briskly.

With the exception of the Republic of Korea where private demand was constrained by high indebtedness of households and small firms, domestic demand contributed considerably to the region's growth. Private consumption provided a strong stimulus to growth in China, India, Indonesia, Malaysia, Singapore, Thailand and Viet Nam, with fixed investment being the main driver of growth in China and Taiwan Province of China. Inflation, as measured by consumer prices, showed a moderate increase in some countries during 2004, but remained modest in most East and South Asian countries. Monetary policy maintained an accommodative stance and real interest rates have mostly been declining. On the whole, high income growth

Table 1.3

EXPORT AND IMPORT VOLUMES OF GOODS, BY REGION
AND ECONOMIC GROUPING, 1996–2004

(Percentage change over previous year)

	Export volume					Import volume				
	1996–2000[a]	*2001*	*2002*	*2003*	*2004*	*1996–2000*[a]	*2001*	*2002*	*2003*	*2004*
World	7	-1	5	6	13	7	-1	4	7	13
Developed economies	7	-1	2	3	11	8	-1	3	5	11
of which:										
Japan	6	-8	8	9	13	4	1	1	6	6
United States	7	-6	-4	3	9	11	-3	4	5	11
Europe	7	2	4	3	12	8	1	2	5	11
Developing economies	8	-2	9	12	16	7	-3	7	10	19
of which:										
Africa	2	1	2	11	7	1	5	4	7	26
Latin America	10	1	2	3	10	9	-3	-4	0	13
West Asia	5	0	8	1	3	10	-4	7	-5	35
East and South Asia	10	-3	12	17	22	6	-3	11	15	18
of which:										
China	12	9	25	35	33	11	12	23	36	26
India	8	7	17	10	18	5	4	13	9	17
South-East Europe and CIS	1	7	5	9	13	-0	17	10	21	17

Source: UNCTAD secretariat calculations, based on UN COMTRADE; United Nations Statistics Division, United Nations Common
Database (UNCDB); United States Bureau of Labor Statistics, Import/Export Price Indexes database; Japan Customs
Trade Statistics database; UNCTAD, *Commodity Price Bulletin*, various issues; and other national sources.
    a Average.

and good investment performance contributed to a balanced increase of domestic and foreign demand.

In 2005, economic expansion in East and South Asia is expected to slow to a growth rate of slightly above 6 per cent. In particular, the contribution of external trade to growth is diminishing in several countries in the region, although it remains significant. Global demand for electronics, especially personal computers and semiconductors, is growing much slower since the end of 2004, affecting exports from several Asian economies, such as Japan, Malaysia, Singapore, Taiwan Province of China and Thailand.

On the other hand, domestic demand has generally maintained its contribution to growth in the first months of 2005. Private consumption began to recover in the Republic of Korea in the last quarter of 2004, after contracting for almost two successive years. However, this does not fully compensate for slowing export growth. As a result, GDP growth is forecast to decline to 3.5 per cent (KDI, 2005). Investment has been increasing in Indonesia and Thailand in 2005, owing to reconstruction work after the December 2004 tsunami and the subsequent influx of public investment and incentives for infrastructure development. In Indonesia, the tsunami did not cause a significant impact on economic growth in the first quarter of 2005. On the other hand, economic activity was more severely affected in Thailand, where the reduction of tourism receipts and shrimp production after the tsunami added to other adverse factors,

such as high oil prices, drought and outbreaks of bird flu (NESDB, 2005). As a result, Thailand's growth will decelerate in 2005 to a rate of 4 per cent. In Malaysia, private consumption is expected to continue growing in 2005, and investment should increase within a context of low interest rates and easy credit availability. As Malaysian exports are highly concentrated in electronics and electrical machinery, export growth is likely to slow down. The overall result would be a moderate deceleration of growth to a still strong 5.5 per cent. Taiwan Province of China, is also experiencing slower export growth, while its overall domestic demand should be sustained by the increase in private consumption, owing to rising real disposable income and falling unemployment. These trends show a further rebalancing of growth in Asia as economies slowly shift their reliance on export-led growth to internally-generated demand growth (NIESR, 2005: 19). Such a rebalancing is particularly relevant in light of the huge global trade imbalances (see section B).

GDP growth in China remained very high in 2004 and the first quarter of 2005 (9.5 per cent). The tightening measures introduced in the course of the year have started to have some impact on investment expansion, even though it is still growing at a rapid pace.[4] Policy measures included the abandonment of the strict pegging regime with the dollar, higher bank reserve requirements, moderate increases in interest rates and direct measures aimed at limiting the financing of construction projects and industries, such as steel and cement, that may have been building excessive production capacities. These measures are likely to influence not only the amount that is invested, but also its direction. A reorientation of investment financing is under way towards areas where bottlenecks have appeared recently, in particular, energy and infrastructure. Inflationary pressures have abated during the first half of 2005, indicating that more severe monetary tightening is unlikely. Exports of goods continue to grow at a rapid pace, driven by the end of textile quotas in developed countries and the production of past investments in manufacturing coming on stream. As a result of these trends, even though it remains a major driving factor, investment may not be making such a large contribution to growth as in the past, while private consumption and net exports are playing an increasingly important role.

In South Asia, India and Pakistan are experiencing high and stable growth rates. India has undergone significant growth in manufacturing and exports of IT-related services and business-process outsourcing. This has helped to off-balance the adverse impact of a poor monsoon on agriculture. Inflation has been kept in check despite higher oil and other primary commodity prices. The fiscal measures taken by the Indian Government have so far not led to a substantial reduction of the fiscal deficit, which remains stable at 4.5 per cent of GDP. As a consequence, macroeconomic policy is likely to maintain a rather supportive stance. In Pakistan, strong GDP growth resulted from good performances in all sectors; however, it particularly benefited from an unusual expansion of agricultural output. A rich cotton crop has also contributed to stronger than expected growth in the textile sector. Real GDP growth may accelerate in 2005, driven by the continued expansion of manufacturing output and exports, supported by the phasing out of textile import quotas in January 2005. Domestic demand will sustain present growth rates, in particular private consumption, due to continued higher growth of personal disposable income.

Latin American economies showed a remarkable improvement in 2004, expanding at 5.7 per cent, following five years of stagnation and crisis. The engines driving this economic recovery were export expansion and the terms-of-trade improvement in most countries in the region (see chapter III). Gains from terms of trade were very significant for oil and mining exporters, and lower but still relevant for agriculture exporters. On the other hand, some Central American and Caribbean countries that export labour-intensive manufactures and import oil, suffered terms-of-trade losses. These countries managed to shoulder the external burden by increasing the volume of their exports (owing to expanding imports from the United States) and receiving substantial remittances from overseas workers. The external environment led to an overall surplus in the region's current account for the second consecutive year, despite a significant growth in imports. On the fiscal side, the last few years showed a moderate reduction in fiscal deficits and, in several cases, a considerable surplus in the primary balance (excluding interest payments). This has been partly the result of increasing public revenues originated in pri-

mary commodity exports, either directly – through State-owned exporting firms – or indirectly, through rising taxes and royalties. Fiscal expenditure has been allowed to increase in some cases, although in most countries fiscal policy was more oriented towards "debt sustainability" rather than towards the encouragement of economic activity and investment. For this economic reactivation to persist, it should rely less on temporary factors, such as the favourable external environment and more on a sustained recovery of domestic demand, including investment. Even though the latter has improved after reaching record lows in 2003, fixed investment was only 18.5 per cent of the region's GDP in 2004 (ECLAC, 2005).

Preliminary evidence for 2005 points to a continuation of economic growth, but at a slower pace. One reason for this slowdown is monetary tightening in the two biggest Latin American economies: Brazil and Mexico. In these two countries, high priority is being placed on inflation targets, leading to a significant increase in policy interest rates, especially since the second half of 2004. In June 2005, the policy rate in Brazil reached a level close to 20 per cent with the inflation rate remaining at 6 to 7 per cent. As a result, fixed investment and private consumption slowed down in the last quarter of 2004 and the first quarter on 2005 (compared with the same period of the previous year), affecting manufacturing, construction, commerce and communications. Official forecasts for Brazil anticipate a recovery in domestic demand in the second part of the current year in expectation of lower interest rates and rising minimum wages. GDP is expected to grow at a rate close to 3 per cent in 2005, down from 4.9 per cent in 2004 (IPEA, 2005). In Mexico, persistent monetary tightening has pushed the interbank rate up from 5.3 per cent in January 2004 to 10.1 per cent in May 2005. Economic activity decelerated in the first months of 2005, particularly in manufacturing, agriculture and construction, pointing to an annual growth rate of about 3.3 per cent (compared to 4.4 per cent in 2004).[5]

Economic activity in Latin America is also set to slow in 2005 because Argentina, Uruguay and Venezuela will grow at a less brisk pace. According to some observers the recent rapid growth just reflects a return to the pre-crisis GDP levels. However, the driving sectors and the characteristics of this economic growth are radically different from those prevailing before the crisis. Argentina and Uruguay are drawing the benefits of restored competitiveness after shifting relative prices in favour of tradable goods and services. Moreover, they have managed to restructure their foreign debt, particularly Argentina, with a sizeable reduction in capital and interest rates. Domestic demand is providing new stimulus through higher domestic consumption and fixed investment. These countries have also benefited from improving terms of trade, with a sizeable impact on domestic income and fiscal receipts, especially in Venezuela, where ambitious social and development programmes have been launched.

The Andean countries that have gained strongly from oil and mining exports, both in volume and value terms, such as Bolivia, Chile, Ecuador and Peru, will continue to grow in 2005. However, there will not be the same amount of investment in natural resources and of new production capacities coming on stream in 2005 as in 2004. High prices for their exports will continue to provide a considerable level of revenues for both the private and the public sector, maintaining a healthy domestic demand. Central American countries will keep a moderate growth pace in 2005, with some export price increases, higher public investment linked to debt-relief programmes and private consumption sustained by workers' remittances. Finally, Caribbean countries, some of which were hit by natural disasters in the second half of 2004, should benefit from the recovery of tourism in 2005.

3. Recent developments in world trade and finance

The strong performance of the global economy in 2004 brought about an acceleration in world trade. Total merchandise exports grew by 22.5 per cent in current dollars. As in 2003, this expansion was the result of both increasing volume (13 per cent) and rising dollar prices (9.5 per cent).[6] The latter was partly caused by the depreciation of the dollar, which increased the value of international trade in dollar terms within the euro area.

The expansion in export volume was associated with some changes in its geographical composition (table 1.3). In comparison with the situation which prevailed in 2003, the major change was the strong recovery of export volumes from developed countries, which grew by 11 per cent in 2004, compared to 3 per cent in the previous year. There was a widespread acceleration of export volume growth in Europe, largely due to the speeding up of intraregional trade with the new EU acceding member countries, and to expanding sales to East Asia and to oil-exporters in West Asia and the CIS. Exports from the United States also recovered, as a result of a more competitive currency level, while Japan continued to benefit from dynamic Asian intraregional trade.

Exports from developing countries continued their expansion at a very rapid pace in 2004, and registered a growth rate of 16 per cent in volume terms. As in previous years, East and South Asia led this expansion, but Latin America and Africa also experienced significant increases in export volumes. As has been usually the case since 1990, exports increased at higher rates in developing countries than in the developed world. However, the revival of exports of developed countries reduced the relative contribution of developing countries to global export growth from two thirds in 2003 to an estimated 40–45 per cent in 2004.

Increasing export volume, together with higher commodity prices provided a boost to the value of merchandise exports from developing countries, which grew by 26 per cent in current dollars. In particular, regions with a large share of primary commodities in their total exports – Africa, CIS, South America and West Asia – recorded above-average export growth in 2004. Terms-of-trade gains from in these regions explain the very rapid growth in import volume, clearly exceeding that of exports (table 1.3). Among the manufacturing exporters, East and South Asia also performed above average, mainly due to strong export growth from China and India. As a whole, the share of developing countries in world exports rose to 33.4 per cent in 2004, compared to 27.7 per cent ten years earlier. Among developed countries, the United States have been constantly reducing their share in world exports from 12 per cent in the mid-1990s to 9 per cent in 2004, while at the same time slightly rising their share in world im-

ports, as the economy has increasingly relied on outsourcing in foreign markets.

World trade in services (transport, travel and other commercial services) grew by 16 per cent in dollar terms in 2004 (WTO, 2005a). The expansion of transport services was naturally stimulated by the strong recovery in trade volume. In particular, world seaborne trade volume grew by 4.3 per cent in 2004 (after a 5.8 per cent expansion in 2003), mainly as a result of increased shipments of primary commodities directed to China and other countries in East Asia (UNCTAD, 2005a). Strong demand for transport services has maintained freight rates at very high levels, after soaring in 2003 (see box 4.1 in chapter IV). By the end of 2004 the level of freight rates in the main containerized routes – trans-Pacific, trans-Atlantic and Asia-Europe – were mostly above the levels that prevailed at the end of 2003.

Travel services recovered markedly from the 2001 downturn. 2004 was an excellent year for tourism, with international tourist arrivals increasing by 10.7 per cent. Growth in tourism services rebounded by 28 per cent in Asia and the Pacific, following the lows of the first half of 2003, which had been due to SARS. It was also very fast in the Middle East (21 per cent), while Europe performed below the world average (with 5 per cent growth in 2004) as a result of the continued strength of the euro. International tourism kept growing in the first four months of 2005, albeit at a slower pace (7.7 per cent compared to the same period of 2004). Growth rates showed wide disparities, with very positive results in South America (with a 19 per cent expansion), Middle East (17 per cent) and sub-Saharan Africa (15 per cent), and slow growth rates in Western and Southern Europe (below 3 per cent). South-East Asia and South Asia experienced a sudden deceleration in tourist arrivals due to the tsunami in December 2004 (World Tourism Organization, 2005: 6–7).[7]

Given these developments in goods and services trade and the growing inflow of workers' remittances in several countries, all developing regions posted current-account surpluses in 2004. Naturally, these regional totals concealed some deficits at the country level, especially in sub-Saharan Africa, South-East Europe, Central America and the Caribbean. But, in general, the need for fi-

nancing the current account was less stringent in the developing world than in previous years. The single most important source of external financing for developing countries was FDI, which recovered to its 2001 level.[8] A large part of the current-account deficit in several sub-Saharan and Central American countries is explained by the expansion of FDI in recent years, which was accompanied by an increase in imports of capital goods and an outflow profit remittances. In other cases, current-account deficits were financed through grants or official borrowing. On the other hand, in several middle-income countries in Asia (including West Asia) and Latin America current accounts were in balance or in surplus.

This overall situation had two consequences for the international financial markets. First, as the more comfortable balance-of-payments situation of the "emerging markets" coincided with high liquidity in developed countries, the spreads on emerging markets bonds have declined signifi-

cantly. Yet external debt problems have persisted in some middle-income countries; many of them have issued new bonds in order to repay those coming to maturity, and have remained in a vulnerable situation. But market conditions were favourable for a restructuring of external debt at lower interest rates. They also facilitated the end of the Argentine debt default through a debt restructuring, which included debt stock reduction, extended maturity and/or lower interest rates. Second, there has been a continued accumulation of international reserves in a number of developing countries, mainly in East and West Asia. In 2004, foreign exchange reserves of developing countries increased by an unprecedented $450 billion (IMF, 2005a). As increasing reserves mainly consist of financial assets issued by developed countries (and particularly those of the United States), they represent a significant export of capital from developing to developed countries, and a key element in the current phenomenon of global economic imbalances. This issue is further examined in the next section.

C. The global imbalances and the United States current-account deficit

The United States current account recorded a deficit of $666 billion in 2004, which makes it the counterpart of almost 70 per cent of the aggregated surpluses in the world economy (table 1.4). This unprecedented size of a deficit and the dim perspectives of its correction in the foreseeable future have raised questions about the stability of the global financial system and the sustainability of global growth. Warnings abound, as to date no other major economic power has been prepared

to shoulder part of the adjustment burden. Much of the world economy continues to depend on the United States economy, both as the consumer and the debtor of last resort. Serious policy initiatives to tackle the problem are missing, and the debate is now focused on whether dramatic exchange rate changes are the only way out or whether policies to stimulate growth in surplus regions, combined with measures to limit growth in the United States, could be an alternative.

Table 1.4

CURRENT-ACCOUNT BALANCE, SELECTED ECONOMIES, 2000–2004

	2000	*2001*	*2002*	*2003*	*2004*	*2000*	*2001*	*2002*	*2003*	*2004*
			($ billion)				*(As a percentage of total surplus or deficit)*			
Surplus economies										
Japan	119.6	87.8	112.6	136.2	171.8	23.8	21.6	21.9	20.4	19.3
Germany	-25.7	1.6	43.1	51.8	96.4	3.9	0.4	8.4	7.8	10.9
China	20.5	17.4	35.4	45.9	70.0	4.1	4.3	6.9	6.9	7.9
Russian Federation	44.6	33.4	30.9	35.4	59.6	8.9	8.2	6.0	5.3	6.7
Saudi Arabia	14.3	9.4	11.9	29.7	49.3	2.9	2.3	2.3	4.4	5.5
Switzerland	30.7	20.0	23.3	42.4	42.9	6.1	4.9	4.5	6.4	4.8
Norway	26.1	26.2	24.4	28.3	34.4	5.2	6.4	4.8	4.2	3.9
Sweden	9.9	9.7	12.1	23.0	28.0	2.0	2.4	2.4	3.4	3.2
Singapore	11.9	14.4	15.7	27.0	27.9	2.4	3.5	3.1	4.0	3.1
Republic of Korea	12.3	8.0	5.4	12.1	26.8	2.4	2.0	1.0	1.8	3.0
Canada	19.7	16.1	14.4	17.0	26.0	3.9	4.0	2.8	2.6	2.9
Netherlands	7.2	9.8	12.8	15.1	19.4	1.4	2.4	2.5	2.3	2.2
Taiwan Province of China	8.9	18.2	25.6	29.3	19.0	1.8	4.5	5.0	4.4	2.1
United Arab Emirates	12.2	6.5	3.5	6.9	16.1	2.4	1.6	0.7	1.0	1.8
Hong Kong (China)	7.1	9.9	12.6	16.2	15.9	1.4	2.4	2.5	2.4	1.8
Malaysia	8.5	7.3	8.0	13.4	15.7	1.7	1.8	1.6	2.0	1.8
Kuwait	14.7	8.3	4.3	7.3	15.1	2.9	2.0	0.8	1.1	1.7
Belgium	9.0	8.9	14.1	13.3	14.9	1.8	2.2	2.8	2.0	1.7
Venezuela	11.9	2.0	7.6	11.4	14.5	2.4	0.5	1.5	1.7	1.6
Qatar	3.2	3.5	3.3	6.8	12.0	0.6	0.9	0.6	1.0	1.3
Total surplus	501.7	406.6	513.7	667.6	888.0					
Deficit economies										
United States	-413.5	-385.7	-473.9	-530.7	-665.9	62.2	67.7	72.5	71.1	69.0
Spain	-19.4	-16.4	-15.9	-23.6	-49.2	2.9	2.9	2.4	3.2	5.1
United Kingdom	-36.5	-32.2	-26.4	-30.6	-47.0	5.5	5.7	4.0	4.1	4.9
Australia	-15.3	-8.2	-16.6	-30.2	-39.4	2.3	1.4	2.5	4.1	4.1
Italy	-5.8	-0.7	-6.7	-21.9	-24.8	0.9	0.1	1.0	2.9	2.6
Turkey	-9.8	3.4	-1.5	-8.0	-15.6	1.5	0.8	0.2	1.1	1.6
Portugal	-11.1	-10.4	-8.9	-8.0	-13.3	1.7	1.8	1.4	1.1	1.4
Hungary	-4.0	-3.2	-4.7	-7.5	-8.9	0.6	0.6	0.7	1.0	0.9
Mexico	-18.2	-18.2	-13.7	-8.6	-8.7	2.7	3.2	2.1	1.1	0.9
Greece	-7.8	-7.7	-9.7	-10.8	-8.4	1.2	1.4	1.5	1.4	0.9
New Zealand	-2.5	-1.2	-2.2	-3.3	-6.0	0.4	0.2	0.3	0.4	0.6
Czech Republic	-2.7	-3.3	-4.2	-5.6	-5.6	0.4	0.6	0.6	0.7	0.6
France	18.0	21.5	14.5	5.0	-5.4	3.6	5.3	2.8	0.7	0.6
Romania	-1.7	-2.6	-2.0	-3.9	-5.4	0.3	0.5	0.3	0.5	0.6
South Africa	-0.2	-0.0	0.7	-1.5	-5.3	0.0	0.0	0.1	0.2	0.6
Poland	-10.0	-5.4	-5.0	-4.1	-3.6	1.5	0.9	0.8	0.5	0.4
Serbia and Montenegro	-0.3	-0.5	-1.4	-1.6	-3.2	0.1	0.1	0.2	0.2	0.3
Lebanon	-3.1	-3.8	-2.6	-2.5	-3.1	0.5	0.7	0.4	0.3	0.3
Ireland	-0.1	-0.6	-1.5	-2.1	-2.7	0.0	0.1	0.2	0.3	0.3
Azerbaijan	-0.2	-0.1	-0.8	-2.0	-2.3	0.0	0.0	0.1	0.3	0.2
Total deficit	-664.9	-569.4	-653.7	-746.0	-965.2					

Source: IMF, *World Economic Outlook*, April 2005.

Note: Calculations are based on a total of 180 countries; the sum of total surpluses and deficits is different from zero because of errors and omissions. Countries are listed according to the levels of their surplus/deficit in 2004.

Figure 1.1

UNITED STATES CURRENT-ACCOUNT BALANCE,[a] RELATIVE GDP GROWTH AND REAL EFFECTIVE EXCHANGE RATE, 1980–2004

(Per cent and index numbers, 2000 = 100)
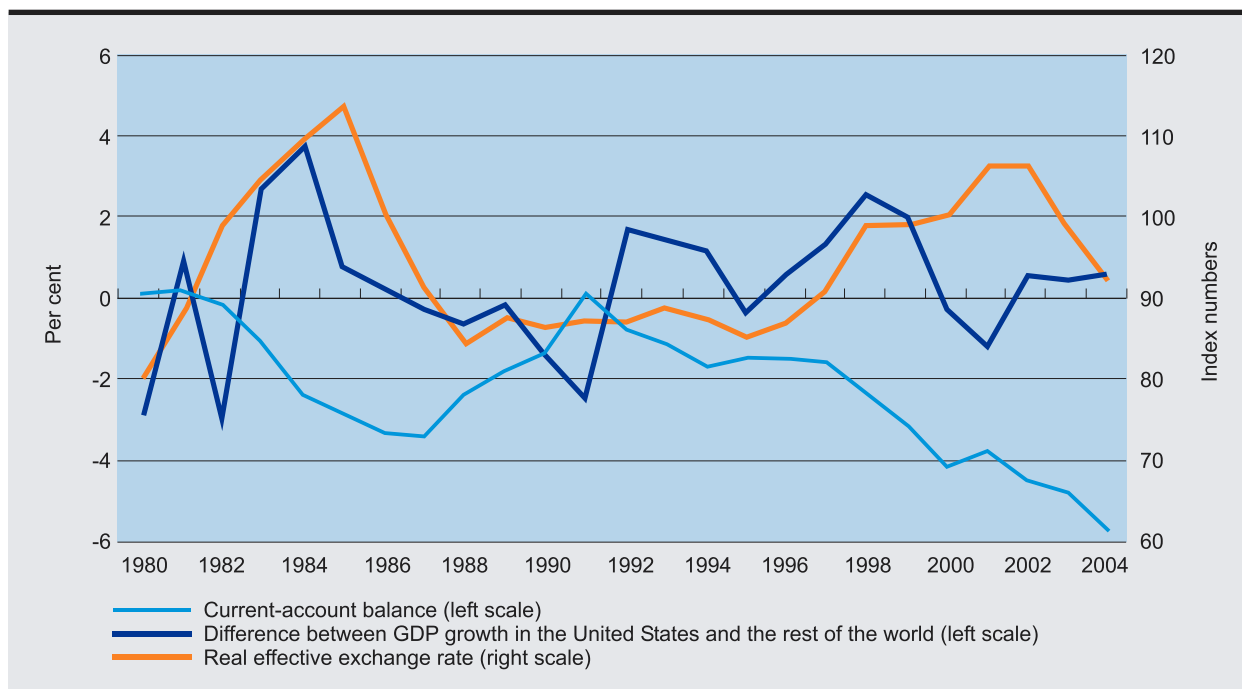
Current-account balance (left scale)
Difference between GDP growth in the United States and the rest of the world (left scale)
Real effective exchange rate (right scale)

Source: UNCTAD secretariat calculations, based on United States Bureau of Economic Analysis, International Economic Accounts database; World Bank, World Development Indicators database; and JP Morgan, Effective Exchange Rate Indices database.
a As a percentage of GDP.

1. Twenty-five years of deficits in the United States

The deficit in the United States current account is not a new phenomenon. In 1982 the United States current account fell into a deficit, which continued to grow until 1987 (fig. 1.1). Following the Plaza Agreement in 1985 and the Louvre Accord in 1987, it returned to balance in 1991. However, the current account went into deficit again, and it has since continued to widen in the context of the long-lasting and strong recovery in the United States. Since 1998, the share of the deficit in GDP increased from around 2 per cent to almost 6 per cent in 2004.

These developments are explained by two major factors. First, the real exchange rate, which mainly determines the international competitiveness of United States producers, rose markedly during the first half of the 1980s. An overvalued dollar played a central role in the widening current-account deficit. The subsequent reduction of the deficit was accompanied by a depreciation of the dollar in the second half of the 1980s. The second factor is the gap between real GDP growth in the United States and in the rest of the world. Relatively fast growth in the United States tends to exacerbate the current-account deficit via strong import demand, whereas outright recessions (such as the one which occurred in 1991) lead to the opposite result. More recently, however, these factors seemed to have a weaker influence on the current account; since 1998 the deficit continued to increase as a percentage of GDP, even though the growth gap between the United States and the rest of the world has almost disappeared since

2000, and the dollar substantially depreciated in 2003 and 2004. While exports increased in 2004 and in the first few months of 2005, the expansion of imports has continued to outpace them.

Some of the explanations given for the lack of a rapid response of imports to exchange rate changes point to temporary factors; for instance, the unit value of imports rises immediately after a devaluation, increasing the import value, while import volume takes more time to adjust downward (the so-called J-curve effect). It has also been suggested that firms exporting to the United States would be willing to squeeze their profit margin for some time in order to keep their market shares. Other interpretations indicate more durable factors, such as a loss of competitiveness and market shares of some United States industries and redeployment of industrial production to Asia (Aglietta, 2004: 31). It has also been argued that income elasticity for United States imports is structurally larger than foreign income elasticity for United States exports, leading to a tendency towards a trade deficit, even in the absence of a growth gap.[9]

These arguments suggest that only a huge depreciation of the dollar – with all its potential repercussions on the global financial system – could reduce the United States trade imbalances and bring them down to a sustainable level. On the other hand, an adjustment brought about by a much lower growth in the United States involves obvious risks for the world economy. As the value of the United States imports currently represents roughly 180 per cent of its exports, the latter will have to grow much faster than imports for a considerable time for the trade deficit to follow a downward trend. Box 1.1 presents UNCTAD secretariat's calculations of the order of magnitude of the currency depreciation or the growth adjustment required for reducing the current-account deficit.

These considerations raise a string of questions about the currencies the dollar should depreciate against and which countries should either enhance or dampen economic growth. The increase in the Unites States deficit in recent years is most pronounced with the EU and Asia (fig. 1.2); however, the intraregional structure of current-account surpluses and deficits has also to be taken into account. While China accounts for most of the rise in the United States current-account deficit in recent years, it has considerable deficits with many Asian countries as a result of its rapid growth and its presence at the end of many production chains. On the other hand, the moderate increase in the current-account surplus of the EU as a whole hides the much bigger increases in the surpluses of some individual countries in the euro area, in particular Germany.

In addition to such trade balance considerations, a number of authors and organizations have recently examined how a devaluation of the dollar may modify the terms of the global imbalance problem if the effects of financial globalization are taken into account. They have introduced the "valuation effect", that is, the role of the actual valuation of the stock of assets and liabilities and the changes in their valuation due to asset price changes and exchange rate changes.

In the United States liabilities are almost exclusively denominated in domestic currency. As two thirds of United States assets are denominated in foreign currencies, a depreciation of the dollar increases the domestic currency value of assets, while leaving the value of liabilities more or less unchanged. As a result, the depreciation had a positive effect on the "net international investment position" (NIIP) of the United States – i.e. the difference between the value of the accumulated stock of assets (domestic claims on foreigners) and the accumulated stock of liabilities (foreign claims on residents). This effect did not stop the deterioration of the NIIP in dollar terms (i.e. liabilities to increase more than assets) due to the persistence of the current-account deficit, but it limited that deterioration.

Obviously, the opposite valuation effect occurs in those countries, mainly in Europe, that are facing a currency appreciation vis-à-vis the dollar. This process is interpreted as a burden sharing among countries and as a facilitation of the global adjustment process.

However, the sharp appreciation of the dollar from 1996 to 2002 led to similar valuation losses for the United States and gains for Europe. Accordingly, the appreciation of the dollar at that time had accelerated the deterioration of the investment position of the United States that is

Box 1.1

<div align="center">

**PRIMARY TRADE BALANCE EFFECTS OF CHANGES IN THE UNITED STATES
GDP GROWTH AND IN EXCHANGE RATES**

</div>

UNCTAD secretariat calculated long-term trade elasticities for the estimation of: (i) the impact of changes in domestic GDP on the United States merchandise trade balance; and (ii) the effect of a dollar depreciation on the same trade balance. However, it must be kept in mind that, given the trade deficit at the "initial situation", exports must grow at least 1.8 times faster than imports to reduce the merchandise trade deficit.

The table in this box presents the main results. The first exercise supposes that the rest of the word (ROW) grows at 3.2 per cent, and considers three situations characterized by different GDP growth in the United States, with the exchange rate remaining unchanged. In *scenario 1*, the United States growth rate is the same than in the ROW. In this case, imports continue to grow faster than exports, and the United States trade deficit would grow by 0.3 per cent of GDP, on top of the existing 5.7 per cent of GDP in 2004. In *scenario 2* it is assumed that the trade deficit remains at its 2004 level. In order to achieve that (and assuming that ROW grows at 3.2 per cent), the United States economy would need to reduce its GDP growth to 1.5 per cent. In this case, import growth would be lower than in *scenario 1*, at 3.1 per cent. In *scenario 3* the trade deficit is reduced to 5 per cent of GDP. At constant exchange rate and ROW growth, this would require a negative GDP growth of 1.8 per cent in the United States, which would lead to a contraction in imports of 3.6 per cent.

The table also shows that a 10 per cent appreciation of the currency of one of the main trading partners of the United States would not improve the imbalance visibly. The highest impact would come from an appreciation of the Canadian dollar, followed by the euro and the Mexican peso. Appreciations of the Chinese renminbi and the Japanese yen would have lower impacts, because of the lower shares of these economies in the United States merchandise exports. According to the simulation, a 10 per cent general depreciation of the dollar would reduce the trade deficit to 4.5 per cent of GDP.

Additionally, the table shows the rates to which the main trading partners should appreciate their currencies to reduce the United States trade deficit to 5 per cent of GDP. In the case of China, given its low weight in the composition of United States exports, the renminbi would need to appreciate by 67 per cent, whereas, for the Canadian dollar an appreciation of 26.5 per cent would be sufficient.

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decelerated by the depreciation now. Thus, the current change in favour of the United States simply compensates the adverse effect that occurred before.

Hence, the argument that the sustainable level of that deficit would increase through the valuation effect because it is easier to finance the deficit thanks to a higher net value held in the United States is not convincing. The appreciation of the dollar that had accelerated the deterioration of the NIIP of the United States since the mid-1990s did not prevent the rapid increase of the current-account deficit. Did the deterioration in the NIIP due to the negative valuation effect make the access to external financing more difficult for the United States at that time? If not, it is difficult to argue that the positive valuation now makes access of the United States to financial markets much easier. If market participants in the financial markets

Box 1.1 (concluded)

**EFFECT OF CHANGES IN GDP GROWTH AND IN EXCHANGE RATES
ON THE UNITED STATES TRADE BALANCE**

	Hypothetical change		*Outcome*		
	United States GDP	*Exchange rate*	*Exports*	*Imports*	*Merchandise trade balance*
	(Per cent)		*(Per cent)*		*(Per cent of GDP)*
GDP growth changes in the United States[a]					
Scenario 1	3.2	-	4.4	6.6	-6.0
Scenario 2	1.5	-	4.4	3.1	-5.7[b]
Scenario 3	-1.8	-	4.4	-3.6	-5.0
Exchange rate changes					
Euro	-	10.0	1.5	-0.6	-5.5
Canadian dollar	-	10.0	2.3	-0.7	-5.4
Chinese renminbi	-	10.0	0.4	-0.6	-5.6
Japanese yen	-	10.0	0.6	-0.4	-5.6
Mexican peso	-	10.0	1.4	-0.4	-5.5
United States dollar	-	-10.0	9.9	-4.2	-4.5
Exchange rate changes required for a reduction of the United States trade deficit to 5 per cent of GDP					
Euro	-	37.2	5.7	-2.2	-5.0
Canadian dollar	-	26.5	6.2	-2.0	-5.0
Chinese renminbi	-	67.4	2.9	-3.8	-5.0
Japanese yen	-	74.1	4.8	-2.7	-5.0
Mexican peso	-	44.9	6.1	-2.0	-5.0
United States dollar	-	-5.6	5.5	-2.3	-5.0

Source: UNCTAD secretariat calculations, based on United States Bureau of Economic Analysis, International Economic Accounts database.
a GDP growth in the rest of the world is assumed at 3.2 per cent in all scenarios.
b The deficit of the United States merchandise trade balance as a percentage of GDP in the base year (2004) is 5.67 per cent.

expect appreciations and depreciations to be equally distributed over the long term, the short-term valuation does not change their perception of a long-lasting current-account deficit.

For most of the developing countries the valuation effect is felt on both sides of the balance sheet. The liabilities of developing countries are normally denominated in foreign currencies. For these countries, exchange rate movements af-

fect both the domestic value of assets and the domestic value of liabilities. Appreciation of the national currency of a developing country reduces the burden of liabilities (denominated in foreign currencies) and also reduces the value of assets (denominated in foreign currencies). On the other side, depreciation increases the burden of liabilities and increases the value of assets. In the past, in many developing countries with huge stocks of net foreign debt, depreciation shocks after finan-

Figure 1.2

MERCHANDISE TRADE BALANCE OF THE UNITED STATES, BY COUNTRY/REGION, 1980–2004

(Billions of dollars)
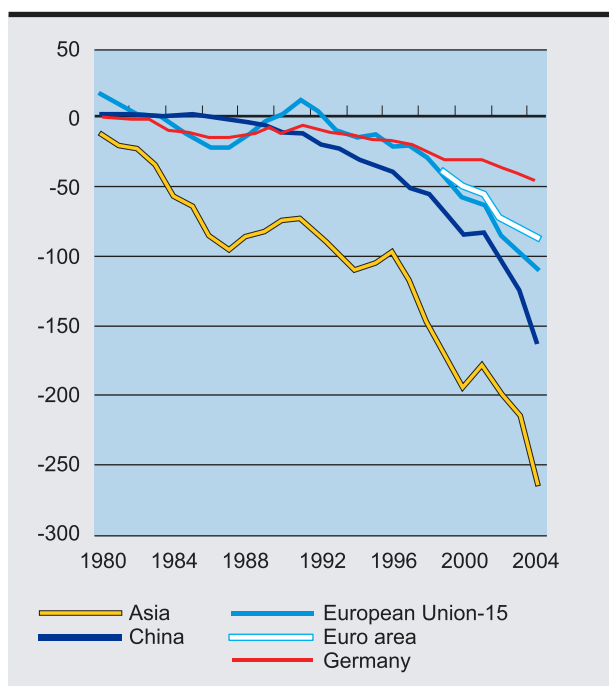
Source: UNCTAD secretariat calculations, based on UN COMTRADE; and United States Bureau of Economic Analysis, International Economic Accounts database.
Note: Asia includes: China, Hong Kong (China), Japan, the Republic of Korea, Singapore and Taiwan Province of China.

cial crises have led to big negative valuation effects on their liabilities that could not be compensated by the positive effects on their assets. Argentina was the most prominent case recently.

Although there is no strict and general ceiling for sustainable external deficits, recent studies analysing current-account dynamics in industrial economies conclude that reversals usually take place as deficits reach about 5 per cent of GDP.[10] However, the mechanisms towards such an adjustment may be different for the United States. So far, the biggest economy in the world has been able to finance its current-account deficit at relatively low interest rates. An examination of the economic situation in the surplus regions is necessary to understand this continued easy financing

of the deficit and to assess the chances for a smooth resolution of global imbalances.

2.   The surplus regions

The fact that the current account essentially corresponds to net foreign investment in financial assets, reflecting the simple logic that whoever extends demand beyond means has to raise debt, has been taken as proof for the willingness of the rest of the world to provide the United States consumers with "savings" that could not be used elsewhere. This static logic overlooks the fact that without the stimulus provided by United States growth, income and savings in the rest of the world (and in particular, in surplus countries) would have been lower. Thus, part of the savings that were used to finance the current-account deficit of the United States were generated by the process of rising demand from the United States. If the surplus regions were to reduce their financing to the United States, they would not be re-allocating their "savings" elsewhere, but the process of generating these savings would itself be at stake. In other words, the attempt to repatriate funds may have negative consequences not only in the deficit but also in the surplus economies. This poses a dilemma to surplus regions, in Asia and in particular in some parts of Europe.

In the aftermath of the currency crises at the end of the 1990s, Asian economies implicitly or explicitly pegged their currencies to the dollar at rather low values. The currency peg has encouraged rising exports and has had a positive effect on growth, profits and jobs in these countries. Moreover, in Asia imports have been rising rapidly, spilling the effects of the Asian boom over many developing countries. From the point of view of these countries and their beneficiaries, a sharp currency appreciation that would markedly reduce the current-account surplus might jeopardize these positive outcomes on a broad scale.

The members of the euro area as well as those economies whose currencies are tied to the euro constitute the third major block in the current imbalances constellation. As in the case of Asia, this block has registered external surpluses that rely

on the United States market, even if their contribution to the United States trade deficit has not risen as dramatically in recent years. Yet, like Asia, European authorities have been focusing on export-led growth strategies, although the European Central Bank has not pursued an explicit exchange rate policy. A major reason for the good trade performance has been wage restraint, which has resulted in stronger international competitiveness, but also in anaemic growth of private consumption. Thus, in some large member countries, domestic demand remains weak due to overly moderate wage increases. The dependency on foreign demand explains the uneasiness at the beginning of 2005, when the euro rose to 1.35 against the dollar. In a way, Europe will have the most to lose if it does not move quickly. If Asian central banks stick to managing dollar rates while at the same time diversifying their portfolio by moving towards the euro, Europe is doomed to bear the brunt of dollar depreciation.

Overall, none of the three regions analysed above has an interest in prolonging the current situation as long-term risks exceed short-term advantages. As the issuer of the world's predominant reserve currency, the United States bears a special responsibility for financial market stability. A further lowering of the dollar exchange rate, if eventually needed, should take place in an orderly adjustment process, in which both, the deficit and the surplus regions, would act transparently and effectively.

3.   *Tailoring policy measures*

There can be little doubt that a smooth correction of global imbalances will have to be achieved through adjustments in both relative prices and absorption levels. Obviously, the main difficulty is the identification of policy measures tailored to the specific economic circumstances of certain countries and regions. The examination of the internal and external performance of the euro area and the United States leads to relatively clear policy conclusions.

The United States starts from relatively low unemployment and high growth. It could use the currency depreciation already in place, combined with careful measures to dampen domestic demand. Monetary policy has already shifted to a more restrictive path and some fiscal adjustment is underway. However, in light of the dominance of the United States economy on a global scale, authorities should refrain from excessively curtailing absorption in order to avoid recessionary tendencies that could feed back into a worldwide slowdown.

In contrast, the euro area has no reason to worry about its external balance, but growth is stalling and in many countries unemployment is very high or even rising. Consequently, the whole region would greatly benefit from higher demand and rising absorption. Thus, the optimal combination of macroeconomic policies to correct global imbalances would certainly include a massive expansion of domestic demand in the euro area. A coordinated effort of macroeconomic policies is needed to foster economic growth and to approach internal and external equilibrium at the same time. In an environment of negligible inflation rates, monetary and fiscal policy can actively contribute to economic recovery by lowering interest rates and stimulating domestic demand. Finally, the excessively moderate stance of wage policy in some member countries should be abandoned to avoid deflationary spillovers.

Identifying an appropriate approach for surplus countries in Asia is much more complicated as most countries in the region are already reporting rapid and sometimes "neck breaking" growth rates. Despite the fact that the often-mentioned danger of overheating – most pronounced in the non-tradable sectors – does not represent a major threat to price stability yet, the argument whereby more growth is needed to increase absorption in this region is unconvincing. The recommendation given by many observers to use currency appreciation for creating leeway for monetary authorities to fight overheating by raising interest rates, would reduce absorption and imports, and trade surpluses might thus persist despite currency appreciation. Consequently, global imbalances would continue but at a slower rate of GDP growth for the world, and they would be accompanied by lower demand for other developing countries primary commodity exports. Additionally, countries such as China need to integrate a vast pool of rural workers – unaccounted for by official unemployment statistics –

if political and economic stability is to be maintained.

As shown before, any bilateral exchange rate realignment with the dollar will fall short of a significant re-equilibrating effect; this could even have a disruptive effect on the revaluing country and on the region it is mainly trading with. If exchange rate reforms are undertaken in surplus regions, they will have to involve all regional protagonists within a multilateral agreement. China's move to abandon the peg with the dollar in July 2005 without allowing for a major revaluation could be a step in the right direction if it forms part of a concerted action among the global players.

History offers examples of correcting global imbalances, some of which ended in regional crises and in an upsurge in protectionism harming trade, growth and welfare, as was the case for the Asian episode of 1997–1998. But there are other examples where crises have been avoided by early and controlled adjustments of exchange rates, for example the regional arrangements in Europe that preceded the European Monetary Union. But even on a global scale, the current-account reversal that followed joint political efforts by the major powers in the late 1980s suggests that an orchestrated attempt might have a greater chance of succeeding than isolated measures. This may well be the right time for a global exchange rate agreement.

D. Oil price hikes in perspective

After the relatively low prices seen in the first half of the 1990s, when the price of crude petroleum rarely exceeded $20 per barrel,[11] the price of oil began to rise in 1999 and culminated at $60 per barrel in mid-2005. This surge in oil prices worries governments in many oil-importing countries, who fear the detrimental effects of a substantial and long-lasting rise in energy prices on output growth. This is a special concern for many developing countries which have become increasingly dependent on oil imports as industrialization has progressed.

Oil price shocks have repeatedly had a negative aggregate impact on global economic activity. The reason for this has to be mainly sought in the response of economic policy in countries affected by an oil price shock. Inappropriate reactions, particularly from those responsible for wage and monetary policies, can aggravate the situation and lead to losses in economic activity that could otherwise have been avoided.

1. The impact of an oil price shock on prices and economic activity

The consequences of a rise in oil prices are usually separated into first- and second-round effects. Under any normal circumstances, consumer prices rise (or stop falling) immediately after petroleum products, such as gasoline and heating oil, become more expensive because the elasticity of demand is rather low at most stages of the production chain. On the other hand, second-round effects occur if workers try to compensate their real income loss by bargaining for higher nominal wages. The occurrence of second-round effects becomes more likely the larger the impact of first-round effects of a rise in oil prices – or energy prices more generally – on the overall price level. A higher rate of inflation implies a loss of real income unless nominal wages rise alongside consumer prices. If, however, workers successfully bargain for higher wages in order to compensate

Figure 1.3

CURRENT-ACCOUNT BALANCES OF 10 OPEC COUNTRIES[a]

(Per cent of GDP)
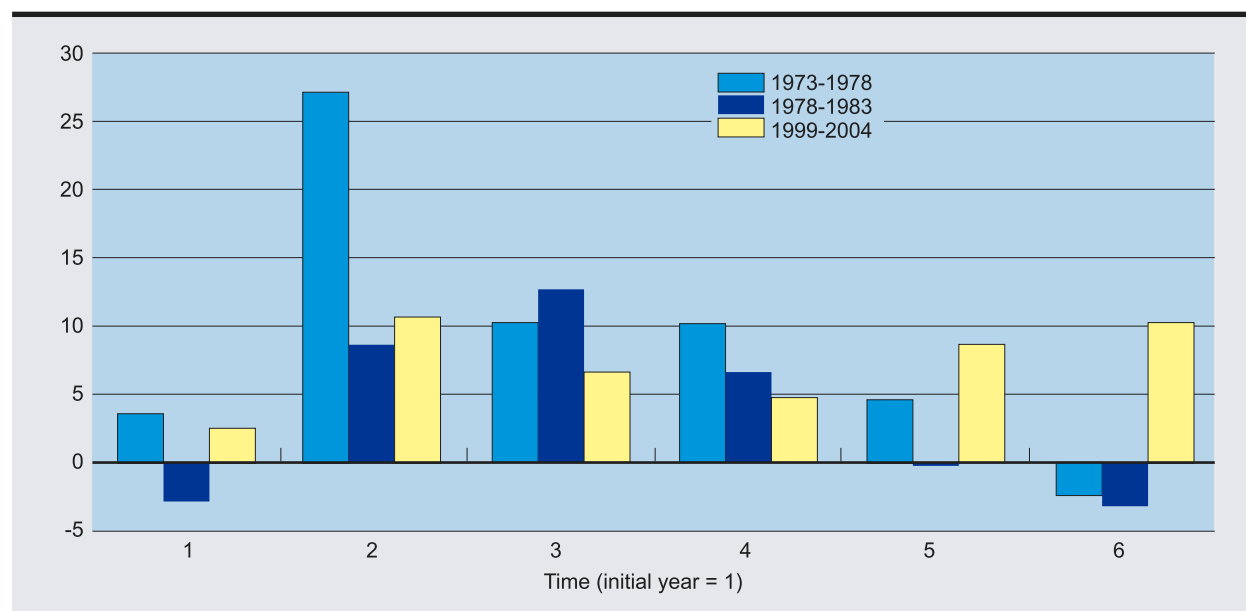
Source: UNCTAD secretariat calculations, based on UNCTAD *Handbook of Statistics 2004*; IMF, Balance-of-Payment Statistics database and International Financial Statistics database; Economist Intelligence Unit, *Country Reports*; and national sources.

 a Algeria, Ecuador, Gabon, Indonesia, the Islamic Republic of Iran, Kuwait, the Libyan Arab Jamahiriya, Nigeria, Saudi Arabia and Venezuela.

for real income losses, the result is an additional upward pressure on the price level as firms will seek to pass rising labour costs on to consumer prices. Workers may thus find that their recently negotiated wages do not keep up with the rising price level, and consequently enter the next round of wage bargaining with yet augmented aspirations. In the worst case, such a scenario may lead to a wage-price spiral resulting in accelerating inflation. At best, it will still cause inflationary expectations to become embedded in the economy's wage bargaining processes, involving a permanently higher inflation rate compared to the initial situation.

Apart from the consequences on inflation, the effects of an oil price shock on the overall economic activity in importing countries are more difficult to disentangle. The most obvious impact stems from the deterioration in the terms of trade. An oil price increase shifts the terms of trade between net-importing and net-exporting economies

in favour of the latter. Essentially, this implies a real income transfer from consuming to producing countries. Shrinking real incomes in countries facing larger oil bills, in turn, mean less income to spend on other products, which translates into lower domestic demand unless matched by reduced domestic savings and/or higher export demand. To date, the evidence suggests that the propensities of oil-producing countries to consume from current income are low relative to consuming economies. Oil price increases have historically been accompanied by swelling current-account surpluses in oil-exporting countries, implying that the windfall revenue accruing to producers is typically not immediately spent to its full extent – a pattern that can also be observed in the current situation (fig. 1.3).

In this case, cutbacks in output and employment are the consequence of falling demand in consuming countries. While macroeconomic

Figure 1.4

CRUDE PETROLEUM PRICES,ᵃ **NOMINAL AND REAL,**ᵇ **1970–2005**ᶜ

(Dollars per barrel)
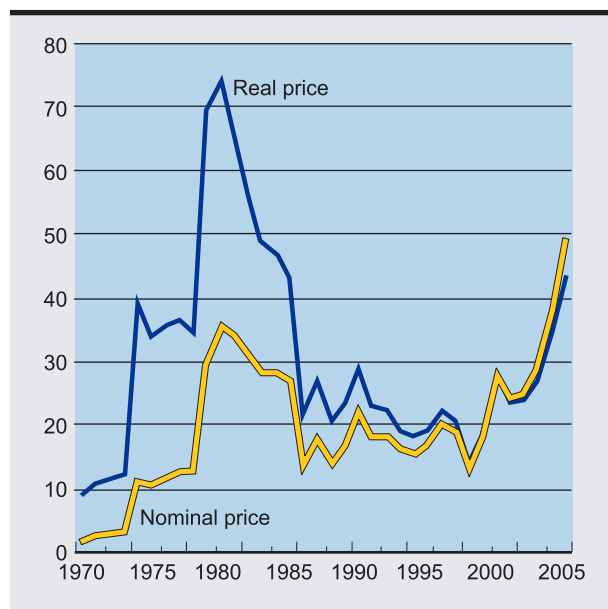
Source: UNCTAD secretariat calculations, based on UNCTAD, *Commodity Price Bulletin*, various issues; and IMF, International Financial Statistics database.
  a Average of Dubai/Brent/Texas equally weighted.
  b Deflated by United States Consumer Price Index (CPI) (2000 = 100).
  c 2005 data are estimates.

studies usually confirm the general effect on the aggregate level, empirical studies using disaggregated data suggest that demand disturbances of oil price shocks vary substantially between sectors, with producers of consumer durables being hit especially hard during oil-price related recessions (Bresnahan and Ramey, 1992). To the degree that firms are able to pass higher costs to market prices without a subsequent reaction of nominal wages, the burden of adjustment shifts from producers to consumers, while the net negative impact remains identical.

A further effect operates through nominal interest rates, which may be higher if second-round effects on inflation are triggered by an oil price increase. While central banks will find it difficult to prevent an initial rise in the general price level due to the change in relative prices induced by higher energy prices, they will be alerted by second-round effects and curb persistent inflation through restrictive monetary policy. With such a move they would add to the restrictive first-round effects on the real economy to prevent inflationary expectations from becoming embedded in the system.

2. The 1973–1974 and 1979–1980 oil price shocks: putting current events in perspective

By the early 1970s, the price of crude oil had been declining persistently for about two decades to reach a level of $2–3 per barrel. This situation changed dramatically after 1973. Between November 1973 and the first quarter of 1974, the price increased from $3.3 to $13. Prices remained relatively unchanged for the next four years. In late 1978, OPEC cutbacks triggered the second oil price shock and oil prices peaked at $39 in November 1980.

Compared with the two oil price shocks in the 1970s, the substantial oil price rise between 1998 and mid-2005 presents several features rendering it less dramatic than it seems to be at first glance. Firstly, the starting point for oil prices ($11 in the beginning of 1999) was an abnormally low one, following the plummeting of oil prices that resulted from the Asian financial crisis in 1997–1998. Among informed market participants, the expectation prevailed that the oil price would not remain depressed for much longer, but would soon rise again to previous levels of around $20. Secondly, recent price increases have been stretched over five years, and have thus taken the form of a gradual evolution instead of an explosion. Thus, the surprise effect of the oil price increase was milder this time. Thirdly, in real terms, the recent oil price increase was significantly smaller than that of the 1970s (fig. 1.4). Measured in today's prices, the oil price increases of the 1970s were considerably more substantial than implied by the nominal figures.

One obvious reason for current developments on the oil market being steadier compared to 30 years

Figure 1.5

**OIL IMPORT BILL, OECD MAJOR OIL-CONSUMING COUNTRIES,[a]
1973–1978,1979–1983, 1999–2005[b]**

(Per cent of GDP)
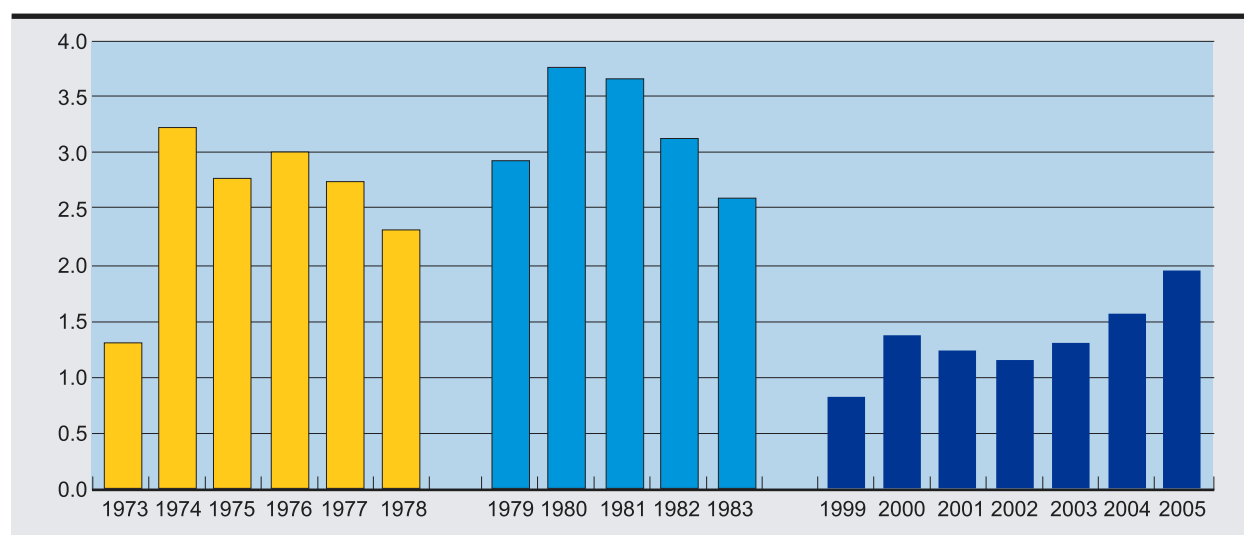
Source: UNCTAD secretariat calculations, based on UN COMTRADE; UN National Accounts Main Aggregates database; EIU,
Country Forecast, various issues; and OECD, International Trade by Commodity Statistics database.
a Canada, France, Germany, Italy, Japan, Spain, the United Kingdom and the United States.
b 2005 data are estimates.

ago is that they were primarily demand-driven, rather than motivated by supply decisions in oil-exporting countries. Despite the fact that there have been several OPEC interventions on oil supply in recent years, there is little doubt that the growing demand for oil imports, primarily coming from the United States and the rapidly growing developing countries in East and South Asia, in particular China and India, is at the origin of the oil price hike. On the supply side, OPEC spare supply capacity almost disappeared in 2004. OPEC countries had dramatically reduced their supply in the first half of the 1980s, but their production was replaced by new entrants with higher production costs (such as North Sea producers). In recent years, however, non-OPEC supply grew at lower rates, and OPEC countries recovered their 1979 production level. At present, OPEC countries are not in a position to respond rapidly to a surge in demand or a disruption in supply in a major producer. Oil supply is expected to increase in the coming years, but at a pace that will probably not exceed that of demand (Kaufmann, 2004).

In the same way as the size of the oil price increase, its impact has also been much smaller in this recent episode than in earlier ones. Between 1973 and 1974, oil imports as a percentage of GDP in eight major industrialized countries increased from 1.3 to 3.2 per cent, and remained between 2 and 3 per cent for the rest of the decade, before rising again in 1980–1981 to reach 3.7 per cent of GDP. The 1999–2000 oil price increase resulted in a rise of the oil import bill from 0.8 per cent of GDP in 1999 to 1.4 per cent in 2000, and it went down again over the subsequent two years. In 2005, assuming that the renewed hike will maintain oil prices at an annual average of $50 per barrel, it may reach 1.9 per cent but even then it would fall short of the levels attained in 1974 and the following years (fig. 1.5).

On average, consumer prices in the major industrialized countries increased by about 10 per cent in the course of the first and second years of both oil price crises in the 1970s, and by only marginally less in the following years. By con-

Figure 1.6

CHANGES IN CONSUMER PRICES AND UNIT
LABOUR COSTS, OECD MAJOR OIL-CONSUMING
COUNTRIES,[a] SEVERAL PERIODS

(Per cent)

A. Consumer prices

1974-1978
1979-1983
1999-2003

Time (initial year = 1)

B. Unit labour costs

1974-1978
1979-1983
1999-2003

Time (initial year = 1)
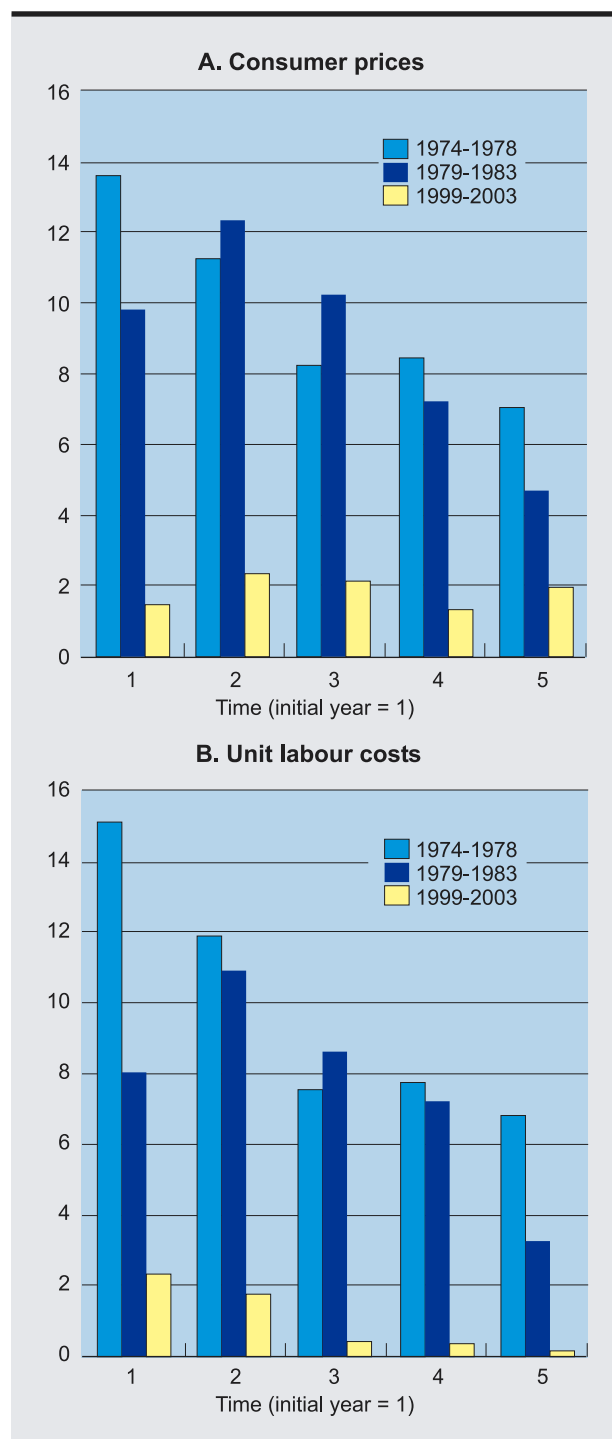
Source: OECD, Main Economic Indicators database and
Economic Outlook No. 77.
   a GDP weighted average of Canada, France, Germany,
Italy, Japan, Spain, the United Kingdom and the
United States.

trast, the impact of recent price increases on the consumer price index is rather negligible (fig. 1.6A). The evolution of unit labour costs in the industrialized countries during the 1970s and early 1980s demonstrates the role and weight of second-round effects. The rise in unit labour costs is especially marked in the wake of the first shock. Trade unions were firmly determined to compensate for real income losses, as unit labour costs grew by 15 per cent in the first year and 12 per cent in the second year, and subsequently remained in the neighbourhood of 7 per cent. Increases were less pronounced during the second crisis, although they were still quite considerable (fig. 1.6B).

The development of unit labour costs in the major oil-consuming countries since 2000 indicates that second-round effects have been practically absent. Unit labour costs rose by just over 2 per cent in 2000 and have been growing more slowly ever since, a fact that is also reflected in the consumer prices shown in figure 1.6A. Except for the immediate impact of higher energy prices, there is no sign of inflationary tendencies taking hold as trade unions have refrained from seeking compensation for real income losses due to energy prices during wage negotiations.

Nevertheless, central banks in the industrialized countries have continued to vehemently warn against the occurrence of second-round effects, to which they would react by raising interest rates in a bid to defend price stability. However, given the absence of inflationary second-round effects, central banks have refrained from responding immediately to slightly higher inflation rates, focusing instead on "core inflation" indices that exclude energy prices. Volatility in energy costs and the concomitant variation of real incomes have, arguably, come to be seen in the developed world as something that is outside the control of consumers, manufacturers and monetary authorities and thus can only be accepted.

The policy responses during the major oil crisis followed a quite different pattern. That the two oil price shocks had markedly different repercussions in individual countries is quite instructive with a view to lessons to be learned by those countries in the developing world faced by a similar oil price increase. By the time of the second oil price shock, all major central banks adopted a re-

strictive stance, led by the Federal Reserve. The federal funds rate reached 19 per cent in 1981 and remained above the 10 per cent mark through late 1982. Even in those countries whose central banks had pursued a largely accommodative monetary policy stance throughout the 1970s, such as France, short-term rates scaled new heights in the early 1980s. Interest rates increased sharply despite the fact that oil-exporting countries recycled their windfall oil revenues through the international capital markets, rather than to spend them directly on higher imports. The potentially decreasing impact on interest rates of these capital flows reaching the international capital markets was overlaid by the concerted action to curb inflation carried out by central banks of the industrialized countries after 1979.

Many developing countries, in particular in Latin America, were caught in this high interest rate trap with disastrous results for their overall economic development and their foreign indebtedness. Servicing the existing debt became more difficult in an environment of climbing international interest rates and, eventually, plunged many developing economies into severe economic crises during the 1980s.

The repercussions from current price developments in the oil market will much less likely produce the kind of dramatic impact seen during the 1970s, particularly in the absence of comparable interest rate reactions in developed countries.

Moreover, the impact on consumer prices is much weaker as increased efficiency in energy use over the past few decades has contributed to a decline in the share of energy products in the consumer price index. The effect is further mitigated by the presence of higher indirect taxes on energy consumption, particularly on gasoline. In the euro area, about two thirds of the price for transport fuels and lubricants are made up by taxes, meaning that a price increase only works on one-third of the overall price. The respective tax burden is smaller in the United States and slightly larger in Japan. Moreover, the use of other energy sources has also contributed to the reduction in the share of oil in total energy consumption.[12]

Furthermore, in addition to greater efficiency in the use of energy for final consumption, there has also been a decline in energy intensity of production.[13] The overall economic structure of developed economies has changed over the past 30 years. It has become more service-oriented and less reliant on industrial production, which further reduces the likely role of an oil price rise as an impending disturbance. The combination of these various factors explains why the average oil bill of the major economies (as depicted in figure 1.5) has declined to about 0.8 per cent of GDP in 1999, and why present inflation did not pick up in the same way it did during the 1970s.

3. The impact on oil-importing developing economies

Exposure of oil-importing developing countries to oil price hikes frequently differs from that of the developed world. First-round effects on prices and balance of payments tend to be more severe, as the energy and oil intensities are generally higher in these countries. Taking the OECD countries level as 100, oil intensity (e.g. primary oil consumption per unit of GDP) in 2002 was 142 in Brazil, 232 in China, 237 in Thailand and 288 in India (IEA, 2004b: 11). Moreover, the share of taxes in the final price of fuels is usually much lower in developing than in most developed countries, and in a number of them, these prices are subsidized. As a consequence, the cost of crude has a more direct impact in developing countries, either on the final consumer price or on fiscal accounts. If these impacts are seen as a threat to the control of inflation or to fiscal consolidation, they would call for policy adjustments with all the attendant effects these have on growth. Finally, developing countries could also feel another indirect effect, stemming from policy reactions in the developed countries, in the form of lower exports and tighter conditions in international financial markets.

In contrast to the substantial reduction of oil dependency in developed countries, reliance on oil imports has increased in the developing word, as a result of industrialization and urbanization. In 1972, the oil import bill in developing countries (excluding OPEC) represented 0.8 per cent

of current GDP, and it climbed to 2.3 per cent in 1975–1976 and 3.4 per cent in 1980. In 1998–1999 this share was 1.7 per cent of GDP, and it rose to 2.7 per cent in 2000–2003. In 2004–2005 it has probably exceeded 3.5 per cent, roughly twice the oil import bill paid in the main OECD countries.[14] As a result, the increased cost in oil imports in developing countries clearly exceeds those faced by developed regions and more closely resembles the experience of the oil shocks of the 1970s.

Latin America (excluding the oil-exporting countries of Ecuador and Venezuela) shows the lowest exposure among developing regions, with the share of oil imports rising from 0.8 per cent of GDP in 1998 to 1.3 per cent in 2003. This has been, in particular, the result of active Brazilian policies aimed at substituting oil with national energy sources (hydroelectricity and alcohol) and at increasing the domestic production of hydrocarbons. However, oil imports account for a significant proportion of GDP in Chile (4.7 per cent in 2003), Central America (4.9 per cent on average for Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama) and the Caribbean, with particularly high shares in Guyana, Jamaica, Belize and Barbados.

Asia (excluding OPEC) accounts for roughly 80 per cent of oil imports from developing countries, and is also the region where the ratio of oil imports to GDP remains the highest. The main reason for this is the deepening of industrialization in East and South Asian countries. In 2003, the share of oil imports in GDP was 5 per cent or more in Singapore, the Republic of Korea, Thailand, Taiwan Province of China and the Philippines, and more than 4 per cent in Pakistan and Sri Lanka; in India, which is relatively less advanced in industrialization than other countries in the region, this share amounted to 3.8 per cent.

In Africa, the situation is very heterogeneous as the region comprises several major oil exporters, but also a number of countries that are heavily dependent on oil imports, particularly among sub-Saharan countries. This subregion as a whole (excluding Nigeria and South Africa) presents levels of oil dependency close to those found in East and South Asian countries (3.5 per cent of GDP in 2000–2003), despite the much lower level of industrialization.

Summing up, oil prices have had, and continue to have, an impact on the import expenditure of a significant number of developing countries which is comparable to the one subsequent to the 1970s oil shocks. However, in many cases their negative impact on the trade balance has been compensated, either by a parallel increase in the price of other exported primary commodities or by expanding volumes of manufactured exports; the first case was especially relevant in several South-American and sub-Saharan countries, while the second explains the solid trade performance in East and South Asia, despite high oil prices. Other oil-importing countries, however, face severe financial strain.

In some developing countries, high commodity prices (including oil) have caused concern about inflationary pressures, and prompted a tightening of monetary policies in order to prevent second-round effects on prices. This is in stark contrast to the reaction in developed economies. There the lesson has been learned that monetary policy instruments, which almost exclusively operate through the impact on aggregate demand and the absolute price level, should not be used to abate price increases originating in changes of relative prices.

Indeed developing countries have taken different approaches. For example, monetary policy was tightened in Brazil and Mexico in 2004 in order to prevent second-round effects, even though it was recognized that higher-than-expected inflation was mainly related to supply-side factors, including energy prices (IPEA, 2005: 7–9; Banco de México, 2005: 2). The policy response in other Latin American and most East Asian countries was more flexible. In order to avoid negative effects on growth, monetary policy was not used to curb inflation forced by higher oil prices (fig. 1.7). For instance, economic policy in Argentina tried to avoid high real interest rates and currency appreciation as ways to fight against accelerating inflation in early 2005. The latter was considered to be largely due to temporary factors, and the current levels of real exchange and interest rates are central policy instruments for maintaining economic growth and competitiveness. Similarly, in most East and South-East Asian countries, supply-side driven inflation pressures have not led to sharp interest rates increases, which could have

Figure 1.7

**REAL INTEREST RATES AND REAL EFFECTIVE EXCHANGE RATES,
SELECTED ASIAN AND LATIN AMERICAN COUNTRIES, 2003–2005**

A. Real interest rates *[a]*
(Annual percentage rate)

B. Real effective exchange rates
(Index numbers, June 2003 = 100)
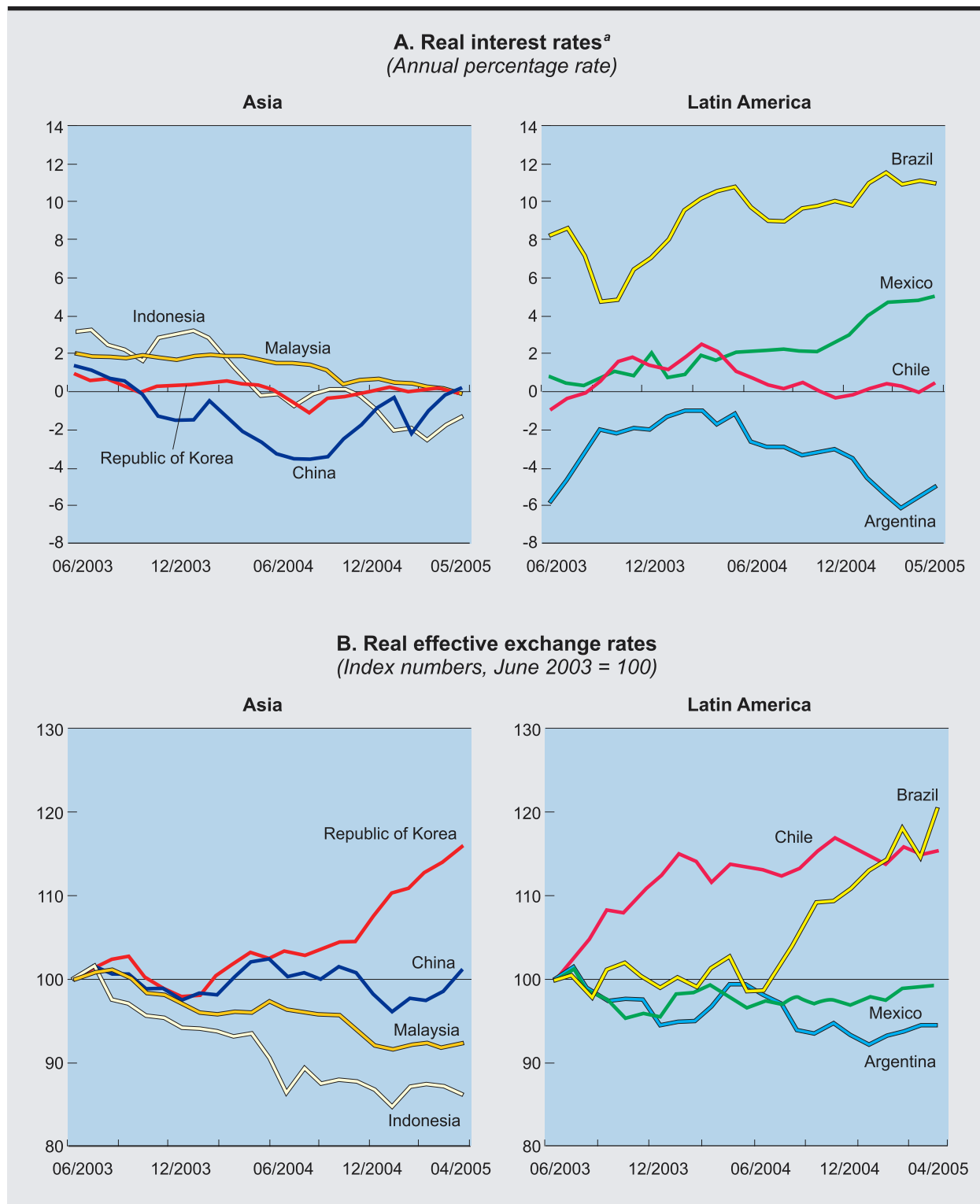
Source: UNCTAD secretariat calculations, based on Thomson Financial Datastream; national sources; and JP Morgan, Effective
Exchange Rate Indices database.

a Interbank rates deflated by CPI changes.

undermined economic growth and the recovery of their financial systems from the 1997–1998 crisis. For the Malaysian monetary authorities, for instance, price pressures have been contained by improvements in labour productivity and capacity expansion, enabling monetary policy to remain supportive to growth (Bank Negara Malaysia, 2005).

Several countries have also tried to isolate domestic from international oil prices. In Latin America, this has been the traditional approach in Venezuela (see also annex to chapter III), but also in a number of Asian countries, including oil-producing countries, such as Viet Nam and Malaysia, and countries dependent on oil imports. In India, for example, the government resorts to subsidies in the order of 0.5 per cent of GDP for specific petroleum products largely used by the rural poor. In Thailand, such subsidies reached 1.3 per cent of GDP in 2004, and in Indonesia they amounted to 2.5 per cent of GDP in the same year. In the

latter countries, these policies have recently been revised, leading to an increase in oil prices (Channel News Asia, 2005).

In conclusion, the chances of an oil price hike plunging the global economy into a recession comparable to the ones of the 1970s and 1980s appear to be small. In the major developed countries, oil prices have considerably lost significance for the evolution of GDP. First- and second-round effects have not led to inflationary pressures that would have prompted a restrictive stance in monetary policy. Naturally, the higher cost for energy had an impact on price indices, but the monetary authorities have learned from the previous oil price hikes that monetary tightening is not a proper response to this challenge. However, oil dependency remains high in many developing countries and the prospect of permanently higher oil prices is especially disturbing for those countries that are not benefiting from higher prices for their exports.

E. Rapid growth in China and India and the profit-investment nexus

Asia has been a remarkably dynamic region over the past four decades, with different economies in the region experiencing rapid growth and catching up. Following Japan's economic catching up episode between the 1950s and the 1980s, the fast pace of economic growth, industrialization and growth of manufactured exports in the Republic of Korea, as well as in other Asian newly industrializing economies (NIEs) – Hong Kong (China), Singapore and Taiwan Province of China – awarded these countries, and by extension the region, with the distinction of forming the "East Asian miracle". China and India have entered this process most recently.

In spite of their rapid growth over a number of years, both China and India still have relatively low levels of per capita income (table 1.5). However, due to the two countries' size and the fact that, together, they account for about two fifths of the world population and one fifth of global income (measured in terms of purchasing power parity, PPP), their economic performance has already a sizeable impact on international trade patterns, global output growth, and the economic prospects of other developing countries, including their progress towards achieving the MDGs. In 2003, China ranked second and India fourth in the world in terms of absolute purchasing power,

Table 1.5

**REAL GDP PER CAPITA AND GDP GROWTH IN CHINA, INDIA, JAPAN AND
THE REPUBLIC OF KOREA DURING THEIR RAPID GROWTH PERIODS**

	Real GDP per capita (dollars)								Average growth rate (per cent)				
	Market prices*a*				PPP*b*								
	Year 1	Year 10	Year 20	2003	Year 1	Year 10	Year 20	2000	1st decade	2nd decade	3rd decade	4th decade	1st 20 years
China (1979)	163	347	752	1 067	1 023	1 752	3 276	3 747	8.6	8.1	.	.	8.3
India (1980)	222	304	440	511	1 159	1 634	2 414	2 479	3.7	3.8	.	.	3.7
Japan (1957)	5 481	11 575	20 763	38 222	3 605	7 515	13 544	24 675	8.4	6.1	2.9	2.9	7.2
Rep. of Korea (1965)	1 297	2 397	4 149	12 232	1 803	3 501	6 237	15 876	6.7	5.7	7.5	4.2*c*	6.2
United States	.	.	.	35 566	.	.	.	33 293	.	.	.	.	.

Source: UNCTAD secretariat calculations, based on UNCDB; Japanese Ministry of Internal Affairs and Communications, Historical
Statistics of Japan database; World Bank, World Development Indicators database; and Penn World Table 6.1, 2002.
a In constant 2000 dollars.
b In constant 1996 dollars.
c The Republic of Korea's average growth rate in the 4th decade covers only 9 years due to data constraints.

their respective ranks being sixth and twelfth in terms of real GDP. Moreover, as the third largest importer and exporter in the world in 2004, China's growth dynamics significantly influence commodity prices and the prices of some traded manufactures such as textiles, as discussed in subsequent chapters of this *Report*.

This section addresses selected issues that are of crucial importance for the sustainability of rapid economic growth in China and India in the medium and long term. In particular, investment plays a key role in the expansion of productive capacity and productivity growth (*TDR 2003*). UNCTAD's analysis has shown that the catching up process in the NIEs was based on the so-called profit-investment nexus (*TDR 1996*, chap. II, *TDR 2003*, chap. IV), in which savings created by profits in a process of rapid capital accumulation, technological progress and structural change constitute the basis for sustained productivity growth, rising living standards and successful integration into the international economy. Investment plays the crucial role due to its ability to simultaneously create income, develop productive capacities, and transmit technological progress; moreover, investment

supports the upgrading of skills as well as institutional deepening.

A macroeconomic environment which both supports and encourages investors is required for domestic and foreign investment to become a source of growth and development. The profit-investment nexus emphasizes that profits, the savings accrued at companies, are the dominant source of financing. Rising profits can create a virtuous circle whereby the profits stemming from investment increase the incentives for companies to invest, thereby raising the capacity for financing new and additional investment.[15] For this to happen on an economy-wide scale, access to reliable, adequate and cheap sources of financing is an important precondition. The stance of domestic monetary policy is of crucial importance to initiate a process that will become self-supporting once profits have started to create the savings necessary to finance additional investments. Overly restrictive monetary policy may lead investors to prefer investing in financial assets over extending productive capacity.

Together with the interest rate, the exchange rate level is the other crucial macroeconomic price.

Without a competitive and rather stable exchange rate it is even more difficult for developing countries to successfully integrate into the world market. Hence, the monetary conditions of an open market economy (i.e. the interest rate and the real exchange rate) are of utmost importance for domestic and foreign investors and for the sustainability of the growth process.

Finally, the experience of the successful Asian economies shows that growing profits and positive profit expectations do not exclude the full participation of labour in the functional distribution of income. By contrast, only if overall demand grows in line with the production potential of an economy, can investors expect a stable and lasting source of profit income. But domestic demand can only follow such a growth path if real wages increase in line with productivity. This, more than the perceived ability and willingness to "save", has been one of the characteristic features of the Asian economies during their catching up episodes. High *ex-post* savings are the result of the investment process, rather than its source.

Thus, three conditions for sustainable growth emerge from Asia's growth experiences. First, economies need productivity drivers. These drivers may be individual companies, or a critical mass of companies located in specific sectors or branches, that push productivity growth beyond formerly reached limits and create the kind of incentive needed for maintaining the overall profit-based dynamics of the economy. In the past, manufacturing has been the most important driver, as the potential to expand productivity growth has been closely related to the opportunities of intensifying the process of capital deepening.

Second, growth dynamics need to be supported by both domestic demand and exports. An appropriate balance between domestic and foreign demand is required mainly to cushion the shocks that frequently emerge from the vagaries of world financial markets and their impact on exports. In particular, steady and rapid growth of private consumption, which is quantitatively the most important component of overall demand, is needed to sustain growth processes. Finally, pro-growth macroeconomic conditions are required to set and keep the economy on a sustainable and steep growth path.

1.   *The sectors driving economic growth*

A breakpoint analysis on labour productivity trends[16] for the post-Second World War catching up process in selected Asian countries indicates rapid growth episodes for Japan between 1957 and 1973, the Republic of Korea since 1965, China since 1979, and India since 1980. At the beginning of their economic take-off, the level of Japan's per capita income (in constant 2000 dollars) was $5,481 and that of the Republic of Korea $1,297. Compared to these levels, economic take-off in China and India started from a much lower base – $163 for China and $222 for India. Table 1.5 shows the four countries' per capita GDP in market prices, as well as in constant PPP terms, which gives less divergent results among countries, as poor countries generally have lower price levels and higher purchasing power per dollar.

Assuming labour to be immobile internationally and wages to be set at the level of the national economy, the sectors where profits rise or prices fall will be those that are best positioned to exploit the potential for productivity growth through the increasing use of sophisticated equipment and technologies. Whereas, in principle, any sector can take the lead and become a driver, the manufacturing sector has most often assumed this role, because it is apparently the best placed to exploit all the specific advantages of machinery and technology for large-scale production. The pattern of manufacturing productivity growth dominating overall productivity growth can be found in most of the successful catching up episodes.

In the Republic of Korea, manufacturing productivity was expanding at about 2.5 per cent above the productivity of the overall economy between 1963 and 1983.[17] Where this is the case, and where wages in manufacturing rise broadly in line with productivity of the overall economy, manufacturing producers have a huge advantage above all other sectors. They can either increase the volume of production by lowering prices or realize consistently higher profits than other parts of the economy.

The same pattern of development can be observed in China's rapid growth phase starting in the early 1980s. Between 1981 and 2000, its manu-

Figure 1.8

PRODUCTIVITY IN THE MANUFACTURING AND SERVICES SECTORS COMPARED TO OVERALL PRODUCTIVITY IN CHINA (1984–1993, 1993–2002) AND INDIA (1991–2000)

(Index numbers, initial year = 100)
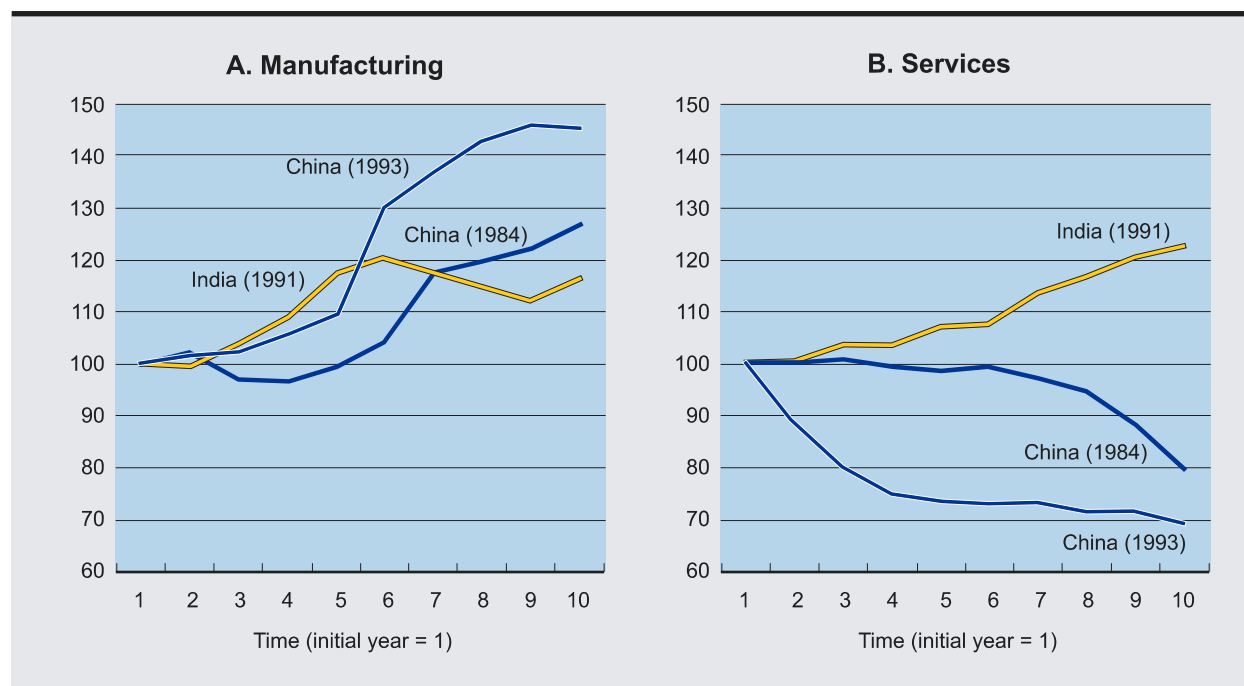
A. Manufacturing

China (1993)
China (1984)
India (1991)

Time (initial year = 1)

B. Services

India (1991)
China (1984)
China (1993)

Time (initial year = 1)

Source: UNCTAD secretariat calculations, based on UNCDB; China State Information Center (SIC) Database; Ghoshal, 2003; and World Bank, World Development Indicators database.
Note: Numbers over 100 mean that manufacturing and services sectors productivities exceed overall productivity.

facturing productivity growth averaged 9.4 per cent, an extremely high rate by historical standards, exceeding all the other sectors of the economy by 2.5 per cent per year on average. In China, manufacturing productivity growth accelerated in the mid-1990s and expanded at an unprecedented rate of 14.7 per cent annually between 1997 and 2000 (fig. 1.8). This productivity surge in the Chinese manufacturing is closely related to rapidly increasing inflows of FDI and their concentration in industry. Inflows of FDI in industry increased from $11 billion in 1992 to $45 billion in 1997 and to $53 billion in 2003. Indeed, since the mid-1990s, 60 per cent of China's total FDI inflows have been oriented to the manufacturing sector (UNCTAD, 2004a: 55).

Producers in high-cost industrialized countries have found in China an attractive outsourcing platform not only because of its cheap and rela-

tively well-educated workforce, but also because of the incentives offered by its Government. For more than two decades, foreign funded enterprises (FFEs)[18] have benefited from tax breaks which gave them a competitive advantage over local State-owned and private companies. For corporate income tax, local companies are charged a tax rate of 33 per cent as soon as they start making profits, while foreign firms pay 7.5 per cent two years after they start earning profits, followed by 15 per cent starting from the sixth year they continue to earn profits.

India is still far from such a regime of manufacturing-driven growth. Comparing China's and India's manufacturing productivity growth and their total economy productivity growth,[19] reveals the dominating role of China's manufacturing sector (fig. 1.8). Although India also experienced vigorous growth of manufacturing productivity in

Figure 1.9

**PRODUCTIVITY IN THE MANUFACTURING SECTOR IN CHINA (1984–1993, 1993–2002)
AND IN THE MANUFACTURING AND SERVICES SECTORS IN INDIA (1991–2000)**

(Constant 2000 dollars)
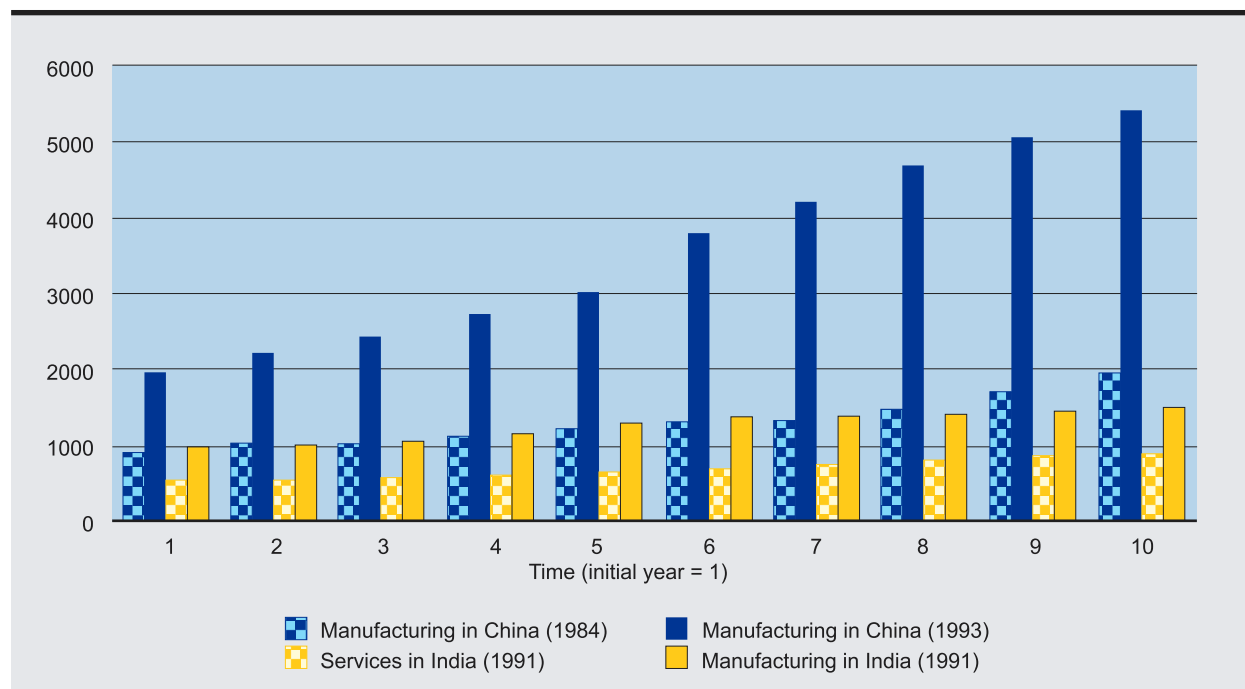
Source: UNCTAD secretariat calculations, based on UNCDB; China State Information Center (SIC) Database; Ghoshal, 2003;
and World Bank, World Development Indicators database.

the first half of the 1990s, the dominance of manufacturing was much less pronounced in India than it was in China throughout the 1980s and 1990s. This is reflected in the fact that China almost tripled its manufacturing productivity between 1993 and 2002 (fig. 1.9).

In India, the services sector seems to be assuming the role as an engine of income growth and driver of change, albeit in a less pronounced fashion, that manufacturing has played in other countries. Moreover, productivity growth in India's services sector is only slightly higher and more stable than in manufacturing. Average annual growth rates of 5.6 per cent in the services sector in the 1990s were outstanding, especially considering that this very heterogeneous sector includes a large part of informal activities and activities with a very low productivity potential. In China the

growth rate of services between 1993 and 2002 averaged only 3.7 per cent, and it has lagged considerably behind overall productivity increases.

In absolute terms, productivity in India's services sector is still much lower than in China's manufacturing sector (fig. 1.9). For instance, productivity in Chinese manufacturing increased from $900 in 1984 to $5,400 in 2002. Productivity in India's services sector reached $530 in 1991 but rose to only $870 in 2000. Moreover, productivity in Indian manufacturing stood at about $960 in 1991, a level roughly comparable to China's $900 in 1984. But over a period of 10 years India's manufacturing productivity increased to only $1,500 while China had already reached $1,950 in 1993. Thus, while the initial productivity level of Indian manufacturing was higher, the growth dynamics were insufficient to keep the position.

With extraordinary productivity growth in the last decade, Chinese manufacturers, domestic and foreign alike, had a wide margin to improve their market position. While labour productivity in manufacturing increased at an average annual rate of 12.2 per cent from 1991 to 2002, real wages grew by only 6.8 per cent in that sector. The huge gap between productivity growth and wage growth could be strategically used to reduce prices of their products and to gain market shares against foreign competitors and domestic producers in less favoured sectors. Depending on the degree of competition in their specific markets, manufacturing producers could also use the gap to increase their profit margins and to strengthen their ability to invest.

2. Stable and balanced demand growth as a condition for sustained rapid growth

An analysis of the contribution of the different components of GDP growth in Asia suggests that an effective policy should not only focus on exports and imports but try to balance foreign and domestic stimuli (table 1.6). In fact, the contribution of exports to GDP growth has increased over time in all the countries considered but domestic demand, comprising investment and private consumption, plays a much more important role in quantitative terms. While India lags behind in its investment dynamics, China and the other Asian drivers have used an approach where both, external and domestic demand had a significant impact on the sustainability of GDP growth. Obviously, large and populous countries such as China and India cannot rely on exports as the only engine of growth; domestic demand, investment and consumption, is at least as important.

Real household demand, the main contribution to GDP growth, grew at an average annual rate of 8.9 per cent in China, 7.7 per cent in Japan, 7 per cent in the Republic of Korea and 4.7 per cent in India (fig. 1.10). Private consumption registered a remarkably steady and strong growth rate in China. Given the sustainability of the past performance in Asia, it seems that the steadiness of households demand growth can act as an endog-

enous stabilizer to economic development. Even more, if it is true that revenues from a flourishing domestic demand flow back to the business sector in form of steadily rising profits, the participation of workers in the proceeds of an economy-wide expansion may be indispensable for a sustainable growth process.

If the increase in labour productivity of the total economy is fully reflected in real wage and salary increases, disposable income and real consumption grow consistently at a rate close to the growth rate of GDP. Indeed, in a world where the distribution of income between labour and capital and the household savings rate are constant, the growth rates of GDP and private consumption are identical.

In China, as well as in the other successful Asian countries, the full participation of labour in the proceeds of total economy productivity increases was never in question. Apart from the growing inequality of the personal distribution of income between different types of labour, the functional distribution between labour and capital has been reflecting equality of powers rather than the dominance of one side. For instance, for the period between 1990 to 2000, available statistics indicate that, on average, real wage in the total economy grew by around 8 per cent annually, while overall economy productivity grew at a rate of some 9 per cent (Flassbeck et al., 2005).[20]

Recently, real wage growth seems to have been even more rapid than overall productivity growth. This is in line with reports warning about labour shortages in the manufacturing sector, which would be leading to an upward pressure on wages. For example, the province of Guangdong in the Pearl River delta is short of two million migrant workers; a shortage evident throughout the manufacturing sector along China's eastern shoreline, from the Pearl River Delta up to Shanghai (*The Economist*, 9 October 2004). Other observers also warn of an impending labour shortage (Yang, 2005).

These developments have led to a significant reduction in poverty, but as rapid wage increases are unevenly distributed among sectors and regions, they have also led to a more unequal income distribution (box 1.2).

Table 1.6

CONTRIBUTION OF CONSUMPTION, INVESTMENT AND TRADE TO GDP GROWTH IN CHINA, INDIA, JAPAN AND THE REPUBLIC OF KOREA

(Per cent)

| | Consumption | | Gross fixed capital formation | Trade | | Average annual GDP growth[a] |
	Private consumption	Public expenditure		Exports	Imports	
1st decade[b]						
China	4.88	1.39	3.05	0.61	-1.06	10.10
India	3.25	0.75	1.33	0.32	-0.57	5.89
Japan	4.89	0.58	4.40	1.34	-1.27	9.41
Republic of Korea	6.08	0.65	4.27	3.80	-5.25	9.01
2nd decade						
China	3.88	1.10	3.62	2.03	-1.96	9.41
India	3.11	0.70	1.51	1.16	-1.38	5.70
Japan	3.45	0.64	3.10	1.38	-0.97	7.41
Republic of Korea	3.96	0.43	3.43	4.33	-3.67	7.35

Source: UNCTAD secretariat calculations, based on UNCDB; Japanese Ministry of Internal Affairs and Communications, Historical Statistics of Japan database; and World Bank, World Development Indicators database.
   a Differences between the sum of the contributions and GDP growth are due to variations in stocks and/or statistical discrepancies.
   b Starting years as in table 1.5.

All in all, consumption may not have been the main engine of growth, but the stable growth rate of consumption must have been a huge stimulus for investors. The profit-investment nexus has not materialized through a redistribution of income from labour to capital, but by equally rapidly rising profits and wages in the overall economy associated with surging manufacturing productivity. In other words, investment that pushed the economy towards new frontiers has created sources of new investment through consumption (Eatwell et al., 2002).

Compared to private consumption, investment growth rates are much more volatile in all the countries under consideration. The magnitude of investment in the Republic of Korea and Japan in the first 20 years of the economic take-off dwarfs the much-quoted spectacular growth of Chinese investment. Overall, the Republic of Korea recorded an average annual growth rate of gross fixed capital formation (GFCF) of 17.2 per

cent over a 20-year time span, whereas investment in Japan expanded by 12.5 per cent and in China by 11 per cent annually. India's average performance lags far behind, at 6.8 per cent, but India's and China's investment growth has accelerated markedly in the past five years at 7.6 per cent and 14.1 per cent respectively.

Investment shares of GDP were high in the Asian countries, at levels hovering around 30 per cent in the first and second decades of their rapid growth periods. While Japan's investment share levelled off to just below 30 per cent in the third and fourth decades following the initial take-off, the Republic of Korea's share has remained at over 30 per cent up to the present. In India, investment shares in the first and second decades have again lagged around 10 per cent behind the respective Chinese and Japanese investment shares, and the investment gap between China and India widened further between 2000 and 2004. On average, China's investment share reached 41.1 per cent per

Figure 1.10

EVOLUTION OF PRIVATE CONSUMPTION IN CHINA, INDIA, JAPAN AND THE REPUBLIC OF KOREA

(Index numbers on a logarithmic scale, initial year = 100)
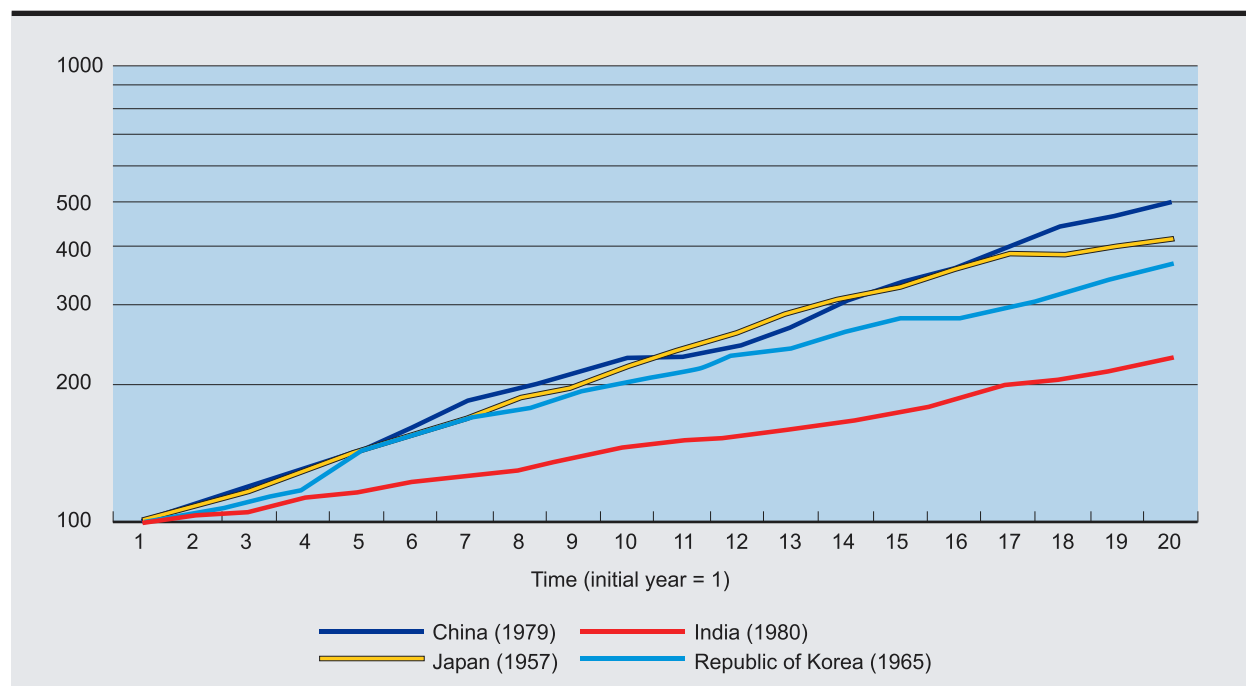
Source: UNCTAD secretariat calculations, based on UNCDB; Japanese Ministry of Internal Affairs and Communications, Historical Statistics of Japan database; and World Bank, World Development Indicators database.

annum in this period, compared with India's 22.5 per cent. In 2004, India's GDP share of GFCF stood at 23.4 per cent, half of China's 46.6 per cent.

3. Policy conditions underlying the Asian catching up processes

Asia's catching up episode has also been a period of consistent monetary stability. Despite extremely fast real income growth, rising employment opportunities and falling unemployment rates, long periods of very high investment have coincided with very low inflation rates. None of the countries under consideration experienced inflation rates above 30 per cent during their respective growth periods. The inflation rate, on average, was 7.4 per cent for Japan between 1960 and 1979, and 12.7 per cent for the Republic of

Korea in the 20 years from 1967 to 1986. In China and India it was 5.6 per cent and 8 per cent, respectively, between 1990 and 2003. Moreover, China's growth and investment have recently experienced an extraordinary acceleration but there are still no hints of an impending inflationary acceleration that could force the government and the central bank to sacrifice real growth in order to stabilize prices in an overheating economy. Despite the rise in commodity prices, and oil in particular, monthly headline inflation did not exceed 5.3 per cent at annual rate in 2004.

It is important to note that the achievement of price stability is not rooted in a restrictive monetary policy. For example, the policy interest rate (in real terms) set by the Peoples' Bank of China throughout the boom years, i.e. from the mid-1990s to the present, has remained at an average level of 3 per cent. In Japan's 20-year period from 1957 to 1976, the average real interest rate (again

Box 1.2

<div style="border:1px solid;">

INCOME DISPARITIES IN CHINA AND INDIA

In China, the number of people living in absolute poverty has been reduced considerably over the past 25 years. However, both relative poverty and the gap between the rich and the poor are growing. China's Gini-coefficient increased from 0.18 to 0.33 in urban areas and from 0.25 to 0.36 in the rural areas between 1981 and 2002 (United Nations, 2004a). In 2001, the Gini-coefficient for the country as a whole was 0.44. In India, it was significantly lower than in China at 0.32 in 2000, down from 0.37 for the period 1993–1998. In comparison, in 2000, the Gini-coefficients in Sweden, Germany and the United States were 0.25, 0.28 and 0.41, respectively.

The high value of the Gini-index in China in general, compared to the lower values for rural and urban areas, reflects the rising disparities between regions within the country. As the rural population is an important factor for the expansion of domestic demand, in China, the policy to raise welfare of the rural population will be a crucial factor for economic growth in the future. In this regard, the Chinese Government recently reduced agricultural taxes in order to increase the incomes of China's 800 million rural residents.

For India, widening disparity is less of an issue. However, with more than 350 million poor people (UN Statistical Division, Millennium Indicator Database) not fully participating in overall economic growth, social stability could be threatened. Only if India can significantly increase income levels nation-wide, can overall pro-growth balanced demand be created to help move the economy forward.

</div>

based on the policy rate) was negative at -0.1 per cent and slightly positive in the Republic of Korea, at 0.6 per cent from 1967 to 1986.[21] The averages for the Chinese and Indian real short-term rates between 1990 and 2004 were 1.1 per cent and 1.3 per cent, respectively. Lending rates were also extremely low in China, and they have remained well below the growth rate of GDP, which may be considered as a proxy for the rate of return on investment in fixed capital; as a result, they have consistently stimulated the creation of new capital. In India, real lending rates were on average close to real growth of GDP (fig. 1.11).[22]

The pro-growth stance is as true for domestic monetary conditions as for the main external condition: the real exchange rate. The four countries' development paths were supported by low and fairly stable real exchange rates, which contributed to a high level of competitiveness on the world market.[23] The real effective exchange rates of China, India and the Republic of Korea depreciated throughout most of their catching up periods with major devaluations taking place at the beginning of the 1990s in India and in the mid-1990s in China. Thus monetary stability and competitive valuation functioned as strongly supportive and stabilizing elements of the high-growth periods in all of the four countries without fuelling inflation.[24]

China and India were able to create a favourable monetary environment throughout the 1980s and early 1990s and, even more importantly, to defend these positions throughout the past decade. Since 2000, China has had to justify its pro-growth monetary policy against external political pressure and, despite continued currency appreciation in real terms during and after the Asian financial crisis it has managed to preserve competitiveness and the expansionary stance of its monetary policy. The Indian real effective exchange rate has remained stable over the past

Figure 1.11

REAL INTEREST RATES*ᵃ* IN CHINA AND INDIA, 1980–2004

(Per cent)
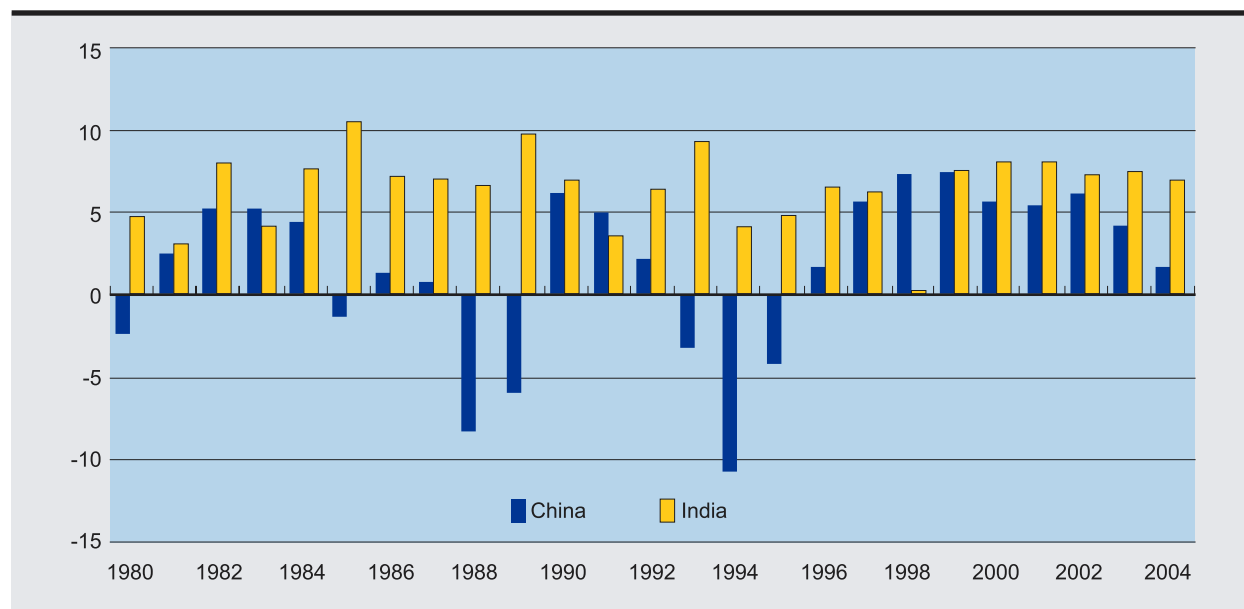
Source: UNCTAD secretariat calculations, based on IMF, International Financial Statistics database.
   a   Nominal lending rates deflated by consumer prices.

decade. Financial crises in India (in 1991) and in China (in 1994) had the effect of radically changing their monetary regimes; both countries consequently adopted an anchor approach for their exchange rates at a rather low level in order to being able to defend their respective positions unilaterally (*TDR 2004*). Only recently and under enormous political pressure has China modified its external monetary regime slightly by introducing a more flexible band for the exchange rate and by envisaging a basket approach instead of unilateral fixing against the dollar.

Price stability and pro-growth monetary conditions of the Asian countries are in stark contrast to those of other developing regions. Latin America, for example, has over the past three decades experienced high and highly volatile inflation rates and very restrictive monetary policies as well as overvalued exchange rates. Different policy instruments used in Asia for coping with inflationary pressures have been more effective, both in terms of price stability and economic growth. In particular, by stabilizing the price level through

non-monetary instruments, such as an income policy or direct price controls,[25] monetary policy was freed from the task of permanently fighting inflationary dangers. Empirical evidence provided in *TDR 2003* has shown that the freedom to set pro-growth macroeconomic conditions (interest rates and exchange rates) has been a key feature of Asia's success in comparison with Latin America.

In this respect, the macroeconomic regime, in a broad sense, is an important component for an explanation of Asia's comparatively good performance. The successful Asian countries were able to permanently stimulate investment because a special assignment of policies created the space for pro-growth monetary policy and a competitive exchange rate. Sound institutional and structural conditions were not seen as substitutes for supportive macroeconomic policies but the precondition for applying them. The Chinese example, in particular, shows that even in a very open economy with large FDI inflows, the labour market and, to a very large extent, the money and capital markets may remain within the realm of national

governments and central banks. The Asian experience demonstrates that globalization has not reduced the need for economic policy to act at the national level; in fact that need may even have increased. The smoothing of the adjustment process to more open markets, the stimulation of investments and the maintenance of overall competitiveness of an economy is, more than ever, the responsibility and the opportunity of national governments.

4. Challenges for sustained growth in China and India

Rapid growth in China and India over the past two and a half decades have made the East and South Asian region a new growth pole in the world economy. The challenge for the two countries now is to ensure the sustainability of their growth momentum. There is a need to strengthen the factors underlying their current growth, as well as to address existing challenges.

One of these challenges is how to foster the pace of structural change. History shows that in the development process, the importance of manufacturing and services increases both in output and employment, whereas that of agriculture declines. In China and India, by contrast, the role of agriculture in economic development will continue to be of great importance for many years to come, given that the majority of their populations still live in rural areas, and the sector still employs 50 to 60 per cent of the workforce in both countries.

For China, expanding GDP and employment in manufacturing and exporting sectors has been imperative, but services will, in the future, provide more employment opportunities. In Japan and the Republic of Korea the services sector compensated for the declining contribution of the industrial sector to GDP in the 1980s and 1990s, respectively. In India, in contrast to China and the NIEs in the high growth period of the 1990s the share of industry in GDP has remained constant while that of services has risen rapidly. This might pose a challenge for sustained growth, as productivity increases in the services sector are normally less strong than in the manufacturing sector. Nevertheless, outsourcing in IT and business

processing has expanded rapidly, offering many new opportunities for a country with weak infrastructure and low investment in fixed capital, but equipped with a fairly large educated workforce.

Although considerable productivity gains are to be expected from structural change and increased use of economies of scale, technological upgrading can accelerate the catching up process. Since China and India launched their economic reforms, the pace of integration has been increasing due to major structural changes in the world economy. Production sharing in global manufacturing and services has enabled China, and subsequently India, to integrate into the world economy by using their absolute advantage of a low-cost, educated workforce. In comparison with the home grown industries of Japan and the Republic of Korea, it took much less time for the specialized activities in China and India to become part of the international supply chain. However, industrialized countries are increasingly reluctant to transfer technologies and know-how as part of their engagement, particularly in China.

China has tried to circumvent this trend by attracting FDI, which, ideally, incorporates the transfer of required technology to the host country. However, despite granting ever-increasing preferential treatment to foreign ventures that include the transfer of advanced technologies, there are indications of difficulties in acquiring the needed technological know-how through this channel. It is well known that such spillover is limited due to the prevalence of "technology mercantilism" of foreign ventures whereby TNCs seek to retain control over their technologies. In response, China has shifted its policy to include the purchase of key hardware, products and know-how. However, so far China lacks the ability to indigenize most imported technologies. Significant manufacturing capabilities have been developed, but most of them are aimed at producing by means of original equipment manufacturing to supply TNCs and large brand name retailers.

India's industry has succeeded in developing certain knowledge-based industries in sectors such as pharmaceuticals, basic organic chemicals and IT. As with China's manufacturing sector, however, there is the danger that the Indian IT industry will remain trapped at the low end of the

market, exporting services such as debugging, testing, conversion and installation of software, and importing expensive branded software and hardware products.

As more developing countries develop capacities to produce labour-intensive manufactured goods, competition in manufactured exports will also intensify. Thus there is an additional strong imperative for technology upgrading, to support more diversified and higher value-added production, which would enable both countries to maintain their economic growth.

In both countries it will be crucial to ensure that the majority of their population reaps the ben-efits of economic growth, even if a price in terms of greater interpersonal inequality has been paid in the first round. The present analysis has shown that the growth of real wages in line with rising productivity is important for gaining general acceptance of the rapid processes of structural change. It is also of the utmost importance for maintaining the stability of the growth process and, hence, for the success of catching up at large. Investment depends on favourable demand expectations. Export demand is subject to the vagaries of the world market and national competitiveness, and no country can expect permanent increases in its global market shares. Therefore domestic consumption is the most important factor for stabilizing and sustaining private investment. ∎

Notes

1 See United States Bureau of Economic Analysis, National Economic Accounts database, at: www.bea. gov/bea.

2 Oil exports alone amounted to $213 billion.

3 See Republic of Turkey, State Institute of Statistics, *Economic Panorama database*, at www.die.gov.tr.

4 Urban fixed-asset investment (whose evolution is used as an indicator for domestic investment) grew by 26.4 per cent year on year in January–May 2005, while the Government's goal is a 16 per cent investment growth for the whole year. See EIU (2005a).

5 See Instituto Nacional de Estadística, Geografía e Informática (INEGI), Indicador global de actividad económica database, at: www.inegi.gob.mx/est/.

6 Export and import volumes calculated by UNCTAD include re-exports; this may explain, at least partly, the differences between these estimates and those of other sources. For instance, the World Bank estimated that trade expanded by 10.3 per cent in 2004. See World Bank (2005).

7 Country groups in this publication slightly differ with those generally used in this report.

8 See UNCTAD (2005b) for a detailed analysis on recent FDI trends.

9 For a discussion on this issue, see Houthakker-Magge (1969), Krugman (1988), Hooper et al. (1998), Mann (2003) and Wu (2005).

10 The results of the seminal study by Freund (2000) have recently been confirmed by Croke et al. (2005) and Debelle and Galati (2005).

11 The source for all oil price data in this section is the UNCTAD Commodity Price Bulletin. Unless otherwise stated, quoted prices always refer to the nominal dollar price per barrel of Dubai/Brent/Texas (equal weights).

12 The share of oil consumption in total primary energy consumption in Japan decreased from 77 per cent in 1974 to nearly 50 per cent in 2003. During the same period, in North America this share went down from 45 per cent to 36 per cent. The five biggest European Union countries registered a fall from 45 per cent to 42 per cent (British Petroleum (BP), 2004).

13 For a more detailed discussion on intensity of energy use, see chapter II.

14 UNCTAD secretariat estimations, based on UN COMTRADE and UNCDB.

15 As argued by Akyüz and Gore (1996), the presence of such an investment-profit nexus played an important role in East Asian industrialization, as it had earlier, in Western Europe's growth during the three decades after the Second World War.

16 The analysis used breakpoint techniques of productivity growth series, measured by growth rates of GDP per worker as is frequently used in the literature on catching up and integration (Maury and Phiyaud, 2004; IMF, 2004a). While it revealed clear starting breakpoints for Japan, the Republic of Korea and China, the starting point cannot be determined as clearly for India. For the purpose of this analysis this starting point was 1980.

17 UNCTAD secretariat calculations based on Korea National Statistical Office, Statistical database KOSIS and UNCDB.

18 FFEs include equity joint ventures, contractual joint ventures, wholly-foreign-owned enterprises and joint exploration companies for special extraction industries. They range from large TNCs to small- and medium-sized enterprises (SMEs) owned mainly by investors of ethnic Chinese living in other parts of East Asia.

19 Productivity for India could be calculated only from 1991 to 2001, owing to data constraints.

20 The underlying data for this analysis incorporates "state-owned units, urban collective-owned units and other ownership units". It is sometimes argued that this definition does not cover the whole economy, as it excludes the rural segment. In any case, the figures provide the best possible proxy to show the trend of overall participation of wage recipients in productivity growth.

21 Preferential interest rates for export industries in Japan and particularly in the Republic of Korea, even further pushed down, de facto, the real interest rates. Thus, recorded average interest rates tend to be overstated.

22 In India, and particularly in China, not all companies and sectors have equal access to the banking system and bank credits; only those enterprises that have such access can therefore actually benefit from the low real interest rates.

23 See *TDR 2004* for a discussion of the concept of competitiveness.

24 *TDR 2004* (chap. IV, section B) examined the causality between depreciation and actual export promotion, and presented various countries' experiences at a more general level and with more recent datasets.

25 For a detailed discussion of China's non-monetary instruments, see Flassbeck et al., 2005.

INCOME GROWTH AND SHIFTING TRADE PATTERNS IN ASIA

A. Introduction

Sustained rapid growth and rising living standards in a number of Asian countries have been accompanied by a dramatic increase of the region's shares in world exports and raw material consumption. The recent emergence of developing Asia as a driver of world economic growth has been widely welcomed, not least because the associated poverty reduction in China and India signifies important progress towards achieving the Millennium Development Goal of halving global poverty by 2015. Moreover, combined with their rapid growth, the greater integration of these countries into the world trading system has created new export opportunities for many developed and other developing countries.

But policy-makers in some developed and developing countries have also expressed concern about potential adverse effects on their economies stemming from the rising import demand and export supplies of these rapidly growing Asian countries. For example, Asia's sustained superior export performance relative to other developing regions has sparked fears that this region might become a price setter for labour-intensive export activities in the world market, and that competi-

tive pressure from Asian economies might, over time, wipe out export opportunities for other developing-country exporters. Combined with the recent, much slower pace of economic growth in most developed countries, it has also fuelled the debate in developed countries about the employment and growth consequences of rising imports of labour-intensive manufactures from, and increased relocation and outsourcing of economic activities to, Asian developing countries. Further, particularly over the past three years, policy-makers in some developed and developing countries have been concerned about the potential adverse impact on their economies' growth prospects of the rise in commodity prices, especially those of metals and fuels. This price rise is partly attributed to the strong increase in demand from the rapidly growing Asian developing countries.

The global impact of China's buoyant economic performance has been the focus of many of these concerns in recent years. For example, there have been widespread fears that China's accession to the World Trade Organization (WTO) in 2001 and, in particular, termination of the WTO Agreement on Textiles and Clothing (ATC) at the

beginning of 2005, might be followed by a massive increase in China's exports of labour-intensive apparel. Some fear that this might be accompanied by a significant decline in the price of internationally traded clothing, which would erode the export opportunities of other developing-country exporters, as well as displacing producers in importing developed countries. Moreover, media reports on observed or expected changes in the fortunes of the Chinese economy can have an enormous influence on short-term price movements of internationally traded raw materials such as petroleum, copper and nickel.

India's economic development has sparked less fear, even though the country has also registered buoyant economic growth over the past few years. Moreover, India's growth potential is sometimes considered to be even greater than that of China (Panagariya, 2004). However, India's exports of labour-intensive manufactures have not featured as prominently as China's in world trade flows, nor has its raw material consumption grown at anywhere near the same pace as China's. Rather, developed countries' fears of India's economic growth focus mainly on offshoring in the services sector, particularly from the United States. Some developing-country policy-makers are occasionally concerned about the impact on their countries of a potential surge in labour-intensive apparel exports from India following termination of the ATC and full implementation of WTO rules for this sector; this could reinforce the perceived adverse effects from the growing Chinese exports of these commodities.

In some sense, China's recent rapid income growth and shifts in its pattern of trade resemble those experienced by Japan and the Republic of Korea some decades ago. For example, between 1965 and 1985 manufactured exports from the Republic of Korea grew at an average annual rate of almost 35 per cent, which was more than double the pace of growth in world manufactured exports. Similarly, between 1987 and 2003 manufactured exports from China grew at an average annual rate of almost 18 per cent, which was also

> **China and India will have a much larger impact on the composition of world trade than Japan and the Republic of Korea had during their economic ascent.**

more than double the pace of growth in world manufactured exports.

However, there are also important differences between the recent growth of China and India, on the one hand, and the earlier episodes of rapid growth, industrialization and greater trade integration by Japan and the Republic of Korea, on the other. Two of these have to do with *the countries themselves*. First, both China and India are very large economies, each with a population about 10 times larger than that of Japan and about 25 times larger than that of the Republic of Korea. The share of China in total world population has averaged about 21 per cent since the beginning of the country's economic catch-up and growing trade integration in the late 1970s, and the share of India has been around 17 per cent since the intensification of its trade integration in the late 1980s. By contrast, the respective shares for Japan and the Republic of Korea were about 3 per cent and 1 per cent, respectively, during their corresponding phases of rapid economic catch-up and export expansion. Moreover, China accounts for about 13 per cent – and India for another 6 per cent – of global income, measured in terms of purchasing power parity (PPP).

Second, rapid income growth and greater trade integration by China and India started from lower levels of per capita income. For example, in the late 1980s (i.e. when the two countries strongly accelerated their trade integration), their respective per capita incomes were at about the same level as that of the Republic of Korea at the beginning of its export surge in the early 1960s, but only at about half that of Japan's in the mid-1950s, when this country began its post-War export take-off. This means that the patterns of demand in China and India may change at least as much as that in the Republic of Korea and much more than that in Japan during their respective catch-up and rapid integration periods after the Second World War.

Given the large size of the Chinese and Indian economies, and their specific patterns of

demand, changes in the two countries' level and structure of supply and demand will tend to have a much larger impact on the composition of world trade than those of Japan and the Republic of Korea during their economic ascent. China's growth has already demonstrated some of this impact on global trade flows. The structure of India's merchandise trade is likely to follow a sequence of changes similar to that of China, but with a lag of one or two decades, if the role of industrialization in India's further economic ascent is similar to that in the other fast growing Asian economies.

Three additional differences concern the *international environment* in which economic catch-up and greater integration by China and India are taking place. One is the much slower pace of economic growth and industrialization in developed countries. This has reduced income-related export opportunities for developing-country exporters of, for example, labour-intensive manufactures, and contributed to rather pessimistic forecasts of global primary commodity consumption. As a consequence, investment in commodity production and processing facilities has fallen, particularly in mining and energy production. Another difference is that greater trade integration by China and India is occurring concurrently with similar efforts by other developing countries; a number of countries have been simultaneously increasing their export-oriented activities in the same products. This risks creating growing competition among the developing countries for export markets. A third difference in the international environment is reduced space for proactive trade and industrial policies to manage greater trade integration. This has made it more difficult to use the kind of targeted support to nascent industries that policy-makers in the Republic of Korea provided during its economic catch-up so as to create broad-based domestic forward and backward linkages in which greater trade integration could be embedded. Partly as a result of this, policy-makers in developing countries have actively supported participation in international production networks, increasingly through the use of tax instruments.

Bearing these similarities and differences in mind, this chapter examines changes in the trade patterns that have been associated with successful economic development in China and India. This is done from a historical perspective and in a comparative framework, referring to the economic catch-up and industrialization periods of Japan after the Second World War and of the Republic of Korea. The impact of domestic resource and balance-of-payments constraints on rapid economic growth and industrialization is emphasized. The chapter also assesses the impact of the changing trade patterns in China and India on international trading relationships. More specifically, the chapter focuses on two key aspects:

• Shifts during rapid income growth and industrialization in the pattern of food consumption and the intensity of metal and energy use, which, when combined with shifts on the supply side, affect the level and composition of a country's external trade;

• The impact of these shifts on the pattern of international trade flows when they occur in very large economies with relatively low levels of per capita income.

The chapter shows that import demand by China and India for a number of primary commodities (particularly metals and energy products, as well as some soft commodities such as natural rubber and soybeans) can be expected, in the near future, to keep international prices for a limited number of products at levels above those experienced over the past decade or so. However, it is uncertain whether this can lead to a reversal of the long-standing price decline in primary commodities more generally. Rising prices will stimulate the production of some of the affected commodities, including domestic production in the importing countries, and reduce the consumption of some others. The chapter also shows that the ability of the fast-growing Asian economies to further increase their export earnings in line with their rising import bills, in the medium term, will depend on their progress with regard to structural change and domestic capital formation, as well as their capacity to upgrade production to more skill-intensive manufactures in the case of China, and to expand manufacturing in the case of India.

B. Evolving demand and trade patterns in Asia: a comparative perspective

It is well known that the process of economic development is accompanied by changes in the sectoral composition of production, employment, private consumption, and external trade. On the demand side, the changes are derived from the pattern of income elasticity of private consumer demand and the intensity of metal and energy use associated with urbanization and industrialization. On the supply side, they result from factor accumulation and productivity growth. Shifts in the patterns of production, employment and consumption are more uniform across countries than shifts in the level and composition of external trade. This is because a host of country-specific factors (such as size, geographic location, resource endowments, history of industrial growth, and trade and exchange rate policies) influence shifts in a country's level and composition of external trade.

There is clear evidence of a close relationship between (i) increasing population and per capita income, on the one hand, and the level and composition of food consumption, on the other; and (ii) per capita income and the level of industrial production, on the one hand, and the intensity of metal and energy use, on the other (Syrquin, 1988; Syrquin and Chenery, 1989). The trade impact of shifts in the level and composition of food consumption is often relatively small, depending on the supply response in agriculture to shifting relative prices. By contrast, given that metals and most energy products are non-renewable resources, rising demand for these raw materials can often lead to a substantial rise in imports. This section examines these relationships in the rapidly growing

Asian economies, emphasizing the experiences of China and India over the past decade.

1. Changing patterns of food consumption

A rise in per capita income from low levels is associated with an increase in per capita food consumption and a shift in the composition of household expenditure away from primary products, particularly food, towards manufactures, such as textiles and clothing, wood and paper products, machinery (e.g. electrical household equipment), and chemicals (e.g. pharmaceuticals). Household demand for services also increases, particularly for transport (especially personal transportation), electricity and housing (including furniture and consumer appliances).[1] The share of food in total household expenditure, while increasing in absolute terms, declines relative to that of other products, because the income elasticity of demand for food is below unity. Moreover, as per capita income continues to grow, the increase in per capita calorie intake peters out, and households change the composition of food consumption: the share of staple cereals falls, while in most countries the shares of meat, fish, dairy products, and fruits and vegetables tends to rise.

Income changes are not the only cause of shifts in food consumption patterns. Lifestyle and preference changes, particularly those associated

with urbanization and the increasing number of two-income nuclear families, also play a role. They tend to lead to a greater emphasis on convenience, including a growing share of food consumed away from home, a larger intake of readymade meals, and efforts to reduce the preparation time for traditional dishes (Popkin, 1993). Urbanization has a particularly strong impact on the level and composition of a country's food consumption if the incomes of urban consumers are significantly higher than those of rural consumers. Where this is the case, rural consumers may continue to strive for a higher per capita calorie intake on the basis of traditional diets, whereas urban consumers will have already reached nutrition levels similar to those in developed countries and will start shifting away from traditional diets.

The evolution of the level and composition of food demand has differed between China and India. By the end of the 1990s, China's average level of daily per capita calorie intake fell only 10 per cent short of the level of developed countries. Due to India's relatively lower level and growth rate of per capita income, growth in per capita demand for cereals in that country has been much slower than in China over the past two decades, and per capita rice and wheat consumption in India is still well below Chinese levels. Indeed, India's average level of daily per capita calorie intake has remained about 20 per cent below the Chinese level. The expectation, therefore, is that the increase in China's level of per capita food consumption in the future will be slower than in the past, while in India there is considerable scope for a further strong increase in per capita food consumption (FAO, 2002: 11–12).

Table 2.1 shows a sharp decline in the share of cereals in China's dietary pattern and an almost equally sharp increase in the share of vegetables (which have replaced cereals as the most de-manded food group), as well as some increase in the shares of oil crops and vegetable oils, meat, dairy products, fish and seafood, and fruits. This shift has been most pronounced in the urban areas, where consumers have higher incomes and access to a wider range of food products. Aggregate meat consumption has grown by more than 50 per cent over the past decade. Per capita meat consumption has also grown considerably, mainly due to a higher demand for pork and poultry, the consumption of which has risen by about one third over the past decade. The growing demand for meat is likely to continue: projections indicate that China alone will account for over 40 per cent of the additional demand for meat worldwide between 1997 and 2020 (Rosegrant et al., 2001: 65). The overall rise in meat consumption has also contributed to higher overall demand for soybeans, due to its increasing use as animal feed. Per capita consumption of vegetable oils, notably soybean oil and palm oil, has grown rapidly as the rise in urban incomes has stimulated their use in place of lower grade vegetable oils.

Changes in India's dietary pattern over the past decade have been markedly different from those in China (table 2.1). India's cultural traditions favouring vegetarianism have held back the country's demand for meat and animal feeds, and thus the dietary shift away from cereals to meat consumption (Rosegrant et al., 2001: 5–30). But the share of cereals in India's total food consumption has fallen only slightly, and the shares of vegetables, dairy products and fruit have not increased as much as in China. This indicates that India's dietary pattern has not yet shifted to the same extent as China's over the past decade and as Japan's and the Republic of Korea's in the 1970s and 1980s.[2]

Rapid population growth and rising per capita incomes have, nonetheless, resulted in a sharp rise

> The change in the composition of China's food consumption is likely to induce a further rise in the demand for livestock products, oil crops, vegetable oils, and fruit and vegetables.

> There is also potential for a strong rise in India's consumption of livestock products and feed.

Table 2.1

DIETARY COMPOSITION IN CHINA AND INDIA, 1994 AND 2002

(Per cent)

	China		India	
Product	*1994*	*2002*	*1994*	*2002*
Alcoholic beverages	3.6	3.8	0.3	0.4
Cereals	36.0	23.0	38.9	36.0
Eggs	2.1	2.4	0.3	0.4
Fish and seafood	3.3	3.5	1.1	1.1
Fruits	5.0	6.5	8.5	8.6
Meat	6.7	7.3	1.2	1.2
Milk	1.3	1.8	14.0	14.4
Oil crops	1.4	0.9	2.0	1.5
Pulses	0.3	0.2	3.1	2.8
Starchy roots	10.7	11.1	5.3	5.5
Sugar and sweeteners	1.2	1.0	5.9	5.6
Sugar crops	0.0	0.0	2.8	2.9
Vegetable oils	1.3	1.3	1.7	2.1
Vegetables	25.5	35.1	13.5	15.9
Other	1.5	1.9	1.3	1.6
Total	100.0	100.0	100.0	100.0

Source: UNCTAD secretariat calculations, based on FAOSTAT.

in India's absolute level of food consumption. For example, over the past decade, the aggregate consumption of cereals grew by about 15 per cent and vegetables by about 50 per cent, while that of soybeans about doubled and poultry almost tripled over the same period.[3] This indicates that India is still experiencing the first stage of the nutrition transition (i.e. the expansion of per capita calorie intake); once the level of per capita calorie intake in India comes close to the current level in China,[4] India might also experience a shift in its dietary pattern similar to that of other Asian countries. It has been estimated that by 2020 the consumption of dairy products, in particular, will increase dramatically to compensate for the relatively low meat consumption, but meat consumption will also increase. This, in turn, could drive a dramatic increase in the demand for cereals for livestock feed, unless soybeans take a larger share

in such feed, as happened in China during the 1990s. By 2020, India could thus reach a level of livestock product consumption (measured in terms of meat equivalents) similar to that of China in the early 1990s (Bhalla, Hazell and Kerr, 1999). India's shift in dietary pattern would also imply a strong increase in the consumption of fruit, vegetables, fish and seafood, similar to that of other Asian countries.

To sum up, China's pattern of average food consumption has gone through most of the first stage of the nutrition transition, as the aggregate level of per capita calorie intake has come close to that of developed countries. Hence, a future rise in the level of food consumption is likely to be much slower than in the past. By contrast, the change in the composition of food consumption (i.e. the second stage of the nutrition transition) is likely to continue for some time, leading to a further rise in the demand for livestock products, oil crops, vegetable oils, and fruit and vegetables. The pace at which rural incomes catch up with urban incomes will have a marked influence on how fast China's aggregate per capita calorie intake fully converges with developed-country levels and how fast its composition of food consumption continues to change. India, by contrast, appears still to be in the first stage of the nutrition transition, with substantial potential for a rapid rise in per capita calorie intake, particularly in the consumption of livestock products and livestock feed.

2. Intensity of metal and energy use

Over the past few decades, metal use in China, and to a lesser extent in India, has strongly increased. This trend has become particularly visible in China since the mid-1990s. Between 1994 and 2003, China's average annual growth of GDP of 8.2 per cent was accompanied by an even higher average annual rate of growth in the use of aluminium (13.6 per cent), copper (14.9 per cent), nickel (13.0 per cent) and steel (9.2 per cent). By contrast, India's average annual growth of GDP of 5.8 per cent over the same period was exceeded only by the growth of copper use (12.4 per cent), while there was slower growth in the use of alu-

minium (3.2 per cent), nickel (3.7 per cent), and steel (4.4 per cent).[5] Whereas the absolute level of metal use has risen rapidly in both China and India, measured in per capita terms it has remained relatively low, in particular when compared with the Republic of Korea or developed countries such as Japan and the United States (table 2.2).

Both these features of metal use by China and India reflect earlier findings in the literature based on the "intensity-of-use" hypothesis (e.g. Malembaum, 1973). In this context, "intensity of use" is defined as the ratio of metal use to national income; that is, the change in metal use depends on the change in the intensity of use and on the change in income. According to the "intensity-of-use" hypothesis, the intensity of metal use is low in poor countries, which rely largely on unmechanized subsistence agriculture. As economic development takes place, manufacturing, construction of housing and physical infrastructure, and household demand for consumer durables grow, while the share of agriculture in GDP declines. This causes the intensity of use to rise. At some point, however, the growth of manufacturing and construction activities, as well as household demand for consumer durables, starts to slow down. Thus, the "intensity-of-use" hypothesis anticipates an inverted U-shaped relationship, with the intensity of use first rising and then falling with growing per capita income. The hypothesis also anticipates change in the intensity of metal use due to forces other than those related to per capita income. Most importantly, new production technologies or long-term price increases may lead to the introduction of synthetic substitutes and to a reduction in the use of materials per unit of output, and, thus, tend to result in a downward shift in the intensity-of-use curve. Moreover, the mode of industrialization strongly influences the evolution of the intensity of metal use. This is because, for example, industrialization that relies on heavy industry requires greater metal use than industrialization that relies on light industry; moreover, a more outward-oriented industrialization strategy requires the extended metal-intensive construction of port facilities.

A comparative analysis of the intensity of use of aluminium, copper and nickel can give some indication of a country's current location on its intensity-of-use curve. As shown in figure 2.1,

Table 2.2

PER CAPITA METAL CONSUMPTION, SELECTED COUNTRIES, 2003

(Kilograms per capita)

	Aluminium	Copper	Nickel	Steel
China	4.0	2.4	0.1	197.9
India	0.7	0.3	0.0	33.4
Japan	15.8	9.4	1.4	603.2
Rep. of Korea	20.6	18.9	2.4	984.6
United States	19.3	7.8	0.4	349.3

Source: UNCTAD secretariat calculations, based on World Bank, *Global Economic Prospects - Commodity Market Briefs*, 2004; International Iron and Steel Institute, *Steel Statistical Yearbook 2004*; International Copper Study Group, *Copper Bulletin*, 11(4), 2004; and United Nations Department of Economic and Social Affairs (UN/DESA), Population Division, *World Population Prospects*, Rev. 2002.

China currently is in the stage of rapid industrialization on its intensity-of-use curve (i.e. the income elasticity of metal use exceeds unity). However, the rise in its intensity of metal use has not been continuous. Its intensity of aluminium and copper use rose until the late 1970s, after which it began a temporary decline. This decline is probably closely related to the transition away from central planning, with its emphasis on metal-intensive heavy industry. However, more recently, China's intensity of aluminium, copper and nickel use has picked up again, and has tended to grow steeply over the past two or three years, undoubtedly due largely to rapid industrialization. Part of this recent increase coincides with very high rates of investment, particularly investment in infrastructure. According to Morgan Stanley (2004: 29), for example, the share in GDP of China's investment in infrastructure rose from an already high level of about 15 per cent in 1997 to over 20 per cent in 2002. This indicates that similar rates of economic growth can be associated with different levels of intensity of metal use, depending on the rate and composition of investment. Thus the recent rapid rise in China's intensity of metal use may well slow down once investment in infrastructure declines from its current high levels.

Figure 2.1

INTENSITY OF METAL USE, SELECTED METALS AND COUNTRIES, 1960–2003

(Tons per GDP in $ million, PPP-adjusted)

Aluminium

Copper

Nickel

China India Japan Republic of Korea United States

Contrary to developments in China, India's intensity of aluminium, copper and nickel use has remained relatively stable over the past four decades. This difference is likely to reflect the two countries' different pace of industrialization and the relatively small share of investment in infrastructure in India's GDP. Assuming current growth and industrialization trends will be maintained, Morgan Stanley (2004: 15) estimates that India is 5 to 20 years behind China in per capita use of commodities such as aluminium, copper and steel.[6]

Figure 2.2 is a schematic representation of the relationship between the intensity of metal use on the one hand, and per capita income and time on the other. The continuous line in figure 2.2 reflects a locus of points on the different intensity-of-use curves for China, India, Japan, the Republic of Korea and the United States. The position of these countries on the continuous line should be taken as illustrative only, and not as a precise reflection of their actual locations. Moreover, given the tendency of long-term intensity-of-use curves to shift downwards, it is probable that the curves of late industrializers, such as China, will peak at a level below those of early industrializers, such as the United States.

Much of the reasoning behind the intensity of metal use also applies to the energy sector. Hannesson (2002), for example, shows that the intensity of use of energy first rises and then falls after countries reach a certain level of affluence. This means that energy use tends to grow more slowly than income in mature, industrialized economies, while the opposite holds for countries where the share of industry in output continues to grow.

In line with this general pattern, figure 2.3 indicates relatively little change in India's intensity of energy use over the past four decades. This is probably largely due to the country's relatively slow pace of industrialization, as well as its low level of investment in infrastructure, which has held back growth in demand for transportation fuels.

By contrast, the evolution of China's intensity of energy use does not correspond to the general pattern: it was highly volatile, but remained at a high level until the late 1970s when it started to decline, a trend that was reversed only in 2000 (fig. 2.3). The income elasticity of energy use in China between 1980 and 2003 was 0.5 – only slightly higher than in the United States (at 0.46) and much lower than in India and the Republic of Korea (at 0.97 and 1.22 respectively). The decline in China's intensity of energy use registered between the late 1970s and 2000 was mainly due to two factors: technical change within individual sectors (i.e. the change in the energy required to produce a particular product) and structural change between sectors (i.e. shifts in the share of total output between sectors which may be more or less energy-intensive). In China, gains in energy efficiency were brought about by the move from central planning towards market-mediated prices, enterprise ownership reform, and the introduction of energy-saving technologies; these are generally credited for most of the decline in China's intensity of energy use (Zhang, 2003; Fisher-Vanden et al., 2004).[7]

While China's energy use has risen at a slower pace than its GDP, its absolute level of energy use has steadily increased since the 1960s, except for the period between 1997 and 2000, when it decreased in spite of rapid output growth. This was mainly due to a decline in the direct use of coal caused by a variety of factors, including the closure of many State-owned factories that were large and inefficient energy users, the elimination of small and inefficient power generators, and the switch to high quality coal (Sinton and Fridley, 2000). Energy use between 2000 and 2003 grew at an average annual

> The recent rise in China's intensity of metal use may slow down once infrastructure investment declines from its current high levels.

> India is 5 to 20 years behind China in per capita use of commodities such as aluminium, copper and steel.

Figure 2.2

**STYLIZED REPRESENTATION OF THE
RELATIONSHIP BETWEEN INTENSITY
OF METAL USE AND PER
CAPITA INCOME**

has been declining (BP, 2005). While coal will probably continue to be a major source of energy for China, other sources of energy, such as oil (for transportation and industry), natural gas and hydroelectric power (growing in conjunction with increasing use of household appliances) are also likely to be increasingly used.

The future development of China's energy use will depend on a balance of opposing trends. On the one hand, continued rapid industrialization, higher living standards, and improved transport infrastructure will tend to increase China's intensity of energy use. On the other hand, despite the country's low average income elasticity of energy use over the past three decades or so, the level of energy use per unit of output remains relatively

Figure 2.3

**INTENSITY OF ENERGY USE,
SELECTED COUNTRIES, 1965–2003**

(Tons of oil equivalent per GDP in $ million, PPP-adjusted)

rate of 16.2 per cent, significantly more than between 1990 and 1997, when it was 5.2 per cent. As a result, for the first time since the late 1970s, China's income elasticity of energy use started to exceed unity in 2001. This strong growth appears to have been spurred largely by the substantial number of steel mills and aluminium smelters that came into operation in the late 1990s, as well as by the growth in demand for energy-intensive consumer goods, such as automobiles and home appliances (Crompton and Wu, 2005).

One notable feature in both China and India is the relatively high proportion of coal in total energy use: 69.0 per cent and 54.5 per cent, respectively, in 2004. Oil ranked second, accounting for 22.3 per cent of energy use in China and 31.7 in India. Although in China absolute levels of coal use have been increasing (except in the period 1998–2000), in total energy use the share of coal

high for a country at its current level of economic development (fig. 2.3). This indicates considerable further potential for the adoption of energy-saving technologies (e.g. more energy-efficient vehicles). The imposition of a vehicle fuel tax and further liberalization of energy prices could also help cut the increase in energy demand. However, such measures would need to be weighed against their adverse impact on the real incomes of energy users, such as farmers who rely on diesel oil for transportation and machinery, and for whom the energy-intensive production of fertilizer input is an important cost factor. Taking account of these opposing factors, it is widely expected that the income elasticity of China's energy use will be substantially below unity in the next few years. For example, Crompton and Wu (2005) estimate an annual growth rate of 3.8 per cent between 2004 and 2010, while the International Energy Agency (2004) estimates an average annual growth rate of 2.6 per cent annually from 2002 to 2030.

> The extent of China's future energy use will depend on a balance of opposing trends ... but it is likely to grow less than its income.

C. Domestic resource constraints and the balance-of-payments constraint

Changes in the supply and demand patterns of rapidly growing and industrializing countries are typically characterized by the accumulation of capital (both physical and human), sectoral differences in productivity growth, a shift in household demand from food to manufactured products and services, an initial rise and then decline in per capita use of energy and industrial raw materials as per capita income rises, and a growth in demand for machinery and intermediate production inputs (Chenery, Robinson and Syrquin, 1986). But the way in which changes in these patterns interact with shifts in the level and composition of a rapidly growing country's external trade depends on the country's size, changes in its domestic resource constraints and demand patterns relative to those of other countries, the balance-of-payments constraint, and trade and exchange rate policies.

Rapid economic growth and industrialization face two main constraints. A country's domestic natural-resource endowment determines the degree to which its self-sufficiency in food consumption and raw-material use is compatible with rapid industrial development and economic growth. To the extent that the growing demand for food, energy, industrial raw materials, intermediate products and capital goods cannot be met from domestic production, the pace of income growth and industrialization will slow down unless imports grow. But the balance-of-payments constraint limits import growth. Imports of food and inputs for industrial production (including raw materials, intermediate goods and capital goods) cannot exceed what is earned from exports and net inflows of financial capital. Hence a key determinant of the dynamics of economic growth and industrialization in an open economy is the ca-

pacity to secure the increased export revenues required to overcome domestic resource constraints and the balance-of-payments constraint, translate these increased export earnings into investment in new lines of production, and implement a coherent strategy of industrial upgrading. Where this occurs, rapid growth and industrialization increases a country's export capacity, and the higher export earnings can be used to finance the greater volume of imports required for still further growth.

1. Relative resource constraints and country size

The evolution of domestic resource constraints during economic development is strongly influenced by the size of a country, measured by population, geographic area, or aggregate income. Other things being equal, a larger population makes the domestic resource constraint more significant because of the associated higher demand for food. On the other hand, a large population means greater availability of labour, and thus improves a country's supply capacity, including for food production. The size of a country's geographic area has an impact on domestic resources because arable land, energy sources and industrial raw materials are more likely to be present in larger quantities and in greater variety in a large territory than in a small one.[8] But a large geographic area also imposes greater demands on domestic resources, because it requires greater quantities of raw material to develop the country's physical infrastructure. Hence, countries with very large territories, such as China and India, need substantial investment to physically link the domestic rural and urban markets.

A country's relative resource endowment influences the impact of the interplay between country size and domestic resource constraints on the country's trade composition as its per capita income rises.[9] A simplified approach to examin-

> Natural-resource endowments determine the degree to which self-sufficiency in food and raw materials is compatible with rapid industrial development and growth ... but the balance-of-payments constraint limits import growth.

ing relative factor endowments is to concentrate on labour, land and skills of the labour force, and to omit capital (physical and financial), which, though of vital importance as an input to production, has become highly mobile between countries.[10]

Figure 2.4 shows the evolution of the land–labour and skill–labour resource ratios for several groups of economies over the past four decades: the vertical axis measures the skill–labour ratio (h), proxied by average adult years of schooling; and the horizontal axis measures the land–labour ratio (n), proxied by square kilometres of land per 100 adults. The groups include two main developing regions (sub-Saharan Africa and Latin America (including the Caribbean)) and two groups of developed countries, divided on the basis of their land–labour ratios – land-scarce developed countries include those of Western Europe, while land-abundant developed economies include Australia, Canada, New Zealand, Scandinavia and the United States. The figure also includes China, India and Japan, as well as the Republic of Korea and Taiwan Province of China taken as a group to represent the first-tier newly industrializing economies (NIEs). Three of the country groups are land-abundant (sub-Saharan Africa, Latin America, and the land-abundant developed countries), while the other groups and individual economies are land-scarce. In terms of skill–labour ratios, the groups divide into three categories: (i) at low levels of education (sub-Saharan Africa and India), (ii) at intermediate levels of education (China and Latin America), and (iii) comprising the two highly educated developed-economy groups, as well as Japan and the Republic of Korea and Taiwan Province of China.[11]

One striking feature of figure 2.4 is how much the composition of resources varies among the regions. The other striking feature is how little the pattern of variation changed between 1960 and 2000. There are some differences in the degree of movement upwards and leftwards, but for

Figure 2.4

RESOURCE COMBINATIONS OF COUNTRIES/REGIONS, 1960–2000 (AT 5-YEAR INTERVALS)

(Unweighted averages)
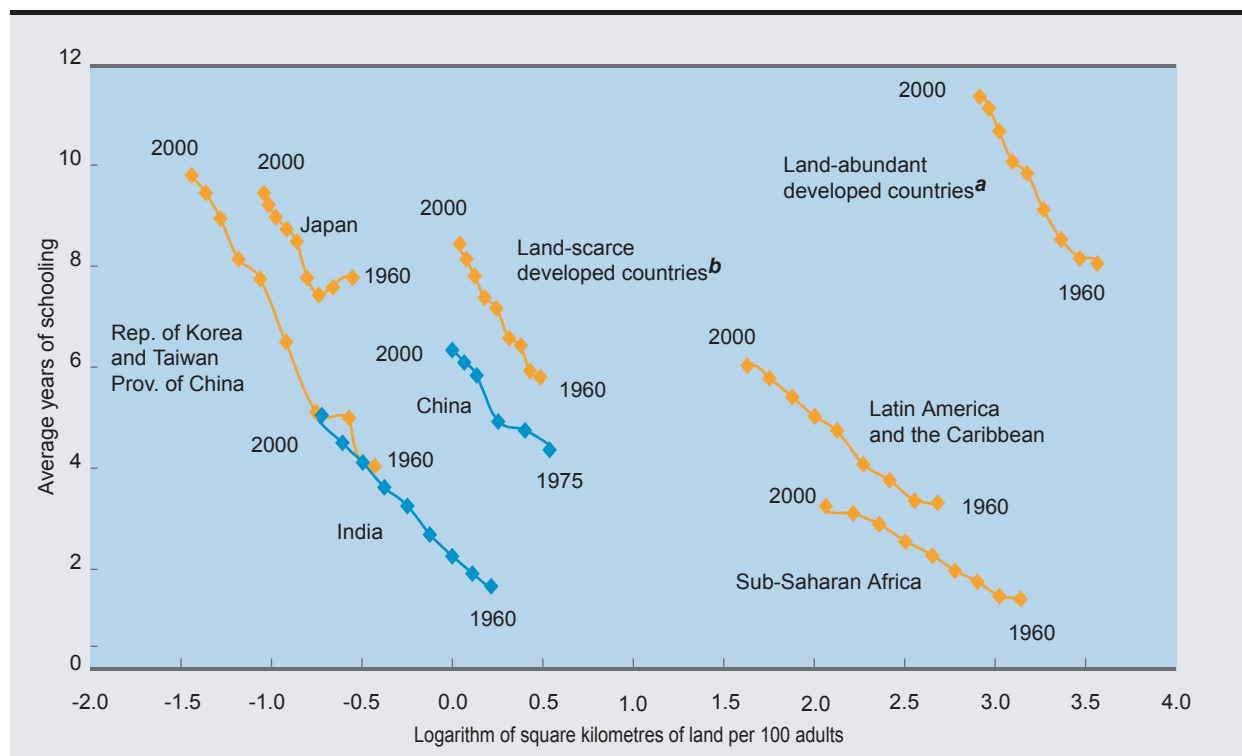
Source: UNCTAD secretariat calculations, based on Barro and Lee, 2001; and World Bank, *World Development Indicators.*
Note: The figure includes all countries and economies with a population larger than one million for which comprehensive data are available, except countries in the Middle East and North Africa, countries in South Asia other than India, and economies in East Asia other than China, the Republic of Korea and Taiwan Province of China which are omitted so as not to clutter the chart.
a Australia, Canada, New Zealand, Scandinavia and the United States.
b Western Europe.

the most part the positions of economies and groups relative to one another were the same in 2000 as they had been in 1960. Moreover, it seems likely that this pattern of the past few decades will persist over the next few decades; even large increases in school enrolment rates will feed through only slowly to raise the average educational level of the labour force, and population growth rates will not differ by enough to alter the ranking of regions by land–labour ratios. The figure also shows that, depending on the relative growth rates of their population and skills, China and India are likely to move towards relative endowment positions similar to those of Japan and the group comprising the Republic of Korea and Taiwan Province of China.

The figure further illustrates how relative endowment positions may influence shifts in the composition of imports and exports as income rises. In resource-rich regions (such as sub-Saharan Africa, Latin America, and the land-abundant developed countries in the diagram), the shift of resources away from primary production is likely to lag behind that in the other regions at low income levels. Moreover, these regions will tend to maintain a relatively large share of primary commodities in their exports even at relatively high income levels. For those economies that have a comparative advantage in manufactures (such as the Asian economies in the diagram), the composition of their manufactured exports in labour- and skill-intensive products will be influenced by their

relative skill–labour ratios. This implies that India's merchandise exports will consist largely of labour-intensive manufactures, while those of Japan and the Republic of Korea will comprise largely skill-intensive manufactures, with China being in an intermediate position. Moreover, for all these Asian economies the share of primary commodities in their imports will tend to increase as per capita income rises.

In addition to relative skill–labour ratios, the absolute number of skilled workers may influence the range of manufactures that a country exports. China and India are in a unique position in this respect: because of their very large populations, they combine a large relative supply of low-skilled labour with an ample absolute supply of high-skilled labour. For example, in 2000–2001, 12.1 million students in China and 10.6 million in India were enrolled in tertiary education, compared to about 4 million in Japan and 3 million each in Indonesia and the Republic of Korea. The number of university graduates in China was 1.95 million, compared with about 1.01 million in Japan and about 0.5 million each in Indonesia, the Republic of Korea and Thailand. Moreover, in 2001, China had the second largest number of researchers in the world, its R&D personnel totalling almost one million, slightly more than in Japan and about six times more than in the Republic of Korea.[12] This means that China and India may attain significant export diversification at an earlier stage of development than did the NIEs, and they may simultaneously export a wider range of both labour- and skill-intensive manufactures.

2. Shifts in trade composition: experiences of Asian industrialization

The above examination of shifts in comparative advantage in the course of economic development suggests that rapid income growth in relatively natural-resource-poor countries, such as China and India (as well as Japan and the Republic of Korea), occurs along with a change in their export composition from agricultural goods to manufactures. It also suggests that, depending on the country's relative endowment of skilled labour, the composition of manufactured exports changes from an initial predominance of labour-intensive goods to an increasing share of more skill-intensive products. This section examines the differences and similarities of the shifts in the trade composition of China, India, Japan and the Republic of Korea over the past four decades. The two preceding sections focused on structural changes in the economies of China and India, associated with factor and productivity growth on the supply side and income growth on the demand side; this section looks at the impact of these structural changes, as well as trade and exchange rate policies, on their trade composition.

China's trade reforms, embedded in its overall reform strategy, have been gradual. Results from each reform have influenced the design of the next stage of reform – an approach that in China has sometimes been described as "crossing the river by feeling the stones". Major features of China's trade reform included the decentralization of foreign trading rights by progressively increasing both the number of companies authorized to carry out trade transactions and the range of goods these companies are allowed to trade, greater transmission of international prices of traded goods to the domestic market, and the gradual removal of exchange rate distortions. As a result, China's foreign trade regime has increasingly come to rely on traditional trade policies in the form of tariffs and non-tariff measures. This shift in the kinds of trade policy instruments used has been accompanied by progressive trade liberalization: the exchange rate was unified in 1994, the number of products subject to quotas and licences was considerably reduced during the 1990s (Lardy, 2002), and tariffs were significantly lowered throughout the reform process, with average tariffs falling from over 50 per cent in the early 1980s to about 16 per

> China and India combine a large relative supply of low-skilled labour with an ample absolute supply of high-skilled labour, and may therefore succeed in diversifying their manufactured exports at an earlier stage of development than did the NIEs.

cent on the eve of China's accession to the WTO (IMF, 2004b).

Its WTO accession in December 2001 constitutes part of China's ongoing reform process (*TDR 2002*, chap. V), facilitating its emergence as a major trading nation. It has also contributed to reducing trade tensions that have often accompanied the emergence of major new traders over the past few decades. Nevertheless, there were concerns by China's policy-makers, particularly regarding the initial post-accession period, about the competitiveness of the agricultural sector, which had enjoyed a relatively high degree of border protection, and about the heavy-industry sector (dominated by State-owned enterprises for which the transformation and restructuring process being undertaken was far from complete). As discussed in more detail below, China's WTO-accession commitments in agriculture included the phasing-in of tariff rate quotas for a number of bulk commodities and a reduction of tariffs for other commodities. Both these measures reached their committed levels in 2004. Other commitments included limiting the share of import quotas allocated to State-trading enterprises, eliminating export subsidies, and the use of science-based sanitary and phytosanitary (SPS) standards for imports. China also made far-reaching liberalization commitments in the services sector (Mattoo, 2004). It is clear that the impact of trade liberalization on the capacity of domestic firms to withstand pressure from foreign competitors very much depends on how the exchange rate is managed. China's tight exchange rate management, mainly designed to avoid a nominal appreciation of its currency vis-à-vis the dollar, has facilitated adjustment during the initial post-accession period.

The selective use of duty exemptions and rebates on value added tax payments, which have supported its processing trade – primarily assembly operations – and foreign direct investment (FDI), has perhaps been the single most important trade policy instrument in China's export promotion policy. Tariff exemptions have been concentrated in imports of intermediate products used for assembly or transformation in the pro-

China and India have moved into leading positions in world trade.

duction of goods for export. Typically, neither the imported intermediate products nor the finished goods have been entering China's domestic market. Concessional duties have also been granted to equipment imported by foreign firms as part of their contribution to initial investment in affiliates in China. These measures have contributed to a sizeable expansion of its processing trade, the bulk of which involves foreign-funded enterprises (FFE) based in China, owned mainly by investors from East Asia (*TDR 2002*; Lemoine and Ünal-Kesenci, 2004).

India began trade reforms about a decade after China. Regardless of when exactly the reforms began,[13] there is little doubt that they were undertaken in what was by and large a market economy. Thus, unlike in China, there was no complex transition from a centrally planned to a market economy. The reforms required for greater trade integration were, nonetheless, substantial. As in China, they involved redressing the overvaluation of the exchange rate (a process started in 1986 and completed with the switch to managed floating in 1993), phasing out pervasive import licensing, and reducing tariff protection. While import licensing for capital and intermediate goods was abolished in 1993, quantitative restrictions on imports of manufactured consumer goods and agricultural products were finally abolished only in 2001. Average tariff levels were reduced significantly, but at a level of about 22 per cent in 2004 (IMF, 2004c: 16) they remain higher than in most other developing countries. While the reform process has gone far, important aspects of the reforms, particularly the removal in 2001–2002 of items with high export potential (such as garments, shoes, toys, and auto components) from the list of items reserved for small-scale production, have only recently been implemented, and it may take some years before their outcomes are reflected in economic performance (Ahluwalia, 2002: 72).

In the wake of their adoption of reform programmes, China and India have moved into leading positions in world trade. In 2004, China was the world's third largest exporter of merchandise goods and the ninth largest exporter of

commercial services, with a share of 9.0 per cent and 2.8 per cent, respectively, of total world exports. In the same year, India ranked 20th in world merchandise exports with a share of 1.1 per cent, and was the world's 22nd largest exporter of commercial services with a share of 1.5 per cent. However, in most years since 1995, India's services exports have grown much more rapidly than its merchandise exports.[14] The reforms in China and India have not only supported trade growth, they have also contributed to a change in the composition of their trade. This is the focus of the remainder of this section.

(a)   Self-sufficiency in agriculture and energy

The fact that their comparative advantage in agricultural products is poised to decline in China and India has sometimes raised concerns about their capacity to maintain food self-sufficiency. For example, in the 1960s and 1970s there were frequent warnings of impending famines in India and in South Asia as a whole. This has contributed to fears that strongly growing food imports by China and India could seriously upset world food markets. However, as a result mainly of the Green Revolution, which started in the mid-1960s, the aggregate supply of cereals (especially maize, rice and wheat) more than doubled in South Asia from the 1960s to the 1990s.

More recently, there have been concerns that the completion of India's phasing out of quantitative restrictions by April 2001 and China's accession to the WTO might also have significant adverse effects on the two countries' agricultural sectors and on their food self-sufficiency. This is because the effects from trade policy reform in agriculture come in addition to the adjustment pressure resulting from the nutrition transition and the related shifts in private consumer demand for food, discussed above. But regarding China, many observers have noted that the country's WTO-accession commitments implied a reduction of overall agricultural import tariffs (in terms of simple

> China has remained overwhelmingly self-sufficient in all major food items, but even small changes in self-sufficiency ratios can have a considerable impact on the country's agricultural trade balance.

averages) from about 21 per cent in 2001 to 17 per cent in 2004, after having already declined from 42.2 per cent in 1992 to 23.6 per cent in 1998. Thus, they argue, the implications of agricultural trade liberalization stemming from China's accession to the WTO may, on average, be best considered continuations of past trends, and therefore unlikely to cause drastic changes in the country's net agriculture and food trade balances (see, for example, Huang and Rozelle, 2003).[15]

Examining the actual evolution of food self-sufficiency in China and India, table 2.3 traces the ratio of domestic production to domestic consumption, for selected food products in China and India from 1994 to 2002 (the last year for which comprehensive data are available). It shows that both China and India have been fairly successful in maintaining a high degree of food self-sufficiency. The main exception to this pattern is the marked decline of self-sufficiency in soybeans for both countries, and in soybean oil for India. Regarding India, the decline in soybean self-sufficiency reflects the finding of a number of studies (e.g. Gulati and Mullen, 2003) that oilseeds and edible oils are the only major commodities likely to be adversely affected by trade policy reform in agriculture. But given the relatively wide gap between bound and actually applied tariffs, the Indian Government was able to flexibly adjust import duties on edible oils; it was thus able to reduce the difference between domestic and international prices that had grown partly in response to the sharp decline in international prices of vegetable oilseeds and oils between 1998 and 2002. It is likely that most of the decline in China's self-sufficiency in soybeans also results from a combination of the fall in international prices and domestic policy reform (i.e. the reduction of the out-of-quota tariff from 114 per cent to 3 per cent and the phasing-out of import quotas that the Chinese Government undertook in 2000 in anticipation of its WTO-accession commitments).

Although China has remained overwhelmingly self-sufficient in all major food items, even

Table 2.3

FOOD SELF-SUFFICIENCY RATIOS IN CHINA AND INDIA, SELECTED PRODUCTS, 1994–2002

(Per cent)

Product	China			India		
	1994–1996	*1999–2001*	*2002*	*1994–1996*	*1999–2001*	*2002*
Wheat	90.0	96.1	99.1	97.0	107.7	104.3
Rice	98.5	101.1	99.5	103.1	110.7	81.2
Maize	100.2	97.9	105.9	100.5	99.6	100.8
Bovine meat	99.5	98.2	98.2	105.6	108.9	111.5
Mutton and goat meat	98.7	98.5	98.0	101.4	101.4	100.7
Poultry meat	97.1	95.2	97.5	100.0	100.0	100.1
Pig meat	101.3	99.5	99.7	100.2	100.1	100.2
Soybeans	82.7	59.8	50.1	102.2	103.7	62.5
Palm oil	14.9	11.0	7.0	0.0	0.0	0.0
Soybean oil	61.7	84.3	103.1	84.4	54.4	48.9
Milk	87.0	88.9	90.3	100.1	100.3	100.4
Pelagic fish	30.2	38.7	38.9	97.9	95.7	92.9
Demersal fish	89.4	85.6	83.8	100.2	100.8	100.6
Marine fish, other	107.6	143.8	162.4	151.0	172.6	170.8
Crustaceans	101.4	103.4	104.9	134.2	142.1	144.5
Bananas	92.6	91.3	94.1	100.0	100.0	100.1
Apples	100.9	102.3	106.1	100.9	100.1	100.0

Source: UNCTAD secretariat calculations, based on FAOSTAT.
Note: Self-sufficiency ratio = production divided by total availability.
Total availability = production + net imports + net stock changes.

small changes in self-sufficiency ratios can have a considerable impact on the country's agricultural trade balance, given the size of its economy. Table 2.4 shows the evolution of China's imports and exports for selected agricultural product categories between 1980 and 2003 (the last year for which comprehensive data are available). It reveals that China's food trade balance has been in surplus over the past few years and that, with an average annual growth rate of 5.4 per cent, its food exports performed relatively well between 1990 and 2003. Even though China's food imports have risen faster than its food exports over the past few years, so far there has not been a sustained, dramatic growth in food imports, as some analysts in the early 1990s had been expecting (e.g. Brown, 1995).

The table also shows that China's food imports increased significantly between 2002 and 2003, and that the rise in imports of seeds for soft fixed oils (which include soybeans) accounted for most of this increase. According to China's Customs Statistics reported by Gale (2005), China's soybean imports further increased in 2004 to reach about $7 billion, up from about $5 billion in 2003 and $2.2 billion in 2002. This corresponds to about 30 per cent of the rise in China's import bill for agricultural products between 2002 and 2004. As discussed in more detail below, this sharp increase in the value of China's soybean imports is partly due to the rise in world market prices for this item and in shipping costs. However, the rise in international primary commodity prices is partly the result of China's own growing demand for pri-

Table 2.4

CHINA'S AGRICULTURAL TRADE BY MAJOR PRODUCT CATEGORY, 1980–2003

(Millions of dollars)

	Grains, oilseeds and fixed vegetable oils			Horti-cultural products	Livestock products	Other food products, beverages and tobacco	Total food	Agricultural raw materials			Total agri-culture
	Total	of which:						Total	of which:		
		Wheat	Seeds for soft fixed oils						Cotton	Rubber and hides and skins	
Exports											
1980	691	0	170	842	638	1 197	3 368	789	47	206	4 157
1987	1 332	1	640	1 290	1 659	1 471	5 752	1 685	777	140	7 437
1990	1 387	1	580	1 760	2 646	2 058	7 851	1 383	318	173	9 234
1995	1 242	2	494	3 399	4 758	2 854	12 254	1 343	49	95	13 597
2000	2 324	0	394	3 359	5 363	2 482	13 528	1 589	307	65	15 117
2001	1 788	47	412	3 777	5 887	2 744	14 196	1 256	82	78	15 452
2002	2 414	70	425	4 318	6 291	3 105	16 127	1 458	172	95	17 585
2003	3 528	265	532	5 249	7 071	3 352	19 201	1 604	135	103	20 805
Imports											
1980	613	226	41	11	56	333	1 013	1 798	313	458	2 812
1987	2 063	1 362	62	55	138	879	3 135	2 576	13	460	5 711
1990	3 321	2 157	18	83	251	927	4 583	3 022	718	386	7 604
1995	6 176	2 026	104	185	784	1 917	9 062	6 385	1 487	1 168	15 446
2000	4 360	147	2 942	516	2 100	1 829	8 805	9 853	137	1 958	18 658
2001	4 530	121	3 194	675	2 180	1 802	9 186	10 133	117	2 246	19 320
2002	4 684	103	2 637	689	2 521	1 770	9 664	11 313	200	2 432	20 977
2003	8 854	77	5 514	871	3 098	1 866	14 689	14 866	1 218	3 339	29 555
Net exports											
1980	78	- 226	129	832	582	864	2 355	-1 010	- 266	- 252	1 345
1987	- 731	-1 362	578	1 235	1 521	592	2 617	- 891	764	- 320	1 726
1990	-1 934	-2 156	562	1 676	2 395	1 131	3 268	-1 639	- 400	- 213	1 629
1995	-4 934	-2 025	390	3 215	3 975	937	3 192	-5 041	-1 438	-1 073	-1 849
2000	-2 036	- 147	-2 548	2 843	3 264	653	4 723	-8 264	170	-1 893	-3 541
2001	-2 742	- 75	-2 782	3 102	3 707	942	5 009	-8 878	- 35	-2 168	-3 868
2002	-2 271	- 33	-2 212	3 629	3 770	1 335	6 463	-9 855	- 27	-2 337	-3 391
2003	-5 326	188	-4 982	4 378	3 973	1 487	4 512	-13 262	-1 084	-3 236	-8 750

Memo item: *Average annual growth, 1990–2003 (per cent)*

Agricultural exports	4.9
Food exports	5.4
Agricultural imports	10.7
Food imports	9.4
Food imports, excluding seeds for soft fixed oils	5.1

Source: UNCTAD secretariat calculations, based on United Nations Commodity Trade Statistics database (UN COMTRADE); and estimates by the United Nations Statistical Office.

Note: Data reported for 1980 rely to a large extent on estimates. Cereals, oilseeds and vegetable oils include Standard International Trade Classification (SITC) 04, 22 and 42. Horticultural products include SITC 05. Livestock products include SITC 01, 02 and 03.

mary commodity imports. This implies that the country's strong import demand has had a multiplicative effect on the dollar value of commodities imported, and thus might prove self-limiting.

It is also worth highlighting that between 2000 and 2003 wheat imports were much lower than in the early 1990s (table 2.4). According to more recent data (Gale, 2005), this development was sharply reversed in 2004 when wheat imports bounced back to reach about $1.6 billion. According to Gale (2005), government policies have been highly responsible for these swings: from 1997 to 2003 China disposed of its ageing grain in government reserves while replenishing them in 2004, and government entities, the main importers of wheat, increased imports of this commodity in an effort to curb the rising prices of domestic grain.

Regarding agricultural raw materials, table 2.4 shows that cotton accounted for much of the surge in import values between 2002 and 2003. This was closely related to the increasing use of imported cotton, not only because of China's rapidly growing clothing exports, but also partly because of a poor domestic cotton harvest in 2003. The net trade balance of hides and skins (used as inputs for other natural-resource-intensive and labour-intensive manufactures, such as footwear and leather goods) and of rubber (used for the rapidly expanding production of vehicle tyres) has also considerably deteriorated over the past few years.

To sum up, even though China remains largely self-sufficient in all major food items, the direction of change in the country's agricultural trade is towards greater import dependence. Rosegrant et al. (2001: 74), for example, estimate that China will become the world's largest importer of agricultural commodities in value terms by 2020, its imports increasing from $5 billion in 1997 to $22 billion in 2020. While this would imply that China's net agricultural imports as a percentage of total

agricultural production would increase only from 2 per cent to 6 per cent, such an outcome depends largely on rapid productivity growth in agriculture, which is an underlying assumption of the estimation results. Indeed, while China's agricultural output has grown rapidly for several decades, particularly since the rural reforms that began in 1979 (Fan and Zhang, 2002), its further growth would probably be necessary in order to meet future increases in demand without strongly impairing food self-sufficiency. This is likely to require greater investment in agricultural research (Huang, Li and Rozelle, 2004).

Thus China's agricultural trade balance in the future will largely depend on government policy. In a sense, the new approach to agricultural policy that was adopted in 2004 represents a reappraisal of the role of agriculture in economic development. This reappraisal is reflected in China's introduction of its first national direct subsidies to farmers, the initiation of an eventual phasing out of a long-standing tax on farmers, subsidizing seed and machinery purchases, and increasing funding for agricultural infrastructure and research (Gale, Lomar and Tuan, 2005). Moreover, if China upgrades its export composition away from relatively natural-resource-intensive and labour-intensive sectors such as clothing, footwear and leather goods, the recent increase in agricultural imports, due to imported raw materials for such exports, will be dramatically reversed.

Turning to an assessment of China's self-sufficiency in energy, it is useful to recall that in 2004 the country was the sixth largest producer of oil and the leading producer of coal worldwide (BP, 2005). Indeed, following oil discoveries in the 1960s, China's domestic oil production has steadily increased over the past four decades, and the share of fuels in total imports remained small until about 1990. Since then, however, the expansion of domestic production has no longer kept pace with the rise in demand. As a result, China

> **China's agricultural trade balance in the future will largely depend on government policy.**

> **China's energy demand is likely to continue to outpace the future growth of domestic supply, so that fuels will add substantially to China's total import bill.**

Figure 2.5

**CHINA: CONSUMPTION AND PRODUCTION
OF OIL AND COAL, 1965–2004**

(Million tons of oil equivalent)
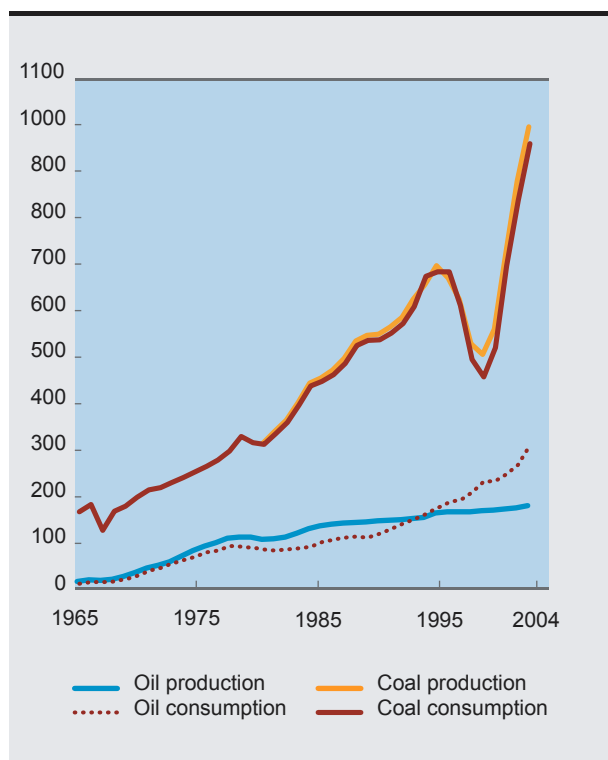
Source: British Petroleum, *Statistical Review of World Energy
2005.*
Note: Coal production data are available only from 1981
onwards.

became a net oil importer in 1993, and the gap
between the country's domestic consumption and
production has risen substantially over the past
decade (fig. 2.5). By contrast, the production of
coal, which, as already mentioned, continues to
account for a large share of China's total energy
use, has closely kept up with changes in the use
of coal. However, given that China's energy de-
mand is likely to continue outpacing the future
growth of supply, fuels are likely to add substan-
tially to China's total import bill.

India's energy use has depended heavily on
imports, given the limited domestic energy re-
sources. Thus fuels have comprised one quarter
to one third of the country's total merchandise
imports.

(b) Import composition

Sustained rapid growth and industrialization
are generally accompanied by a rise in imports
(both in absolute value and as a share of total im-
ports) of primary commodities and, generally at
the early stages in industrialization, of capital
equipment and intermediate inputs. Shifts in im-
port composition for Japan, the Republic of Korea,
China and India over the past few decades are re-
flected in table 2.5. The table uses six broad
categories of products, based on a distinction be-
tween primary commodities and manufactures; the
latter are further categorized according to whether
they are labour- or resource-intensive, and whether
their production involves low-, medium- or high-
skill and technology intensity; a separate category
is the electronics sector.[16]

The table shows that, contrary to the experi-
ence of the Republic of Korea during its process
of rapid economic catch-up, the share of machin-
ery in the total imports of China and India has
declined over the past few years. While this may
reflect substantial pent-up demand for state-of-the-
art technology, which, particularly in the case of
China, could result in rapidly rising high-technol-
ogy imports once the appropriate conditions are
in place both domestically and internationally,
country-specific factors have also played a sig-
nificant role.

In the case of India, the decline in the pro-
portion of machinery in total imports is closely
associated with the relatively limited share of in-
dustry in the country's economic structure. In the
case of China, it coincides with a sharp growth in
the share of electronics parts and components. This
reflects the greater role that participation in inter-
national production networks has played in its
recent industrialization and development strate-
gies, as it has in many other developing countries.
In principle, becoming part of an international
production network can give substantial impetus
to a developing country's development and indus-
trialization strategy, mainly because such partici-
pation broadens the range of sectors on which
developing countries can base their quest for in-
dustrialization. Given that product-specific char-
acteristics allow a partitioning of the production
process of a number of industrial sectors into vari-
ous slices, industrializing countries can focus on

Table 2.5

PRODUCT STRUCTURE OF IMPORTS OF SELECTED ASIAN COUNTRIES, 1965–2003

(Percentage of total merchandise imports)

Product group	Japan 1965	1975	1985	1995	2003	Republic of Korea 1965	1975	1985	1995	2003	China[a] 1987	1995	2003	India[a] 1975	1985	1995	2003
Primary commodities	80.5	83.0	74.7	45.8	42.1	48.4	49.4	42.8	31.9	35.8	18.0	20.4	20.1	44.3	45.4	42.3	45.4
All food products	22.7	18.0	14.1	16.4	12.5	15.1	14.2	5.8	5.5	5.6	7.4	7.0	3.6	31.9	8.4	4.6	5.8
Meat and meat preparations	0.6	1.2	1.5	2.9	2.3	0.0	0.2	0.1	0.6	0.9	0.0	0.1	0.2	0.0	0.0	0.0	0.0
Fish and seafood	0.9	2.0	3.7	5.3	3.4	0.0	0.1	0.3	0.6	1.1	0.1	0.5	0.5	0.0	0.0	0.0	0.0
Cereals and cereal preparations	9.4	5.7	3.1	1.6	1.4	12.1	9.5	2.9	1.5	1.1	1.9	2.8	0.1	29.1	0.6	0.1	0.0
Fruits and vegetables	1.8	1.1	1.5	1.9	1.6	0.1	0.2	0.2	0.4	0.5	0.1	0.1	0.2	1.4	1.3	1.6	1.5
Vegetable oilseeds and oils	4.7	2.7	1.8	1.0	0.8	0.9	1.0	1.2	0.7	0.5	1.0	2.1	2.1	0.6	3.9	2.3	3.8
Agricultural raw materials	20.4	9.5	7.2	6.3	3.0	22.2	11.4	7.9	5.5	2.5	6.3	5.0	3.7	2.5	3.4	4.3	3.3
Cotton	5.4	1.5	0.8	0.2	0.1	9.1	3.4	1.7	0.6	0.2	0.0	1.1	0.3	0.8	0.1	0.5	0.5
Rubber	1.6	0.3	0.4	0.4	0.3	1.9	0.8	0.7	0.6	0.3	0.9	0.6	0.6	0.2	0.5	0.6	0.4
Cork and wood	6.1	5.3	3.4	3.7	1.7	4.6	3.7	1.8	1.3	0.5	1.4	0.4	0.9	0.0	0.2	0.7	1.0
Minerals, ores and metals	17.4	11.0	9.0	6.7	5.0	4.2	4.7	5.3	6.4	5.6	3.0	4.5	5.6	5.4	7.0	7.5	4.3
Metalliferous ores and metal scrap	12.5	7.8	5.0	2.9	2.4	1.1	2.4	2.9	2.5	2.6	1.2	2.3	2.9	0.4	1.9	2.5	1.8
Non-ferrous metals	3.0	2.2	3.1	3.2	2.2	2.0	0.9	1.5	3.5	2.8	1.7	2.0	2.5	2.7	2.8	3.7	1.9
Fuels	20.0	44.5	44.4	16.4	21.6	7.0	19.1	23.8	14.5	22.1	1.3	3.9	7.2	4.4	26.6	25.9	32.0
Labour- and resource-intensive manufactures	1.8	4.0	5.7	14.0	12.2	6.8	5.3	5.0	7.7	6.8	12.9	14.4	6.9	4.0	8.2	9.7	13.5
Textiles	0.7	1.4	1.6	1.9	1.4	6.0	3.5	2.2	3.1	1.9	8.6	8.5	3.5	0.3	0.8	1.1	1.6
Clothing	0.1	0.9	1.6	5.7	5.2	0.1	0.1	0.1	0.8	1.5	0.0	0.8	0.3	0.0	0.0	0.0	0.1
Cork, wood and paper products	0.2	0.5	0.9	2.7	2.7	0.4	0.4	0.6	1.6	1.3	3.1	2.5	1.4	1.7	1.2	1.5	1.0
Non-metallic mineral manufactures	0.7	0.8	1.0	1.8	1.2	0.3	0.4	1.0	1.2	1.3	0.8	0.8	0.9	2.0	6.1	6.8	10.5
Low-skill and technology-intensive manufactures	2.5	0.8	1.9	3.2	2.5	8.9	9.7	16.2	7.7	5.7	13.8	7.5	6.7	9.8	8.9	5.6	5.2
Iron and steel	1.7	0.3	1.2	1.8	0.9	5.4	4.7	3.8	5.0	4.2	11.1	5.0	5.3	8.4	7.1	4.2	2.0
Ships and boats	0.4	0.2	0.2	0.1	0.0	1.6	3.4	11.1	1.2	0.3	0.5	0.8	0.2	0.1	0.3	0.3	1.9
Medium-skill and technology-intensive manufactures	5.2	3.8	4.4	10.2	11.5	10.3	14.3	13.5	20.7	15.4	27.7	26.2	20.1	15.8	17.0	16.6	10.4
Non-electrical machinery	4.2	2.7	2.7	4.0	5.0	7.9	11.1	10.8	16.7	9.2	19.2	20.8	12.6	11.6	14.0	12.9	7.4
Electrical machinery, excluding electronics	0.5	0.5	0.8	1.9	2.7	1.7	1.7	1.6	2.1	4.0	1.8	2.8	3.9	2.9	1.1	1.6	1.6
High-skill and technology-intensive manufactures	6.9	5.3	9.1	11.1	12.7	24.1	14.6	13.0	16.5	14.2	17.1	17.2	18.8	23.0	17.0	20.4	14.2
Electronics	1.9	1.9	2.8	12.3	16.0	1.0	6.1	8.7	13.9	20.1	8.3	12.7	26.2	1.9	3.2	4.3	9.4
Communications equipment (less parts thereof) and household equipment	0.1	0.2	0.1	1.4	1.9	0.3	0.8	0.7	0.5	1.0	2.1	0.8	0.4	0.1	0.1	0.1	0.3
Computers and office machines (less parts thereof)	1.2	0.7	0.8	3.3	4.3	0.1	0.3	1.1	1.8	1.9	1.3	0.9	2.8	0.2	0.5	0.7	1.6
Parts and components[b]	0.6	1.0	1.9	7.6	9.8	0.7	5.1	6.9	11.6	17.2	4.9	11.0	23.0	1.5	2.6	3.5	7.4

Source: UNCTAD secretariat calculations, based on UN COMTRADE.
  a Data for earlier years not available.
  b Includes SITC 759, 764, 772 and 776.

mastering just one facet of production, or on no more than a limited subset of all the activities involved in making a final product. Thus it would seem no longer necessary for producers to master entire production chains and organize them within single firms, which was the strategy that characterized much of the earlier Asian industrialization episodes. On the other hand, it seems that in China this kind of production-sharing activity has developed mainly in the electronics sector. Moreover, it is likely that, with geographically dispersed production sites, the spillovers from engaging in subcontracting or hosting affiliates of transnational corporations (TNCs) are reduced because the package of technology and skills required at any one site is narrower, and because cross-border backward and forward linkages are strengthened at the expense of domestic ones.

Indeed, the weakness of domestic backward linkages (i.e. the scarcity of domestic supply of suitable intermediate production inputs) has impaired the development impact of assembly-based export activities in a number of developing countries over the past few years (*TDR 2002*). Moreover, this weakness tends to reduce a country's relative cost advantage in assembly-based export activities to those involving low unit-labour costs. Regarding China, it appears that, although the wage bill of Japanese electronics companies operating in China is much lower than at home, the fact that intermediate production inputs of the required quality are often not available from local suppliers significantly reduces the financial advantage of producing in China rather than in Japan (Marsh, 2004). However, China's recent strong investment in domestic manufacturing capacity may significantly reduce its reliance on imported parts and components in the electronics industry and strengthen the country's pattern of domestic linkages in industry more

> In India, the decline in the share of machinery in total imports is closely associated with the limited share of industry in its economy ...

> ... while in China, this decline reflects the greater role that participation in international production networks has played in its recent industrialization and development strategies.

generally, as locally produced alternatives become available.

The different phases of rising and falling shares of textiles and clothing in the four countries' import composition reflect the important role of labour-intensive exports during the industrialization process.[17] While in Japan, the importance of textile imports has remained stable over the past four decades, the share of clothing imports has significantly increased, in particular over the past 10 years. Table 2.5 also shows that in the Republic of Korea there has been a continuous decline in the share of textile imports, but a steady rise in the share of clothing imports, as in Japan earlier. In China, the current decline in the importance of textile imports is similar to that experienced in the Republic of Korea since the 1970s. While textiles have become more important in India's import basket, this rise has occurred from a very low level; overall, the share of textiles and clothing items in India's import composition has not changed significantly over the past few years.

The sharp fall in the share of primary commodities in the import composition of Japan and the Republic of Korea between 1985 and 1995 may seem to be contrary to expectations of the change in the comparative advantage of rapidly growing countries with relatively poor natural-resource endowments. However, for Japan in particular, it is likely that this finding partly reflects continuous structural change, as the share of industry in total output fell from 40 per cent to 34 per cent and that of services rose from 59 per cent to 68 per cent between 1985 and 1995 (*UNCTAD Handbook of Statistics*, various issues, table 7.3). Moreover, most of this decline was due to falling oil prices during the second half of the 1980s. In the period between 1965 and 1985, much of the decline in the share of primary commodities in the

total imports of Japan and the Republic of Korea occurred in the agricultural sector. This might partly reflect the rise in domestic production as a result of the Green Revolution. But several observers have also noted a general tendency among countries towards agricultural protection during the course of their industrialization (e.g. Timmer, 2002).

Table 2.5 further indicates the growing importance of vegetable oilseeds and oils in the import composition of both China and India, as mentioned earlier. But given that much of the imported oilseeds (and soybeans) are used as animal feed, they have contributed to limiting meat imports. This is in contrast to Japan and the Republic of Korea, where meat imports have risen while imports of vegetable oilseeds have remained low. Moreover, the table highlights the large share in total imports of fuels and a number of raw materials (such as cotton, rubber, wood, iron ore and non-ferrous metals) during economic growth and industrialization. For example, fuels continue to account for about one fifth of the total imports of Japan and the Republic of Korea and their share in China's imports have increased fivefold over the past 15 years. The share of minerals, ores and metals has fallen sharply in Japan's imports, while it appears to have reached a peak in the imports of the Republic of Korea and continues to rise in China's imports. This pattern is most probably determined by the intensity-of-metal-use cycle associated with industrialization and de-industrialization, discussed above. Finally, the decline in the share of cotton in the imports of Japan and the Republic of Korea over the past four decades is related to shifts in the importance of textiles and clothing in the two countries' exports, as discussed below.

Table 2.6 illustrates the potential magnitude of change in imports of selected products by China and India over the next two decades. For Japan and the Republic of Korea, it shows the magnitude of the rise in import volumes and values of selected primary commodities during the first and second decades of their post-war economic catch-up and greater trade integration, as well as during the subsequent 20-year period. It compares these

data with the rise in imports by China and India over the period 1990–2000,[18] as well as with product-specific projections for imports by China and India up to 2010 and, in a few instances, 2020.

Regarding China, the rise in imports of the selected primary commodities during the period 1990–2000 is similar to that of Japan during its first two decades of post-war economic catch-up and greater trade integration. However, it is below that of the Republic of Korea during the comparable periods. The two main exceptions to this general pattern are the very rapid rise in China's imports of petroleum and soybeans. But given that China is itself an oil and coal producer, with a high share of coal in its energy use, the recent rise in petroleum imports started from very low levels. Except for cotton, the rise in imports of the selected primary commodities in table 2.6 has been substantially smaller in India than in China. The major reason for this is likely to be India's slower pace of industrialization compared to China's.

In China growth in imports of energy and raw materials will remain strong for several years.

Looking at import trends for Japan and the Republic of Korea reveals that the growth of Japan's imports (especially by volume) continuously slowed down between 1955 and 1995, while those of the Republic of Korea increased between the first and the second decade of economic catch-up, and subsequently declined. This suggests that imports of commodities and raw materials rise particularly fast during the early catch-up phase.[19]

Does this mean that the magnitude of the rise in China's imports over the next two decades is likely to be smaller than it was during the period 1990–2000? The product-specific projections in table 2.6 indicate that the volume of China's primary imports is likely to grow less on average than it did between 1990 and 2000. However, when China started integrating into the world economy, its per capita income was much lower than that of Japan and the Republic of Korea when they began their rapid integration. Consequently, China can be expected to maintain a relatively strong growth in imports of energy and raw materials for a number of years to come in order to maintain its growth momentum.

Table 2.6

MAGNITUDE OF CHANGE IN SELECTED RAW MATERIAL IMPORTS BY JAPAN, THE REPUBLIC OF KOREA, CHINA AND INDIA, SELECTED PERIODS

| | Japan | | | | | | China | | | |
| | *1955–1965* | | *1965–1975* | | *1975–1995* | | *1990–2000* | | *2000–2010* | *2000–2020* |
Product	*Volume*	*Value*	*Volume*	*Value*	*Volume*	*Value*	*Volume*	*Value*	*Volume*	*Volume*
Soybeans	2.3	2.3	1.8	4.2	1.4	1.5	11 490.5	7 072.6	1.5[a]	2.5[b]
Natural rubber and similar natural gums	2.3	1.4	1.4	1.7	2.4	6.9	2.5	2.0	2.3	..
Wood, lumber and cork	..	8.0	..	5.3	..	3.9	..	5.2	..	..
Cotton	1.5	1.2	1.0	1.9	0.5	0.9	0.6	0.2	3.4	..
Iron ore and concentrates	7.1	6.4	3.4	4.2	0.9	1.4	4.9	4.7	5.0[c]	..
Ores and concentrates of non-ferrous base metals	5.3	8.6	3.2	6.1	0.8	2.7	4.0	4.3	2.1[d]	5.6[d]
Coal, coke and briquettes	6.0	4.8	3.6	12.8	2.0	1.9	..	0.9	..	..
Petroleum, crude and partly refined	9.9	7.0	3.1	18.8	1.0	1.5	24.0	35.1	2.5[e]	4.1[e]
Petroleum products	..	3.4	..	4.4	..	4.2	6.0	6.5	..	..

| | Republic of Korea | | | | | | India | | | |
| | *1964–1970* | | *1970–1980* | | *1980–2000* | | *1990–2000* | | *2000–2010* | *2000–2020* |
	Volume	*Value*	*Volume*	*Value*	*Volume*	*Value*	*Volume*	*Value*	*Volume*	*Volume*
Soybeans	3.6	3.3	18.4	48.5	2.7	2.0	..	..	1.1	..
Natural rubber and similar natural gums	2.7	2.8	4.6	13.6	2.8	1.3	0.2	0.2	3.0	..
Wood, lumber and cork	..	6.8	..	7.0	..	1.0	..	1.9	..	..
Cotton	1.7	1.7	3.0	9.5	1.0	0.7	159.0[f]	111.5[f]	1.1	..
Iron ore and concentrates	25.1	149.3	121.3	168.8	4.3	5.5	2.7	2.6	..	..
Ores and concentrates of non-ferrous base metals	38.0	25.0	13.7	31.8	6.3	7.2	6.8	3.0	..	..
Coal, coke and briquettes	..	1.2	..	147.8	..	4.9	..	2.6	..	..
Petroleum, crude and partly refined	12.4[g]	9.4	2.8	44.9	4.9	4.5	3.6	4.4	1.6[e]	2.3[e]
Petroleum products	..	0.6	33.6	69.7	8.0	9.5	..	0.5	..	..

Source: Trade data for Japan from Japan Statistics Bureau; data for the Republic of Korea, China and India from UN COMTRADE. Projections for rubber and cotton from FAO, 2003; soybeans from FAO, 2003, and Rosegrant et al., 2001; iron ore from UNCTAD, 2004b; total extraction industries from van Meijl and van Tongeren, 2004; and petroleum from IEA, 2004b.

Note: The numbers in the table indicate by how many times imports increased, e.g. "2" indicates a doubling of imports.

a Oil meal.	*b* 1997–2020.	*c* Projection up to 2009.	*d* Total extractive industries.
e Projections over base year 2002.	*f* 1979–1981 to 1989–1991.	*g* 1965–1970.	

(c)   Export composition

The sustained growth of exports that has been a characteristic common to all industrialization episodes in Asia over the past five decades would not have been possible in the absence of shifts in export composition. The accumulation of capital, both physical and human, raises the productivity of labour, and thus tends to be associated with higher wages, even though there is no direct link between sector-specific productivity growth and wage increases (*TDR 2004*, chap. IV, annex 1). As a result of the ensuing change in comparative advantage, industrializing countries need to upgrade their export structure towards products with a comparatively higher potential for productivity growth in order to sustain output growth.

In this context, it is important for domestic firms to enter export markets in sectors with high productivity and market potential, and to use the export proceeds to finance imports of the capital goods, intermediate imports and primary commodities needed for further productivity increases and industrialization. Even though productivity and market potentials vary within broad product categories, there is widespread agreement that manufactures, particularly of the skill-intensive type, have a more favourable potential than other products. This is because primary sectors face adverse terms-of-trade movements in the long run, as well as limits to raising productivity; and markets for labour-intensive manufactures exported by developing countries risk becoming rapidly oversupplied.

> China's exports continue to include a large proportion of imported inputs ... but there are indications of a rise in the share of domestic value added in China's processing trade.

The growth in the share of manufactures in the export composition of rapidly industrializing countries is a recurrent feature. For some of the now developed countries, such as Canada, Japan, Sweden and the United States, the proportion of manufactured exports rose sharply over the first six decades of the twentieth century. In Canada and the United States it increased continuously up to the mid-1950s, when it stabilized, while in Japan and Sweden it continued to rise. In Japan, it doubled over the 60-year period to reach 88 per cent in 1959, with the vast bulk of the rise occurring after the Second World War.

To examine the links between industrialization and export upgrading in Asia, table 2.7 uses the six broad product categories listed in table 2.5. The table shows that Japan, the Republic of Korea and China (but not India, as discussed later) have indeed been successful in upgrading the composition of their merchandise exports from primary commodities to manufactures. Within manufactures, the early stages of rapid growth and industrialization saw a high share of labour-intensive items, particularly clothing, while further industrial development in Japan and the Republic of Korea was accompanied by a strong rise in the share of electronics, as well as other, more skill-intensive manufactures, particularly cars.

The sequence of these changes has been broadly similar for all three countries, although it occurred at different periods of time. The share of primary commodities in Japan's merchandise exports had already begun falling sharply before the Second World War and the importance of textiles and clothing reached its peak in the 1950s. The table shows that textiles, as well as iron and steel, still accounted for a sizeable share of Japan's exports in the mid-1960s, but by the mid-1980s, with the rise of the automobile industry, road motor vehicles became the single most important export item. At the same time, exports of capital goods, in particular non-electrical machinery and electronics began to gain in importance. It is noteworthy that the share of finished products in the electronics sector peaked in the mid-1980s, and subsequently parts and components of electrical and electronic products, together with road motor vehicles, became the most important items in Japan's merchandise exports. Protectionist tendencies in Japan's main export markets (i.e. the United States and Western Europe), the appreciation of the yen following the Plaza Accord of 1985, and increased competition from the NIEs played a significant role in the evolution of Japan's export pattern (see, for example, Balassa and Noland, 1988).

Table 2.7

PRODUCT STRUCTURE OF EXPORTS FROM SELECTED ASIAN COUNTRIES, 1965–2003

(Percentage of total merchandise exports)

Product group	Japan 1965	1975	1985	1995	2003	Republic of Korea 1965	1975	1985	1995	2003	China[a] 1987	1995	2003	India[a] 1975	1985	1995	2003
Primary commodities	8.8	4.4	2.7	2.8	2.9	40.6	18.4	8.7	6.7	7.3	37.7	15.7	9.2	55.1	41.8	25.6	23.0
All food products	4.4	1.5	0.8	0.5	0.5	16.7	13.2	4.1	2.3	1.4	15.6	8.3	4.4	37.7	25.3	19.0	11.4
Agricultural raw materials	2.3	1.4	0.6	0.6	0.5	8.6	1.6	0.7	1.3	0.9	6.3	1.8	0.7	4.0	2.8	1.3	1.3
Minerals, ores and metals	1.7	0.4	0.9	1.1	1.4	14.3	1.3	0.7	1.0	1.5	3.4	2.1	1.6	12.3	7.6	3.6	4.4
Fuels	0.4	1.1	0.3	0.6	0.4	1.1	2.2	3.1	2.0	3.6	12.4	3.6	2.5	1.1	6.0	1.7	5.9
Labour- and resource-intensive manufactures	23.9	8.7	5.5	3.8	3.3	41.4	48.7	32.0	19.0	10.0	35.7	37.3	27.7	27.8	42.2	48.5	40.3
Textiles	13.7	5.3	2.8	1.7	1.4	15.1	13.0	8.4	10.1	5.6	16.2	9.5	6.2	13.8	11.6	14.0	11.0
Clothing	3.4	0.6	0.4	0.1	0.1	11.8	22.6	14.7	4.1	1.9	14.5	16.3	11.9	4.5	10.2	13.2	10.7
Footwear, leather and travel goods	1.4	0.4	0.2	0.1	0.0	2.4	5.5	6.8	3.0	0.9	2.4	6.8	4.5	5.3	6.8	4.4	2.9
Cork, wood and paper products	2.2	1.0	0.8	0.7	0.7	10.5	5.4	0.9	1.3	1.1	1.4	2.4	3.3	0.4	0.2	0.5	0.7
Non-metallic mineral manufactures	3.2	1.3	1.2	1.2	1.1	1.6	2.1	1.1	0.6	0.5	1.2	2.3	1.8	3.8	13.4	16.4	14.9
Low-skill and technology-intensive manufactures	30.6	35.7	15.3	9.5	9.0	8.7	10.3	28.8	13.0	11.8	4.0	8.8	7.2	6.1	2.5	6.2	9.2
Iron and steel	15.4	18.5	7.8	3.9	3.8	7.3	4.6	6.0	4.5	4.1	1.1	3.7	1.2	2.7	0.5	3.3	5.1
Fabricated metal products	3.6	3.3	2.0	1.7	1.6	1.3	2.5	5.0	3.0	1.6	2.2	3.0	3.3	2.1	1.4	1.9	3.3
Simple transport equipment	2.7	3.1	2.0	1.4	1.5	0.0	0.6	1.2	1.0	0.2	0.3	1.5	2.0	1.2	0.6	1.1	0.6
Ships and boats	8.9	10.9	3.4	2.5	2.2	0.0	2.7	16.7	4.5	5.8	0.4	0.6	0.7	0.1	0.0	0.0	0.2
Medium-skill and technology-intensive manufactures	15.0	27.4	40.8	41.8	45.0	2.8	5.6	7.4	20.5	22.8	6.4	8.8	12.1	5.7	5.8	6.3	8.4
Rubber and plastic products	1.9	1.4	1.3	1.5	1.6	0.7	3.5	1.9	1.8	1.6	0.5	2.2	2.2	0.5	0.8	1.7	1.4
Non-electrical machinery	7.1	10.8	13.4	18.8	17.2	1.4	0.6	2.0	5.9	6.9	1.4	3.2	4.9	3.0	3.0	2.2	3.6
Electrical machinery excluding electronics	2.8	2.8	3.3	4.8	4.7	0.2	1.4	1.4	5.4	2.4	0.6	3.0	4.2	1.1	1.0	0.7	1.4
Road motor vehicles	3.2	12.4	22.7	16.6	21.5	0.5	0.1	2.1	7.4	11.8	3.9	0.4	0.6	1.1	0.9	1.8	2.0
High-skill and technology-intensive manufactures	9.8	11.0	9.4	12.6	15.2	0.5	3.1	5.2	8.9	10.4	7.8	8.8	7.1	2.8	4.2	8.6	12.4
Industrial chemicals	6.0	6.8	4.1	6.4	7.7	0.2	1.2	3.0	7.0	8.5	5.0	5.0	3.8	1.8	2.2	5.9	8.5
Pharmaceuticals	0.4	0.2	0.2	0.4	0.7	0.0	0.2	0.1	0.2	0.2	1.1	1.1	0.7	0.7	1.5	2.3	3.2
Aircraft	0.1	0.0	0.1	0.1	0.3	0.1	0.3	0.8	0.2	0.2	0.1	0.1	0.1	0.0	0.2	0.0	0.1
Scientific instruments	3.3	3.9	5.0	5.6	6.4	0.2	1.4	1.3	1.4	1.5	1.6	2.6	2.6	0.3	0.4	0.3	0.6
Electronics	7.5	10.9	23.5	27.5	22.6	0.9	9.4	13.5	29.1	35.8	3.4	12.3	30.3	0.8	0.8	1.9	1.9
Communications equipment (less parts thereof) and household equipment	5.0	5.7	9.2	2.6	3.7	0.8	2.9	5.8	5.2	4.2	2.3	4.4	6.0	0.4	0.1	0.2	0.3
Computers and office machines (less parts thereof)	0.3	1.2	4.8	4.9	2.0	0.0	0.4	1.4	3.4	5.0	0.3	2.1	9.9	0.1	0.1	0.3	0.3
Parts and components[b]	2.3	4.1	9.4	20.0	17.0	0.1	6.1	6.3	20.5	26.5	0.7	5.8	14.4	0.3	0.5	1.3	1.3
Other manufactures	4.4	1.9	2.7	1.9	1.8	5.0	4.6	4.4	2.7	1.7	5.1	8.1	6.2	1.6	2.6	2.8	4.7

Source: UNCTAD secretariat calculations, based on UN COMTRADE.

a Data for earlier years not available.

b Includes SITC 759, 764, 772 and 776.

In the Republic of Korea, primary commodities accounted for about 40 per cent of merchandise exports even in the mid-1960s, while labour and resource-intensive manufactures (mainly, textiles, clothing and cork, wood and paper products) constituted another 40 per cent. The decline in importance of primary commodities in the 1970s, and clothing in the 1980s and 1990s, was accompanied by a rise in the share of transport equipment, machinery, industrial chemicals and electronics. In electronics, the shares of finished products, and parts and components rose fairly evenly during the 1980s; thereafter, the rapid increase in the share of parts and components has made electronics the single most important export item in the country's export composition. The falling shares of clothing and of finished products in the electronics category have been spurred by the increasing importance of production networks with assembly operations located in China.

As for China, following the international oil price hikes of the 1970s, fuels constituted a substantial proportion of its export earnings. As a result, primary commodities, including also a large share of food products, continued to account for the highest share of China's total merchandise exports until the mid-1980s. Thereafter, the rapid rise in domestic demand for energy products and the sharp fall in international oil prices substantially reduced China's earnings from primary commodity exports. Labour- and resource-intensive manufactures (mainly textiles, clothing and footwear), chemicals, machinery and, increasingly, electronics have since accounted for the bulk of China's merchandise exports. Unlike Japan and the Republic of Korea, China's electronics exports continue to be fairly evenly spread between finished products and parts and components. This reflects the fact that a large proportion of China's assembly operations are based on inputs imported from other countries, including Japan and the Republic of Korea.

Despite the similarities in the broad evolution of the export structure of the latecomers to industrialization and the leaders, the changes are based on rather different production structures and are related in different ways to their import structures. Upgrading in Japan's export composition emanated from a strong indigenous technological base, developed prior to the country's global eco-

nomic integration in the 1950s. On the other hand, China, and earlier, during the 1970s and 1980s, the Republic of Korea, were able to take advantage of participation in the labour-intensive segments of international production networks. In this context, the Republic of Korea imported mainly technology and equipment that fed into exports with a high domestic value-added content (*TDR 2002*). By contrast, China has relied relatively more on the assembly of final products – the most labour-intensive segment of production – from imported parts and components, and its exports continue to include a large proportion of imported inputs.

However, there are indications that suggest a rise in the share of domestic value added in China's processing trade. According to data from China's Customs Statistics, the export–import ratio of processing with imported materials has been rising steadily, from 1.2 in 1994 to about 1.5 in 1998–2001, and 1.7 at the end of 2004. The electronics sector is likely to have contributed most to upgrading in processing trade, given that an increasing share of parts and components used in such trade comes from domestic production, in particular those traded between different foreign affiliates located in China, rather than being imported (Lemoine and Ünal-Kesenci, 2004: 840–841).

Most important for the dynamism of domestic value added in China's electronics exports is the recent massive geographic dispersion of chip design (a process that creates the highest value in the electronics industry) away from developed countries towards leading Asian electronics exporting countries, including China (Ernst, 2004). The adoption of modular design methodology (an approach pioneered in the automobile industry some two decades ago) has facilitated the reuse of design building blocks, and thus the disintegration and geographic dispersion of design teams to multiple locations with different, yet complementary, specialization profiles. This has improved design productivity and enabled an improved management of the rapidly growing cost of chip design, which increasingly reflects complex design requirements. The attractiveness of Asian developing countries, particularly China, as new locations for chip design stems from a combination of factors, including their relatively low wages

for skilled labour, policy incentives in the form of tax rebates[20] and, not least, proximity to the providers of design and engineering support services, as well as the rising number of end-users in the rapidly growing markets of Asian developing countries.

Unlike the strong upgrading in China's export composition, there has been little change in India's merchandise export structure. While similar to the other countries in that the share of primary commodities has declined and that of textiles and clothing has increased, these shifts have not been as far-reaching as in the other three countries. Four resource- and labour-intensive products – food products, non-metallic mineral manufactures (i.e. gems, jewellery and related products), textiles and clothing – jointly continue to account for about half of India's merchandise exports. Such a structure is typical of a country at an early stage of industrialization. However, as mentioned above, since a number of important trade policy reforms have been implemented only recently, it is probable that the main changes in India's export structure that would be expected to accompany trade reform have yet to occur.

> So far, India has not experienced a manufacturing export boom of the kind seen in other rapidly growing Asian economies.

Two of India's policy instruments, namely price controls and reserving market segments for small-scale firms, have had noticeable, but widely varying, impacts on the composition of its merchandise exports. It is often argued that the relatively small share of labour-intensive manufactures in India's merchandise exports is partly due to the reserving of market segments for small firms. Small-scale firms in labour-intensive manufacturing sectors, where production is often also scale intensive, have been neither innovative nor agents of industrial diversification. This has contributed to sidelining India from mass markets that require long production runs and goods of a standard quality. As a result, the share of clothing in India's merchandise exports, for example, has remained relatively small. Yet India's relatively abundant supply of low-skilled labour gives it a comparative advantage for the production of labour-intensive manufactures (fig. 2.4).

The introduction of price ceilings on the domestic market, on the other hand, seems to have had a positive impact on India's exports of pharmaceuticals (Amsden, 2001: 156).[21] These ceilings tended to make exports more profitable, and thus provided an incentive for domestic pharmaceutical firms to engage in export activities. They also helped boost innovation, because local firms that manufactured new medicines on the basis of indigenous technologies were exempted from price controls for five years. However, domestic innovativeness in India's pharmaceutical sector owes most to the Indian Patents Act of 1970. One stated objective of that Act was the development of an independent and self-reliant pharmaceutical industry (Jha et al., 2005: 12). The Act facilitated the acquisition of foreign technology, as it protected production processes but not products (i.e. it permitted reverse engineering, whereby molecules can be reconstituted using production techniques that are different from the inventor's technique). This enabled India to become the world's leading exporter of generic medicines, and for Indian companies to capture 65 per cent of the domestic market in pharmaceutical products, compared to 25 per cent in 1971 (Chauvin and Lemoine, 2003: 36).

Export prospects for India's pharmaceutical industry depend to a large extent on the effects of the new Patent (Third Amendment) Act 2005. India had to change its patent legislation to comply with its obligations under the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). The new Act provides for the granting of product patents. However, it affects only newly invented medicines, whereas specific regulations apply to those medicines that were invented between 1995 and 2005. India was allowed to delay the patenting of pharmaceutical products until 2005, but had to establish a system (a so-called "mailbox") for receiving and filing patent applications starting in 1995. The Indian patent office will decide whether these mailbox applications meet the patentability criteria laid down in the Act, and accept or reject them accordingly. If the application is accepted, Indian

companies can continue producing such medicines after payment to the patent-holder of a "reasonable" royalty, provided that they made "significant" investment and were producing and marketing the concerned medicines prior to 2005.[22] Moreover, exports to countries with no manufacturing capacity of patented medicines produced in India through a compulsory licence will be possible based solely on the notification by the importing country, in accordance with the implementation of the Doha Declaration on the TRIPS Agreement and Public Health.[23] If the granting of such compulsory licences does not lead to protracted litigation processes between the patent-holder and the producers of generic medicines, India can continue supplying the developing world with, for example, affordable antiretrovirals for the treatment of HIV/AIDS.

So far, India has not experienced the kind of manufacturing export boom that has characterized the other rapidly growing economies in Asia. By contrast, it has become a leading exporter, particularly to the United States, of software and so-called information-technology (IT)-enabled services. These services cover many different kinds of data processing and voice interactions that use some IT infrastructure as inputs. India's software exports have increased about sixfold since the early 1990s, and were worth almost $30 billion in 2003. Given the relatively slower growth of merchandise exports, the share of software and IT-enabled services in India's total export earnings increased from about 20 per cent in 1990 to more than 30 per cent in 2003. This improved India's share in total developing-country services exports from about 3 per cent in 1990 to about 7 per cent in 2003. But it is also interesting to note that China's services exports have increased about eightfold since 1990, reaching a level of about $47 billion in 2003, and they correspond to a share of 8 per cent in total developing-country services exports. Given the strong increase in China's merchandise exports, the contribution of services to the country's total export earnings rose only marginally, from 9 to 10 per cent over the same period of time.

> The share of software and IT-enabled services in India's export earnings may not continue to rise substantially over the medium term.

India's high absolute number of high-skilled labour supported the rise in its exports of software and IT-enabled services. Singh (2003: 28), for example, reports that about 140,000 Indian engineers graduate every year, the largest number in the world after the United States, and that every year about 100,000 new IT professionals are added to the workforce. However, the number of graduates available for employment in domestic companies has suffered from outward migration of graduates to the United States and elsewhere. But the strong growth of Indian software and IT-enabled services exports, destined mainly to the United States, is probably mainly due to other advantages that are specific to the sector, in particular: networks of Indian engineers recruited by firms in the United States during the 1980s, widespread command of the English language, the country's convenient location (in terms of time zones) with respect to the United States, minimal regulation, the fact that transport by telecommunications makes the services industry less vulnerable to current infrastructure constraints (such as poor water and road transport), and, perhaps most importantly, the relatively low development of India's manufacturing sector, which strongly reduces the opportunity costs for skilled workers to work in the software sector. But specific demand-related events have also played a crucial role in the rise of India's IT-related services exports: the adoption of a common currency in Western Europe, which required a large amount of data to be converted into euros, and the large number of Y2K-related projects in the late 1990s (Arora and Gambardella, 2004). The specific importance of these events lies in the fact that they occurred just when some developed countries were experiencing a shortage of labour possessing specialized skills during the IT-industry's unprecedented expansion. As a result, United States firms, for example, outsourced IT-related activities to countries where skilled workers were more readily available, and at wages well below those of their domestic counterparts.

It is highly uncertain whether the share of software and IT-enabled services in India's export earnings will continue to rise substantially over

the medium term. This is because of strong competition in the software market from producers with equally well-educated labour forces (in Central and Eastern Europe, as well as elsewhere in Asia), and, following the bursting of the IT-bubble, the shortage of software engineers in developed countries has eased. Moreover, it is widely expected that an improvement in transport facilities and continued economic reforms could reduce the current disadvantages of other Indian sectors in exporting, so that resources could be diverted away from the software sector (Wood and Calandrino,

2000). Also, greater automation of software development may reduce the scope of outsourcing such activities from developed to developing countries. Over the next few years, the absolute value of India's software and IT-enabled services exports may continue to grow, because of the self-perpetuating momentum of connections and experience, in particular if the Indian industry succeeds in upgrading towards systems architecture, design, development and technology strategy services (Chadwick, 2003). However, export dynamism in other sectors is likely to become stronger.

D. World market shares and prices

The discussion in sections B and C focused on the evolution of domestic consumption and external trade in China and India, with an emphasis on volumes and trade composition. However, it is clear that the values associated with traded volumes depend on prices. Given that a simultaneous expansion of the internationally traded volumes of a specific good by a large number of countries, or even by large individual countries such as China and India, can have a significant impact on international prices, this section highlights the effects that greater trade integration by China and India has had over the past few years.

1.   *The growing impact of China and India on global primary commodity markets*

The evolution of real commodity prices – i.e. nominal prices deflated by the unit value index of manufactures exported by developed countries – has been characterized by sizeable short-term vari-

ation around a long-term downward trend (fig. 2.6). This downward trend was particularly strong between the mid-1970s and late 1980s. It has been most pronounced for those commodity groups that are of export interest to developing countries, such as tropical beverages, food and vegetable oilseeds and oils. By contrast, since 2002, commodity prices of all commodity groups have surged both in real and, in particular, nominal terms (table 2.8). But this price increase is most marked for minerals, ores and metals, reflected by the fact that the UNCTAD price index for this commodity group (as well as individually for a number of metals such as copper, iron ore and nickel) approached all-time record levels in nominal terms at the end of 2004 and early 2005.

The long-term downward trend of real prices for primary commodities has been related to the relatively low income elasticity of demand that characterizes many primary commodities. It has also been related to the transmission of productivity growth in primary production to lower prices in the commodity-consuming industrialized coun-

Figure 2.6

NON-FUEL PRIMARY COMMODITY PRICES, NOMINAL AND REAL, BY COMMODITY GROUP, 1960–2004

(Index numbers, 2000 = 100)
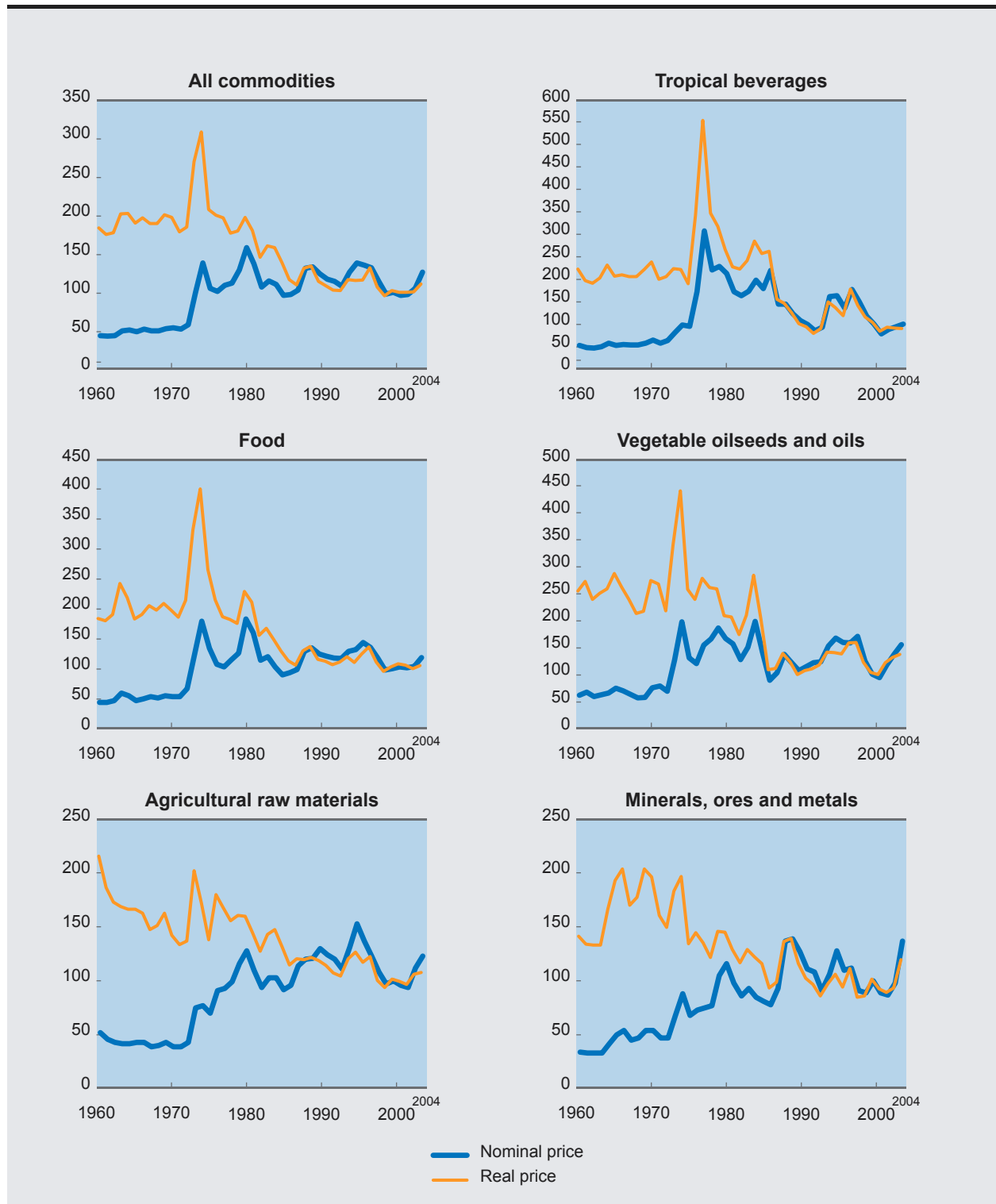
Table 2.8

WORLD PRIMARY COMMODITY PRICES, 1999–2004

(Percentage change over previous year)

Commodity group	1999	2000	2001	2002	2003	2004
All commodities[a]	**-14.0**	**2.0**	**-4.0**	**1.0**	**8.2**	**20.0**
Food and tropical beverages	**-17.4**	**0.0**	**0.0**	**1.0**	**2.0**	**13.6**
Tropical beverages	-21.3	-15.3	-21.0	12.7	5.6	6.4
Coffee	-21.3	-25.1	-29.0	4.7	8.7	19.8
Cocoa	-32.1	-22.1	22.7	63.3	-1.3	-11.8
Tea	-7.0	6.7	-20.1	-9.6	8.4	2.0
Food	-16.9	2.0	3.0	-1.0	2.0	14.4
Sugar	-30.0	30.4	5.6	-20.3	2.9	1.1
Beef	6.2	5.6	10.0	-0.3	0.5	17.8
Maize	-10.0	-2.8	1.1	10.5	6.4	5.0
Wheat	-11.0	3.1	9.0	16.5	-0.8	7.1
Rice	-18.7	-18.0	-15.0	10.6	4.3	23.5
Bananas	-9.9	-2.3	38.8	-9.6	-28.7	39.9
Vegetable oilseeds and oils	**-26.5**	**-20.0**	**-6.0**	**24.5**	**17.1**	**13.1**
Soybeans	-17.4	5.3	-8.0	8.7	25.0	16.0
Agricultural raw materials	**-10.2**	**3.1**	**-4.0**	**-2.1**	**19.1**	**9.8**
Hides and skins	-6.3	11.1	5.0	-2.9	-16.7	-1.2
Cotton	-18.6	11.5	-19.0	-3.6	37.2	-3.3
Tobacco	-7.1	-3.8	0.0	-8.0	-3.3	3.4
Rubber	-12.6	7.9	-14.1	33.1	41.7	20.3
Tropical logs	-7.2	3.7	6.4	-10.5	20.1	19.2
Minerals, ores and metals	**-2.2**	**12.4**	**-11.0**	**-2.2**	**12.6**	**39.8**
Aluminium	0.3	13.8	-6.8	-6.5	6.1	19.9
Phosphate rock	4.6	-0.4	-4.5	-3.3	-5.9	7.8
Iron ore	-9.2	2.7	4.5	-1.1	8.5	17.4
Tin	-2.9	1.0	-18.0	-8.5	20.0	74.4
Copper	-4.9	15.3	-13.0	-1.1	14.1	61.1
Nickel	29.9	43.7	-31.2	14.0	42.2	43.5
Tungsten ore	-9.3	12.1	45.5	-41.8	18.0	22.9
Lead	-5.0	-9.7	4.9	-5.0	13.8	72.0
Zinc	4.6	4.0	-21.0	-12.0	5.2	29.1
Crude petroleum	**38.7**	**55.6**	**-13.3**	**2.0**	**15.8**	**30.7**

Source: UNCTAD, *Monthly Commodity Price Bulletin,* various issues.
  Note: This table has been revised from *TDR 2004*, table 2.2, because the base year for the commodity price index has been changed to 2000.
   a Excluding crude petroleum.

tries, rather than to higher wages in the commodity-producing developing countries. Substitution of raw materials by synthetics and, particularly since the mid-1980s, sharp increases in the supply of primary commodities (owing to the need of many developing countries to maintain export revenues to service growing debt obligations in the presence of credit rationing, and to the dismantling of international commodity agreements) have also had an adverse effect on commodity prices.

Much of the short-term variations in commodity prices have traditionally been attributed to fluctuations in the real exchange rate of the

dollar[24] and to the state of the business cycle in the developed countries. However, it is clear that, in addition to mere short-term effects related to the business cycle, demand conditions in commodity-consuming countries also have long-term price effects resulting from shifts in the share of industry in total income. Thus, structural change in developed countries away from raw-material-intensive industrial production to services has contributed to the long-standing price decline of primary commodities over the past three decades. More recently, the growing importance of manufacturing in a number of developing countries is poised to have an opposite effect.

The recent upward movement in commodity prices has been driven by very strong demand and emerging supply constraints. Rising imports by China, and, for some commodities also by India, have been the main sources of additional demand. Sustained industrialization and income growth have led to China's emergence as the world's largest consumer of many primary commodities. While China is also a major producer of several commodities, in many cases domestic producers have been unable to satisfy the growing domestic demand. The resulting surge in China's imports, particularly since 2002, has occurred in the context of largely stagnating demand for primary commodities in developed countries and short-term supply constraints. These constraints are, at least partly, the result of sluggish investment in primary commodity production and processing capacities that followed the decline of commodity prices from their previous short-term peak between 1994 and 1997.

The current situation therefore contrasts with that prevailing when primary commodity imports by Japan and the NIEs were increasing rapidly. The growth of import demand from these economies was smaller in magnitude. Moreover, it occurred when a number of developed countries had started to experience structural change away from the raw-material-intensive industrial sector (*TDR 2003*), which liberated production and processing capacities to meet the growing demand for primary commodity imports by Japan and the NIEs.

Figure 2.7 shows the change in world import shares of China and India between 1990 and 2003 for selected commodities that are important during rapid industrialization and per capita income growth. It shows that by 2003 China had become a major importer of most of these commodities, resulting in their shares increasing considerably from very low levels in 1990. China's imports of iron ore and soybeans in 2003 are the most outstanding examples, accounting for 28.7 per cent and 32.1 per cent, respectively, of total world imports. The share of India in world imports of all these commodities also increased (except for copper and natural rubber), although at lower levels than those of China.

In order to examine the possible influence of growing commodity imports by China and India on world commodity prices, figure 2.8 depicts the net trade (in value terms) of the two countries against the prices of some representative commodities of the different commodity groups between 1990 and 2004. For most commodities, China's net trade position has been moving increasingly into deficit, in particular since 2000, a trend associated with price increases that accelerated between 2002 and 2004. For India too, the figure shows growing net trade deficits with recently rising commodity prices, particularly of petroleum, but also of nickel.

The changes in China's net trade position for a number of primary commodities has made the country a key participant in the world trade of a range of products. For example, China has become the world's largest importer of natural rubber (driven by higher demand for tyres), tropical sawn wood, pulp and paper, and soybeans (resulting from rising demand for its use as animal feed, as discussed earlier);[25] its imports

> Since 2002, commodity prices have surged, driven by strong demand and emerging supply constraints.

> Rising imports by China, and, for some commodities also by India, have been the main sources of additional demand.

Figure 2.7

**SHARES IN WORLD IMPORTS OF SELECTED PRIMARY COMMODITIES,
CHINA AND INDIA, 1990 AND 2003**

(Per cent)
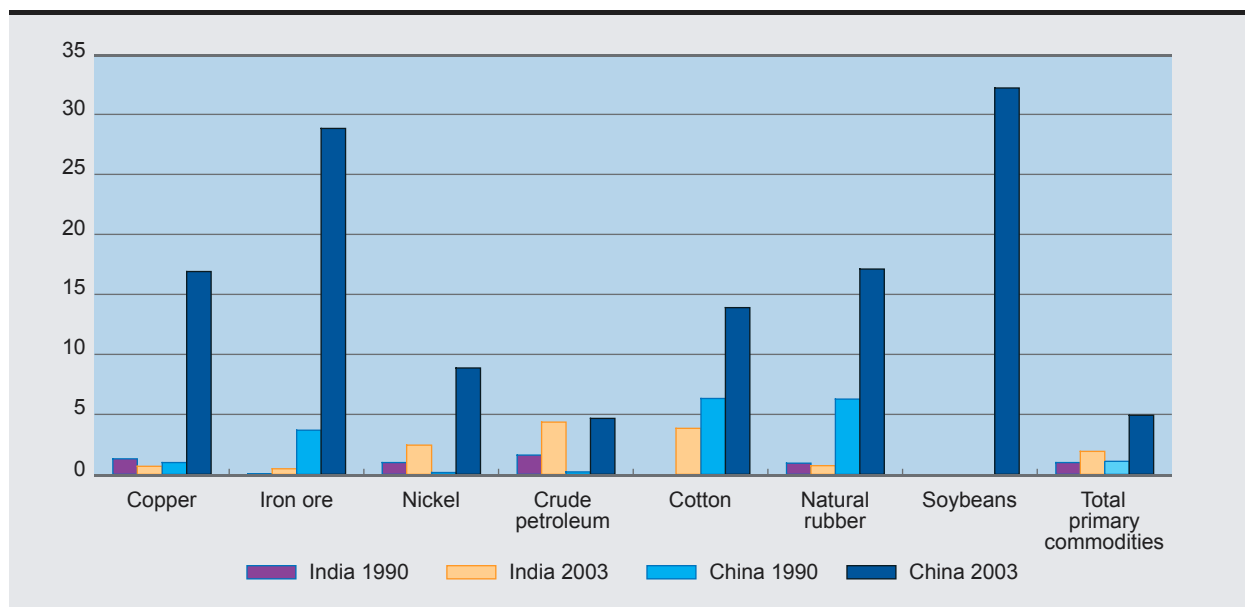
Source: UNCTAD secretariat calculations, based on UN COMTRADE.
   Note: India's imports of soybeans were negligible.

of iron ore rose tenfold between 1990 and 2003, accounting for almost 80 per cent of the expansion of this commodity's world imports (in volume terms) during this period. This is closely related to the rapid growth of steel production and use. While China's domestic production had covered about 85 per cent of domestic consumption, by 2003 this share fell to about 45 per cent, making the country the world's largest iron ore importer. UNCTAD (2004b) expects China to remain the most dynamic force in the global iron ore market for many years to come.

Changes in world cotton prices are closely related to the evolution of the Chinese market. This is because China accounts for about one fourth of world production and, as the world's leading cotton consumer, it represents approximately one third of total world consumption and over one fourth of total world imports (in volume terms). Thus, China's bad harvest, combined with its increasing demand for cotton for its booming clothing

industry, strongly influenced the sharp rise in international cotton prices in 2003. Since then, growing cotton production in all the major producing countries, including China, has eased price pressures on world cotton markets. But sustained high world oil prices will make cotton an increasingly attractive substitute for man-made fibres in clothing production, thus boosting demand for this commodity. The future dynamism of China's clothing exports will be a key determinant of its cotton imports. But if the growing clothing exports of China are associated with production relocation from other countries, the resulting additional demand from China should be matched by reduced cotton consumption in other countries, as a result of their lower clothing production, and thus may not push up prices.

Between 2003 and 2004, China's petroleum imports increased by more than 40 per cent, accounting for more than 30 per cent of the incremental global oil demand (IEA, 2005). Since 1999,

**NET TRADE BY CHINA AND INDIA AND WORLD PRICES,
SELECTED PRIMARY COMMODITIES, 1990–2004**

(Billions of dollars and index numbers 2000 = 100)
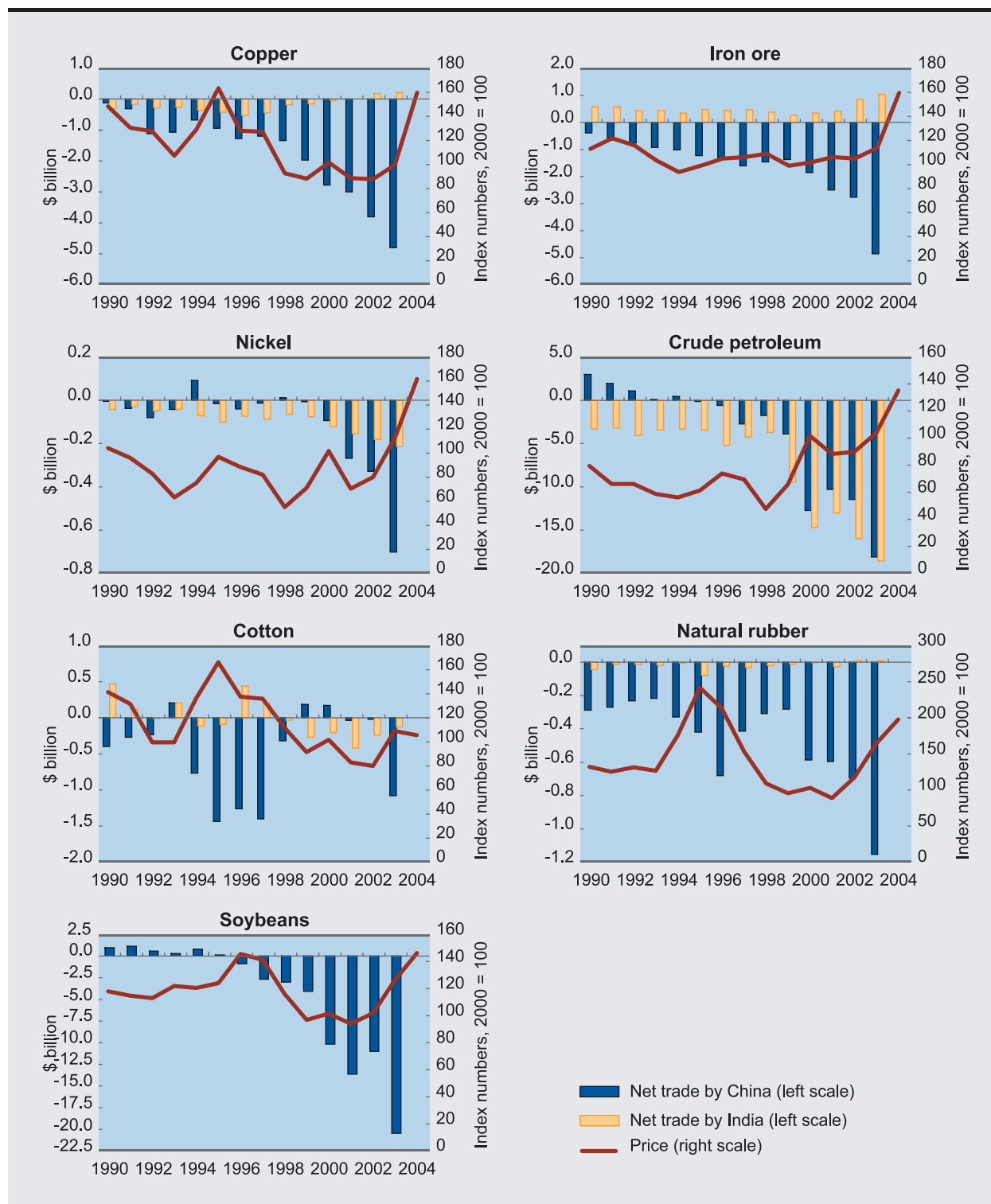
Source: UNCTAD secretariat calculations, based on UN COMTRADE; and UNCTAD, *Commodity Price Bulletin*, various issues.
Note: India's trade of soybeans was negligible. Trade data available only to 2003.

India's petroleum trade deficit has also markedly increased, its value exceeding that of China's deficit. But there has also been a strong increase in oil imports by the United States, which is by far the world's leading oil consumer, accounting for over one fourth of total world oil consumption and imports. Continuous growth of its oil consumption, combined with a lower level of its self-sufficiency in oil, made the United States the second largest source of incremental oil demand after China for the period 1995–2004; the two countries accounted for 19.9 per cent and 24.3 per cent, respectively (Brook et al., 2004).

While the growing demand from China and India has clearly had a significant impact on the recent rise in international commodity prices, a number of other factors have also played a part. For example, many raw material producers succeeded in raising dollar prices in order to compensate for the negative effect of the depreciation of the dollar on their export earnings. Moreover, speculators have at times taken substantial positions on commodity exchanges to benefit from frequent punctuations in the general upward price movements, as prices have reacted with substantial volatility to news of emerging or easing supply constraints.[26]

Emerging supply constraints, particularly in the metals and energy sectors, have played a key role in the strong price reaction of commodity markets to the rising demand from China, India and other major importers, including for replenishing inventories. However, additional supply capacity is due to go on-stream following a recent increase in investment in production and processing capacities, as well as in exploration.[27] As a result, it is widely expected that by the end of 2005 many commodity prices will start falling. Prices may, nonetheless, remain at levels above their averages since the mid-1980s, as the mining industry is likely to be more cautious when planning new investment. This is be-

cause of concerns that past episodes of over-investment, and the consequent dramatic fall in prices, may be repeated, and because of a steep rise in the discovery cost per unit of metal due to a decline in discovery rates and in the average size of discovered deposits.[28] Contrary to the time lag in supply response to the rise in world metal prices, tight supply conditions tend to be short-lived for most soft commodities.[29]

> Supply constraints in the metals and energy sectors have played a key role in the strong price reaction of commodity markets.

In conclusion, the strong Asian demand for primary commodities may persist for several years to come. This could lead to a substantial rise in the volume of international trade in some primary commodities, particularly petroleum, copper, iron ore, nickel, natural rubber and soybeans. Consequently, the prices for these commodities might remain, for some time, at levels above their averages for the period since the mid-1980s. These factors combined could boost the volume and/or prices of other developing countries' primary exports. On the other hand, developed countries still account for two thirds of non-fuel commodity imports, and they are likely to remain a dominant influence in commodity markets for many years to come (United Nations, 2004b). Thus it is unlikely that the growing imports of primary commodities by China and India will cause a reversal of the long-term decline in their real prices.

> The long-term downward trend in real commodity prices is unlikely to be reversed by higher demand from China and India.

Rising prices of China's commodity imports have considerably increased its import bill. In 2004 alone, the surge in the prices of a number of primary commodities (such as copper, iron ore, nickel, petroleum and rubber), combined with a rise in their import volumes, resulted in an increase in China's import bill for primary commodities by almost $50 billion (a year-on-year increase of almost 60 per cent).[30] Moreover, while data on price inflation of raw materials in China are not available, there can be little doubt that the sharp increase in prices of primary commodity imports has considerably exceeded domestic consumer price inflation, which has remained

below 4 per cent despite a sharp rise between 2002 and 2004. Consequently, a number of enterprises whose activities contain a large input of imported primary commodities have suffered a profit squeeze.

2. The role of textile and clothing exports

Much of the recent attention on the impact of China's growing exports on world trade flows has focused on textiles and clothing. For this reason, this sector is examined here.

The production of textiles and clothing relies on relatively simple technology and a comparatively large input of low-skilled labour. Therefore, countries with a relatively abundant supply of such labour and a relatively scarce supply of natural resources per worker have a comparative advantage in these industries. Thus textiles, and especially, clothing production, have often provided the "natural" entry point for industrialization and for diversification of exports away from primary commodities. Indeed, these industries have led industrial development, creating a wide range of production, employment and export opportunities across the developing world over the past five decades. In particular, they have played a key role in export growth and industrialization in East Asia over the past five decades.

The "flying geese" paradigm has often been used to describe the pattern of the spread of labour-intensive production and exports in East Asia. It explains the life cycles of various industries in the course of economic development, and the relocation of industries from one country to another through trade and FDI in response to shifts in competitiveness (*TDR 1996*). The "flying geese" paradigm considers rising labour costs during the process of economic development to be the main reason for the gradual erosion of export competitiveness in the relatively more advanced countries.

Table 2.9 reflects the flying geese pattern in its comparison of the evolution over the past four decades of world market shares in clothing and total manufactures of some major developed countries and developing Asian economies. Japan's

market share of clothing exports consistently declined while those of the Republic of Korea and Taiwan Province of China first rose and then fell, giving way to China and other countries, including Viet Nam. The table also shows that the fall in world market shares of clothing exports from the Republic of Korea and, less markedly, from Taiwan Province of China was initially accompanied by a rise in these economies' world market shares of other manufactured exports.

It is clear that, apart from shifts in relative unit labour costs, access conditions in the markets of the United States and the EU have shaped the relocation of production activities in the textiles and clothing industry across East Asian countries. Indeed, the rapid growth of textiles and clothing exports first from Japan and then from the Republic of Korea, as well as a number of other Asian developing economies, stirred protectionist sentiments in North America and Western Europe. In 1956 the Japanese Government imposed so-called "voluntary export restraints" (VERs) on cotton products to the United States for the first time in the post-war period. Subsequently, exports of cotton textiles from Japan and other major Asian economies, such as Hong Kong (China), India, Pakistan, the Republic of Korea and Taiwan Province of China encountered discriminatory quantitative restrictions under the Short-term and Long-term Arrangements on Cotton Textiles. Japan and the three East Asian economies responded to these external pressures by shifting their production of textile materials from cotton to synthetic fibres. However, the new VER arrangements for wool and man-made fibre products between the above four Asian exporters and the United States, which were concluded in 1971–1972, paved the way, in 1974, for the Arrangement on International Trade in Textiles, better known as the Multi-Fibre Arrangement (MFA). The MFA formally governed quantitative restrictions on trade in textiles and clothing until 1994, when it was succeeded by the Uruguay Round Agreement on Textiles and Clothing (ATC) (UNCTAD, 1994a, chap. V). With the full implementation of the ATC at the beginning of 2005, all textile and clothing products became subject to all the multilateral disciplines under the rules of the WTO. This terminated the series of trade-distorting regimes that had governed the textiles and clothing trade for about four decades and put an end to its status as the only sector of inter-

Table 2.9

SHARES IN WORLD EXPORTS OF MANUFACTURES[a] OF SELECTED ASIAN DEVELOPING ECONOMIES AND MAJOR DEVELOPED COUNTRIES, 1962–2003

(Percentage)

Period	United States[b] Total manu-factures	Clothing	United Kingdom Total manu-factures	Clothing	Germany[c] Total manu-factures	Clothing	Japan Total manu-factures	Clothing	Republic of Korea Total manu-factures	Clothing	Taiwan Province of China Total manu-factures	Clothing	China Total manu-factures	Clothing
1962–1965	19.2	5.5	12.2	6.0	18.2	7.9	7.1	11.7	0.1	0.3	0.2	0.5	..	..
1966–1970	17.2	5.1	9.6	5.1	18.3	7.7	9.1	9.6	0.2	2.5	0.4	2.1	..	..
1971–1975	14.4	3.1	7.8	4.3	19.3	8.0	11.1	4.1	0.7	6.5	0.8	5.6	..	..
1976–1980	13.8	3.4	7.6	5.2	17.8	8.7	12.2	1.9	1.5	10.1	..	..	..	..
1981–1985	14.5	2.9	6.3	4.1	14.8	7.3	14.9	1.8	2.3	11.2	..	..	0.9	5.5
1986–1990	11.9	2.3	6.1	3.0	15.5	6.9	13.5	0.9	2.7	9.9	2.8	4.4	1.5	7.8
1991–1995	13.1	3.5	5.4	2.7	13.2	5.4	12.2	0.5	2.9	4.7	2.9	2.9	2.9	13.7
1996–2000	13.3	4.6	5.3	2.5	10.8	4.2	9.4	0.3	3.0	2.6	2.8	1.8	3.9	16.5
2001–2003	12.0	3.0	5.1	1.9	11.1	4.1	8.1	0.3	3.1	2.0	2.6	1.2	6.2	20.8

Source: UNCTAD secretariat calculations, based on UN COMTRADE.
a SITC 5–8 less 68.
b Including Puerto Rico for 1962–1980.
c Including eastern Länder after 1991.

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national trade in industrial goods that had remained outside multilateral rules since the conclusion of the Uruguay Round.

While there are many similarities in the successive rise and fall of production and export activities in textiles and clothing across East Asia, there is also one major distinction between these cycles. When Japan emerged as a major textile and clothing exporter during the first three decades of the twentieth century, it did not face much competition from any other newly emerging major clothing exporters. By contrast, the rapid growth of textile and clothing exports in the second wave of Asian economic catch-up occurred among the entire group of NIEs, giving rise to fears that the risk of a fallacy of composition could arise if an increasing number of developing countries were trying to achieve the same export–GDP ratio (Cline, 1982). According to the fallacy of composition (sometimes also called the "adding-up problem"), what is viable for one small exporter acting in isolation may not be viable for a group of exporters acting at the same time. If all, in particular large, developing countries try to substantially increase their exports of labour-intensive manufactures, they risk not only encountering rising protective resistance from developed countries, but also losses, as the falling prices of those manufactures will not be compensated by a sufficient increase in the volume of exports (*TDR 2002*; see also Kaplinsky, 2004). Indeed, the rise of China's clothing exports occurred at a time when several developing countries had adopted more outward-oriented development strategies, and many had developed production and export activities in the clothing sector partly as a reaction to the quota regulations under the MFA. This simultaneous move of many developing countries towards clothing exports, combined with the large size of the Chinese economy, may have accentuated the risk of a fallacy of composition.

> China's increasing participation in international trade could contribute to a decline in the unit values of some of its major export items.

> Exploiting its current export market potential in textiles and clothing may not be in China's own development interest.

Indeed, evidence from United States apparel imports suggests a positive relation between the rise in China's market share and the decline in import unit values (table 2.10). The rise of China's share in United States imports between 2001 and 2004, by about 50 per cent in value terms, corresponds to a more than doubling of its market share in volume terms, as the unit value of China's imports fell by more than one third during this period. However, from the Greater China area (comprising mainland China, Hong Kong (China), Macao (China), and Taiwan Province of China), these imports increased much more modestly, by about 20 per cent in value and 45 per cent in volume. This implies that the unit value of imports from the Greater China area declined only by about one fifth. Part of the rise in mainland China's market share was due to a shift towards direct exports (i.e. bypassing middlemen in Hong Kong (China), Macao (China) and Taiwan Province of China).

The middlemen factor aside, there has clearly been a genuine growth of exports from China to the United States. Yeung and Mok (2004) note that in 1998 the Chinese Government implemented a restructuring, downsizing and efficiency policy leading to the closing down of a number of firms and to fierce competition among Chinese producers for export market shares. These factors combined may have enabled some Chinese firms to export a larger share of their output at lower prices. The surge in China's clothing exports may even have led to a glut in the United States market as indicated by the decline, albeit small, in the unit value of United States imports from the rest of the world between 1998 and 2002.[31]

This evidence indicates that China's increasing participation in international trade, and its consequent weight in international markets due to the very large size of its economy, could contribute to a decline in the unit values of some of its currently major export items. However, it is not clear

Table 2.10

UNITED STATES APPAREL IMPORTS FROM SELECTED SOURCES, MARKET SHARES AND UNIT VALUES, 1995–2005

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005[a]
Value-based market shares (*per cent*)											
Greater China area	*30.3*	*28.5*	*26.7*	*24.6*	*22.9*	*21.3*	*20.8*	*21.4*	*22.6*	*24.3*	*27.6*
Mainland of China	10.2	10.4	10.5	8.9	8.6	7.9	8.2	9.8	11.9	13.8	21.2
Hong Kong, China	12.1	10.6	9.2	9.2	8.4	7.8	7.5	6.8	6.1	5.9	3.5
Macao, China	2.2	2.1	2.2	2.1	2.0	2.0	2.0	2.0	2.1	2.2	1.4
Taiwan Province of China	5.9	5.4	4.8	4.4	3.9	3.6	3.2	2.8	2.6	2.4	1.6
Other Asia											
Bangladesh	3.1	3.1	3.4	3.4	3.3	3.7	3.7	3.3	3.0	3.1	3.3
India	3.2	3.3	3.1	3.1	3.0	3.1	3.0	3.3	3.3	3.4	5.0
Indonesia	3.4	3.6	3.7	3.4	3.3	3.6	3.9	3.6	3.5	3.7	4.2
Pakistan	1.6	1.5	1.4	1.4	1.4	1.6	1.6	1.5	1.7	1.8	1.7
Republic of Korea	4.7	3.8	3.5	3.9	4.1	4.0	3.9	3.6	3.0	2.8	1.7
Viet Nam	0.0	0.1	0.1	0.1	0.1	0.1	0.1	1.6	3.9	4.0	3.6
Sub-Saharan Africa											
Kenya	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4
Lesotho	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.6	0.6	0.7	0.6
Mauritius	0.6	0.5	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3
Mexico	7.4	9.8	11.8	13.5	14.8	14.7	13.8	13.0	11.3	10.3	9.5
Volume-based market shares (*per cent*)											
Greater China area	*26.3*	*24.3*	*21.6*	*20.2*	*18.4*	*17.3*	*17.2*	*19.0*	*21.4*	*23.7*	*29.0*
Mainland of China	9.3	8.9	8.3	7.1	6.5	5.8	6.1	9.1	12.1	14.9	24.4
Hong Kong, China	8.9	7.9	6.5	6.7	6.0	5.7	5.7	4.8	4.2	3.7	1.9
Macao, China	1.7	1.6	1.6	1.6	1.5	1.6	1.7	1.8	2.0	2.2	1.1
Taiwan Province of China	6.5	5.9	5.2	4.8	4.5	4.2	3.8	3.3	3.1	2.9	1.6
Other Asia											
Bangladesh	5.6	5.5	5.9	5.8	5.5	6.0	6.0	5.4	4.8	4.7	5.0
India	2.8	3.1	2.8	2.8	2.7	2.5	2.5	2.9	2.8	3.1	4.2
Indonesia	3.4	3.4	3.5	3.4	3.1	3.3	3.7	3.4	3.3	3.5	4.0
Pakistan	1.7	1.7	1.7	1.7	1.7	2.1	2.2	2.2	2.4	2.6	2.6
Republic of Korea	3.7	3.0	2.8	3.6	3.8	3.7	3.9	3.8	3.1	3.1	1.5
Viet Nam	0.1	0.1	0.1	0.1	0.1	0.2	0.2	1.8	3.9	3.9	3.4
Sub-Saharan Africa											
Kenya	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.4
Lesotho	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.5	0.6	0.6	0.5
Mauritius	0.5	0.4	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2
Mexico	8.4	11.4	13.7	15.4	16.4	15.8	14.2	12.5	10.5	9.5	8.6
Unit values (*$ per square metre*)											
Greater China area											
Mainland of China	4.1	4.4	4.7	4.7	4.8	4.8	4.7	3.6	3.2	3.0	2.7
Hong Kong, China	5.1	5.1	5.3	5.1	5.1	4.9	4.6	4.7	4.7	5.2	5.5
Macao, China	4.9	4.9	5.3	4.9	4.9	4.5	4.2	3.6	3.4	3.2	4.0
Taiwan Province of China	3.4	3.4	3.5	3.4	3.1	3.1	2.9	2.7	2.7	2.7	3.1
Other Asia											
Bangladesh	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.0	2.0	2.1	2.0
India	4.3	3.9	4.3	4.2	4.1	4.5	4.3	3.7	3.8	3.6	3.7
Indonesia	3.8	4.0	4.1	3.8	3.8	3.9	3.7	3.4	3.5	3.4	3.3
Pakistan	3.6	3.5	3.2	3.1	3.1	2.8	2.7	2.3	2.3	2.2	2.0
Republic of Korea	4.7	4.8	4.7	4.1	3.9	3.9	3.5	3.2	3.1	2.9	3.5
Viet Nam	1.3	1.8	1.8	1.7	1.7	1.6	1.7	2.8	3.2	3.3	3.3
Sub-Saharan Africa											
Kenya	2.6	2.6	3.0	3.3	3.1	3.5	3.5	3.6	3.6	3.8	3.5
Lesotho	3.6	4.3	4.1	4.2	4.3	4.1	4.2	3.8	3.8	4.1	3.9
Mauritius	4.1	4.8	5.4	6.3	6.0	6.2	5.8	5.4	6.0	6.1	5.6
Mexico	3.3	3.2	3.2	3.3	3.3	3.3	3.4	3.4	3.5	3.5	3.4
Memo item:											
World, excluding China	3.7	3.7	3.7	3.7	3.5	3.5	3.4	3.3	3.3	3.3	3.2

Source: UNCTAD secretariat calculations, based on data from United States Department of Commerce, Office of Textiles and Apparel (OTEXA).
   a January to May.

whether, as some contend, there is likely to be a further strong rise in China's share in world clothing exports.

Indeed, it is not clear whether fully exploiting its current export market potential in textiles and clothing is in China's own developmental interest. Figure 2.4 above indicates that China's comparative advantage is not in low-skill, labour-intensive production, such as clothing, but in manufacturing sectors with a higher skill content. Important clothing exporters from South Asia (such as India) have an unusual combination of relatively low levels of skill per worker and land per worker that gives them a strong comparative advantage in labour-intensive manufactures, which use little of either skill or land per unit of labour. Moreover, since there has been hardly any change in the relative endowment positions of the various country groups, there is little reason to anticipate a large move of South Asian countries away from, and of China towards, a comparative advantage in labour-intensive manufactures. Instead, rising incomes in China are likely to be associated with higher wages for low-skilled workers so that the share of skill-intensive items in China's manufactured exports is likely to increase. Indeed there are indications of rising wages in China's coastal provinces. This is partly because of the growing reluctance of workers to migrate to coastal provinces to work in export-oriented production, and partly due to the effects of previously strict family planning policies, which have resulted in fewer entrants to the labour market. Consequently, exporting firms in the coastal areas are finding it increasingly difficult to recruit workers unless they offer higher wage incentives (*Financial Times*, 5 July and 3 November 2004).

The fact that in China most labour-intensive activities have been heavily concentrated in the coastal areas raises the question as to whether in the years to come a similar relocation pattern will occur across the different provinces within China (as well as moving further afield to, for example, Viet Nam). This could facilitate the upgrading of clothing exports of the coastal provinces towards higher value-added products, for which short turnover periods and speed to market play a more important role in export competitiveness. Moreover, the relocation of labour-intensive production to the Chinese hinterland could make a valuable contribution to employment creation and poverty alleviation, while also serving as a supply base for pent-up domestic demand. But for the country as a whole, a general upgrading of its export basket towards more skill-intensive manufactures is likely to facilitate the financing of its growing imports of primary commodities, required to sustain the country's continued economic catch-up and industrialization process. As discussed above, such a process seems to be already under way in the electronics sector. ∎

> Relocation of labour-intensive production to the Chinese hinterland could contribute to employment creation and poverty alleviation.

Notes

1   Rising incomes and industrialization also boost the demand for capital equipment and intermediate production inputs. But the higher demand for these latter goods is usually met by imports, as discussed in section C.

2   In Japan, per capita calorie intake increased only slowly after the Second World War – given the already high level of per capita income – and peaked around 1970–1975. By contrast, the shift in the composition of food consumption continued, with a rising share of household expenditure on animal products, mainly marine fish and, more recently, meat, dairy products and products with a high sugar content. The Republic of Korea experienced a similar change in dietary structure, but with a time lag of about 20 years. While at the end of the 1960s cereals still accounted for more than half of total calorie intake in the Republic of Korea, their share fell to less than 30 per cent by the mid-1990s. At the same time, the intake of animal products increased significantly: meat and poultry consumption, for example, increased tenfold between 1969 and 1995 (Popkin, 1993; and Kim, Moon and Popkin, 2000).

3   All data from FAOSTAT.

4   Rosegrant et al. (2001: 75) project that between 1997 and 2020 the increase in per capita calorie intake in China will be only about two thirds that in India.

5   Data are from the World Bureau of Metal Statistics, various; World Bank, 2004a; International Iron and Steel Institute, 2004; International Copper Study Group, 2004; and World Bank, World Development Indicators online database: http://publications.worldbank.org/WDI/.

6   Figure 2.1 also shows that the intensity of metal use in the Republic of Korea increased throughout the period 1960–2003, even though the pace of growth slowed down considerably over the past decade, particularly for aluminium and copper. This indicates that the Republic of Korea is approaching the peak of its intensity-of-use curve. The intensity of metal use in both Japan and the United States has declined over the past two decades, as anticipated by the intensity-of-use hypothesis for mature, industrialized economies.

7   While the studies generally agree that gains in energy efficiency are the key determinant, their findings differ as to the relative importance of structural change. The importance given to structural change is higher in studies that employ firm-level, rather than sectorally aggregated, data.

8   While there is clearly no one-to-one relationship between the size of a country's territory and the economic value of its natural resources, technological progress has increasingly narrowed the differences in the relative economic values of different sorts of land. For example, Diamond (1997) points out that North Americans could realize the agricultural potential of the western prairies only once they had steel ploughs and draft animals; and it required modern geologic prospecting technology for the pastoralists in the Middle East to discover the fuel resources under their sand.

9   While comparative advantage for broad product categories largely depends on differences in the relative abundance of factor endowments, comparative advantage at a less aggregate level is heavily influenced by industry-specific changes in relative levels of unit labour costs. These changes can be the result of uneven productivity growth across industries combined with more even growth in wage rates and, more generally, of changes in the nominal exchange rate (*TDR 2004*).

10 One advantage of this formulation is that, contrary to some other variants of the Heckscher-Ohlin trade theory, it requires a much weaker and more plausible assumption of efficiency and factor-price equalization, namely, that in all countries the ranking of goods in terms of resource input combinations is similar – for example, that the land–labour input ratio in agriculture is always higher than in manufacturing and that the skill–labour input ratio in manufacturing is always higher than in agriculture.

11 It is clear that there is a variation, sometimes wide, in terms of both the land–labour ratio and, less so, the skill–labour ratio, among the countries within all the country groups; nonetheless, regional averages provide a useful broad-brush starting point for further analysis.

12 Data from UNESCO Institute of Statistics, Statistical tables online: http://www.uis.unesco.org/; UNESCO, 2003; and OECD, 2003.

13 Rodrik and Subramanian (2004: 19) argue that the reforms of the 1980s "were not pro-liberalization but pro-business in the important sense that they served to boost the profits of existing businesses without threatening them with real competition", and that this attitude change of the Government and the associated pro-business policy changes, implemented in a very haphazard and gradual manner, elicited a large productivity response, particularly in manufacturing. This was followed by a sustained rise in exports from 1987 onwards. Panagariya (2004: 29) argues that the policy changes in the 1980s were deeper than is generally appreciated, and that they can be characterized as "liberalization". He notes that, given their ad hoc and quiet implementation, they were often described as "liberalization by stealth", while the reforms in the 1990s were systematic and systemic. Panagariya (2004: 15) also mentions the importance of export incentives during the rapid export expansion of the late 1980s. These incentives resembled the measures taken earlier in the Republic of Korea to animate a profit–investment and an investment–export nexus; they included income tax deductions for business profits from exports, subsidization of interest rates on export credit, and facilitation of imports of capital goods in selected export industries. By contrast, the standard policy-oriented account of India's integration process (e.g. Ahluwalia, 2002) emphasizes the adoption of far-reaching reforms in the 1990s and argues that India embarked on the economic reform and trade liberalization process in earnest only following its balance-of-payments crisis in 1991.

14 The data refer to trade excluding trade among the member States of the EU. All data are from WTO, 2005b.

15 Anderson (2003: 12–13) estimates that China's food, feed and fibre self-sufficiency will be only slightly reduced by reforms associated with WTO accession, and that additional net food imports will represent only one per cent of total imports by 2007.

16 For a further discussion of these categories, see *TDR 2002*, chap. III.

17 The quota regulations of the Multi-Fibre Arrangement (MFA) have also played an important role, as discussed below.

18 Comprehensive product-specific import data for China are available only from 1987, so that the evolution of China's imports during its first 15 years of economic catch-up and greater trade integration is not reflected in the table.

19 While the fallout from the Asian crisis certainly played a role in the observed decline of imports in the Republic of Korea, it is more likely to have accelerated than provoked the decline.

20 According to Ernst (2004), chips designed by foreign or domestic companies in China are eligible for a 14 per cent rebate on the nominal 17 per cent value-added tax on sales of imported or domestically produced chips.

21 These price ceilings were introduced mainly to guarantee widespread access to medicines, in spite of the virtual absence of health insurance coverage.

22 The Act does not include a clear definition of what "significant investment" and a "reasonable royalty" actually are.

23 The relevant decision of the WTO is contained in document WT/L/540 of 2 September 2003. This decision introduced a waiver of the TRIPS Agreement with respect to the granting by an exporting Member of a compulsory licence.

24 Commodity prices are measured by a dollar-denominated index and deflated by a dollar-denominated price index, while demand in countries other than the United States depends on the price of commodities relative to output prices in those countries.

25 For further detail see International Rubber Study Group and Economic Social Institute (2003); and ITTO (2003).

26 According to Burghardt (2005), for example, speculative trading on commodity exchanges increased substantially in 2004: the volume of global futures and options in agricultural commodities increased by nearly 5 per cent, while the growth in the volume of trading was close to 12 per cent for energy products and 16.4 per cent for non-precious metals.

27 More precisely, worldwide non-ferrous metal exploration budgets had fallen at an average annual rate of 17 per cent between 1997 and 2002, before strongly bouncing back in 2003 and 2004. Moreover, the last quarter of 2004 was the seventh consecutive quarter that showed an increase in planned mining investment, with a pipeline of projects amounting to $122 billion (Metals Economics Group (2005); and Raw Materials Group, Sweden, quoted in the *Mining Journal*, London, 4 February 2005: 18–19).

28 Barton Suchomel, WMC Resources, quoted in *Mining Journal*, London, 22 April 2005: 2.

29 For instance, in response to the rising Chinese demand for soybean imports and higher soybean prices in 2002 and 2003, soybean growers in the United States and major Latin American producing countries rapidly increased their soybean production. In the 2002/03 season, soybean production increased by 19.5 per cent in Brazil, 18.3 per cent in Argentina and 26.8 per cent in Paraguay (United States Department of Agriculture, 2005).

30 Data for 2004 from *China's Customs Statistics, 2004*, 12, Series No. 184.

31 For detailed evidence and discussion, see Mayer, 2004.

EVOLUTION IN THE TERMS OF TRADE AND ITS IMPACT ON DEVELOPING COUNTRIES

A. Introduction

Price movements of internationally traded goods, as well as changes in the volume and product composition of trade, affect the gains an individual country can reap from international trade. These gains are traditionally measured by the terms of trade (the evolution of a country's export prices relative to its import prices) and the purchasing power of its exports (defined as the export value deflated by import prices). The impact of price movements in global markets for primary commodities and manufactures on both these measures is determined, in the short term, by the composition of a country's imports and exports, and, in the medium term, by its flexibility in being able to adapt the composition of its exports and imports to changing international demand and supply conditions. Clearly, the impact of a change in the terms of trade on an economy increases with the relative importance of external trade in its GDP.

The significance of the terms-of-trade concept has long been recognized in the context of international trade theory (Benham, 1940). Originally, the discussion of the terms-of-trade problem of developing countries focused on movements in the prices of primary commodities relative to those of manufactures. The works of Prebisch (1950, 1952) and Singer (1950) triggered broader debate on this issue. This was supported by empirical research underlying what came to be known as the Prebisch-Singer thesis of a secular decline in the terms of trade of internationally traded primary commodities vis-à-vis manufactures. Subsequent studies also found support for this thesis for a number of commodities (see Bleaney, 1993; Akiyama and Larson, 1994; World Bank, 1996: 55; *TDR 1993*: 98–102; Ocampo and Parra, 2003; and UNCTAD, 2003a: 13–19).

Today, a large number of developing countries, particularly in Africa, are still highly dependent on exports of primary commodities, and their terms of trade continue to be closely correlated with the terms of trade of primary commodities vis-à-vis manufactures (UNCTAD, 2003a). But it

is also true that the share of primary products in the merchandise exports of some developing countries, particularly the successful late industrializers, has been diminishing in favour of manufactures. These countries have become suppliers of manufactured goods not only to developed countries but also to other developing countries. Against this background, the evolution of the prices of manufactures exported by developing countries relative to those exported by developed countries has received increasing attention. Moreover, in the process of their industrialization the exporters of manufactures among the developing countries have also gained in importance as importers of primary commodities from other developing countries, to such an extent that their increasing demand has been a decisive factor in the recent price hikes of a number of internationally traded primary commodities. This has even led to expectations that the long-term downward trend in the terms of trade of commodity prices could be reversed.

The objective of this chapter is to show how recent developments in the world economy, in particular changes in the direction and product composition of world trade resulting from rapid growth in the large Asian economies, have affected the terms of trade of different groups of developing countries, and the growth of their national income. The chapter first revisits the terms-of-trade concept in the context of the declining importance of primary commodities in the total exports of an increasing number of developing countries. It then analyses recent developments in terms of trade resulting from changing international supply-and-demand patterns, where some developing countries have become important drivers of the global economy at a time when demand in major developed countries has been insufficient to stimulate worldwide growth. Section D looks at the effects of terms-of-trade changes on real domestic income in countries with different export structures and different degrees of openness to international trade; section E takes up the issue of how income gains or losses are shared between the national economy and foreign investors. The final section addresses a specific issue in this context: the sharing of rents from oil and mining activities.

> **Increasing demand from developing countries has been decisive in the recent price hikes of primary commodities.**

B. The terms-of-trade problem revisited

In the terms-of-trade debate of the early 1950s, the observed downward trend in the prices of primary commodities relative to those of manufactures (and, consequently, the terms of trade of developing countries vis-à-vis developed countries) was attributed to the different modes of price formation in the markets for primary commodities and those for manufactures. As a result of these differences, productivity gains in the production of food and raw materials in developing countries translated into lower prices (increasing the real income of consumers) rather than into higher remuneration for local factors of production. This was because surplus labour in the producing countries exerted a downward pressure on wages. By contrast, technical progress in manufacturing industries in the industrialized countries led to a rise in wages and profits (Singer, 1950: 311) as a result of a higher degree of organization of labour and the practice of mark-up pricing.

This widening gap between the prices of manufactures and primary commodities was also attributed to the fact that the income elasticity of demand for food is less than unity, and that technical progress in manufacturing tends to reduce the amount of raw materials used per unit of output (Singer, 1950: 312). This tendency was further strengthened by the protection of domestic primary production in the industrialized countries. On the other hand, faster growth in developing countries depends to a large extent on imports of manufactures, mainly capital goods, for the creation or expansion of industrial capacity and infrastructure. Simultaneous attempts by an increasing number of developing countries with similar natural-resource endowments to boost primary exports to finance such imports added to the downward pressure on commodity prices (*TDR 2002*, chap. IV).

A strategic consequence of these observed trends was that developing countries had to aim at changing their position in the international division of labour by accelerating their pace of industrialization. Indeed, over the past five decades, progress with industrialization in a number of developing countries, and their increasing participation in trade in manufactures, has added new dimensions to the problem. Thus, while the issue of prices of primary commodities vis-à-vis those of manufactured goods continues to be as relevant as ever for many developing countries whose export earnings still depend on a very limited number of primary commodities, developing countries as a group can no longer be stereotyped as exporters of primary commodities and importers of manufactures.

Accordingly, increasing attention has been paid to relative movements in the prices of manufactures exported by developing countries vis-à-vis those exported by developed countries. Empirical studies conducted so far have generally found evidence of a decline in developing countries' terms of trade in manufactures since 1975 (*TDR 2002*: 117–121), due to more intense global competition for the specific types of manufactures

typically produced by developing countries at early stages of their industrialization (i.e. low-skill, labour-intensive manufactures). The rapid export growth of these types of manufactures by the large Chinese economy and by a number of other developing countries has intensified competition in the markets for these goods, thereby exerting downward pressure on their prices.

For example, according to data from the United States Department of Labor, prices of electronic products, including computers and telecommunications equipment, have been falling worldwide since the early 1990, as indicated by the decline in both United States export and import prices (fig. 3.1). Within this overall trend, the fall in import prices has been stronger than the fall in export prices in the United States since the mid-1990s, suggesting that goods in this product category that are exported from developing countries have been subject to a sharper decline than goods exported from the United States that fall into the same broad product category.

There is also evidence that the export prices of textiles and clothing (apparel) from developing countries have followed a declining trend since the mid-1990s, though less steep than those of electronic products. According to UNCTAD secretariat estimates, prices of apparel exported from developing countries to the world market fell by more than 7 per cent between 1996/97 and 2002/03. This trend is also confirmed by data from the United States Department of Commerce, which show a decline in the unit value of United States apparel imports from developing countries of more than 10 per cent between 1995 and 2004 (see chapter II, table 2.10).

The main reasons for the weak prices of manufactures produced in developing countries are by and large the same as those that were identified as causing the decline in the terms of trade

Commodity issues continue to be as relevant as ever for many developing countries ...

... but developing countries as a group can no longer be stereotyped as exporters of primary commodities and importers of manufactures.

of primary commodities vis-à-vis those of manufactures: different labour market conditions and the existence of abundant and unorganized low-skilled labour. This implies that productivity gains are to a large extent reflected in lower prices and that wages in the developing countries tend to be more flexible than in developed countries. The downward pressure on prices resulting from a simultaneous export drive by developing countries in standardized labour-intensive products is also a phenomenon that in the past was typical of primary commodity markets. Thus price formation for low-skilled manufactures resembles that of primary commodities more than price formation for manufactures produced in developed countries. However, there is one major difference: while the relative decline in the export prices of low-skilled manufactures has generally been associated with considerable volume growth, declining export prices for primary commodities are typically associated with lower volume growth (and vice versa), due to the much lower price elasticity of demand.

Applied to a country's external trade, the concept most widely used since the beginning of the terms-of-trade debate in the 1950s has been the "net barter terms of trade", defined as the ratio between the unit value index of exports and that of imports (hereinafter referred to as terms of trade, *tout court*). Obviously, this only captures one of the factors determining a country's gains (or losses) from trade, while neglecting changes in the volume of exports that may accompany, and in some cases even cause, the observed changes in export prices. In order to assess a country's capacity to import essential goods for its development, it is more meaningful to look at the "income terms of trade", also known as the purchasing power of exports. This is defined as the value index of exports deflated by the unit value of imports. If the fall in a country's terms of trade is overcompensated by a rise in the volume of its exports result-

Figure 3.1
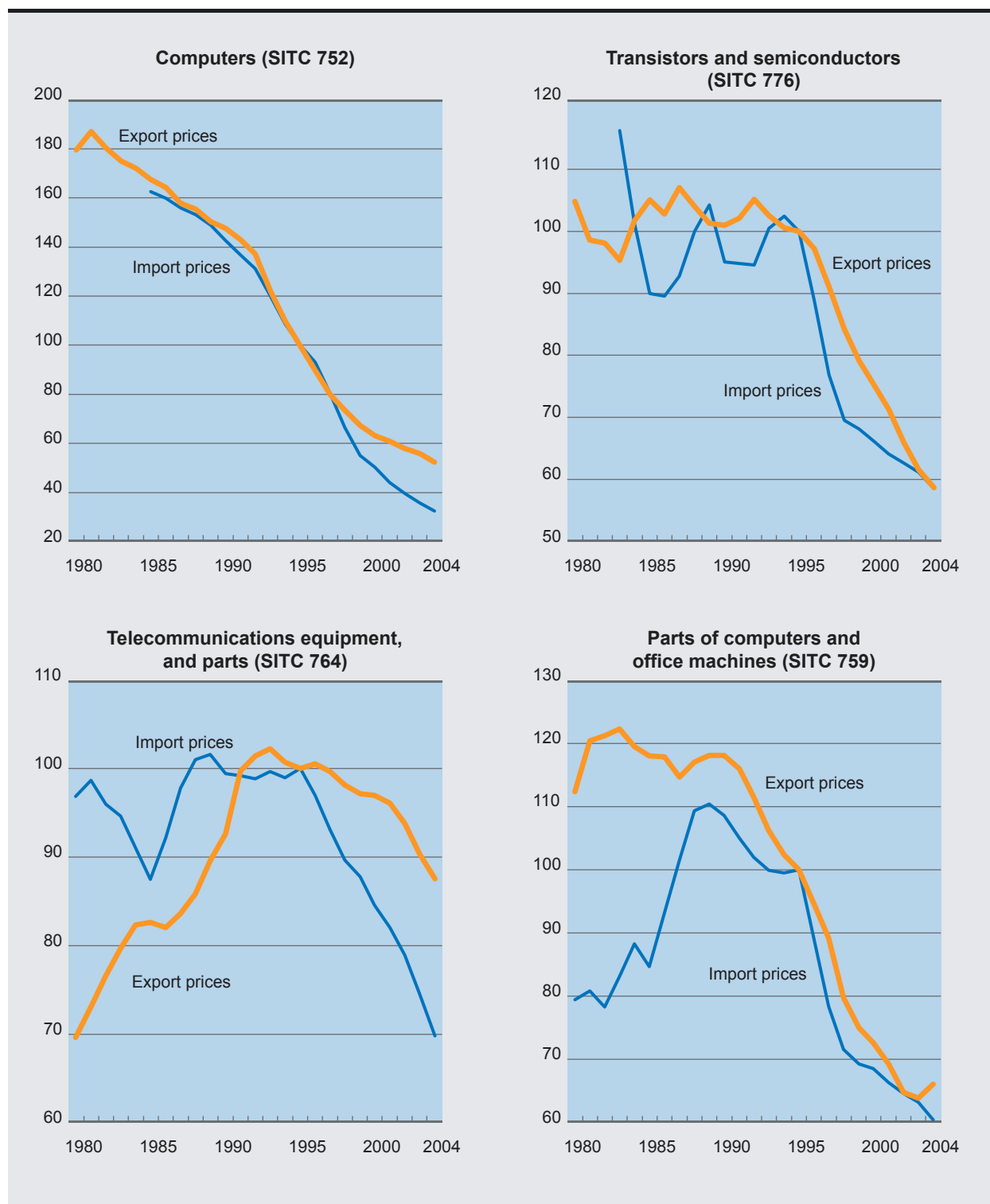
**UNITED STATES IMPORT AND EXPORT PRICE INDICES
FOR SELECTED ELECTRONICS PRODUCTS, 1980–2004**

(Index numbers, 1995 = 100)

Source: UNCTAD secretariat calculations, based on United States Department of Labor database (www.bls.gov/data/).

ing from growing international demand or an increase in the country's world market share, the country will register a rise in the purchasing power of its exports, indicating that it is able to increase real imports without adversely affecting its trade balance. Similarly, if productivity in its export industries rises fast enough, a country may obtain a larger quantity of imports from the same quantity of factors embodied in its exports, even if its terms of trade deteriorate.[1]

The variability of a country's terms of trade is determined to a large extent by the share of primary commodities in its exports and imports. The share of primary commodities (including fuels) in total developing-country exports has plunged, from around 65 per cent in 1980–1983, to around 30 per cent in 1999–2003 (table 3.1). This steep fall has been partly due to the fall in primary commodity prices, especially fuels, in the 1980s. But the most significant factor in the changing export structure has been the rapid expansion in the value of manufactured exports. By contrast, the product composition of developing countries' imports has not changed significantly. As a result, the sectoral composition of exports is now more similar to that of imports; in 1999–2003, manufactures accounted for 74 per cent of the total merchandise imports of all developing countries taken together and 68 per cent of their total merchandise exports.

A shift in the structure of exports towards a greater share of manufactures occurred in all developing regions. In Latin America, manufactures rose to become the major export category in the late 1990s, and in East and South Asia, where they had already been the largest category in the early 1980s, their share rose further, to reach 85 per cent in 1999–2003. By contrast, despite a considerable increase in the export share of manufactures, primary products still

> Export prices of textiles and clothing from developing countries have been declining since the mid-1990s, though at a slower rate than those of electronic products.

> Demand for manufactures is much more elastic with respect to prices and income than demand for primary commodities.

constitute the majority of exports in Africa (around 75 per cent) and in West Asia (78 per cent), the bulk of which are still fuels (around 51 per cent and 72 per cent respectively). Moreover, the increase in the share of manufactures has been heavily concentrated in a relatively small number of countries. With the exception of East and South Asia, primary commodities still account for the largest share of exports in a majority of developing countries (table 3.2).

The shift towards manufactures in Latin America mainly reflects the rapid growth of manufactured exports from Mexico and, to a lesser extent, Brazil. In 2003, these two countries generated more than 75 per cent of the region's manufactured exports. In Mexico, 55 per cent of such exports in 2004 were generated by *maquila* industries which assemble imported inputs (INEGI, 2005). Several smaller Central American and Caribbean countries, which formerly specialized in food and beverages, have also become exporters of manufactures, owing largely to the expansion of their *maquila* plants. However, most South American countries still export mainly primary products: predominantly food in Argentina, Paraguay and Uruguay; ores and metals in Chile and Peru; and fuels in Bolivia, Colombia, Ecuador and Venezuela.

Similarly, in Africa and West Asia only a small number of countries account for the increase in the share of manufactures in total exports. Manufactured exports have expanded rapidly in Morocco, Tunisia and South Africa; they have also gained a relatively high share of the total exports of some sub-Saharan countries, such as Lesotho, Mauritius, Senegal and Swaziland. In West Asia, where the trade structure is largely dominated by fuel exports, Turkey's manufactured exports account for over 84 per cent of the total for the region.

Table 3.1

**EXPORT STRUCTURE OF DEVELOPING COUNTRIES, BY REGION
AND BY BROAD PRODUCT CATEGORY, 1980–2003**

(Per cent share in total exports)

	Fuels			Non-fuel primary commodities[a]			Manufactures[b]			Other[c]		
	1980–1983	1989–1992	1999–2003	1980–1983	1989–1992	1999–2003	1980–1983	1989–1992	1999–2003	1980–1983	1989–1992	1999–2003
Developing countries	38.8	22.5	18.0	26.0	19.7	12.7	31.4	55.7	68.1	3.9	2.2	1.2
Latin America and the Caribbean	23.3	22.6	16.2	42.9	40.7	25.7	32.6	35.9	56.6	1.3	0.9	1.5
Africa	40.8	47.9	50.6	32.7	24.9	24.0	12.7	15.7	23.0	13.8	11.5	2.4
West Asia	70.0	73.4	72.2	11.5	8.6	6.1	16.8	17.7	21.0	1.7	0.2	0.6
East and South Asia	18.5	7.2	4.9	24.3	15.1	9.1	54.9	76.5	84.8	2.3	1.2	1.1

Source: UNCTAD secretariat calculations, based on UN COMTRADE.
   a SITC Rev. 2: 0 to 4 plus 68, 661 and 667 less 3.
   b SITC Rev. 2: 5 to 8 less 68, 661 and 667.
   c SITC Rev. 2: 9.

It is also important to note that in the majority of developing countries where the share of primary commodities in total exports has fallen, industrial development, and thus manufactured exports, are concentrated in natural-resource-intensive and low-skill, labour-intensive products. Only a few of them have a sizeable share of exports of higher skill and technology-intensive manufactures.

The increasing share of manufactures in the total exports of developing countries implies that they face different global demand dynamics than in the past. When commodities were their major exports, developing countries faced inelastic demand, and therefore relative export prices were the main determinant of real export earnings, as export volumes could not increase significantly given the slow growth of aggregate demand. Since demand for manufactures is much more elastic with respect to prices and income, this situation has changed, and export volumes respond more strongly to price changes.

Table 3.2

**DISTRIBUTION OF DEVELOPING COUNTRIES BY
THEIR DOMINANT EXPORT CATEGORY,[a] 2003**

(Number of countries)

	Fuels	Non-fuel primary commodities[b]	Manu-factures[b]	Total
Africa	9	30	9	48
Latin America[c]	3	11	6	20
Caribbean[d]	2	8	6	16
East and South Asia	1	2	16	19
West Asia	10	0	3	13
Total	25	52	41	118

Source: See table 3.1.
   a Dominant signifies more than 50 per cent of total exports.
   b For definitions see table 3.1.
   c Including Cuba, the Dominican Republic and Haiti.
   d Including Belize, Guyana and Suriname.

C. Recent trends in the terms of trade

Trends in the terms of trade of the different developing regions and countries vary, depending on the composition of their exports and imports; and over the past few decades, these trends have increasingly diverged across different groups of developing countries. Since the early 1980s, all developing countries taken together have been experiencing a downward trend in their net barter terms of trade (fig. 3.2). The deterioration of about 15 per cent was accompanied by a rise in the volume of exports from the mid-1980s onwards, but this was mainly on account of a few economies in East and South Asia. It is only from the early 1990s onwards that Latin America has seen faster growth of export volumes, which supported the purchasing power of exports. In Africa, export volumes also expanded in the 1990s, but at a much slower rate.

Since the late 1990s these trends have been increasingly influenced by the growing importance of China and India in shaping the structure of international trade. The same factors that improved the terms of trade of some developing countries, especially the higher prices of oil, and mineral and mining products, led to a worsening of the terms of trade in others. In some countries, particularly in Latin America, but also in Africa, the positive effect of price movements on the purchasing power of exports was reinforced by an increase in export volumes. In others, however, gains from higher export unit values were offset by higher import prices. China and India themselves have seen their terms of trade deteriorate since 2002.

In East and South Asia, terms of trade were stable for more than 15 years before declining in the aftermath of the financial crisis in 1997. Until 2002 the reduction in the unit value of their exports (mainly of manufactures) was partly compensated by falling unit values of their imports (of both manufactures and primary commodities). But since then import prices of oil, industrial raw materials and a number of food items have reinforced the downward trend in their terms of trade, which fell by about 15 per cent between 1997 and 2004. Over the same period, there was a dramatic increase in the export volumes of countries in these subregions, so that the purchasing power of their exports almost doubled in a context of falling terms of trade. This was mainly due to a rapid growth of their exports to developed countries, as well as to transition economies and to those developing countries that have increased their import capacity owing to higher primary commodity export earnings. Moreover, the rapid expansion of their exports has occurred at a time of slow growth in the industrialized countries.

Africa and Latin America saw a dramatic deterioration in their terms of trade from the beginning of the 1980s until the beginning of the 1990s. Thereafter, there were considerable fluctuations around a slightly increasing trend, which has been reinforced in the past three years. In Latin America, the sharp deterioration in the terms of trade during the 1980s reflects the consequences of the debt crisis. Many countries in the region responded to the crisis by seeking to expand their exports to compensate for the abrupt ending of

Figure 3.2

TERMS OF TRADE, EXPORT VOLUMES AND PURCHASING POWER OF EXPORTS IN DEVELOPING ECONOMIES, BY REGION, 1980–2004

(Index numbers, 1980 = 100)

Export volume (left scale)
Purchasing power of exports (left scale)
Terms of trade (right scale)
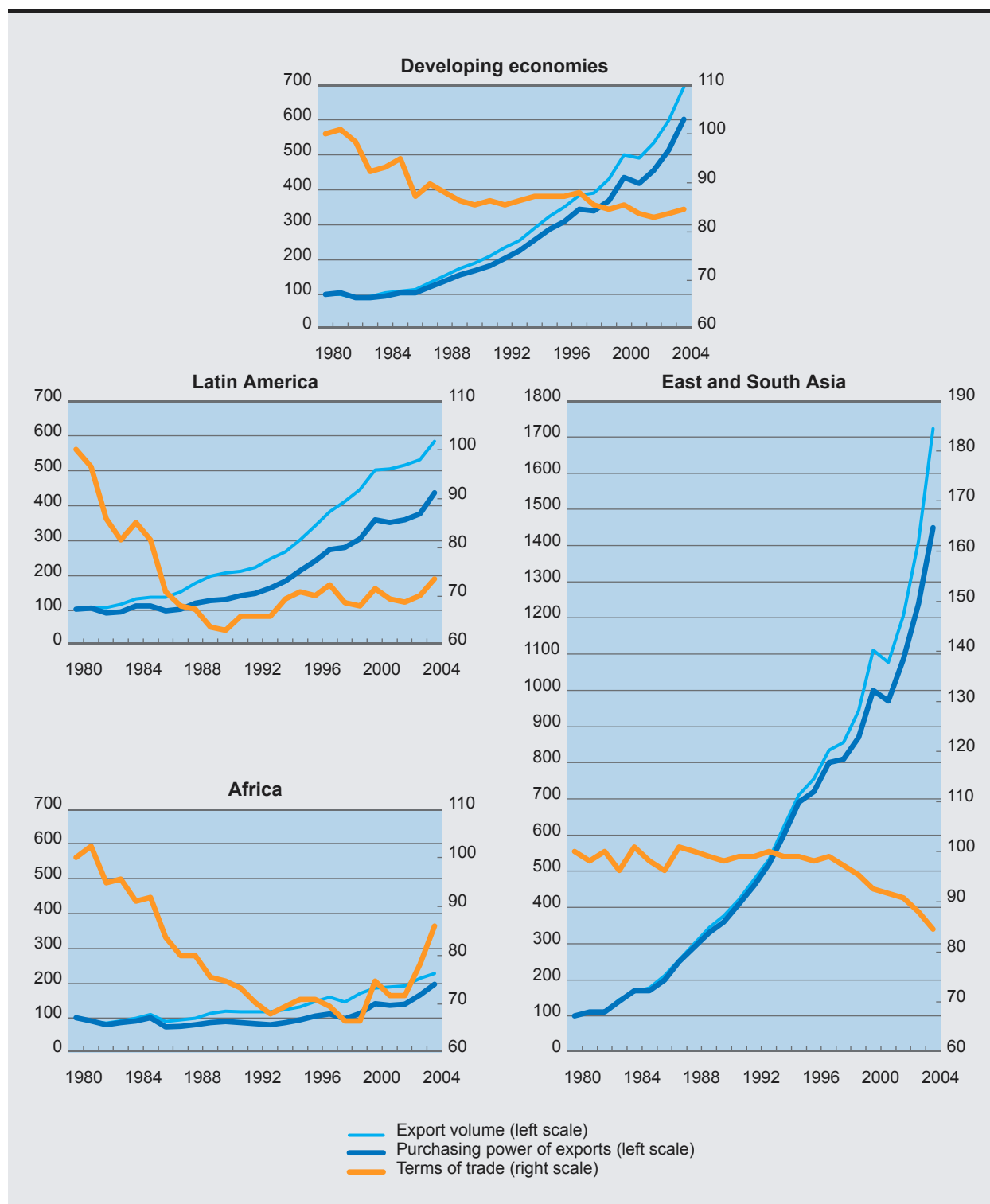
Source: UNCTAD Handbook of Statistics database.

capital inflows, and to generate a trade surplus for debt servicing, but this merely led to a fall in export prices. But unlike in East Asia in the aftermath of the financial crisis in the late 1990s, the fall in the dollar prices of exports was not accompanied by a commensurate increase in the volume of exports, which consisted of a much larger proportion of primary commodities. Moreover, the export push in Latin America coincided with a slowdown of growth in the major industrialized countries and a stagnation of global demand. The decline in Latin America's terms of trade bottomed out only by the beginning of the 1990s when the purchasing power of exports from the region also picked up. During the second half of the 1990s, the purchasing power of exports in Latin America rose almost at the same rate as that of East and South Asia, supported by both an acceleration of export volume growth and more favourable export and import unit values. Since then, many Latin American countries have benefited from a much higher share of manufactures in their exports than in the 1980s (see *TDR 2003*, table 5.8.).

In Africa, where much less progress was made in export diversification, the terms of trade were more unstable during the 1990s than in other regions, and export volume growth was very modest. As a consequence, the purchasing power of Africa's exports recovered to its level of 1980 only in 1996, where it remained until the end of the decade. Since 2000 Africa's terms of trade have risen more than those of the other regions as a result of higher demand from the fast growing Asian developing countries for certain primary commodities. Between 1999 and 2004, changes in the international prices of these commodities have resulted in an improvement of about 30 per cent in Africa's terms of trade, compared to some 8 per cent for Latin America, and a decline of 11 per cent for East and South Asia. In parallel, export volumes in Africa have grown at a pace not seen since the late 1960s. Yet, since the difference between Africa and Latin America in the recent evolution of the terms of trade is partly explained by the higher share of primary commodities and the lower degree of diversification

> In East and South Asia, the decline in the terms of trade has been accompanied by a dramatic increase in export volumes.

of African countries' export structures, the region remains more vulnerable than any other region to a deceleration of global demand. Thus, the recent positive evolution in Africa's terms of trade might well be just another temporary boom rather than the beginning of a sustained recovery.

A broad picture of how groups of developing countries with different trade structures have been affected by terms-of-trade movements over the past few years is given in figure 3.3. It shows the terms-of-trade movements of 40 developing economies, classified in five groups according to the major product category in their exports: oil, minerals and mining products, agricultural products, or manufactures. For some exporters of manufactures the classification is not straightforward, because their terms of trade continue to be highly sensitive to changes in the prices of the remaining primary commodities in their export basket, either because the share of the latter is still relatively high or because their prices are characterized by a particularly high variability (or a combination of both). For the purpose of this analysis such countries have been classified as "exporters of manufactures and primary commodities".

Since 2002, economies with a high share of oil, and minerals and mining products in their total merchandise exports have gained the most from recent developments in international product markets. According to preliminary estimates, the terms of trade of countries with a dominant share of fuels in their exports increased by 30 per cent between 2002–2004, and those of countries with a dominant share of mineral and mining exports increased by about 15 per cent.

The stronger improvement in the terms of trade of oil exporters is due not only to the sharp increase in international oil prices, but also to the fact that oil exporters have, on average, a less diversified export structure than exporters of minerals and mining products. Moreover, the composition of the latter product category is less homogeneous, and the different products in that category display large differences in price trends

(see chapter II, table 2.8). For these reasons there is also greater diversity among the countries within the group of exporters of mineral and mining products.

Among the countries with a dominant share of exports of minerals and mining products, exporters of uranium (Niger) and copper (Chile, Peru and Zambia) saw the strongest improvements in their terms of trade. Gold exporters (such as Kyrgyzstan) also experienced significant, although more gradual, improvements between 2002 and 2004. For these countries, the positive effect of the surge in the international prices of copper and gold exceeded the combined negative effects of rising oil prices and adverse movements in the prices of manufactures (see figure 3.4 for a decomposition of the changes in the terms of trade of selected countries, including Chile and Peru). But soaring export prices since 2003 have been insufficient, in most cases, to fully reverse the dramatic losses experienced in the 1980s; for some countries in this group, such as Chile and Peru, terms of trade in 2004 were still around 50 per cent lower than in 1980. Jamaica and Mozambique saw a slight deterioration in their terms of trade between 2000 and 2004. Both are exporters of bauxite and aluminium, the prices of which rose less than those of other mineral and mining products, and both were also negatively affected by higher import prices and unfavourable price developments for the agricultural commodity components of their exports (sugar in Jamaica, and sugar, tobacco and cotton in Mozambique).

Terms-of-trade developments have varied the most among economies where agricultural commodities have dominated their total merchandise exports. This reflects large differences in the movement of prices for specific products within this category, and differences across countries in the share of other primary commodities in total exports, as well as differences in the share of oil in their imports. For cotton exporters, such as Benin and Burkina Faso, the terms of trade were subject to wide fluctuations around a declining trend during the period 2000–2004. In Malawi, weakness in the prices of tobacco and sugar has caused the terms of trade to decline dramatically every year since 2000, whereas in Cuba, another exporter of tobacco and sugar, this effect was largely offset by a sharp rise in the price of its nickel exports (see chapter II, table 2.8). In some coffee-exporting countries, such as Burundi, the slight improvement in the terms of trade in 2003 and 2004 was insufficient to make good the sharp deterioration of previous years. By contrast, in Côte d'Ivoire, the world's leading cocoa exporter, the terms of trade rose by more than 20 per cent between 2000 and 2004, despite a considerable reversal in 2004. The two other countries in the group of agricultural exporters that witnessed increases in their terms of trade, Argentina and Uruguay, benefited from higher prices for soybeans, beef and some cereals. In Argentina, this trend was strengthened due to the country being a net exporter of oil and mining products, although the impact of higher prices of these product categories was dampened by an increase in import prices of manufactures (fig. 3.4).

On the other hand, all the fuel-importing developing countries with a dominant share of manufactures in their merchandise exports have suffered from a deterioration in their terms of trade in the past two or three years. The terms-of-trade losses for East and South Asian exporters of manufactures in 2003 and 2004 ranged between 8 per cent for Taiwan Province of China, and more than 14 per cent for India. The losses were largely due to the heavy dependence of the countries in this group on fuel and metal imports, and to the relative decline in the prices of their manufactured exports. For example, the decline in the unit value of their machinery exports, which in large part consist of electronics products, was larger than the decline in the unit value of their imports of the same product category; while for other manufactures, import unit values grew faster than export unit values. The particularly unfavourable terms-of-trade trend in Pakistan since 2000 reflects an export structure dominated by labour-intensive clothing products and a higher-than-average share of oil in total imports. On the other hand, for some exporters of manufactures, higher prices of their food and bev-

> Since 2000, Africa's terms of trade have risen more than those of the other regions as a result of higher demand for certain primary commodities.

Figure 3.3

TERMS OF TRADE OF SELECTED DEVELOPING ECONOMIES, BY DOMINANT EXPORT CATEGORY, 2000–2004

(Index numbers, 2000 = 100)

Figure 3.3 (concluded)

TERMS OF TRADE OF SELECTED DEVELOPING ECONOMIES, BY DOMINANT EXPORT CATEGORY, 2000–2004

(Index numbers, 2000 = 100)

Figure 3.4

CONTRIBUTION OF DIFFERENT PRODUCT GROUPS TO TERMS-OF-TRADE CHANGES, SELECTED DEVELOPING ECONOMIES, 2000–2004

(Per cent)

Agricultural raw materials
Food and beverages
Fuels
Ores and metals
Machinery
Manufactures, excluding machinery
Other merchandise transactions (SITC Rev. 2: 9)
Change in overall terms of trade

Figure 3.4 (concluded)

CONTRIBUTION OF DIFFERENT PRODUCT GROUPS TO TERMS-OF-TRADE CHANGES, SELECTED DEVELOPING ECONOMIES, 2000–2004

(Per cent)

Agricultural raw materials
Food and beverages
Fuels
Ores and metals
Machinery
Manufactures, excluding machinery
Other merchandise transactions (SITC Rev. 2: 9)
Change in overall terms of trade

Source: See figure 3.3.

erage exports alleviated the negative effects of high prices of fuel and some manufactures. This applied, for example, to Sri Lanka (tea) and Morocco (fish, fruits and vegetables).

In general, the combined effect of the lower prices of low-skill, labour-intensive manufactured exports and higher prices of imports was less pronounced in the countries classified as "exporters of manufactures and primary commodities", which, while having become important exporters of manufactures, are still relatively sensitive to fluctuations in the prices of specific primary commodities. This is the case in particular for some countries in Latin America (Brazil, Colombia, Costa Rica and Mexico) and East Asia (Indonesia, Malaysia and Viet Nam), as well as South Africa. In many of them, price movements in the different product categories neutralized each other in their impact on the terms of trade. In Brazil, for example, recent movements in the prices of primary commodities and manufactures have not changed the positive long-term trend in its terms of trade since the early 1980s. This can be attributed to the diversification of the country's exports, involving an increase in the share of manufactures, and to a progressive reduction of its dependence on oil imports. Since 2003, higher prices of food exports compensated for the effect of increasing oil import prices on Brazil's terms of trade (fig. 3.4).

In Malaysia and Mexico, where fuels still account for 10 and 12 per cent, respectively, of total merchandise exports, the positive contribution of higher fuel prices largely compensated for the negative impact of trade in manufactures on their terms of trade in 2003 and 2004 (fig. 3.4). Although manufactures dominate exports in both countries, they are highly import-intensive and the lower cost of imported inputs mitigated the negative impact of the falling prices of their manufactured exports. This is especially true for assembly industries, which import and re-export the manufactures belonging to the same product group at different stages of processing; in Mexico they

> Increasing supplies of raw materials, along with efforts in East and South Asia to reduce their dependence on imports of such goods, could bring the price increases to a halt, or even reverse them.

represent 35 per cent of total imports and 47 per cent of total exports.

These examples of some economies illustrate the diversity in the impact of recent international price movements on the terms of trade of developing countries. The variations in the global pattern of demand and their impact on individual countries has led to a redistribution of income, not only between developing and developed countries, but also, to an increasing extent, among different groups of developing countries. This does not necessarily imply absolute losses in real income for countries that have experienced a deterioration in their terms of trade, as long as global demand and, hence, export volumes of all cou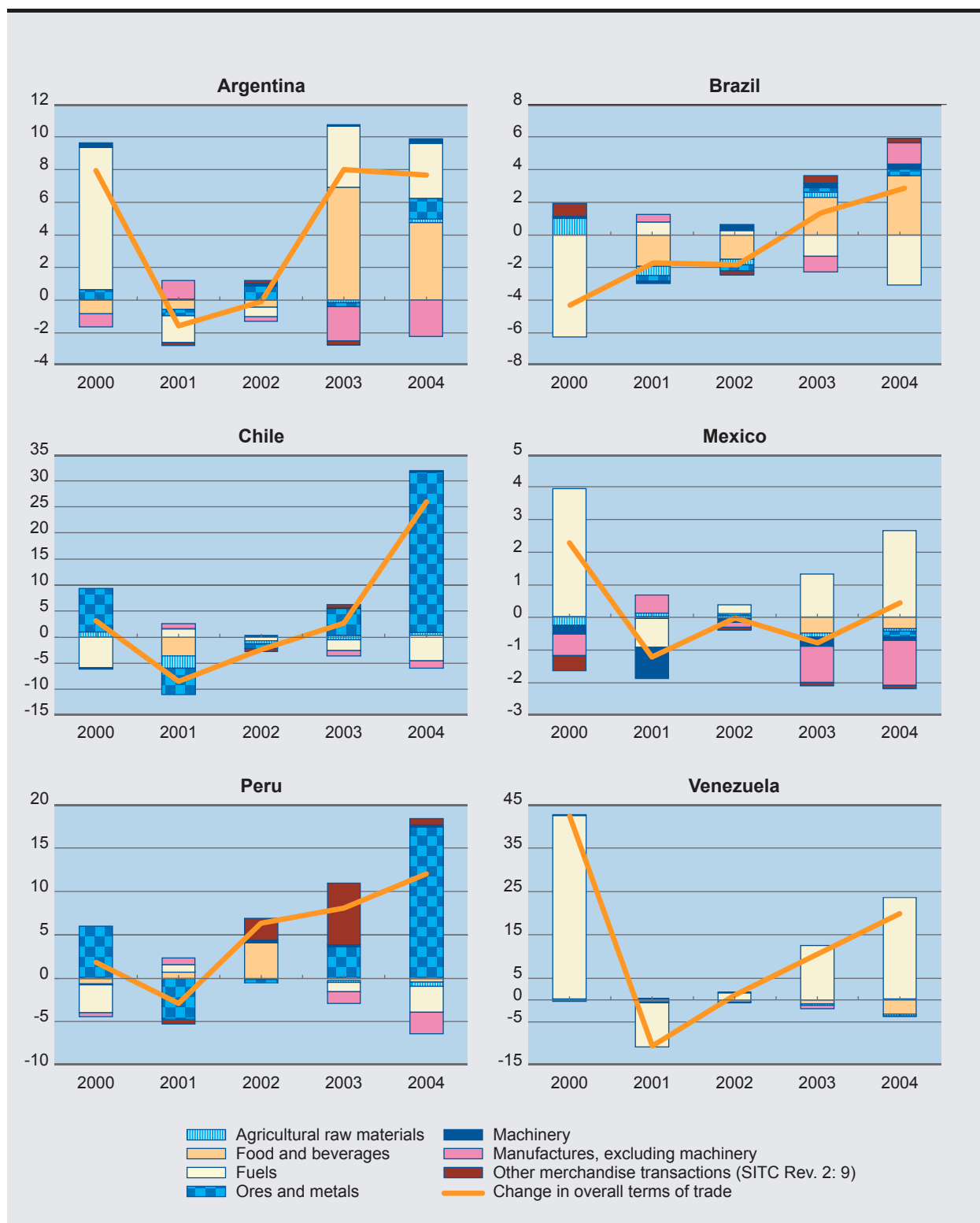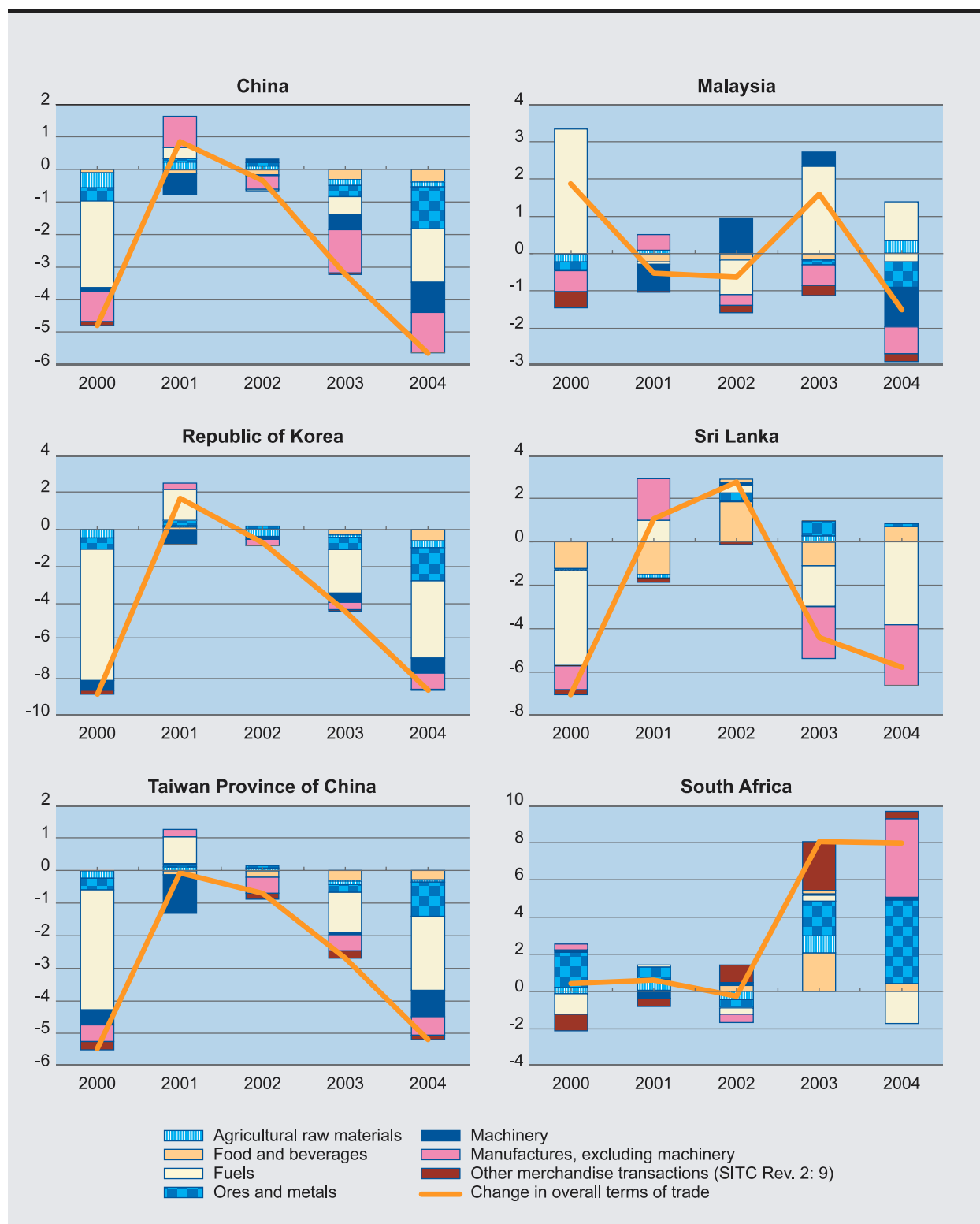ntries, are expanding. Over the past few years, most developing countries have indeed gained from the expansion of global demand. However, for some countries, less buoyant demand or unfavourable supply conditions of primary commodities have affected their export prices; this, combined with rising prices for fuel and food imports, has resulted in a severe deterioration in their terms of trade, which has not been redressed by higher export volumes.

The expansion of global demand for specific primary commodities and manufactures over the past few years has been stimulated mainly by the fast growth of demand from China and India, in addition to that of the United States. Europe and Japan, on the other hand, have contributed little to that expansion. This geographical pattern is not without risks, given the imbalances in the world economy and the possibility that adjustments of these imbalances could lead to a reduction of global demand (see chapter I, section B). Such a reduction might occur directly as a result of lower United States imports, and indirectly as a result of lower imports from the fast growing exporters of manufactures among the developing countries, which themselves depend on exports to the industrialized countries. In such a scenario, the recent improvements in the terms of trade of many countries could well be reversed, adding yet another

episode of terms-of-trade volatility to the historical record.

Another reason for caution in forecasting terms-of-trade trends is that supply adjustments in the commodity sector, especially in fuels and mining, could soon arrest the upward price trend. They could even reverse the trend if increased production capacity were to coincide with recessionary tendencies in the world economy as a result of disorderly adjustments to the current imbalances. Furthermore, the fast-growing developing economies of East and South Asia are likely to reinforce their efforts to reduce their dependence on raw material imports in response to the rising prices of such imports, partly through domestically produced substitutes and partly through reduced intensity of metal and energy use (see chapter II, section B.2). Their efforts could also contribute to a slowdown, or even to a reversal, of price increases of imported raw materials, particularly if there is a further expansion of supply capacity.

D. Effects of terms-of-trade changes on domestic income

The strength of the impact of terms-of-trade changes on real national income depends on a number of factors. First, the income effects depend on whether a change in the terms of trade is accompanied by, or is even the result of, productivity growth that enables domestic exporters to reduce their prices. A second important determinant is the economy's openness to international trade. While terms-of-trade changes have a relatively minor impact on income in economies where exports and imports are small relative to GDP, even moderate terms-of-trade changes have a sizeable impact on national income in very open economies. Finally, secondary income effects from changes in the terms of trade depend on the use of income gains (or the form of adjustment to income losses), which, in turn, is influenced by the distribution of the gains or losses among the domestic private firms, employees, consumers and the State, as well as foreign investors.

Developing countries must not get complacent about industrialization and diversification.

A deterioration in the terms of trade due to lower export prices associated with, or resulting from, productivity growth in the exporting industries, does not mean an absolute loss of real income; yet part of the productivity gains, rather than accruing to the domestic economy, benefits, instead, the consumers, traders or producers of the importing countries. Similarly, for rapidly growing economies that face a rise in import prices resulting, at least in part, from their own growing demand (as China and other fast-growing Asian economies), the consequent deterioration in the terms of trade needs not lead to a net loss of real income. For most of the fast growing exporters of manufactures that have recently witnessed a deterioration in their terms of trade these two elements were combined. By contrast, suppliers whose export prices come under pressure but whose productivity is increasing less than that of their foreign competitors, tend to lose real income

Table 3.3

**SENSITIVITY OF DEVELOPING COUNTRIES TO TERMS-OF-TRADE CHANGES, BY BROAD
PRODUCT CATEGORY AND BY REGION,[a] 1996–2004**

	Terms-of-trade effects on GDI[b] (Per cent)	*Terms-of-trade variability[c]*	*Exports–GDP ratio[d]*	*Memo item: Share of the five leading products in total exports[e] (Per cent)*
Exporters of manufactures	1.1	4.6	30.2	40.7
Oil exporters	4.3	19.3	29.1	71.4
Non-oil primary commodity exporters	1.5	10.0	18.5	64.7
East and South Asia	1.6	6.6	35.7	44.0
West Asia	4.9	19.9	31.5	76.0
Africa	2.2	12.1	23.1	71.4
Latin America	1.3	7.4	20.3	49.8

Source: UNCTAD secretariat calculations, based on UN COMTRADE; United States Department of Labor, Bureau of Labor
Statistics, Import/Export Price Indexes database (www.bls.gov/mxp/home.htm); Japan Customs, Trade Statistics database
(www.customs.go.jp); UN Statistics Division Common Database; UNCTAD Handbook of Statistics database; and UNCTAD,
Commodity Price Bulletin, various issues.
a Non-weighted average for the 12 African, 12 Latin American, 4 West Asian and 11 East and South Asian developing
countries, listed in table 3.4.
b Average annual impact of terms-of-trade changes on GDI as a percentage of GDP, in absolute value, 1996–2004. It is
calculated as the difference between the growth rates of GDI and GDP in real terms.
c Standard deviation of the annual rate of change of the net barter terms of trade.
d In current dollars, average for 1996–2004.
e 2002, at SITC Rev. 2 three-digit level.

from exports, either due to lower export volumes
(reducing profits and employment) or lower ex-
port prices (reducing profits and wages).

Table 3.3 shows the exposure of different
groups of countries to changes in the terms of trade
as measured by the absolute difference between
the growth rate of real gross domestic *income*
(GDI) and that of gross domestic *product* (GDP).
In the system of national accounts this difference
corresponds to the "trading gain or loss resulting
from changes in the terms of trade".[2] The table
also shows the factors contributing to the size of
that gain or loss: terms-of-trade variability and
openness to international trade. Terms-of-trade
variability is to a large extent conditioned by the
degree of export diversification.

In the period 1996–2004, the effects on domes-
tic income were the strongest in the oil-exporting
countries, where terms-of-trade variability and

export concentration are the most pronounced, and
where the exports-GDP ratio is relatively high. In
this group of countries, the average annual gain
or loss of income from terms-of-trade movements
amounted to more than 4 per cent of GDP. By
contrast, in countries that export mainly manufac-
tures much lower terms-of-trade variability com-
bined with a similar degree of openness led to an
average annual gain or loss of income of 1.1 per
cent of GDP. The more closed economies of coun-
tries that export mainly non-oil primary commodi-
ties attenuated the impact of terms-of-trade
changes on GDI, which amounted to 1.5 per cent.

These differences resulting from distinct ex-
port structures, are also reflected in the sensitivity
of the different developing regions to terms-of-
trade changes. The impact has been the strongest
in West Asia, a region that includes many oil ex-
porters. In Africa, where terms-of-trade variability
has been considerably higher than in East and

South Asia and in Latin America, and where most countries also depend on a small number of primary commodity exports, the terms-of-trade effects on domestic income have tended to be stronger than in the two other regions, where manufactures account for a greater share of exports.

The differences in the size of the terms-of-trade movements and their income effects also show that the dependence on exports of primary commodities remains a central problem of development. Thanks to higher price and income elasticity of demand for manufactures, lower prices for exports of such products from developing countries will often be accompanied by higher volume growth. Therefore, it is imperative for developing countries not to become complacent about industrialization and diversification. There is a risk that the recent recovery of primary commodity markets could lead to a shift away from investment – both domestic and foreign – in the nascent manufacturing sectors of commodity-exporting countries in favour of extractive industries. While higher investment in that area may be beneficial in terms of creating additional supply capacity and raising productivity, this should not be at the expense of investment in manufacturing. Exporters of primary commodities that have recently benefited from higher prices and, in some cases, from higher export volumes, have to continue their efforts towards greater diversification within the primary commodity sector, as well as upgrading their manufacturing and services sectors. The recent windfall gains from higher primary commodity earnings provide an opportunity to step up investment in infrastructure and productive capacity – both essential for boosting development.

E. The distribution of gains or losses from terms of trade

Table 3.3 gives figures for the direct income gains or losses from terms-of-trade changes. Indirect effects, resulting from the use of direct income gains or adjustments to direct income losses, are not measurable empirically and thus are not considered in that table. Therefore it shows only part of the full impact of terms-of-trade changes on real national income. Indeed, from a development perspective, the use of the additional income resulting from terms-of-trade changes is of crucial importance. For example, if terms-of-trade gains resulting from higher export prices accrue in the form of higher company profits, and if these are reinvested, the medium-term impact on growth will be much greater than in a situation where the gains accrue to the government through transfers from State-owned enterprises, which are used to service the public debt, or in a situation where they accrue to workers in the form of higher wages that are spent for consumption. Similarly, a deterioration in the terms of trade resulting from higher import prices or lower export prices can lead, *inter alia*, to either a reduction of investment, an increase in government indebtedness or higher unemployment and wage compression if it is not counterbalanced by productivity and export volume growth. Regarding the distribution of income effects of terms-of-trade changes, sharing of profits from export-oriented activities among domestic and foreign actors is of particular importance, to the extent that the latter may repatriate higher profits arising from increases in international prices, thereby reducing the positive effect of terms-of-trade improvements on national income.

A central aspect in the distribution of income gains and losses from the terms of trade is captured by the distinction between gross *domestic* income (GDI) and gross *national* income (GNI).[3] The difference is accounted for by net factor payments abroad; it is often considerable when the income effects of terms-of-trade changes are associated with changes in profit remittances by TNCs. Since the beginning of the 1990s many developing countries have strengthened their efforts to attract FDI, and the most successful have been some fast growing exporters of manufactures and exporters of fuels and mining products. Especially in some of the latter countries, a large proportion of export activities are controlled by TNCs, and changes in their domestic income as a result of higher terms of trade may be partly absorbed by an increase in profit remittances. The inverse is of course, theoretically, also true. However, the reaction pattern is unlikely to be symmetrical; given the labour market situation in most developing countries, higher export prices (or falling prices for imported inputs) will more likely translate into higher profit remittances rather than higher wages, while lower export prices will more likely translate into lower wages rather than lower profit remittances.[4]

What appears as profit remittances in the current account of the balance of payments is often partially reinvested in the same host country, recorded in the capital account as an inflow of FDI. But this does not mean that there is a direct link between profit remittances and new FDI; like domestic investment, FDI is primarily determined by expected rather than current profits. Consequently, the reinvestment of TNC profits in the host country where they originate as a result of terms-of-trade gains, especially from increasing prices for oil and mineral and mining products, cannot be assumed to be systematic and therefore is not considered in the analysis presented in this and the following section.

Figure 3.5 presents estimates for growth rates of GDP, GDI and GNI for selected developing countries; it also shows the evolution of their terms of trade, which explains to a large extent the dif-

> The distribution and use of income gains from terms-of-trade changes is of crucial importance.

ferences between those rates. For example, in Côte d'Ivoire, Indonesia, Malaysia and Venezuela, the impact of terms-of-trade changes on GDI was considerable, but there were no large differences in the changes in GDI and GNI. This was not the case in other countries, such as Chile and Zambia, where net income payments were higher. These two exporters of mining products experienced a significant worsening of their terms of trade after 1997, which exacerbated the economic slowdown of 1998–1999. This procyclical impact of terms of trade also played a role in the upswing of 2003–2004, when it added to domestic income. In 2004, the gains from terms of trade were huge: more than 8 percentage points of GDP in Chile and 7 percentage points in Zambia. However, a considerable proportion of these gains was captured by TNCs, leading to an increase in net factor payments abroad. As a result, GNI grew more than GDP, but much less than GDI.

In China and El Salvador, countries with very different economic structures, but whose exports are dominated by manufactures, the terms of trade have been much less volatile than in countries whose exports are dominated by primary commodities. However, their terms of trade have been declining since 1998, a trend that explains the lower growth rate of income (both domestic and national) compared to GDP, especially in 1999 and in 2003–2004. While this has not prevented China from maintaining a rapid growth rate, it has contributed to weak growth in El Salvador in the past few years (fig. 3.5).

These examples illustrate the varying trends among developing countries since the mid-1990s. Table 3.4 presents an estimate, for a larger number of countries, of recent gains and losses in income arising from terms-of-trade changes and real net income payments. Despite the diversity of cases, it is possible to discern some general features. In 2002, the terms of trade generally had little effect on domestic income in developing countries. Among the 39 countries for which reliable data are available, gains or losses from terms-of-trade changes amounted to 1 per cent of GDP or more in nine countries and 5 per cent or more of GDP

Figure 3.5

CHANGES IN GROSS DOMESTIC PRODUCT, GROSS DOMESTIC INCOME, GROSS NATIONAL INCOME AND TERMS-OF-TRADE INDICES, SELECTED DEVELOPING COUNTRIES, 1996–2004

(Per cent and index numbers, 2000 =100)
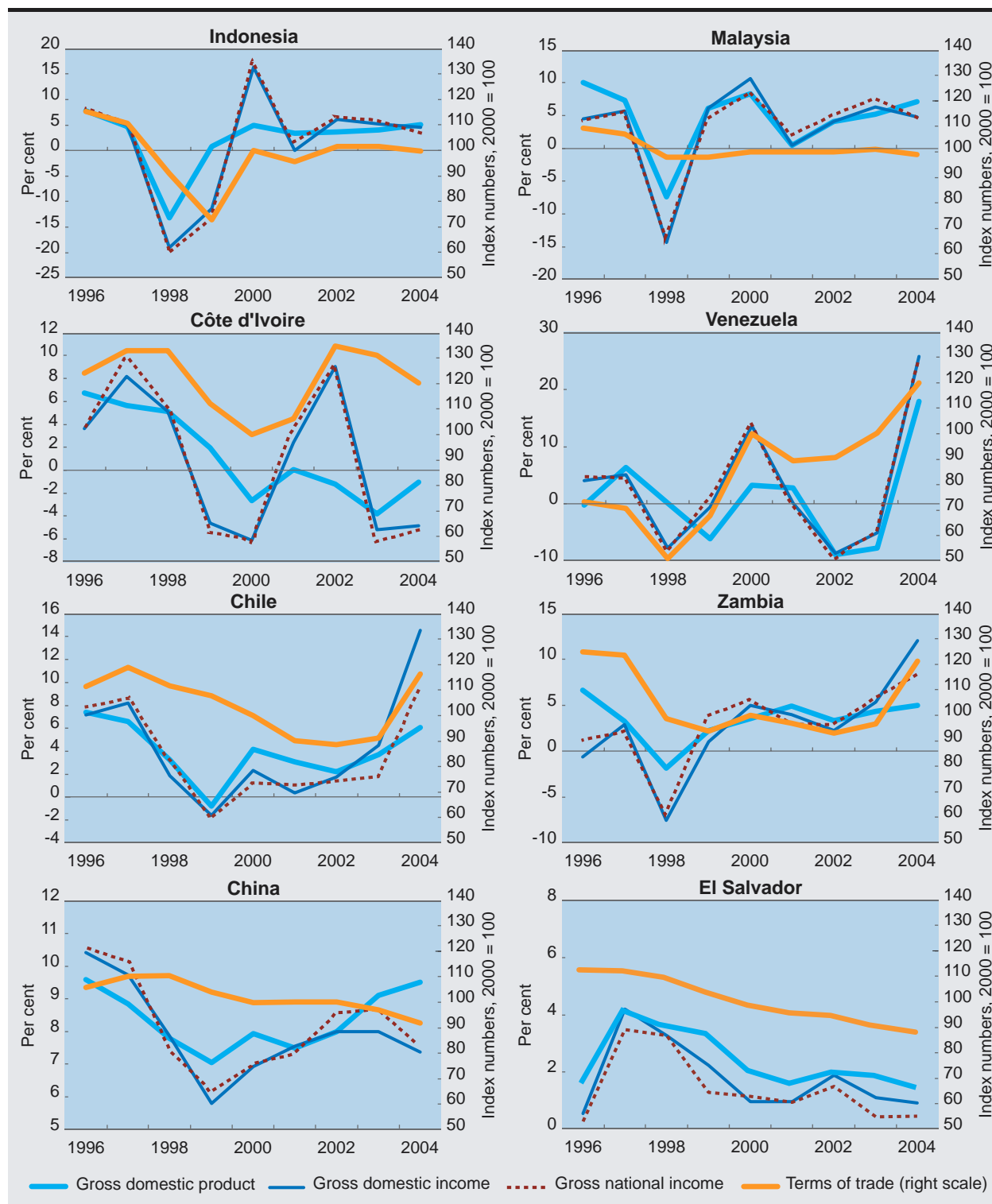
Gross domestic product —— Gross domestic income ····· Gross national income —— Terms of trade (right scale)

Source: UNCTAD secretariat calculations, based on UN Statistics Division Common Database; IMF, Balance-of-Payments Statistics database; and UNCTAD estimates of unit value and volume of exports and imports.

Table 3.4

IMPACT OF CHANGES IN TERMS OF TRADE AND NET INCOME PAYMENTS ON NATIONAL INCOME, SELECTED ECONOMIES, 2002–2004

(Per cent of GDP)

	Gains or losses from terms of trade[a]			Effects of net income payments[b]			Gains or losses from terms of trade[a]	Effects of net income payments[b]
	2002	2003	2004	2002	2003	2004	Average 2002–2004	
Exporters of manufactures[c]	**-0.5**	**-0.6**	**-1.1**	**0.4**	**-0.1**	**-0.0**	**-0.7**	**0.1**
Bangladesh	-0.4	-1.0	-0.8	0.1	-0.1	-0.2	-0.7	-0.1
China	0.0	-1.1	-2.1	0.5	0.6	0.1	-1.1	0.4
India	-0.3	-1.0	-0.7	-0.1	-0.7	0.1	-0.7	-0.2
Indonesia[d]	2.5	1.1	-0.5	0.2	0.4	-1.5	1.0	-0.3
Malaysia	0.0	1.1	-2.3	0.8	1.2	-0.4	-0.4	0.5
Pakistan	-0.8	-1.1	-1.2	-0.2	-0.3	-0.5	-1.0	-0.3
Philippines	-6.0	-1.8	-2.3	1.4	0.8	1.0	-3.4	1.1
Republic of Korea	-0.4	-1.6	-3.7	0.4	0.0	0.0	-1.9	0.2
Sri Lanka	0.9	-1.5	-1.6	0.2	0.4	-0.1	-0.7	0.1
Taiwan Province of China	-0.5	-1.5	-3.3	0.3	1.0	0.1	-1.7	0.5
Thailand	-0.7	0.5	1.0	0.2	-0.4	-0.3	0.3	-0.2
Turkey	-0.3	0.5	0.6	0.6	-0.6	-0.1	0.3	-0.0
Morocco	-0.4	-0.2	-0.4	0.2	-0.2	0.2	-0.3	0.1
South Africa[d]	0.1	2.7	2.4	1.0	-0.6	-0.6	1.7	-0.1
Tunisia	0.0	-0.7	0.0	-0.1	-0.6	-0.8	-0.2	-0.5
Brazil	-0.2	0.2	0.6	0.4	-0.3	-0.5	0.2	-0.1
Costa Rica	0.5	-0.5	-1.7	1.9	-2.0	1.9	-0.6	0.6
El Salvador	-0.2	-0.9	-0.6	-0.4	-0.7	-0.5	-0.6	-0.5
Mexico	0.1	-0.1	0.1	0.4	0.2	-0.2	0.0	0.1
Oil exporters[c]	**-0.3**	**3.2**	**6.1**	**-1.1**	**-1.0**	**-0.1**	**3.2**	**-0.7**
Iran, Islamic Republic of	-2.1	2.2	4.6	0.2	-0.1	0.4	1.6	0.2
Kuwait	-0.5	7.9	11.3	-3.9	-1.4	6.2	6.3	0.3
Saudi Arabia	0.0	5.5	10.0	0.2	-0.6	0.6	5.2	0.1
Algeria	-1.1	6.8	6.6	-1.0	-0.5	-0.5	4.1	-0.6
Nigeria	0.8	6.8	10.7	-5.4	-4.0	-4.9	6.1	-4.8
Sudan	-0.4	1.9	2.8	-0.2	-1.7	-1.2	1.4	-1.0
Colombia[d]	-0.2	0.5	2.2	-0.2	-0.7	-1.0	0.8	-0.7
Ecuador	0.8	0.8	0.8	0.7	-0.7	-0.0	0.8	-0.0
Venezuela	0.3	2.7	7.8	-0.7	0.1	-1.2	3.6	-0.6
Non-oil commodity exporters[c]	**1.4**	**0.6**	**1.5**	**0.0**	**-1.1**	**-1.5**	**1.2**	**-0.9**
Burundi	1.0	-0.2	-0.6	0.4	-1.1	-1.0	0.1	-0.6
Côte d'Ivoire	10.3	-1.4	-3.8	0.0	-1.2	-0.5	1.7	-0.5
Ethiopia	0.2	0.2	0.2	0.2	-0.1	-0.3	0.2	-0.1
Ghana	5.0	1.8	-0.6	-1.1	0.4	-0.7	2.1	-0.5
Uganda	-0.2	0.2	-0.3	0.2	-0.2	-0.5	-0.1	-0.2
Zambia	-1.0	1.0	7.1	0.4	0.3	-3.8	2.3	-1.0
Argentina	0.0	1.3	1.8	-0.2	-0.2	-0.7	1.1	-0.4
Bolivia	-0.0	1.0	1.6	0.2	-1.2	-1.3	0.9	-0.7
Chile	-0.5	0.8	8.4	-0.5	-2.9	-5.4	2.9	-2.9
Peru	1.0	1.1	2.2	-0.6	-1.2	-2.5	1.4	-1.4
Uruguay	0.1	0.5	0.4	0.9	-5.1	-0.3	0.3	-1.5

Source: UNCTAD secretariat calculations, based on UN Statistics Division Common Database; IMF, Balance-of-Payments Statistics database; national sources; and UNCTAD estimates of unit value and volume of exports and imports.
  a Difference between the growth rates of GDI and GDP in real terms.
  b Difference between the growth rates of GNI and GDI in real terms.
  c Non-weighted averages.
  d Not included in the product group average because the other product groups have an untypically strong influence on the terms of trade.

in three countries: Côte d'Ivoire (10.3 per cent), Ghana (5.0 per cent) and the Philippines (-6.0 per cent). In 2003 and 2004, the situation changed perceptibly. In both years, gains or losses from terms of trade exceeded 1 per cent of GDP in 24 countries, with 15 countries registering gains and 9 losses. On average, exporters of manufactures registered relative losses of GDI from terms of trade of 0.7 per cent of GDP in 2002–2004. Oil exporters, on average, saw relatively large domestic income gains in that period (3.3 per cent), while improvements in the terms of trade of non-oil primary commodity exporters led to relative gains in GDI, averaging 1.2 per cent in 2002–2004. These gains and losses were partly offset by changes in net income payments abroad. Over the three years, from 2002 to 2004, roughly 10 per cent of the relative income losses of exporters of manufactures were offset by lower net income payments abroad, while the oil exporters saw 25 per cent of their relative income gains vanish through higher net income payments abroad. The outcome has been dramatic for the exporters of primary commodities other than oil: on average, 75 per cent of their relative income gains from terms-of-trade improvements were absorbed by higher net income payments abroad.

In 2003 and 2004, the deterioration of the terms of trade of most economies of East and South Asia meant a loss of income frequently exceeding 1 per cent of GDP. Among Latin American countries, the terms of trade had a negative impact only on some exporters of manufactures that are also oil importers. In Costa Rica in 2004, a reduction in the profit remittances of TNCs compensated for the loss of income, reflected in the positive effect from net income payments. Chile and Venezuela obtained the greatest gains from terms of trade in the region, by as much as 8.4 and 7.8 percentage points of GDP, respectively, in 2004 alone. However, in Chile, a large

> **Foreign investors may repatriate the higher profits arising from increases in international prices, thereby reducing the positive effect of terms-of-trade improvements on national income.**

> **Profit remittances are often reinvested in the same host country, but there is no systematic link between such remittances and new FDI.**

part of the gain was offset by higher net income payments abroad ($8.1 billion in 2004, compared to $4.6 billion in 2003), mostly by exporting TNCs. Other exporters of mining products (e.g. Peru) and hydrocarbons (e.g. Colombia and Bolivia) also experienced significant gains from terms of trade and suffered a negative effect from higher net income payments abroad. In Argentina, improving terms of trade contributed to a recovery from the 2001–2002 crisis, not least because a larger-than-average share of this gain remained inside the country.

The oil-exporting countries of West Asia, and, to a lesser extent, those of Africa (Algeria, Nigeria and Sudan) registered relatively large domestic income gains. However, in the case of the West Asian oil exporters, the positive terms-of-trade effects on relative income growth were reinforced by increases in income payments received from abroad, reflecting the rising government revenues from foreign investments. By contrast, the domestic income gains in Nigeria and Sudan were in large part offset by higher net outflows of profit remittances. The African exporters of minerals and mining products, South Africa and Zambia, had large relative gains in domestic income. The effects of net income payments were negative in 2004 for almost all the African countries examined, and particularly so for Nigeria and Zambia, as profit remittances from oil and mining companies, respectively, increased.

Overall, the recent improvements in the terms of trade of many developing countries, as a result mainly of higher international prices for a broad range of primary commodities – especially fuels, and ores and metals – have translated into real income gains. In principle, these gains can have positive development effects by strengthening the ability of these countries to finance new investments in infrastructure and productive capacity, with attendant im-

provements on employment, productivity and output growth. However, this depends on how the higher earnings from exports, resulting from rising export prices (or falling prices for imported inputs), are used. They may translate into higher wages, higher government revenue from taxes, royalties or profits of public enterprises, higher net profits of local firms, or higher net profits of foreign investors. The developmental effect further depends on the extent to which the different groups use the higher income on investment or consumption. The observations in this section suggest that in a number of countries that have benefited in recent years from domestic income gains through improvements in their terms of trade, the potential of these gains to enhance the financing of development has not been fully realized because they were associated with increasing outflows of profit remittances, an issue that is examined further in section F.

F. The distribution of export income and rent from extractive industries

In order to accelerate their economic and social transformation, and advance towards achieving the Millennium Development Goals (MDGs), developing countries need to use the income generated by export-oriented activities in a way that is conducive to faster capital accumulation and stronger productivity growth. That income may accrue to private agents in the form of profits, interest or wages, or to the government through profits transferred by State-owned enterprises (SOEs), or through royalties or taxes paid by companies in the export sectors. It may be used to reduce poverty and boost private consumption, or to increase private capital formation or public investment. When TNCs involved in export activities repatriate their profits, the potential development-enhancing effects are reduced (assuming that new FDI is independent of current profits). In the capital-intensive mining, oil and gas sectors, TNCs typically control a particularly large share of export activities. These are also the sectors where large differential rents can occur, since production costs differ considerably depending on the localization, accessibility and richness of the deposits. On the other hand, the share of the government in the rent from export-oriented activities in these sectors is a potentially important source of revenue for financing development. Careful management of the rent from extractive industries is of special importance in the context of sustainable development, because these rents are generated from the exploitation of non-renewable resources, which will eventually be depleted.

In this context, the State's retention of a part of the rents generated in these sectors has traditionally received special attention in developing countries. Until the mid-1980s, the State controlled extractive activities in most developing countries. Subsequently, privatization of SOEs in the mining sector, along with tax incentives for foreign investors has led to a considerable reduction of government revenues from this sector (box 3.1).

> The rent from extractive industries is a potentially important source of revenue for financing development.

Fiscal revenues from external trade in general and extractive industries in particular still provide a significant share of total revenue in a number of developing countries (table 3.5), although the amount and mechanisms for collecting the revenues differ widely from one country to another. Government revenue accrues from transfers of State-owned exporting companies or as a share of export income through royalties and income taxes paid by private operators. Despite the tendency towards a general reduction of import and export duties, they have remained an important source of public revenue for many countries, especially LDCs.

Although taxes on international trade mainly take the form of import duties, fiscal revenues from that source depend indirectly on the value of exports, since the latter largely determines the level of imports. Thus, recent increases in the export earnings of many developing countries have contributed, directly and indirectly, to an increase in their fiscal revenues. Moreover, some countries such as Argentina, Côte d'Ivoire and Ghana have applied taxes on exports – which are easier to collect – as a substitute for taxes on the profits of exporters, especially in agriculture. In Côte d'Ivoire, taxes on exports of coffee and cocoa provided 18 per cent of the public revenue in 2002. In Argentina, export taxes, at rates of 5 per cent for manufactures and 20 per cent for primary commodities, were introduced to absorb part of the windfall profits resulting from the large currency devaluation of 2002 and from the higher international prices of agricultural and energy products.

Government revenue from export-oriented activities is frequently reduced by fiscal incentives accorded to foreign investors. Although such incentives may have been successful in attracting additional FDI, they have increasingly come under criticism, especially in a number of Latin American countries. In response, some countries have recently revised their fiscal and ownership regulations relating to the oil and mining sectors. The rise in the prices of most mineral and mining products in the past few years has further stimu-

> **Privatization and tax incentives for foreign investors have led to a considerable reduction of government revenues from the mining sector.**

lated the debate on the distribution and use of the windfall. Revenue systems and the structure of ownership of these sectors differ considerably across countries, and reliable, detailed information on the income they generate in developing countries, or the government revenue realized from them, is not systematically available.[5] However, it is possible to identify some general trends and orders of magnitude based on rough estimates of the distribution of rents in the oil and mining sectors.

As a first approximation, government revenue from natural resources may be compared with the value of the natural resources produced or exported (table 3.6). In some major oil-exporting countries for which data are available, such as Algeria, Ecuador, the Islamic Republic of Iran, Kuwait and Nigeria, transfers to the public budget exceeded 60 per cent of total fuel export earnings in the reference year; and they amounted to between 16 per cent of GDP in the Islamic Republic of Iran and 43 per cent of GDP in Kuwait, depending on the degree of diversification of the economy. In these countries, with mature hydrocarbon industries, most government income is generated directly through SOEs or joint ventures.[6]

In several sub-Saharan African countries, such transfers account for a much smaller share of oil export earnings, especially in Chad, where they amount to only 6.7 per cent. In these countries, oil extraction industries are more recent and mainly operated by TNCs. The lower fiscal income in these countries is explained partly by high start-up costs and high initial depreciation allowances that reduce the taxable income, but also by fiscal incentives accorded to the foreign-owned companies. For example, in Chad, a country that has been presented as an example of sound management of oil revenues, TNCs only paid royalties of about $2 per barrel in 2004.[7]

The counterpart of the relatively low share of the public sector in total oil earnings in sub-Saharan Africa is the higher share obtained by TNCs, which explains the sizeable income payments abroad in the balance of payments. Angola,

Box 3.1

STATE INCOME FROM EXTRACTIVE INDUSTRIES: A HISTORICAL PERSPECTIVE

In many countries, economic activities in the energy and mining sectors have long been directly controlled by the State. For example, in Argentina a public oil company was founded in 1922, and in Bolivia and Mexico private companies in these sectors were nationalized in 1937 and 1938 respectively. In other countries, where these activities were entirely or partly in the hands of domestic or foreign private operators, part of the income resulting from oil and mineral exports went to the State in the form of royalty payments or taxes on profits and export earnings. The size of those payments was often a source of conflict between host countries and foreign firms and their home countries. Well-established States, such as Chile, were able to collect significant revenues from exports of raw materials,[1] but this was the exception rather than the rule. Less organized independent States, colonies and protectorates would typically receive only a small share of export revenues, if any. Moreover, disclosure of costs and profits was not always obligatory. In the case of oil, for example, extraction costs, and thus the profits of the dominant firms (the "Seven Sisters"), were kept secret until the early 1950s.[2]

In the process of decolonization, the situation changed in many countries, particularly in respect of the oil sector. In the 1940s, the Venezuelan Government first imposed taxes on oil companies and later it required a 50/50 distribution of net oil earnings. Similar regimes were introduced by Kuwait, Iran (now the Islamic Republic of Iran) and Saudi Arabia in 1950. With the creation of the Organization of the Petroleum Exporting Countries (OPEC), its member States worked towards a harmonization of their oil regimes, and in 1970 they agreed to establish a minimum tax rate of 55 per cent. In parallel, State-owned oil firms were created during the 1960s in Algeria, Iraq, Kuwait, Venezuela and Saudi Arabia, and in the early 1970s, these and other OPEC countries went further by nationalizing or acquiring a majority share in their oil industries.

Beginning in the early 1950s there was also a nationalization wave in other sectors, as an increasing number of developing countries tried to increase their revenues and reaffirm their sovereignty. This included mining activities in Bolivia (1952), Zaire (now the Democratic Republic of the Congo) (between 1967 and 1974), Zambia (starting in 1970) and Chile (1971). As a result, the SOEs from Chile, Zaire and Zambia were the three major world copper producers in 1980.[3]

But soon many SOEs in developing countries, especially in the mining sector, faced serious problems that eventually undermined their ability to generate fiscal revenues from their export activities.

Chad, Congo and Equatorial Guinea had a large surplus in their trade balance in 2003 and 2004, the value of merchandise exports being roughly double that of imports. However, all these countries posted current-account deficits owing to profit remittances and other service payments, mainly linked to the oil sector.

A more precise estimate of the rent from extractive industries that is retained in an economy can be obtained from a comparison of the income of the different domestic agents and foreign investors with the total rent generated in that sector. This requires information on costs, production and prices, which is not, however, systematically available. Nonetheless, in the annex to this chapter, such estimates are undertaken for some countries in Latin America during the period 1999–2004.

The country studies suggest that there are large differences in the distribution of the rents from extractive activities across countries and sec-

Box 3.1 (concluded)

Prices of most metals fell in the second part of the 1970s and much of the 1980s. Falling prices and economic problems due to the debt crisis of the 1980s aggravated the fiscal situation in many developing countries, as a result of which the SOEs had to transfer an increasing share of their revenues to central governments. This deprived them of the means of financing the investments needed for maintaining and expanding their production capacities. On the other hand, TNCs undertook a radical restructuring process that involved several mergers and acquisitions. They also developed new technologies that enabled them to profitably exploit lower-grade deposits despite lower prices.

As access to new technologies and capital had become crucial at a time when many SOEs were facing financial problems and losing their relevance as a source of public revenue towards the end of the 1980s, the doors were again opened to TNCs. They returned to developing countries or reinforced their presence through acquisitions of privatized companies, joint ventures and concessions in the extractive industries. In the oil sector, where OPEC members produced at very low costs, the position of public firms had remained viable and national ownership of most companies was maintained. But in the mining sector, most public companies were privatized. Ghana reformed its mining sector between 1985 and 1989, reducing State ownership and encouraging FDI through a reduction of corporate income tax from 55 to 35 per cent and royalties from 6 to 3 per cent. This early example was followed by other African countries, including Guinea, Madagascar, Mali and the United Republic of Tanzania.[4] In Latin America, a wave of opening up to FDI in the mining sector was pioneered by Chile, and followed by other countries including Argentina and Peru. A similar opening also occurred in the Latin American hydrocarbons industry (see also the annex to this chapter). In some cases, good management and sufficient resources enabled State firms to survive (e.g. the copper company in Chile).

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[1] Taxes on saltpeter exports accounted for roughly half of Chile's fiscal income for almost 40 years in the late 19th and early 20th centuries (Bethell, 1986).

[2] Only in 1952, with the publication of *The International Oil Cartel* (a report by the Federal Trade Commission of the United States) was the *modus operandi* of the major international oil companies unveiled. For an analysis on the energy market from a historical perspective, see Chevalier, 2004.

[3] For a historical analysis of the copper sector, see UNCTAD, 1994b, and Moussa, 1999.

[4] For a recent account of FDI in Africa, see UNCTAD, 2005c, in particular section D.

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tors as a result of differences in the role of SOEs and fiscal regimes. For example, in the case of the oil industry in Mexico, the entire rent went to the Government; in Ecuador and Venezuela, the Government received close to two thirds of the total rent throughout the period 1999–2004, and in Venezuela a sizeable share of the rent also accrued to domestic consumers. In Argentina, the government share in the oil rent fell from around 45 per cent in 2001 to an estimated 36 per cent in 2004. In these countries, State ownership of the oil industry has been the main vehicle for capturing all or a large part of the rent from oil extraction. This is most apparent in Mexico, where PEMEX operates the State monopoly, but in Ecuador and Venezuela, where SOEs and private contractors coexist, the SOEs have also provided the bulk of fiscal receipts generated from the rent of the oil sector.

In the case studies on the mining sector in Chile and Peru, the distribution of the rent was

Table 3.5

**GOVERNMENT REVENUE[a] FROM
INTERNATIONAL TRADE AND
EXTRACTIVE INDUSTRIES,
SELECTED DEVELOPING
COUNTRIES**

*(Per cent of total current
government revenue)*

	Import and export duties	Revenue from extractive industries[b]	Period considered
Algeria	7.3	68.7	2003
Angola	5.9	75.1	2003
Argentina	16.9	7.1	2004
Bahrain	4.4	74.2	2003
Bolivia[c]	3.5	26.2	2003
Botswana	11.0	52.7	2002
Chile	5.7	8.2	2003
Chad	17.3	33.8	2004
Congo	7.2	69.8	2003
Côte d'Ivoire	38.6	1.4	2002
Dem. Rep. of the Congo	28.5	20.7	2002
Ecuador	9.2	29.8	2002
Egypt	13.0	16.4[d]	2003/04
Equatorial Guinea	0.9	91.9	2004
Ghana	22.7	3.5	2002
Guinea	19.8	14.0	2003
Indonesia	3.1	25.9	2002
Iran, Islamic Republic of	8.8	53.8	2004
Kuwait	1.3	71.6	2002
Malaysia	5.9	22.7	2004
Mexico[c]	1.7	33.1	2004
Namibia	24.9	18.4	2002/03
Nigeria	8.3	76.5	2003
Peru	7.3	2.4	2003
Sudan	20.7	44.8	2002
United Arab Emirates	2.8	69.2	2003
Venezuela	3.0	49.7	2003
Viet Nam	18.5	30.3	2002
Yemen	6.4	47.6	2003

Source: IMF, *Government Financial Statistics Yearbook*, and *Country Reports*; and UNCTAD secretariat calculations, based on national sources.

  a Central government unless otherwise indicated.
  b Government revenue from royalties, income taxes of exporting firms, and profits of State-owned enterprises transferred to the government budget.
  c Non-financial public sector.
  d Including revenues from the Suez Canal Authority.

less favourable for the State than in the case studies on the oil industry of other countries. For example, in Chile between 1999 and 2002 less than 20 per cent of the total rent originating from copper extraction accrued to the State; in 2003 this share rose to about 30 per cent and in 2004 to more than 50 per cent. The State-owned copper company, CODELCO, provided around 80 per cent of the public sector revenue from copper between 1999 and 2004, although its share in total copper production was less then 40 per cent (see annex to this chapter). In Peru, the proportion of the public sector's share in the total rent from gold and copper extraction averaged 15 per cent during that period. Similarly, in Argentina, the State has been able to obtain only a relatively small proportion of the growing total rent of its copper and gold sectors.[8] The relatively small government revenue generated by the mining sector in these countries appears to be largely the result of the policy of offering fiscal benefits to mainly foreign-owned private companies operating in that sector.

A general conclusion arising from these examples is that the ability of the State to capture a significant share of the rent has been relatively weak in the developing countries that privatized their national companies. In particular, government revenue from private oil and mining companies in the form of income taxes have been low compared to the oil and mining rent.

The increasing participation of TNCs in oil and mining activities since the mid-1980s has generally expanded production, but it has also reduced the share of the rent retained by the host countries. This is because the role of SOEs has been considerably reduced and fiscal charges for private foreign companies greatly lowered. Rising global demand for oil and mining products in the wake of fast output growth in East and South Asia, and the associated sharp price increases since 2003, have further attracted foreign investors in these activities. At the same time, governments of countries with large oil and mineral deposits have begun to review their regimes governing the distribution of rents in these sectors, and some reforms have already been initiated. This is the case in some Latin American countries that had been pioneers in privatizing their oil and mining activities or opening up their natural-resource sectors to private investment.

Table 3.6

GOVERNMENT REVENUE FROM FUEL INDUSTRY IN SELECTED DEVELOPING COUNTRIES

	Value ($ million)	Share in fuel exports	Share in fuel production	Share in total GDP	Year
Algeria	17 442	72.7	72.5	26.2	2003
Angola	3 892	44.8	58.3	28.2	2003
Chad	128	6.7	7.5	3.0	2004 *
Congo	725	34.4	42.0	20.7	2003 **
Ecuador	1 363	67.0	51.5	5.6	2002
Equatorial Guinea	1 513	32.8	38.0	33.7	2004 *
Gabon	1 136	33.3	36.3	15.7	2004 *
Iran, Islamic Republic of	22 521	83.3	73.8	16.1	2003 *
Kuwait	14 752	98.5	91.2	43.1	2001
Nigeria	16 298	61.3	64.0	27.9	2003 **
Sudan	905	59.9	n.a.	6.7	2002
United Arab Emirates	15 567	52.6	42.8	19.5	2003 **
Yemen	1 725	46.8	47.4	15.5	2003

Source: IMF, *Country Reports*; and UNCDB.
    * Estimates.
   ** Preliminary estimates.

Several other countries have adapted their taxation rules to the changes in international primary commodity markets, especially in countries where taxes paid by private companies had been particularly low. For example, in 2004 the Government of Kazakhstan introduced a progressive "rent tax" on oil exports with a maximum tax rate of 33 per cent when the oil price rises to $40 or more per barrel.[9] A similar progressive tax was also introduced in the Russian Federation.[10] In Argentina, duties on oil exports were raised with a view to increasing the public sector's share in the windfall profit from higher oil prices.[11] In a number of other Latin American countries the conditions for private investors' participation in the oil and mining industries have also been modified recently (see annex to this chapter), while in Bolivia, where the hydrocarbons sector was privatized in 1996, a controversy about the distribution of the oil and gas income between the State and foreign companies led to a severe political crisis.[12]

In order to ensure that the considerable rents accruing in the extractive industries are used in a way that maximizes the gains for development and social welfare, governments need to design an appropriate fiscal framework for these industries, that strikes a balance between promoting long-term investment and realizing public revenue. On the one hand, a "race to the bottom" in the provision of fiscal incentives should be avoided. On the other, efforts to obtain adequate fiscal revenue should not deprive the operators, private or public, of the financial resources they need to increase their productivity and supply capacity, or their international competitiveness.

> Progress towards the MDGs can be enhanced only if the income gains from favourable terms of trade are used strategically for physical and human capital formation.

Recent upward trends in world market prices of fuels, and mineral and mining products as a result of growing demand from East and South Asia have themselves attracted higher FDI and new entrants to these sectors, including TNCs from China. This situation provides an opportunity to review the existing fiscal and ownership regimes. Such a review, and possible strategic policy adjustments, could be more effective if oil and mineral exporting countries would cooperate in

the formulation of some generally agreed principles relating to the fiscal treatment of foreign investors. Obviously, a higher share for the Government in the rent generated by extractive industries, or a higher share obtained by domestic consumers or investors, does not automatically enhance development and progress towards the MDGs; this will occur only if higher national income due to gains from the terms of trade is used strategically for physical and human capital formation. ■

Notes

1   A fall in the terms of trade "does not mean that primary producers are worse off than they were before. Everything depends on the degree of increased productivity reached and the extent to which it is transferred to industrial manufacturers. If the index falls to 80, for instance, primary producers will be able to obtain 20 per cent less manufactured goods than they did before, for the same amount of primary goods. However, if to obtain the same amount they need work only half as long as before, one hour's labour would now allow them to purchase 60 per cent more manufactured goods, instead of 100 per cent more, as would have been the case had they received the full benefits of their own technical progress" (ECLA, 1951: 47).

2   The *System of National Accounts* defines the income effect of terms-of-trade changes as follows: "GDP in constant prices, plus the trading gain or loss resulting from changes in the terms of trade, equals real gross domestic income" (United Nations et al., 1993: 405). Trading gains or losses (T) are measured by the formula:

$$ T = \frac{X - M}{P} - \left(\frac{X}{P_x} - \frac{M}{P_m} \right) $$

where X and M are exports and imports at current prices; P_x and P_m are the price indices for exports

and imports, and P is a price index expressed in a selected numeraire. For the analysis in this *TDR* the numeraire is P_m (which is one of the most frequently used), and the reference year for the price indices is the previous year. The formula thus becomes $T = X/P_m - X/P_x$ (i.e. the difference between the purchasing power of exports and the volume of exports).

3   See United Nations et al., 1993: 405.

4   If, as is frequently the case, lower export prices are accompanied by real currency depreciation, the real effect of income payments will probably be greater in terms of current GDP, measured in local currency, even if the income payments fall in current dollars.

5   Different initiatives have been proposed for increasing the availability of information on revenues stemming from various extractive industries. In particular, in 2002 the British Prime Minister and the Department for International Development (DFID) of the United Kingdom launched the Extractive Industries Transparency Initiative, which was endorsed by the World Bank in 2003. The IMF also seeks to improve the quality of such information within the Article IV consultations with developing countries.

6   The situation is quite similar in the United Arab Emirates, but a significant proportion of the transfers to the Government are not included in the respective figure in table 4.6, because "some revenue is retained by the national oil company for financ-

ing of investments, or is transferred directly to Abu Dhabi's government's foreign assets, rather than accruing to the budget" (IMF, 2004d: 26).

7 "Royalties, set at 12.5 percent of the wellhead price, were paid in 2004 using the agreed 2003 wellhead price of US$ 16.9 per barrel because of a disagreement between the authorities and the oil companies on export prices and transportation costs. Negotiations on these issues are ongoing" (IMF, 2005b: 11).

8 Following the economic policy reforms, the mining industry in Argentina has benefited from special fiscal treatment such as accelerated depreciation allowances and exemption from the 20-per-cent export duty that was introduced in 2002 for all other primary exports. Moreover, although the peso has lost two thirds of its value since the end of 2001, payments of royalties and taxes by mining companies continue to be determined on the basis of an exchange rate of 1 peso to the dollar. As a consequence, the dollar value of government revenue from royalties and tax payments by the copper and gold mining sectors may have fallen between 2001 and 2004, although, as a result of higher production and prices, the rent from those sectors is likely to have increased considerably since 2001.

9 As a result of new tax legislation the Government's share in oil income will be raised to a range of 65–85 per cent. The former guarantee for investors of a fixed tax rate throughout the duration of a contract was abolished, while an excess profit tax and a minimal Government share of oil to be produced under new production-sharing agreements were introduced (see EIA, 2004: 3).

10 Below $15 a barrel there is no export duty; between $15 and $20, the rate of duty is 35 per cent of market price minus $15; in the $20–$25 range, the exporter must pay 45 per cent of market price minus $20, plus $1.75 a barrel; over $25 a barrel, export duties are 65 per cent of market price minus $25, plus $4 a barrel.

11 In May 2002, a tax of 20 per cent was introduced for all primary commodity exports. The rate applicable for oil exports was raised in May 2004 to 25 per cent, and since August 2004, a progressive scale is being applied, ranging from 25 per cent when the reference oil price – the West Texas Intermediate (WTI) price – is below $32, to 45 per cent when it exceeds $45.

12 Since 1996, the royalty rate for the exploitation of old fields was 50 per cent, while the rate for new exploitations was reduced that year to 18 per cent. This new regime attracted significant amounts of FDI in the gas sector, in particular for the construction of a pipeline to Brazil between 1997 and 1999. In anticipation of rising export demand, TNCs also invested in exploration that resulted in the discovery of huge new gas reserves, exceeding what the Brazilian market could absorb. In 2001, an international consortium prepared a $6-billion project for the export of liquefied gas to North America, which included the construction of a pipeline to the Pacific Ocean (Campodónico, 2004). This project met with strong public opposition, as both the price for the gas agreed with the North American importers and the royalties were considered too low. Popular concerns that, as on previous occasions, the income from the exploitation of the natural resources would not be used for national development, triggered massive protests, which led to the President's resignation in October 2003. In a subsequent referendum, a large majority approved the abrogation of the 1996 hydrocarbons law, the restoration of a public oil and gas company and the imposition of taxes or royalties on private companies of up to 50 per cent of the value produced. As a consequence, a new law promulgated in May 2005 has introduced a tax of 32 per cent, in addition to the 18 per cent royalty; it also requires mandatory conversion of old contracts to make them compatible with the new rules. However, political tensions persist: on the one hand, TNCs complain about a "confiscatory change in the rules", and, on the other, "civilian committees" in the gas-producing provinces have been claiming regional autonomy for gas policies. There have also been massive demonstrations calling for the nationalization of the hydrocarbons industry. Continuing protests led to the resignation of the President in June 2005, and the control of hydrocarbons and the distribution of the income they generate remain a burning political issue.

Annex to chapter III

DISTRIBUTION OF OIL AND MINING RENT: SOME EVIDENCE FROM LATIN AMERICA, 1999–2004

1. The oil industry in Argentina, Ecuador, Mexico and Venezuela

Methodology

The oil rent is estimated as the difference between the values of production at the relevant international price and the cost of production. It considers only the "upstream" rent, thus excluding profits at the refinery and the commercialization stages ("downstream" income). Following the criteria used by the United States Energy Information Administration, cost of production includes the costs of exploration, extraction and production, plus administrative costs and depreciation.

The part of the rent accruing to the Government consists of proceeds from income tax and other relevant taxes plus royalties paid by private and State-owned firms, plus the latter's profits transferred to the Government. Indirect taxes on hydrocarbons, such as value-added tax and specific consumption taxes, are not considered to be a part of the oil rent. The share of the rent obtained by the private sector (business sector and

consumers) is estimated as the difference between total and public rent. Undistributed profits of SOEs are included in the business sector rent. Subsidies for domestic oil consumption are considered as the portion of the rent that accrues to consumers.

Argentina

In 2004, Argentina produced an average of 690,000 barrels per day (bpd), 14 per cent less than in 1999. Higher oil prices more than compensated for this decline. Devaluation of the currency in 2002 reduced production costs to an estimated $6.1 a barrel. As a result of all these factors, oil rent increased significantly, reaching $7.1 billion in 2004 (table 3.A1).

The State-owned oil company, YPF, was privatized in the 1990s, and in 2004 a new public firm in the energy sector, ENARSA, was created but its activities are not yet significant. The Gov-

Table 3.A1

ARGENTINA: ESTIMATE OF OIL RENT, 1999–2004

	Production	Price (f.o.b.)	Cost of production	Rent	Total rent
	(Million barrels)	*($ per barrel)*			*($ million)*
1999	293	16.0	7.9	8.1	2 373
2000	282	26.6	7.9	18.7	5 273
2001	285	22.2	7.9	14.3	4 075
2002	276	22.2	6.1	16.1	4 444
2003	270	26.7	6.1	20.6	5 562
2004	252	34.4	6.1	28.3	7 132

Source: UNCTAD secretariat calculations, based on National Energy Secretariat of Argentina, Mercado de hidrocarburos database (http://energia.mecon.gov.ar); Repsol YPF S.A. and Petrobrás Energia S.A., *Estados contables, memoria y reseña informativa*, various years.

ernment obtains part of the revenues from the oil industry through royalties, income tax and export duties (table 3.A2). As the 1994 Constitution confers the original ownership of natural resources to the provinces, they receive the royalties, which at present amount to 12 per cent of the well-head value in dollars. The Government collects taxes on profits (35 per cent) and on exports (between 25 to 45 per cent, depending on the international price). Total government receipts have increased considerably in absolute terms over the past few years, owing to the expansion of total rent and to the introduction of export taxes; between 2002 and 2004, 30 per cent of the production was exported. However, the share of the Government shrunk from 44.6 per cent in 2001 to 36.0 per cent in 2004, the remainder accruing to private firms. Domestic prices were similar to prices for exported oil, so that domestic consumers did not benefit from the rent.

Table 3.A2

ARGENTINA: ESTIMATE OF GOVERNMENT REVENUE FROM OIL RENT, 1999–2004

(Millions of dollars and per cent)

	Royalties	Taxes on oil exports	Taxes on oil income	Total government revenue from oil	Share of government revenue in total oil rent
	($ million)				*(Per cent)*
1999	503	..	481	984	41.5
2000	842	..	1 061	1 903	36.1
2001	691	..	1 128	1 819	44.6
2002	661	431	781	1 873	42.1
2003	735	447	1 109	2 291	41.2
2004	843	508	1 217	2 568	36.0

Source: See table 3.A1.

Table 3.A3

ECUADOR: ESTIMATE OF OIL RENT, 1999–2004

	Production	Price (f.o.b.)	Cost of production	Rent	Total rent
	(Million barrels)	*($ per barrel)*			*($ million)*
1999	136	15.0	2.5	12.5	1 700
2000	140	24.9	4.1	20.8	2 906
2001	149	19.9	4.6	15.3	2 282
2002	143	22.1	5.7	16.4	2 348
2003	152	26.3	6.1	20.2	3 078
2004	193	30.2	6.4	23.8	4 582

Source: UNCTAD secretariat calculations, based on Petroecuador, *Estados Financieros 2003*, and *Indicadores Estadisticos*, 2005; Energy Information Administration (EIA), *Monthly Energy Review*, January, 2005; Gaffney, Cline and Associates, 2004; and Ministry of Economy and Finance, *Macroeconomic Programme 2004.*

Ecuador

Oil production in Ecuador is controlled by the State-owned firm, Petroecuador, and by private companies. The latter operate mainly through production-sharing contracts, financing the investment and paying to the State a share of their revenue of approximately 25 per cent. Private companies must also pay royalties and 25 per cent income tax on their profits. Royalties vary between 12.5 per cent if production is less than 30,000 bpd, 14 per cent if production is between 30,000 and 60,000 bpd, and 18.5 per cent if production exceeds 60,000 bpd.

While Petroecuador's production fell from 256,000 bpd in 1999 to 189,000 bpd in 2004 due to insufficient investment, total oil production in Ecuador strongly increased after the completion of a pipeline for heavy crude oil in October 2003. This pipeline transports oil from areas mainly exploited by private firms. As a consequence, the share of Petroecuador in total production fell from 69 per cent to 36 per cent. Production costs have increased since 2000 due to inflation in the context of dollarization and higher costs of exploitation by private companies in the new fields. Nevertheless, the rise in international prices and in oil production led to a significant increase in the oil rent (table 3.A3).

The State obtained about two thirds of the oil rent, mainly from Petroecuador, which, despite its falling share in total oil production, still provided 75 per cent of the public revenue from oil in 2003. Public revenue from private companies came mainly from royalties and production-sharing; income tax represented only 3 per cent, on average, of total public revenues from oil activities. Part of the rent has been transferred to consumers through subsidized pricing of liquefied natural gas, diesel and fuel oil by Petroecuador (table 3.A4).

Mexico

Mexico's Constitution provides for a State monopoly in the oil industry, including the exploration, production, refining, stocking, transport and distribution of crude oil and derivates. These activities are performed by the State-owned company PEMEX. Crude oil production increased at an average annual rate of 3 per cent between 1999 and 2004, reaching 3.4 million bpd in 2004. Production costs, which have traditionally been low, have recently increased due to insufficient investment in new fields and higher costs of secondary exploitation of old fields. Nevertheless, the evolution of international prices has led to a sizeable increase in the rent per barrel and in total oil rent (table 3.A5).

Table 3.A4

ECUADOR: ESTIMATE OF THE DISTRIBUTION OF OIL RENT, 1999–2003

(Millions of dollars and per cent)

	Government revenue				After tax profits of private companies	Subsidies[b] to consumers	Share of government revenue in total oil rent
	Transfers from Petroecuador	Royalties[a]	Income tax	Total			
	($ million)						(Per cent)
1999	889	118	42	1 049	359	200	61.7
2000	1 377	239	45	1 661	637	300	57.2
2001	1 196	251	41	1 488	579	200	65.2
2002	1 286	313	31	1 630	643	200	69.4
2003	1 538	441	70	2 049	1020	192	66.6

Source: See table 3.A3.
   a Including income from production-sharing contracts.
   b Implicit subsidy resulting from the difference between international and domestic sales prices.

This rent is almost entirely earned by the Government, given the special tax rules applying to PEMEX: the firm must pay various taxes ("extraction tax", "extraordinary and additional duties" and an income tax) amounting to a total of about 61 per cent of its revenue. In addition, when the oil price exceeds the level stated in the government budget, it must pay a supplementary 39.2 per cent of the excess revenue. As a result, the firm's after-tax profits are low, if any. PEMEX charges the same prices on the domestic market as it does on the international market, so that domestic consumers do not share in the oil rent.

Table 3.A5

MEXICO: ESTIMATE OF OIL RENT, 1999–2004

	Production	Price (f.o.b.)	Cost of production	Rent	Total rent
	(Million barrels)	($ per barrel)			($ million)
1999	1 061	15.9	3.5	12.4	13 121
2000	1 099	25.4	4.2	21.2	23 318
2001	1 141	18.9	4.6	14.3	16 275
2002	1 160	21.6	5.0	16.6	19 249
2003	1 230	24.8	5.5	19.4	23 808
2004	1 235	31.6	7.5	24.1	29 759

Source: UNCTAD secretariat calculations, based on PEMEX, *Statistical Yearbook* and *Annual Report*, various years; EIA, *Monthly Energy Review*, January, 2005; and Gaffney, Cline and Associates, 2004.

Table 3.A6

VENEZUELA: ESTIMATE OF OIL RENT, 1999–2004

	Production	Price (f.o.b.)	Cost of production	Rent	Total rent
	(Million barrels)	*($ per barrel)*			*($ million)*
1999	1 117	14.3	2.9	11.5	12 817
2000	1 151	24.5	3.8	20.7	23 780
2001	1 115	18.0	3.9	14.1	15 750
2002	1 106	20.1	4.6	15.5	17 139
2003	989	23.8	5.6	18.2	17 995
2004	1 090	32.0	5.8	26.2	28 563

Source: UNCTAD secretariat calculations, based on PDVSA, *Estados Financieros Auditados*, various years; Ministry of Energy and Petroleum of Venezuela (PODE), *Petróleo y otros datos estadísticos – PODE 2002* database (www.mem.gov.ve); EIA, *Monthly Energy Review*, January, 2005; and Espinasa, 2005.

Venezuela

The bulk of oil income in Venezuela is generated by the State-owned company PDVSA, which accounted for 65 per cent of total production in 2004. In addition there are "operating service agreements" for marginal areas, which contributed 17 per cent to the total in 2004; the remaining 19 per cent comes from joint ventures ("strategic associations") created for extracting the extra-heavy crude in the Orinoco River basin. Under the operating service agreements, private contractors are paid by the State for exploiting some fields. They pay a tax on their profits but no royalties. The strategic associations, on the other hand, are required to pay royalties as well as taxes on their profits. The rate of the royalties is normally 16.7 per cent, but in case of low profitability, the rate may be reduced to 1 per cent. The new Organic Hydrocarbons Act (2002) changed the conditions for the participation of private agents in upstream oil activities, but the old regime was still being applied in 2004.

Total oil production, which declined slightly between 1999 and 2004, was around 3 million bpd in 2004. In 2003, PDVSA's production fell markedly following a strike. Production costs differ widely depending on the area of exploitation. In the fields exploited by PDVSA, the cost of a barrel is below $2.5. In the marginal areas the cost per barrel increased from $7.4 to $14 between 1999 and 2004, and the production cost of oil of the extra-heavy type in the Orinoco basin is estimated at $10 a barrel. The relative decline in the share of PDVSA in total production explains the steady increase in the average production cost. However, this was compensated by rising international oil prices, which led to a significant increase in oil rent, especially in 2004 (table 3.A6).

Since 2001 the Government has received about two thirds of the total rent, most of it in the form of royalties, dividends and taxes paid by PDVSA. Moreover, PDVSA has used part of its profits for the financing of social programmes unrelated to the company's main activities (table 3.A7 and 3.A8). The share of private companies in the total rent has increased from 1 per cent in 1999 to nearly 9 per cent in 2004. Domestic consumers have benefited from an implicit subsidy, as domestic prices have been well below international oil prices.

The transfers from PDVSA have accounted, on average, for about 95 per cent of government revenue from the oil rent, the remaining 5 per cent being paid by private companies. In view of the relatively low fiscal contribution by private contractors, the Government has announced its intention to review the existing contracts to bring then in line with the new Organic Hydrocarbons

Table 3.A7

VENEZUELA: ESTIMATE OF THE DISTRIBUTION OF OIL RENT, 1999–2004

(Millions of dollars and per cent)

	Total government revenue	Non- distributed PDVSA profits	Profits of of private companies	Subsidies[a] to consumers	Other payments[b]	Total rent	Share of govern- ment revenue in total oil rent
	($ million)						*(Per cent)*
1999	7 492	1 099	125	409	3 692	12 817	58.5
2000	13 235	5 198	479	1 617	3 250	23 780	55.7
2001	12 284	- 447	393	826	2 694	15 750	78.0
2002	10 063	788	769	3 504	2 015	17 139	58.7
2003	11 310	1 618	1 416	2 774	877	17 995	62.8
2004	19 021	922	2 443	4 374	1 804	28 563	66.6

Source: See table 3.A6.
 a Implicit subsidy resulting from the difference between international and domestic sales prices.
 b Includes PDVSA's subsidies to its foreign subsidiaries, and financial costs.

Act.[1] As a consequence, the share of PDVSA in joint ventures would be increased to at least 51 per cent, and the royalty rate to 30 per cent (with the possibility of reducing the rate to 20 per cent in special cases), while the tax rate on profits would be reduced from 67 to 50 per cent. Former operating service agreements are to be replaced by joint ventures with the State oil company, which will hold a majority share, and those joint ventures involved in exploiting the extra-heavy oil from the Orinoco River basin will pay higher royalties, from the present 1 per cent to 16.6 per cent.

Table 3.A8

VENEZUELA: COMPOSITION OF GOVERNMENT REVENUES FROM OIL, 1999–2004

(Millions of dollars and per cent)

	1999	2000	2001	2002	2003	2004	Average 1999–2004	
							($ million)	*(Per cent)*
Tax revenues	2 764	6 226	3 602	1 640	2 618	3 139	3 332	27.2
PDVSA	2 521	5 748	3 122	1 102	1 823	2 058	2 729	22.3
Orinoco River basin	25	129	150	263	467	698	289	2.4
Operating service agreements	218	349	330	275	328	383	314	2.6
Royalties	3 009	4 992	3 907	5 671	6 085	9 653	5 553	45.4
PDVSA	3 008	4 986	3 900	5 659	6 063	9 621	5 540	45.3
Orinoco River basin	1	6	7	12	22	32	13	0.1
PDVSA dividends	1 719	2 018	4 774	2 752	2 283	2 217	2 627	21.5
PDVSA social programmes	0	0	0	0	324	4 011	723	5.9
Total government oil revenues	7 492	13 235	12 284	10 063	11 310	19 021	12 234	100.0

Source: See table 3.A6.

2. The mining industry in Chile and Peru

Methodology

Rent from mining, as from oil exploitation, is estimated as the difference between the values of production at the relevant international price and the cost of production. In estimating the mining rent, however, costs of exploration and capital depreciation are not considered. Since initial investment is quite high and the fiscal arrangements typically allow for accelerated depreciation, a considerable difference arises between calculated rent and taxable profits, especially in the first years of production.

Unit production costs are estimated by dividing total costs (excluding depreciation) by total production. They depend critically on the grade of mineral ores. Following the accounting practices of Chilean firms, proceeds from the sale of molybdenum, a by-product in copper production, are deducted from the production cost. Due to lack of data this was not possible in the case of Peru implying that the calculation in this annex probably underestimates total copper rent in Peru.

Chile

Chile is the foremost copper producer in the world, accounting for 37 per cent of global production in 2004. About one third of its production comes from the State-owned CODELCO and 60 per cent from 10 large private companies, nine of which are TNCs, and one (El Abra) a joint-venture between a TNC and CODELCO. The remainder

is produced by several small- and medium-sized private companies. The present analysis is limited to the activity of the 11 main producers, that accounted for 93 per cent of Chilean copper output between 1999 and 2004. Including its participation in El Abra, CODELCO provides 38 per cent of this output. Total rent from copper production has been rising since 1999, with a dramatic increase in 2004 (table 3.A9).

The Government receives a part of this rent through taxes paid by private companies and through dividends and taxes paid by CODELCO, as well as from the transfer of 10 per cent of the latter's export revenues to the armed forces. Private companies pay income tax on their profits, like any other firm. The tax rate on undistributed profits was 15 per cent until 2001 and increased progressively thereafter, to reach 17 per cent in 2004. The tax rate on distributed profits is 35 per cent. Most firms, until recently, had no taxable profits, owing to an accelerated-depreciation regime and a provision allowing unlimited carry-forward of losses. Moreover, all the large private mining firms had chosen the legal status of "mining contractual firm" (instead of joint-stock company), which allowed them to transfer any financial surplus to their parent company without paying taxes on repatriated profits, if their financial statements showed no profits.[2] Moreover, taxable profits can be reduced by interest payments to the parent company. The tax rate on interest payments is only 4 per cent, compared to 35 per cent for the tax on distributed profits. This may explain why debt-capital ratios tend to be relatively high; investments are financed with a high proportion of loans from parent companies rather

Table 3.A9

CHILE: ESTIMATE OF COPPER RENT, 1999–2004

	Total production	CODELCO share in total copper production	Price (f.o.b.)	Cost of production	Rent	Total rent
	(Million pounds)	(Per cent)	($ per pound)			($ million)
1999	9 027	39.4	0.71	0.41	0.30	2 717
2000	9 505	37.4	0.82	0.42	0.41	3 849
2001	9 719	38.5	0.72	0.37	0.35	3 382
2002	9 312	38.6	0.71	0.38	0.34	3 120
2003	9 957	37.1	0.81	0.39	0.42	4 212
2004	10 898	37.2	1.30	0.38	0.92	10 026

Source: UNCTAD secretariat calculations, based on Del Pino et al., 2005; CODELCO, *Estados Financieros* and *Annual Report 2004*; and annual reports and estados financieros of the following companies: La Escondida, Pelambres and Collahuasi, various years.

than with capital provisions. The average debt-capital ratio has been estimated at 3.5, with one firm reaching a ratio of 16.9 (Lavandero, 2003).

This legal framework, which offers special privileges to foreign investors in the mining sector, largely explains the low share of the Government in the copper rent until 2004, and the fact that this share is mainly the result of transfers from the State-owned company. The latter has contributed more than 80 per cent of the public rent since 2002, much more than what would correspond to CODELCO's share in copper revenues (table 3.A10). In 2004, the rent obtained by the

Table 3.A10

CHILE: ESTIMATE OF GOVERNMENT REVENUE FROM COPPER RENT, 1999–2004

(Millions of dollars and per cent)

	Taxes and dividends from CODELCO[a]	Taxes from private companies	Total government revenue from copper sector	Share of government revenue in total copper rent	CODELCO share in government revenue from copper
	($ million)			(Per cent)	
1999	262	180	442	16.3	59.3
2000	564	230	794	20.6	71.0
2001	362	122	484	14.3	74.8
2002	303	59	362	11.6	83.7
2003	1 038	241	1 279	30.4	81.2
2004	4 568	950	5 518	55.0	82.8

Source: See table 3.A9.
  a Including transfers to the armed forces (Act 13196).

Government increased significantly, both in absolute and relative terms, but the contribution of the private companies has remained relatively modest. The public debate on the relatively small contribution of private operators to government revenue, which had begun in the late 1990s, intensified in 2001, when Exxon announced that it was selling its mine, "La Disputada", for $1.3 billion. Exxon, which had acquired the mine in 1978, had consistently declared losses for more than 20 years, and consequently had never paid taxes. In May 2005, the Parliament approved a new legislation introducing a supplementary 5-per-cent levy on operational profits, for which there is less possibility of tax evasion.

Peru

Following the privatization of public mining companies and new private investments in the 1990s, the production of copper and gold has been concentrated in four big companies controlled by foreign investors. Two of these companies, Yanacocha[3] and Barrick, produced 64 per cent of the gold in Peru in 2004, and two others, Southern Peru Copper Corporation and Antamina, accounted for 74 per cent of total copper production. The analysis of the generation and distribution of mining rent is limited to these companies.

Total rent generated in the gold and copper sectors has increased significantly since 1999 (table 3.A11 and 3.A12) owing to higher prices and increasing production. Average unit costs of gold have increased due to the lower grade of mineral in one of the mines. The estimated rent that remained with the private firms includes the accounting after-tax profit and other income that is used to cover administrative and financial costs, as well as exploration and accelerated depreciation costs (corresponding to "other private surplus" in tables 3.A13 an 3.A14 that was estimated as a residual). Antamina, a company that took up production in 2001, has not declared any profits so far, and thus not paid any taxes.

The main source of fiscal revenue from these mining activities has been the 30-per-cent income tax on profits. Taxable income, if any, is normally very low in the first years of operation, owing to an accelerated-depreciation regime that can be applied over five years. Moreover, the General Mining Law of 1992 permits the deduction from taxable income of the costs of investment in infrastructure considered to be of public interest. Until August 2000, 80 per cent of retained profits could also be deducted from taxable income, no

Table 3.A11

PERU: ESTIMATE OF GOLD RENT, 1999–2004

	Production	Price (f.o.b.)	Cost of production	Rent	Total rent
	(Million ounces)		($ per ounce)		($ million)
1999	2.49	279	83	196	488
2000	2.62	279	73	206	540
2001	2.81	271	91	180	506
2002	3.18	309	112	197	626
2003	3.71	360	111	249	924
2004	3.65	411	130	281	1 026

Source: UNCTAD secretariat calculations, based on annual reports, various years, of the companies Barrick and Newmont Mining Corporation; and Yanacocha, *Social Balance*, various years.

Table 3.A12

PERU: ESTIMATE OF COPPER RENT, 1999–2004

	Production	Price (f.o.b.)	Cost of production	Rent	Total rent
	(Million pounds)	($ per pound)			($ million)
1999	746	0.72	0.56	0.16	119
2000	751	0.84	0.54	0.30	225
2001	932	0.73	0.55	0.18	169
2002	1 493	0.73	0.49	0.24	357
2003	1 382	0.81	0.50	0.31	433
2004	1 694	1.29	0.48	0.81	1 374

Source: UNCTAD secretariat calculations, based on Southern Peru Copper Corporation (SPCC) and Noranda, *Annual Report*, various years; Lipkewich, 2003.

matter what their use. Other sources of public revenue have been negligible: the firms did not pay indirect taxes, since they exported 97 per cent of their production and benefited from a regime of anticipated reimbursement of these taxes. In June 2004, with a view to raise additional revenue from private companies, a royalty on mining production was introduced, at a rate of between 1 and 3 per cent, depending on the volume produced, but due to prior agreements three of the four private companies are still exempted from the royalty.

Table 3.A13

PERU: ESTIMATE OF GOVERNMENT REVENUE FROM GOLD RENT, 1999–2004

(Millions of dollars and per cent)

	Income tax	After-tax profits of private companies	Other private surplus[a]	Share of government revenue in total gold rent
		($ million)		(Per cent)
1999	39	135	314	8.1
2000	42	226	271	7.9
2001	34	140	331	6.8
2002	72	290	264	11.5
2003	162	417	345	17.5
2004	181	476	369	17.6

Source: UNCTAD secretariat calculations, based on Newmont, *Annual Report*, various years; Yanacocha, *Responsabilidad Social de la Empresa 2002;* and Ministry of Energy and Mines of Peru, *Presentation to the Congress of the Republic on the financial and fiscal situation of Barrick*, January 2005.

   a Residual from estimated rent and accounting profits.

Table 3.A14

PERU: ESTIMATE OF GOVERNMENT REVENUE FROM COPPER RENT, 1999–2004

(Millions of dollars and per cent)

	Income tax from copper sector	*After-tax profits of private companies*	*Other private surplus[a]*	*Share of govern- ment revenue in total copper rent*
	($ million)			*(Per cent)*
1999	10	29	79	8.3
2000	43	93	89	19.1
2001	12	47	110	6.9
2002	34	61	262	9.5
2003	79	119	235	18.2
2004	317 [b]	597	460	23.1

Source: UNCTAD secretariat calculations, based on Noranda, *Annual Report*, various years.
  a Residual from estimated rent and accounting profits.
  b Including $15 million in royalties.   ■

Notes

1   See the Announcement by the Minister of Energy and Oil, M. Rafael Ramírez, in *Avances de la Nueva PDVSA*, 15 April 2005 (www.pdvsa.com), and EIU, 2005b: 1.

2   For a comparative analysis (that includes the Chilean case) of the legal framework for the mining industry, see Otto et al., 2000, and Sánchez Albavera, Ortiz and Moussa, 2001.

3   A minority share of Yanacocha's equity (43.6 per cent) is held by a private Peruvian firm.

TOWARDS A NEW FORM OF GLOBAL INTERDEPENDENCE

A. Introduction

In the past, developing-country trade relied mainly on primary commodity exports to developed countries in exchange for imports of manufactures. The comparatively small proportion of developing-country manufactured exports tended to be in resource- and labour-intensive products.

It has long been argued that such a trade pattern provides insufficient support to economic growth in developing countries. Both the productivity potential and the income elasticity of demand for primary commodities are usually lower than for most manufactured products, with the result that the global demand potential and the growth stimulus of primary commodity exports remain limited.

Furthermore, growth in demand for primary commodity imports from developed countries has weakened over the past three decades due to both the slowdown in their growth and their move away from raw-material-intensive industrial production activities towards an increasingly service-based economic structure. Long-standing market-access barriers, combined with difficulties and high costs of market entry, have also hampered developing-country exports to developed countries.

Trade among developing countries, also called South-South trade, has sometimes been promoted as an alternative to this traditional trade pattern. On this view, South-South trade can shield against a decline in demand of developed countries for primary commodity exports, as well as provide an opportunity for export diversification away from a narrow dependence on primary commodities. In particular, manufactures with a relatively high skill content could be more important in manufactured trade among developing countries than in their manufactured exports to developed countries.

During the 1970s, some progress in this direction was made, as South-South trade was growing considerably faster than both world trade and trade among developed countries. It is true that much of the increase in South-South trade as a share of total world trade during the 1970s was related to the rise in commodity prices, particularly of petroleum, and it quickly dissipated fol-

lowing the price declines during the 1980s. But some of it also resulted from a rise in intra-regional trade of manufactures, particularly in East Asia and Latin America. However, the economic and financial crises in much of the developing world, including many Latin American countries, during the early 1980s had a strong adverse effect on South-South trade.

Developing countries' traditional reliance on developed-country markets and primary commodities for their exports cannot adequately support growth. ...

The emergence of a number of Asian developing countries to form a new growth pole in the world economy has renewed hopes that South-South trade could provide additional momentum to development. Indeed, trade statistics since the mid-1980s reveal three striking features: (i) a dramatic increase in the value of manufactured exports from developing countries; (ii) a rising share of developing countries in world trade; and (iii) a strong increase of South-South trade in both primary commodities and manufactures. Taken together, these three features have sometimes been referred to as the "new geography of trade" (UNCTAD, 2004c).

... South-South trade has been promoted as an alternative.

Table 4.1 provides an illustration of the evolution of these three features over the period 1965–2003.[1] It shows that, as a share of developing countries' total exports, South-South exports increased from 25 per cent in 1965 to 43 per cent in 2003. This was accompanied by a decline in the share of their exports to developed countries, from 69 per cent in 1965 to 54 per cent in 2003. At the same time the share of the first-tier NIEs and China in South-South imports rose from about one fifth ($1.3 billion out of $6.4 billion) in 1965 to almost two thirds ($586 billion out of $921 billion) in 2003, and their share in developing-country exports to developed countries rose from 8 per cent ($1.5 billion out of $17.6 billion) in 1965 to almost 50 per cent ($545 billion out of $1,142 billion) in 2003. The increase in their share of developing-country exports to developed countries has been particularly pronounced for manufactures, which rose from 45 per cent ($0.9 billion out of $2.0 billion) in 1965 to 58 per cent ($512 billion out of $879 billion) in 2003.[2] The table also shows that the shares of developing-country exports of primary commodities to developed countries fell from 72 per cent in 1965 to 53 per cent in 2003, while the share traded between them rose from 22 per cent in 1965 to 41 per cent in 2003. Yet, again, the NIEs and China accounted for more than half of this growth.

These figures raise the following questions: (i) What are the reasons for the rising importance of developing countries in world trade? (ii) How widespread is this phenomenon? (iii) What are the prospects for a further expansion of developing countries' trade in world trade and of its role in stimulating economic development? Sections B–D of this chapter focus on these questions.

Table 4.1

MATRIX OF WORLD MERCHANDISE TRADE BY MAJOR PRODUCT CATEGORY,
1965, 1985 AND 2003

	Importers					
	Developed countries		*Developing countries*		*of which:* *First-tier NIEs and China*	
Exporters	*Value* *($ billion)*	*Share[a]* *(Per cent)*	*Value* *($ billion)*	*Share[a]* *(Per cent)*	*Value* *($ billion)*	*Share[a]* *(Per cent)*
1965						
Developed countries						
All merchandise	87.0	67.2	29.3	22.6	2.8	2.2
Manufactures	55.3	64.5	22.6	26.4	2.0	2.3
Primary commodities	30.4	75.2	6.2	15.2	0.8	2.0
Developing countries						
All merchandise	17.6	68.9	6.4	25.1	1.1	4.3
Manufactures	2.0	53.4	1.6	43.8	0.2	5.1
Primary commodities	15.6	71.7	4.7	21.8	0.9	4.1
of which: First-tier NIEs and China						
All merchandise	1.5	53.7	1.3	47.1	0.2	7.7
Manufactures	0.9	55.5	0.7	47.2	0.1	6.7
Primary commodities	0.6	51.9	0.5	46.3	0.1	9.3
1985						
Developed countries						
All merchandise	851.3	67.5	279.2	22.1	79.1	6.3
Manufactures	616.9	67.0	221.2	24.0	63.6	6.9
Primary commodities	213.8	71.6	50.5	16.9	13.8	4.6
Developing countries						
All merchandise	217.8	60.3	97.0	26.9	38.3	10.6
Manufactures	74.3	58.3	43.0	33.7	17.0	13.3
Primary commodities	131.9	59.4	40.3	18.2	12.7	5.7
of which: First-tier NIEs and China						
All merchandise	59.5	54.7	45.7	42.0	23.3	21.4
Manufactures	42.5	58.0	24.8	33.8	12.2	16.6
Primary commodities	6.7	25.5	7.9	30.1	2.8	10.7
2003						
Developed countries						
All merchandise	3 555.1	74.7	1 033.4	21.7	418.0	8.8
Manufactures	2 829.7	74.0	864.3	22.6	349.7	9.1
Primary commodities	614.3	78.0	136.2	17.3	53.9	6.8
Developing countries						
All merchandise	1 141.7	53.8	921.4	43.4	510.4	24.1
Manufactures	879.1	54.4	714.3	44.2	429.2	26.5
Primary commodities	258.3	52.6	200.2	40.8	79.1	16.1
of which: First-tier NIEs and China						
All merchandise	545.4	47.5	586.0	51.0	385.1	33.5
Manufactures	511.6	48.6	526.8	50.1	350.6	33.3
Primary commodities	31.6	35.6	54.6	61.6	33.7	37.9

Source: UNCTAD secretariat calculations, based on UN COMTRADE.
   Note: The table is derived from data that countries report to the United Nations (see also text note 1). First-tier NIEs comprise Hong Kong (China), the Republic of Korea, Singapore and Taiwan Province of China.
      a Share in group's total exports of the product group. The shares of South-East Europe and the Commonwealth of Independent States (CIS) are not included in this table, which explains why the shares do not add up to 100.

B. The growing importance of developing countries in global markets

The share of developing countries in world merchandise trade has strongly increased over the past few decades. Their export share has almost doubled since 1970 and has stood at more than 30 per cent over the past few years, while their import share has risen less rapidly, reaching 29 per cent. Developed countries, on the other hand, have experienced a decline in their share of world merchandise trade by about 10 percentage points since 1970, but they still account for about two-thirds of such trade (table 4.2).

The growing importance of developing countries in world merchandise trade has been neither a continuous process nor uniformly spread across the various developing regions. Their exports grew very rapidly during the 1970s, but this was largely due to the temporary hike in international oil prices. Thus, the major oil exporting countries, many of which are located in West Asia, were responsible for a significant part of the rise in developing-country exports during the 1970s. The subsequent sharp fall in oil prices, combined with the effects of the debt crisis of the early 1980s, led to the shrinking of developing countries' share in world trade during the 1980s. As a result, in 1990 the shares of many developing countries, particularly in Africa and Latin America and the Caribbean, were lower than their shares in 1970. Despite a strong rebound during the 1990s, the average shares in world trade of these two regions have not recovered to the levels reached in 1980.

Contrary to the experience of the other developing regions, East Asia's share in world trade

has grown at a consistently rapid rate since the early 1960s, except for a temporary decline in the immediate aftermath of the Asian crisis in 1997–1998. The share of the first-tier NIEs has grown three- to fourfold since 1970, and China's share has risen more than fivefold since 1980. Indeed, over the period 1970–2003 as a whole, the NIEs and China together have been responsible for almost the entire rise in the share of world exports of developing countries taken as a group.

The rapidly growing South-South trade has often been identified as a major driving force behind the rising share in world trade of all developing countries taken as a group. Indeed, between 1970 and 2003, South-South trade rose considerably faster than both world trade and trade among developed countries (table 4.3). The share of South-South exports in total developing-country exports roughly doubled, increasing from about 23 per cent in the 1970s to over 40 per cent in the period 2000–2003. Moreover, South-South exports as a percentage of developing-country exports to developed country markets (South-North trade) have also more than doubled, reaching a level of about 74 per cent on average during the period 2000–2003 (and exceeding 80 per cent in 2003).

Manufactures have been the most important product category in South-South trade relative to both developing countries' total exports and their exports to developed countries. The only exception to this was a transitory period following the Asian crisis when agricultural products overtook

THE ORIGIN AND DESTINATION OF MERCHANDISE TRADE, 1970–2003

(Per cent)

	Market share					Average annual growth in value			
	1970	1980	1990	2000	2003	1970–1980	1980–1990	1990–2000	2000–2003
A. World merchandise exports by region/country									
Developed countries	75.0	65.3	72.0	65.7	64.8	18.8	7.3	5.9	4.6
Developing countries *of which:*	19.2	29.5	24.3	31.6	32.1	25.6	3.1	8.9	5.8
Latin America and the Caribbean	5.5	5.5	4.1	5.5	5.0	20.8	1.7	10.3	1.6
Developing Asia	8.5	18.0	16.9	23.8	24.7	29.6	4.6	9.5	6.7
South Asia	1.1	0.7	0.8	1.0	1.1	16.1	6.9	9.1	8.6
of which: India	0.6	0.4	0.5	0.7	0.8	17.3	7.3	9.5	10.7
East Asia	4.2	7.1	12.0	18.6	19.4	26.6	11.7	10.4	6.9
First-tier NIEs	2.0	3.8	7.6	10.3	9.4	28.2	14.4	8.8	2.6
China	0.7	0.9	1.8	3.9	5.8	20.0	12.8	14.5	20.8
West Asia	3.1	9.9	3.9	4.1	4.1	34.5	-6.3	5.8	5.2
Africa	5.0	5.9	3.2	2.3	2.4	21.6	-1.2	2.8	6.9
North Africa	1.6	2.2	1.2	0.8	0.9	23.7	-2.3	2.2	5.8
Other Africa	3.4	3.7	2.0	1.4	1.5	20.5	-0.5	3.2	7.5
Memo item: Developing countries, excl. first-tier NIEs and China	16.5	24.8	14.8	17.5	16.8	25.5	-0.9	8.1	3.8
B. World merchandise imports by region/country									
Developed countries	75.6	70.8	73.1	69.5	68.4	19.4	6.9	6.2	4.3
Developing countries *of which:*	18.8	24.0	22.5	28.7	29.0	23.6	4.0	8.3	5.4
Latin America and the Caribbean	5.7	6.1	3.7	5.9	4.8	20.6	0.1	11.5	-2.5
Developing Asia	8.4	13.1	15.8	20.8	21.9	26.6	6.5	8.2	7.1
South Asia	1.3	1.3	1.1	1.2	1.4	20.0	3.7	8.6	9.2
of which: India	0.6	0.7	0.7	0.8	0.9	20.7	4.2	10.1	11.5
East Asia	5.1	7.2	11.7	16.7	17.6	24.4	10.9	8.9	7.0
First-tier NIEs	2.7	4.3	7.4	9.8	8.7	25.7	11.9	8.1	1.2
China	0.7	1.0	1.5	3.4	5.4	23.7	13.5	13.0	22.3
West Asia	2.0	4.6	2.9	2.8	2.9	33.6	-2.4	5.2	7.1
Africa	4.4	4.6	2.9	2.0	2.2	21.0	-0.2	3.5	8.8
North Africa	1.2	1.5	1.2	0.7	0.8	25.6	2.7	2.8	6.1
Other Africa	3.3	3.1	1.6	1.2	1.4	18.9	-2.1	4.0	10.3
Memo item: Developing countries, excl. first-tier NIEs and China	15.4	18.8	13.6	15.5	15.0	23.2	0.7	7.7	3.5

Source: UNCTAD *Handbook of Statistics*, various issues, table 1.1
   Note: The group of first-tier NIEs comprises Hong Kong (China), the Republic of Korea, Singapore, Taiwan Province of China. East Asia comprises China, Cambodia, Indonesia, Malaysia, Myanmar, the Philippines, Thailand, Viet Nam and the first-tier NIEs. South Asia comprises Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. The shares of South-East Europe and the Commonwealth of Independent States (CIS) are not included in this table, which explains why the shares do not add up to 100.

Table 4.3

SOUTH-SOUTH TRADE IN WORLD TRADE, 1970–2003

	1970–1980	*1980–1990*	*1990–2000*	*2000–2003*	*Memo item:* *1970–2003*
South-South trade *(Average annual percentage change)*					
Total merchandise exports	26.7	5.8	10.9	7.9	13.3
Agricultural products	20.5	4.9	7.9	7.3	9.4
Fuels, minerals and metals[a]	30.2	-8.8	7.8	-0.9	7.6
Manufactures	26.4	16.9	12.1	9.6	18.3
South-South trade as a percentage of total developing-country exports *(Period averages)*					
Total merchandise exports	22.9	29.5	39.1	40.9	31.6
Agricultural products	22.3	30.6	39.6	43.1	32.0
Fuels, minerals and metals[a]	20.1	21.1	30.7	36.2	25.2
Manufactures	34.5	36.5	41.6	41.9	37.9
South-South trade as a percentage of developing-country exports to developed countries *(Period averages)*					
Total merchandise exports	35.3	48.0	71.2	74.3	53.8
Agricultural products	34.5	52.5	71.6	80.9	55.5
Fuels, minerals and metals[a]	30.9	32.4	60.9	71.5	44.4
Manufactures	60.1	64.4	74.3	73.8	66.8
South-South trade as a percentage of total developing-country imports *(Period averages)*					
Total merchandise imports	26.1	32.4	37.8	43.9	33.1
Agricultural products	37.9	36.3	42.0	44.9	39.4
Fuels, minerals and metals[a]	74.1	72.9	67.2	66.8	70.9
Manufactures	11.6	20.1	33.1	39.8	23.3
South-South trade as a percentage of developing-country imports from developed countries *(Period averages)*					
Total merchandise imports	38.0	51.5	64.7	85.1	54.4
Agricultural products	65.7	62.2	76.8	87.1	70.4
Fuels, minerals and metals[a]	394.2	396.2	261.3	327.9	344.3
Manufactures	13.8	27.4	51.8	69.6	34.7
Memo items:					
Total world exports *(Average annual percentage change)*					
Total merchandise exports	20.2	6.7	7.4	4.5	9.2
Agricultural products	17.1	4.6	3.9	6.7	6.6
Fuels, minerals and metals[a]	27.1	-3.7	6.7	-1.6	6.5
Manufactures	19.0	10.1	7.9	5.2	10.3
Trade among developed countries *(Average annual percentage change)*					
Total merchandise exports	17.2	9.5	6.8	5.0	9.2
Agricultural products	15.4	6.4	3.6	8.1	6.8
Fuels, minerals and metals	19.9	1.0	5.1	2.8	7.3
Manufactures	17.1	11.2	7.4	4.9	9.8

Source:　See table 4.1.
　Note:　The table is derived from data that countries report to the United Nations (see also text note 1).
　　a　Developing-country exports of fuels are underreported for recent years due to missing data.

manufactures. But a comparison of South-South trade with that of developing-country exports to developed countries also reveals that primary commodities have been much more dynamic than manufactures: the percentage share of agricultural products and of fuels, minerals and metals in South-South trade relative to developing-country exports to developed countries has more than doubled since 1970, their increase being particularly strong since the early 1990s.

Table 4.3 also shows that the importance of trade among developing countries relative to their trade with developed countries has risen more strongly for imports than for exports. This is the most apparent for manufactures, as their average share in South-South trade relative to developing-country imports from developed countries increased from about 14 per cent during the 1970s to about 70 per cent in 2000–2003. As discussed in more detail below, much of this is due to the rising importance of production-sharing within East Asia, resulting in a "triangular trade" pattern. This means that, rather than exporting directly to developed countries, the industrially relatively more advanced countries such as the Republic of Korea export intermediate production inputs to China, for example, where these inputs are used in production for export to developed countries. On an accounting basis, triangular trade leads to a rise of similar dimensions in both South-South and South-North exports, while in terms of imports it results in a rise only in South-South trade, but not in a rise of developing-country imports from developed countries. Thus the statistical effect of triangular trade is that trade in manufactures among developing countries relative to such trade with developed countries rises much more for imports than for exports. This mechanism also explains the different performance of trade in primary commodities and manufactures noted in the preceding paragraph: triangular trade by and large causes South-South manufactured exports to move *pari passu* with South-North manufactured exports, while this is not the case

for primary commodities in which there is no triangular trade.

The rapid rise in the importance of South-South trade, particularly over the past two decades, reflects a number of factors. First, it reflects an upswing after the downturn of such trade during the 1980s. Table 4.3 shows that growth in South-South trade during the 1980s was significantly slower than that of either world trade or trade among developed countries. While the global recession of the early 1980s affected the trade performance of both developed and developing countries, it had a particularly damaging impact on South-South trade. This is because it was associated with economic and financial crises in many developing countries, particularly in Latin America and Africa, caused by the collapse of commodity prices, the rising cost of servicing soaring external debts and the ensuing sharp contraction of the supply of commercial credit that reduced their capacity to import. Combined with slow or negative economic growth, the outcome was a substantial fall in the volume of these countries' imports, including those from other developing countries (*TDR 1993*).

The impetus from Latin America and Africa to South-South trade also weakened considerably in the wake of the debt crisis, because many of these countries shifted the direction of their exports, particularly of manufactures, towards developed countries. This shift was partly motivated by the slowdown of economic activity in developed countries being much less sharp than in developing countries. Combined with the large size of developed-country markets, the relatively faster growth of demand in those markets provided better opportunities for developing-country exporters. Another reason was that foreign-exchange-starved countries, particularly those in Africa, sought export revenues in convertible currencies in order to service their debt and to import, as far as possible, on credit.

> **South-South trade, especially in manufactures, has risen faster than both world trade and trade among developed countries.**

> **South-South trade is concentrated in a few economies, mainly in East Asia.**

The second reason for the rapid rise in the importance of trade among developing countries, particularly over the past two decades, has been trade liberalization. The move towards the adoption of more outward-oriented development strategies, along with trade reform and regional trade agreements, in a wide range of developing countries has significantly improved access to their markets, including for imports from other developing countries. More generally, average tariffs in developing countries fell to about one third their level of the mid-1980s, and this decline was accompanied by even larger reductions in non-tariff barriers and in exchange rate overvaluation. The reduction of developed-country tariff and non-tariff barriers during the same period of time was smaller (World Bank, 2004b: 76).

Much of the increase in South-South trade in manufactures, as shown in trade statistics, is due to double-counting …

But the most important reason for the rapid growth of South-South trade is probably a combination of three factors: the widening growth differential between developing and developed countries; the large size of the rapidly growing developing countries; and the growing importance of intraregional specialization and production-sharing that has been closely linked to these countries' buoyant growth performance. Over the past three decades, developing countries as a group have recorded more rapid average real income growth than developed countries, and this difference has become increasingly larger over the past two decades. During the 1980s developed and developing countries grew at a pace of 3.1 per cent and 3.7 per cent, respectively; during the 1990s economic growth in developed countries slowed down to 2.4 per cent, but in developing countries it accelerated to 4.8 per cent; and during the period 2001–2004, average real income growth in developing countries was more than double that in developed countries (chapter I, table 1.1; and UNCTAD *Handbook of Statistics*, various issues, table 7.2).

Apart from relatively weak economic growth, developed countries (the traditional destination of developing country exports of primary commodities) have increasingly undergone structural change away from raw-material-intensive indus-

trial activities. This has limited their import demand for non-food primary commodities. Moreover, given only little change in the level and composition of per capita food consumption and stagnating or declining populations, developed country markets have shown little dynamism with respect to food imports from developing countries. This contrasts with those developing countries that have grown rapidly in the past few years. Given their generally lower levels of per capita income and rapidly increasing populations, as well as their still relatively low levels of industrialization, the income elasticity for food and raw materials in these countries exceeds that in developed countries (chapter II). Thus, once economic growth and industrialization had gathered sufficient momentum in developing countries, many primary commodities that had previously displayed lacklustre performance in the world market for an extended period of time recovered their dynamism on the basis of the rapid growth and industrialization of some developing countries.

The impact on trade flows of the rising importance of developing countries as a growth pole in the world economy is largely due to the fact that this growth performance has been concentrated in the NIEs, China and India. Combined, these economies account for about one fifth of total world income (in terms of purchasing power parity) and two-fifths of the total world population.

Rapid economic growth and industrialization in East Asia have been accompanied by a marked trend towards greater integration and specialization in the region, which has led to a rapid expansion of trade within production networks. As discussed in some detail in *TDR 2002*, lower transport and communication costs, and reduced trade and regulatory barriers have facilitated production-sharing on a global basis. Production-sharing is generally concentrated in labour-intensive products; but it can also involve the location at different sites of labour-intensive segments of otherwise technologically complex production processes. It allows firms to exploit the comparative advantage of different locations specific to the production of particular components, including scale econo-

mies, and differences in labour costs across countries. Firms operating in East Asian economies have been particularly successful in spreading production activities in clothing, footwear and electronics across this subregion, taking advantage of labour-cost differentials.

International production networks promote a new pattern of trade, in which goods travel across several locations before reaching final consumers, and the total value of trade recorded in such products exceeds their value added by a considerable margin. As illustrated in figure 4.1, trade of such products within production networks can cause a very substantial increase in recorded trade among developing countries, without any increase in final consumption in developed countries. This rise in recorded South-South trade is higher the larger the import content of a good assembled in a developing country and exported to another developing country. Recorded South-South trade increases particularly fast if the trade within production networks involves passing through transhipment ports, such as Hong Kong (China) and Singapore.

Figure 4.2 illustrates how triangular trade leads to a rise in recorded South-South trade. It shows that the strong rise in manufactured exports from the Republic of Korea and Malaysia to China since the early 1990s has been accompanied by an almost equally strong rise in China's exports to the United States. This has two important implications for South-South trade. First, the magnitude of South-South trade in manufactures depends to a considerable extent on United States import demand for products for which production-sharing within East Asia plays an important role. Thus the recent rise in South-South trade is partly the result of strong growth in the United States economy, which, combined with increased competitiveness brought about by currency devaluations in the aftermath of the Asian crisis, provided an independent export stimulus; at the same time, the trade impulse was amplified by strong intra-regional trade linkages. But it also means that slower economic growth in the United States

… associated with triangular trade within international production networks and indirect maritime trade through regional hub ports.
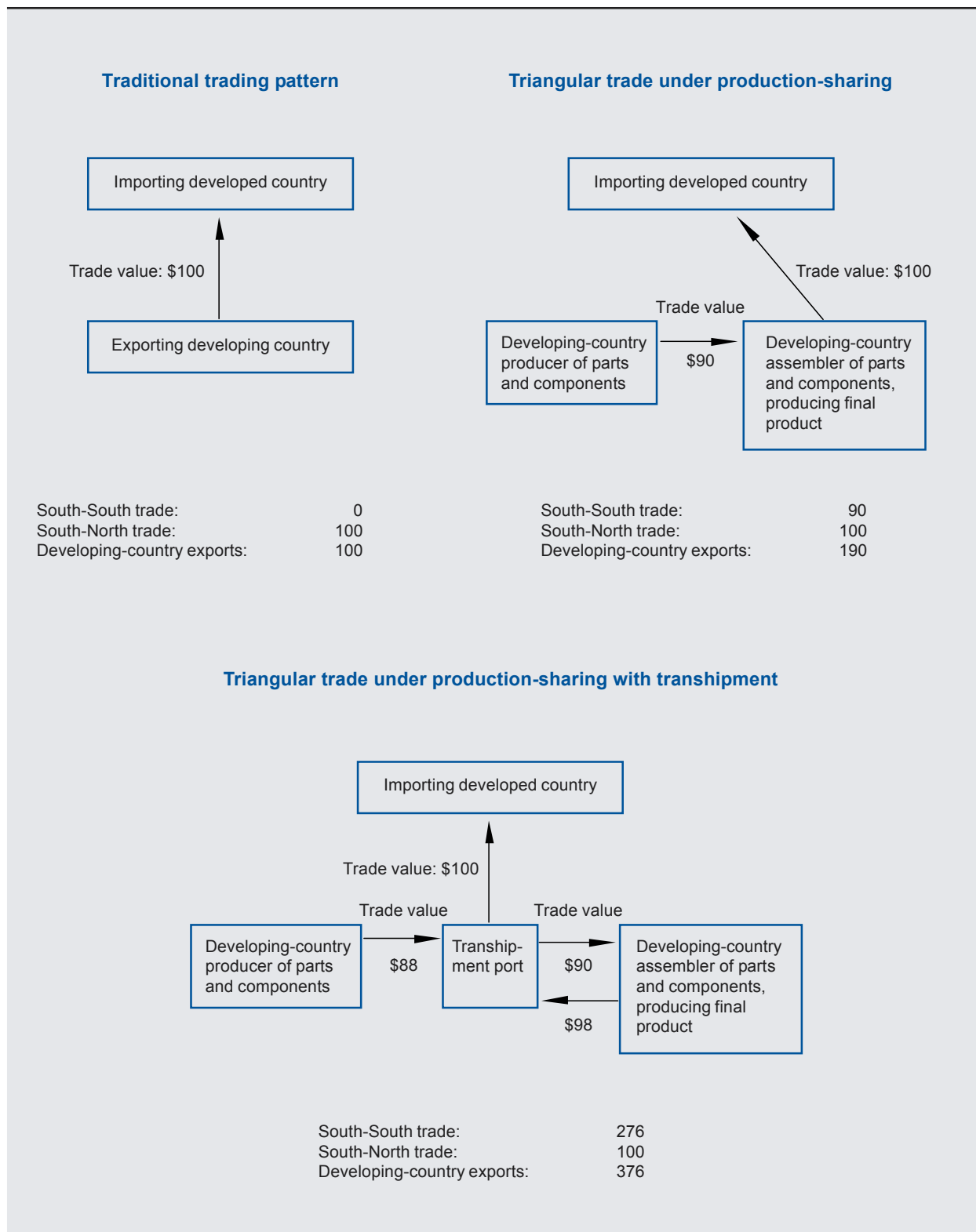
would reduce not only United States imports of finished products, but also China's imports of parts and components from which the finished products are assembled. Second, the magnitude of South-South trade in manufactures will decline to the extent that China succeeds in reducing the import content of its exports. As discussed in chapter II, there are indications that China is indeed reducing the share of imported parts and components in its electronics exports, many of which are directed to the United States.

The new pattern of international trade resulting from international production networks, and the strong involvement of East Asian economies in these networks, goes a long way in explaining two main new features of South-South trade, relative to the 1970s: its much larger size, already mentioned, and its narrow concentration among East Asian economies. In 2003, trade among East Asian economies accounted for about two thirds of total South-South trade (up from 21 per cent in the 1970s), while trade between East Asia and other developing countries accounted for about another 14 per cent (table 4.4). Intra-East Asian trade in manufactures has grown particularly rapidly. In 2003, trade among East Asian economies was responsible for 72 per cent of total South-South trade in manufactures, up from 26 per cent in 1970. But even for primary commodities, trade among East Asian countries now represents about one third of total South-South trade – broadly double the share in 1970. The bulk of this increasing importance of intra-East Asian trade as a share of total South-South trade occurred during the 1980s, when rapid growth and industrialization in the NIEs were accompanied by increasing intra-regional specialization of production and rapid trade integration by China.

South-South trade is concentrated in a few individual economies, mainly in East Asia. In 2003, the top 10 economies in South-South trade jointly accounted for about 84 per cent of total South-South exports and for about 78 per cent of total South-South imports. Brazil (as an exporter and as an importer) and Mexico (as an importer)

Figure 4.1

SCHEMATIC ILLUSTRATION OF THE IMPACT OF PRODUCTION-SHARING
ON THE STATISTICALLY RECORDED VALUE OF SOUTH-SOUTH TRADE

Traditional trading pattern

Triangular trade under production-sharing

Importing developed country

Trade value: $100

Exporting developing country

Importing developed country

Trade value: $100

Trade value

Developing-country producer of parts and components

$90

Developing-country assembler of parts and components, producing final product

South-South trade:	0
South-North trade:	100
Developing-country exports:	100

South-South trade:	90
South-North trade:	100
Developing-country exports:	190

Triangular trade under production-sharing with transhipment

Importing developed country

Trade value: $100

Trade value

Trade value

Developing-country producer of parts and components

$88

Tranship-ment port

$90

Developing-country assembler of parts and components, producing final product

$98

South-South trade:	276
South-North trade:	100
Developing-country exports:	376

Source: UNCTAD secretariat.
Note: The numbers used are fictitious.

are the only non-Asian countries that feature among these top 10 economies. The top two economies, China and Hong Kong (China), taken together, are responsible for more than one third of South-South trade (table 4.5).

The concentration of South-South trade is particularly strong in exports of manufactures in which the top 10 economies account for over 90 per cent – and China and Hong Kong (China) for about 40 per cent – of total South-South exports. It is less concentrated in primary commodities than in manufactures. This is especially true for exports where the top 10 economies account for roughly two-thirds to three-fourths of total South-South trade, and where countries from all developing regions rank among the top 10 traders. The fact that Singapore features among the leading countries in South-South trade of fuels, minerals and metals reflects its function as a regional hub port for transhipment of goods in this category to neighbouring countries.

The function of Hong Kong (China) as a transhipment port for China's external trade alone is responsible for a substantial share of overall South-South trade. More than 40 per cent of China's exports to other developing countries go to Hong Kong (China) and about three quarters of the exports from Hong Kong (China) to other developing countries go to China. More specifically, exchanges between China and Hong Kong (China) represent about 20 per cent of total merchandise trade – and almost 25 per cent of manufactured trade – among developing countries.[3]

There are marked differences across individual developing countries regarding both the current reliance on developing-country markets and the change in this reliance since the early 1990s (table 4.6). Among the developing countries for which comprehensive data are available, Eritrea, Paraguay and Sudan rely more than 80 per cent on other developing countries for their exports. The landlocked situation of Paraguay and Sudan, and transhipment in the case of Eritrea, probably explain these high levels.[4] By contrast, exports to other developing countries account for only 5 per cent of Mexico's total exports, and for 10–15 per cent of the total exports of a range of countries such as Bangladesh, Fiji, Jamaica, Madagascar, Mauritius, Morocco and Papua New Guinea.

Figure 4.2

TRIANGULAR TRADE IN MANUFACTURES BETWEEN EAST ASIA AND THE UNITED STATES, 1990–2003

(Billions of dollars)
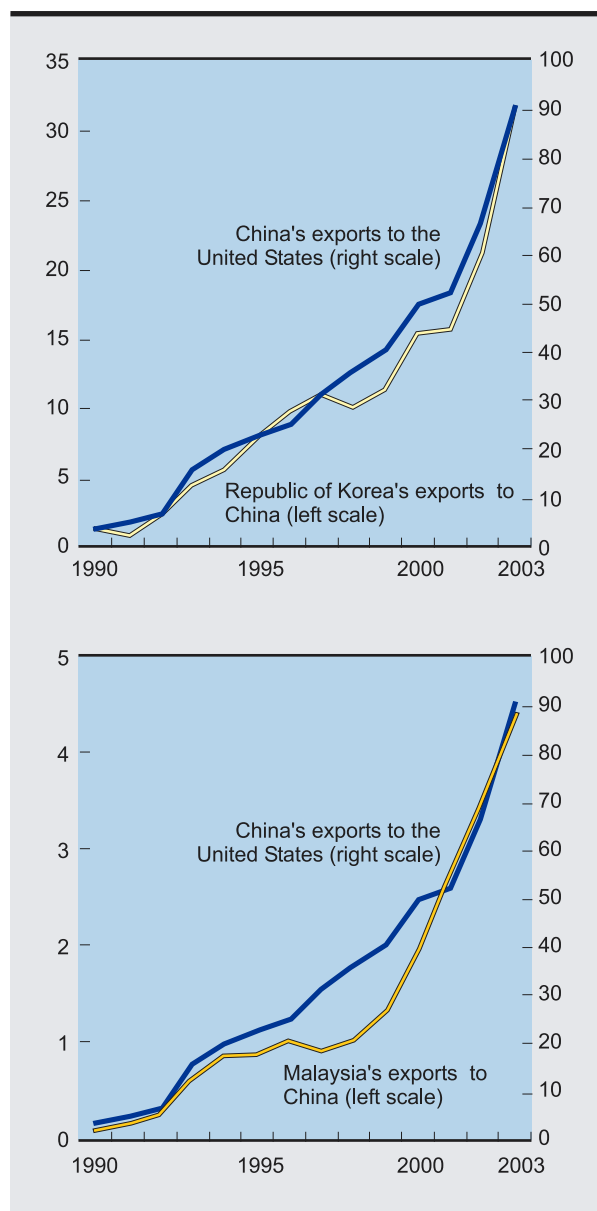
Source: See table 4.1.

Strong reliance on a single export item (such as clothing, sugar, or a metal) and/or preferential access to developed-country markets are probably the main reasons, although they do not seem to have played such a strong role for other developing countries.

Table 4.4

SOUTH-SOUTH MERCHANDISE EXPORTS, BY GEOGRAPHICAL REGION, 1970–2003

	Share in total South-South exports of the respective product category (Per cent)					Average annual percentage growth in value (Per cent)				Memo item: Value ($ million)	
	1970	1980	1990	2000	2003	1970– 1980	1980– 1990	1990– 2000	2000– 2003	1970	2003
Asia											
Asian exports to other developing countries											
Total merchandise	9.7	11.8	4.8	8.4	8.1	29.8	-2.2	15.5	5.9	1 077	74 260
Manufactures	18.7	12.8	7.2	8.9	8.1	21.2	9.9	13.7	4.6	595	58 013
Primary commodities	6.2	11.2	0.1	6.8	7.0	34.7	-26.3	41.2	7.4	477	13 993
Intra-Asian exports											
Total merchandise	49.3	56.1	80.0	76.0	77.9	27.9	9.8	10.3	8.9	5 452	717 882
Manufactures	49.4	59.7	82.5	82.4	84.6	29.0	20.7	12.0	10.8	1 568	604 404
Primary commodities	50.1	55.3	74.9	56.8	54.5	27.5	-1.1	5.0	0.4	3 838	109 047
East Asian exports to other developing countries											
Total merchandise	11.3	11.7	14.1	14.1	14.2	28.4	7.9	11.0	7.7	1 249	130 628
Manufactures	19.4	24.1	16.3	16.0	15.3	31.6	11.6	11.8	7.4	616	109 113
Primary commodities	8.0	6.4	9.8	8.3	9.0	24.4	1.3	7.1	5.0	614	18 076
Intra-East Asian exports											
Total merchandise	21.0	20.1	57.5	62.1	64.4	25.6	19.5	11.6	9.6	2 326	593 650
Manufactures	26.5	31.5	67.2	70.5	72.1	27.1	27.5	12.5	10.7	842	514 702
Primary commodities	19.0	15.4	38.4	37.2	38.1	24.4	7.9	7.6	3.3	1 456	76 244
South Asian exports to other developing countries											
Total merchandise	7.0	3.5	2.5	2.6	3.6	20.4	3.7	10.9	20.0	778	33 128
Manufactures	14.2	5.7	2.4	2.7	3.2	18.0	5.8	13.2	15.8	452	23 186
Primary commodities	4.2	2.7	2.8	2.3	4.8	23.0	1.2	5.6	33.7	323	9 541
Latin America and the Caribbean											
Latin American and Caribbean exports to other developing countries											
Total merchandise	9.8	9.6	4.2	2.6	3.5	25.4	-2.3	7.2	19.4	1 084	32 166
Manufactures	2.5	4.4	2.8	0.9	1.3	33.2	11.7	1.3	21.7	79	8 967
Primary commodities	13.1	12.0	7.2	7.5	11.6	24.6	-7.5	10.4	18.5	1 004	23 182
Intraregional exports											
Total merchandise	18.7	13.6	8.5	8.3	6.6	22.7	1.6	11.6	-1.3	2 071	60 973
Manufactures	22.5	20.5	6.0	5.9	4.4	25.2	4.5	13.2	-2.4	714	31 094
Primary commodities	17.5	11.2	13.5	15.5	14.9	21.1	-0.7	10.0	-0.2	1 342	29 723
Africa											
African exports to other developing countries											
Total merchandise	5.4	6.0	1.1	2.8	2.3	29.8	-10.4	19.6	1.2	599	21 006
Manufactures	1.6	1.1	0.7	0.7	0.7	20.6	10.4	11.2	8.6	50	4 851
Primary commodities	7.2	7.0	2.0	9.1	8.0	28.1	-13.9	23.9	-0.7	550	16 112
Intraregional exports											
Total merchandise	5.7	1.2	1.2	1.9	1.6	13.5	0.1	17.0	4.8	629	14 506
Manufactures	4.9	1.4	0.9	1.1	0.9	13.5	6.7	16.1	7.0	157	6 620
Primary commodities	4.1	1.2	1.9	4.1	3.9	15.6	-3.6	18.6	2.9	315	7 817

Source: See table 4.1.

Note: See note to table 4.2 for country groupings. Total merchandise includes SITC 0 to 9, manufactures includes SITC 5 to 8 less 68, primary commodities includes SITC 0 to 4 plus 68.

Table 4.5

TOP 10 ECONOMIES IN SOUTH-SOUTH TRADE, 2003

(Percentage shares of total South-South trade)

Rank	Total merchandise	Manufactures	Fuels, mineral and metals	Agricultural products
	Leading exporting economies			
1	China (19.7)	China (22.4)	Singapore (9.8)	China (11.5)
2	Hong Kong (China) (14.2)	Hong Kong (China) (17.2)	China (9.7)	Argentina (10.6)
3	Rep. of Korea (11.1)	Rep. of Korea (13.2)	Indonesia (7.3)	Brazil (10.2)
4	Singapore (9.4)	Taiwan Prov. of China (11.2)	Nigeria (6.4)	Malaysia (9.6)
5	Taiwan Prov. of China (9.3)	Singapore (9.7)	Iran, Islamic Rep. of (6.2)	Thailand (8.2)
6	Malaysia (6.0)	Malaysia (5.6)	Venezuela (5.9)	Indonesia (6.5)
7	Thailand (4.1)	Thailand (3.9)	Malaysia (5.8)	India (5.5)
8	India (3.4)	India (3.0)	Rep. of Korea (5.0)	Hong Kong (China) (5.1)
9	Brazil (3.3)	Brazil (2.4)	India (4.4)	Chile (2.6)
10	Indonesia (3.1)	Indonesia (2.1)	Chile (3.6)	Singapore (2.5)
Memo item:				
Share of top 10	83.5	90.7	64.2	72.3
	Leading importing economies			
1	China (21.0)	Hong Kong (China) (23.3)	Rep. of Korea (20.4)	China (17.9)
2	Hong Kong (China) (17.7)	China (21.9)	China (19.1)	Hong Kong (China) (7.4)
3	Rep. of Korea (8.9)	Singapore (8.1)	Taiwan Prov. of China (8.7)	Rep. of Korea (7.2)
4	Singapore (7.7)	Rep. of Korea (5.7)	Singapore (8.2)	India (6.1)
5	Taiwan Prov. of China (5.9)	Taiwan Prov. of China (5.4)	Thailand (5.2)	Malaysia (4.2)
6	Malaysia (4.6)	Malaysia (5.0)	Indonesia (4.1)	Brazil (3.9)
7	Thailand (4.0)	Mexico (4.4)	Brazil (4.0)	Thailand (3.6)
8	Mexico (3.5)	Thailand (3.6)	Hong Kong (China) (3.3)	Saudi Arabia (3.6)
9	India (2.5)	India (2.3)	Turkey (3.2)	Singapore (3.4)
10	Brazil (2.2)	Philippines (1.9)	Malaysia (2.9)	Indonesia (3.0)
Memo item:				
Share of top 10	77.8	81.7	79.2	60.4

Source: See table 4.1.

There have also been wide cross-country variations of shifts in the importance of South-South trade in total exports. Since the early 1990s, the importance of other developing countries as a destination for their exports has halved for Bangladesh and Mexico, whereas it has more than tripled for the Dominican Republic, Honduras and Nigeria. Most importantly, on a country-specific basis, the importance of South-South trade for Africa and Latin America and the Caribbean has grown much more than for Asia, and it now accounts for a similar share in all three developing regions: for the countries included in table 4.6, the unweighted average of the share of developing countries in total exports increased from 26 per cent to 39 per cent for Africa and from 29 per cent to 41 per cent for Latin America, compared to the much smaller increase from 34 per cent to 38 per cent for Asia.[5]

Indeed, many of the relatively small countries for which exports to other developing countries accounted for a sizeable share of their total exports over the past few years are located in West Africa, such as Benin (79 per cent), Niger (60 per cent), Senegal (53 per cent), and Togo

Table 4.6

IMPORTANCE OF SOUTH-SOUTH TRADE FOR DEVELOPING ECONOMIES, 1990–2003

(Share of exports to developing economies in total exports, per cent)

Africa			Asia			Latin America and the Caribbean		
Exporting economy	*1990–1992*	*2000–2003*	*Exporting economy*	*1990–1992*	*2000–2003*	*Exporting economy*	*1990–1992*	*2000–2003*
Algeria	6.7	15.6	Bangladesh	21.9	10.4	Antigua and Barbuda	..	53.4
Benin	47.2	79.1	China	60.4	41.0	Argentina	46.0	63.2
Cameroon	13.2	24.8	Fiji	22.2	13.7	Barbados	35.7	48.8
Côte d'Ivoire	..	36.5	Hong Kong (China)	47.3	54.3	Bolivia	45.9	58.5
Egypt	23.4	35.4	India	28.0	44.5	Brazil	33.3	38.1
Eritrea	..	83.3	Indonesia	33.7	45.5	Chile	27.6	39.3
Ethiopia	..	43.1	Iran, Islamic Rep. of	..	31.1	Colombia	24.0	33.4
Kenya	45.9	56.5	Jordan	70.4	58.9	Costa Rica	20.5	29.0
Madagascar	18.1	12.8	Macao (China)	22.4	22.1	Dominican Rep.	4.5	21.7
Malawi	9.6	26.1	Malaysia	48.6	50.2	Ecuador	31.7	37.2
Mali	73.5	27.7	Nepal	21.2	52.5	El Salvador	34.8	68.0
Mauritius	6.6	10.2	Oman	27.8	37.8	Honduras	11.0	37.5
Morocco	24.1	14.5	Pakistan	38.3	40.3	Jamaica	13.1	11.1
Niger	..	59.6	Papua New Guinea	17.3	10.4	Mexico	8.2	5.0
Nigeria	7.3	31.4	Philippines	20.8	38.6	Montserrat	..	52.7
Senegal	37.4	53.1	Qatar	21.0	49.1	Nicaragua	28.8	43.0
Sudan	..	83.2	Rep. of Korea	34.6	49.8	Panama	18.7	26.5
Togo	42.7	72.5	Saudi Arabia	38.2	27.1	Paraguay	57.4	80.8
Tunisia	16.8	13.8	Singapore	49.2	58.8	Peru	31.4	32.7
United Rep. of Tanzania	..	31.0	Sri Lanka	25.7	20.7	Trinidad and Tobago	34.2	37.5
Zambia	..	16.0	Syrian Arab Rep.	24.6	30.1	Uruguay	53.4	60.7
Zimbabwe	23.7	36.2	Taiwan Prov. of China	34.1	50.2	Venezuela	22.0	29.7
			Thailand	31.6	43.5			
			Viet Nam	..	40.6			
Memo item:								
Unweighted group averages	26.4	39.2		33.6	38.4		29.1	41.3

Source: See table 4.1.

  Note: Includes all developing countries for which data are available.

(72 per cent), or Central America and the Caribbean, such as Antigua and Barbuda (53 per cent), Barbados (50 per cent), Honduras (38 per cent), and Montserrat (53 per cent). This is similar to the countries listed by Andriamananjara, Arce and Ferrantino (2004: table 3) as small transhipment countries for which re-exports account for a large share of their gross exports. The emergence of a worldwide hub-and-spoke system of shipping routes that is discussed in some detail in box 4.1, and that has proved to be an efficient way of servicing smaller countries and of providing many more port-to-port connections than direct services, is probably the main reason for this high share for many of these countries. The use of entrepôt trade to facilitate tariff evasion may explain some of it for the other countries in the list.

However, given that, as discussed above, the absolute level of trade in Asian developing countries is on average much higher than in Africa and Latin America and the Caribbean, this has not altered the predominance of Asian countries in South-South trade. Indeed, the strong role of trade among East Asian economies in the rise of South-South trade also partly explains the observed inverse correlation between the number of regional trade arrangements (RTAs) and intraregional trade shares. Asia has only one major RTA while Latin America and the Caribbean as well as Africa have a large number of RTAs (WTO, 2003: 26–28). Regional economic and trade cooperation, including through bilateral and regional trade agreements, has been a major mechanism employed by an increasing number of developing countries to expand mutual trade and investment. Regional arrangements offer participating countries significant opportunities to enlarge economic space and pool economic, human, technological and infrastructural resources. Where complementarities exist, regional cooperation enables the participants to expand trade in specific sectors. However, intraregional trade within existing RTAs has suffered from continuing trade barriers, infrastructural problems in transport and information technology, and, often, few complementarities because of similar resource endowments. Recently, developing countries have reinvigorated their regional liberalization programmes and entered into initiatives aimed at deeper integration. These changes, if implemented, may further boost intra-group trade (UNCTAD, 2005d).

Relatively weak trade performance within RTAs such as MERCOSUR in Latin America, has also been due to the volatility in the economic performance of its member States more generally. For example, the sizeable fluctuations in real income growth rates and in the real exchange rates of Argentina and Brazil during much of the period since the early-1990s have prevented industry in these countries from taking a long-term view. They have also impaired the investment in production capacity needed for restructuring industry and improving productivity and competitiveness following the economic crisis in the 1980s. In particular, during the second half of the 1990s, considerable fluctuations of the exchange rate between the Argentinean and Brazilian currencies hampered trade within MERCOSUR. Nevertheless, the expansion of the automobile industry in Argentina and Brazil, based on increased specialization and production complementarity, which was one of the objectives of MERCOSUR, has contributed significantly to the growth of South-South trade in automotive products (*TDR 2002*). Moreover, the acceleration of economic growth in MERCOSUR in 2004 and 2005 has been accompanied by a rise in intra regional trade in Latin America. For example, according to Argentina's National Statistics and Census Institute (Instituto Nacional de Estadística y Censos),[6] the dollar value of Argentina's imports from MERCOSUR of the first five months of 2005 exceeded that of the same period in 2004 (2003) by 44 (149) per cent, the respective numbers for Argentina's exports to MERCOSUR being 9 per cent and 27 per cent.

Over the past few years, interregional trade between developing countries has lacked the dynamism it had in the 1970s, and it has also been less dynamic than intraregional trade. However, the earlier performance was mainly a reflection of the sharp increase in the value of oil shipments from

> **The rise of South-South trade in primary commodities, though modest, is more widespread, and probably more resilient.**

Box 4.1

TOWARDS A NEW STRUCTURE OF GLOBAL MARITIME TRADE

The rapidly growing importance of East Asian economies in international trade has been closely associated with the emergence of a new structure of global maritime trade. While there is a continuation of traditional maritime shipping patterns, based on shipments of manufactures among developed countries, and from developed to developing countries in exchange for primary commodities, the greater participation in world trade of the NIEs and China has been accompanied by the emergence of a triangular shipping pattern: these countries import much of their raw materials in the form of bulk cargo from other developing countries and export much of their manufactured goods in the form of containerized cargo to developed countries.

The development of global shipping networks, the move towards containerization in maritime transport, as well as port and customs reforms and increased investment in transport infrastructure by developing countries, have occurred at the same time as greater developing-country trade. In particular since the early 1990s, the global exchange of goods has benefited from the establishment of global liner shipping networks that connect regional, North-South and East-West shipping routes via transhipment ports. Thus regular, albeit indirect, maritime transport connections have enabled even countries that are not directly connected through liner shipping services to trade with each other. Moreover, the greater time efficiency of port, customs and shipping services, including through investment in information and communication technologies, has facilitated developing countries' participation in global production networks and the associated requirement to comply with "just in time" delivery. Hummels (2001), for example, estimates that each additional day spent in transport reduces the probability that the United States will source from a particular country by 1–1.5 per cent, and that each day saved in shipping time is worth 0.8 per cent of the traded manufactured good's value. He also estimates that the advent of fast transport (through air shipping and faster ocean vessels) was equivalent to a reduction in tariffs on manufactured goods from 32 per cent to 9 per cent between 1950 and 1998.

The mode of maritime transport differs between manufactures and primary commodities. Most intercontinental trade of manufactured goods and components is containerized and transported by regular, so-called "liner shipping" services. Access to such services is therefore a crucial aspect of competitiveness in the international trade of such goods. The highest liner shipping connectivity has been measured for Hong Kong (China), followed by Singapore, China, the United States and the Netherlands. The main determinant of a country's liner shipping connectivity is the volume of its containerized trade – greater volume attracts better liner shipping services. At the same time, ports that are located in favourable geographic locations (i.e. at the crossroads of shipping routes), and that provide fast and reliable transhipment services to shipping lines, tend to attract far more shipping services than they would on the basis of "national" trade alone. The main examples of such transhipment centres include Hong Kong (China), Panama and Singapore. This has contributed to the fact that, today, 20 of the 30 busiest container ports are located in Asia and Asian companies account for 46 per cent of global container ship operations. Moreover, between 2003 and 2004, operations in the two top Chinese container ports of Shanghai and Shenzhen grew by 28 per cent. It is estimated that in 2005, China will account for about one fourth of the world's containerized exports (measured in container units); the next biggest Asian exporters will be Japan (5.8 per cent of world containerized exports), the Republic of Korea (4.1 per cent), Taiwan Province of China (3.9 per cent), Indonesia (3.3 per cent) and Thailand (2.6 per cent).

By contrast, primary commodities are shipped in the form of bulk cargo, which requires large carriers that tend to be chartered for complete shiploads. Since East Asian countries, particularly China, have become the world's leading importers of many primary commodities, they account for a large share of bulk cargo; for example, in 2003 their share was 57 per cent of world trade in the three major dry bulk cargo commodities: iron ore, coal and grains. Over the past decade, Chinese seaborne trade in bulk cargo has grown by 17 per cent annually, compared to a growth rate of just 5.4 per cent for Japan, 2.3 per cent for Europe and negative growth for the United States.

Box 4.1 (concluded)

Although maritime transport of containerized trade and bulk cargo involves two separate markets, both of them saw record price levels in 2004 and 2005. The cost of chartering a medium-sized container ship was $40,000 per day at the beginning of 2005, compared to around $7,500 three years earlier. The index of chartering a dry bulk vessel was 2.6 times higher than the previous historical high of 1995. Between January 2003 and January 2005, prices for oil tankers doubled, and those for dry bulk vessels and container ships even increased by two and a half times.

One reason for the price increase in containerized maritime transport is the fact that China sources much of its manufactured imports from its trading partners in the region, while its manufactured exports are shipped mainly to North America and Europe. This has contributed to a strong imbalance of demand for containers and container ships, with a shortage of space for containerized cargo exports in Asia and a surplus in North America and Europe. As a result, container freight rates are two to three times higher for exports from China to North America or Europe than for trade in the opposite direction.

Another reason for the recent surge in the cost of maritime transport is the fact that the supply of ocean vessel capacity is very price-inelastic in the short term. This is because of the relatively long time lag between a rise in freight prices and the ordering of new vessels on the one hand, and new vessel construction and delivery on the other. Two to three years ago, owing to expectations of low growth in trade volumes, there were very few orders for new ships, which led to insufficient new vessel deliveries in 2003 and 2004. Today, shipyards are working at full capacity to deliver in 2007 or 2008; thus ample new vessel capacity is scheduled to enter the market in the coming years. For example, the combined container carrying capacity of new vessels expected to enter the market in 2006 will exceed the deliveries of 2003 and 2004 taken together. In January 2005, the order book of new container vessels registered 4 million container units, equivalent to 55 per cent of existing capacity (up from just 20 per cent in January 2002). This represents a historical record, more than double the previous record of mid-2001. About 80 per cent of container ships are being built in China, Japan and the Republic of Korea, with the latter country alone accounting for two thirds of global container-ship-building capacity.

Given the scheduled entry of new vessel capacity into the market, the present record freight and charter levels will likely decline to more normal levels in the foreseeable future. In the meantime, however, some developing countries are beginning to suffer from the adverse effects of high transport costs and scarce vessel capacity. Some African, Latin American and South Asian shippers have complained about export cargo not being carried on time, and, globally, the high transport costs have led to a measurable increase in freight payments by developing countries. In Latin America, for example, between the first six months of 2003 and the same period of 2004, the ratio of the cost of shipping to the total value of exports increased by 39 per cent.

Indeed, the mutual reinforcement of traded volumes and the availability of transport services has prevented many developing countries from benefiting from the tighter network of global shipping lines, in addition to contending with the current shortage of vessel capacity and high freight costs. For example, the average number of liner services to least developed countries (LDCs) is only one seventh of the average number provided to other countries, and more than half of the world's least connected non-landlocked countries are LDCs. The challenge for policy-makers in many of these countries is to initiate a virtuous cycle between improved connectivity to international maritime transport services and greater trade volumes.

Note: The data in the box are based on UNCTAD, *Review of Maritime Transport*, Geneva, various issues; UNCTAD, *Transport Newsletter*, Geneva, various issues; Clarkson Research Studies, *Container Intelligence Monthly*, London, various issues; ECLAC, *The costs of international transport and the integration and competitiveness of Latin America and the Caribbean*, Bulletin FAL 191, Santiago, 2002.

West Asia; and when oil prices declined during the 1980s, interregional trade tapered off. More recently, interregional South-South trade has shown signs of a recovery. As in the 1970s, this recent growth is due mainly to primary exports. But this time, Africa and Latin America and the Caribbean have benefited most from its rise. Growth in Africa's primary commodity exports to other developing country regions, of almost 20 per cent per annum between 1990 and 2003, has helped increase the share of Africa's primary exports in total South-South primary exports to levels not seen since the mid-1980s. A similar evolution can be observed for Latin America and the Caribbean where primary commodity exports to other developing regions grew by over 10 per cent between 1990 and 2000, and by almost 20 per cent between 2000 and 2003 (table 4.4).

To sum up, the most rapid growth of South-South trade has been among a small number of economies, mainly in East Asia, and primarily in manufactures. However, a substantial part of this increase in South-South trade in manufactures shown in trade statistics is actually due to double-counting associated with intraregional production-sharing for products eventually destined for export to developed countries as well as to double-counting associated with the function of Hong Kong (China) and Singapore as transhipment ports or regional hub ports. The rise in South-South trade of primary commodities, which in trade statistics is apparently much more modest, has been more widespread and has allowed Africa and Latin America and the Caribbean to recoup some of the market shares in total South-South trade that they had lost in the 1980s.

C. Shifts in the composition of developing-country exports

As noted above, one reason for the promotion of South-South trade has been the expectation that manufactures in general, and manufactures with a relatively high-skill content in particular, will be more important in South-South trade than in developing-country exports to developed countries. This expectation is based on the assumption that developing-country consumers are mainly interested in cheaper manufactured consumer goods, and are less demanding than consumers in developed-country markets in terms of a wide range of differentiated consumer manufactures – often having the same basic characteristics – and the consistent high quality of such goods. Thus, tapping developing-country markets is expected to facilitate export diversification away from a nar-

row focus on primary commodities. It is generally agreed that the production and export of manufactures, particularly high-skill-intensive goods, have greater developmental effects owing to the higher potential for demand and productivity growth in such products.

To analyse the shifts in composition of developing-country exports, nine categories of products have been selected. The primary commodities are classified according to their natural-resource content (agricultural products; minerals, ores and metals; and mineral fuels, lubricants and related materials) and the manufactures according to the mix of different skill- and technology intensities (labour- and resource-intensive manu-

factures; and low-, medium- and high-skill- and technology-intensive manufactures[7]); parts and components of electrical and electronic goods, and electronics excluding parts and components constitute two separate categories.[8] As discussed in some detail in *TDR 2002*, although the skill and technology intensity of a product does not necessarily indicate the productivity growth potential of the sector producing it, the relationship is close enough to focus the analysis on product categories based on their skill and technology intensity.

Over the past two decades, the shifts in the composition of South-South trade have strongly differed from those of developing-country exports to developed countries.[9] In developing-country exports to developed countries, medium-skill manufactures (such as road motor vehicles) registered the most dynamic growth in terms of export value between 1976 and 2003, followed by electronics excluding parts and components; parts and components of electrical and electronic goods; and high-skill manufactures (fig. 4.3). Imported high-skill intermediate production inputs in the context of international production networks clearly have played a crucial role in shaping this pattern. Thus findings based on trade statistics that rely on gross exports cannot be taken at face value. Nonetheless, they broadly indicate that relatively higher skill- and technology-intensive manufactured product categories have also played some role in the growth of developing-country exports to developed countries.

By contrast, regarding shifts in the composition of South-South trade over the period 1976 to 2003, the value of labour- and resource-intensive manufactures (such as clothing) increased the most strongly, followed by parts and components for electrical and electronic goods, medium-skill manufactures and agricultural products (fig. 4.3). Hence, in the dynamism of South-South trade, primary commodities have played a more important role than in South-North trade, and the most dynamic manufactured product categories in South-South trade tend to be less skill- and technology-intensive than those in South-North trade. This implies that the pattern of export dynamism by broad product categories has not met the expectations for South-South trade.[10]

Examining the dynamism of South-South trade at a more disaggregated level shows that all four product groups within the category "parts and components of electrical and electronic goods" ranked among the seven most dynamic products in South-South trade during the period 1990–2003; combined, they accounted for about one fourth of total South-South trade in 2003 (table 4.7). But the table also shows that several goods in all product categories have experienced rapid growth in such trade. For example, 10 primary commodities (fur skins, briquettes, vegetable oils, ores and concentrates of precious metals, synthetic rubber, nickel, coal, residual petroleum products, aluminium, and pulp and waste paper) were among the 30 most dynamic products in South-South trade during the period 1990–2003, even though their growth began from a low base. This, again, demonstrates the dynamism of primary commodities in South-South trade.

A second major difference in the compositional shifts in South-South trade compared to South-North trade is that the sensitivity of the results to changes in the base year in South-North trade is much lower. Changing the base year for the calculation of export dynamism (from 1976 to 1985, 1990, 1995 or 2000) affects the ranking of these four product categories in South-North trade only for the period 2000 to 2003; parts and components for electrical and electronic goods rank last of all nine categories. Indeed, shifts in the share of the nine product categories in total developing-country exports to developed countries show a clear trend away from primary commodities towards medium-skill manufactures and electronics, as shown in the top panel of table 4.8.
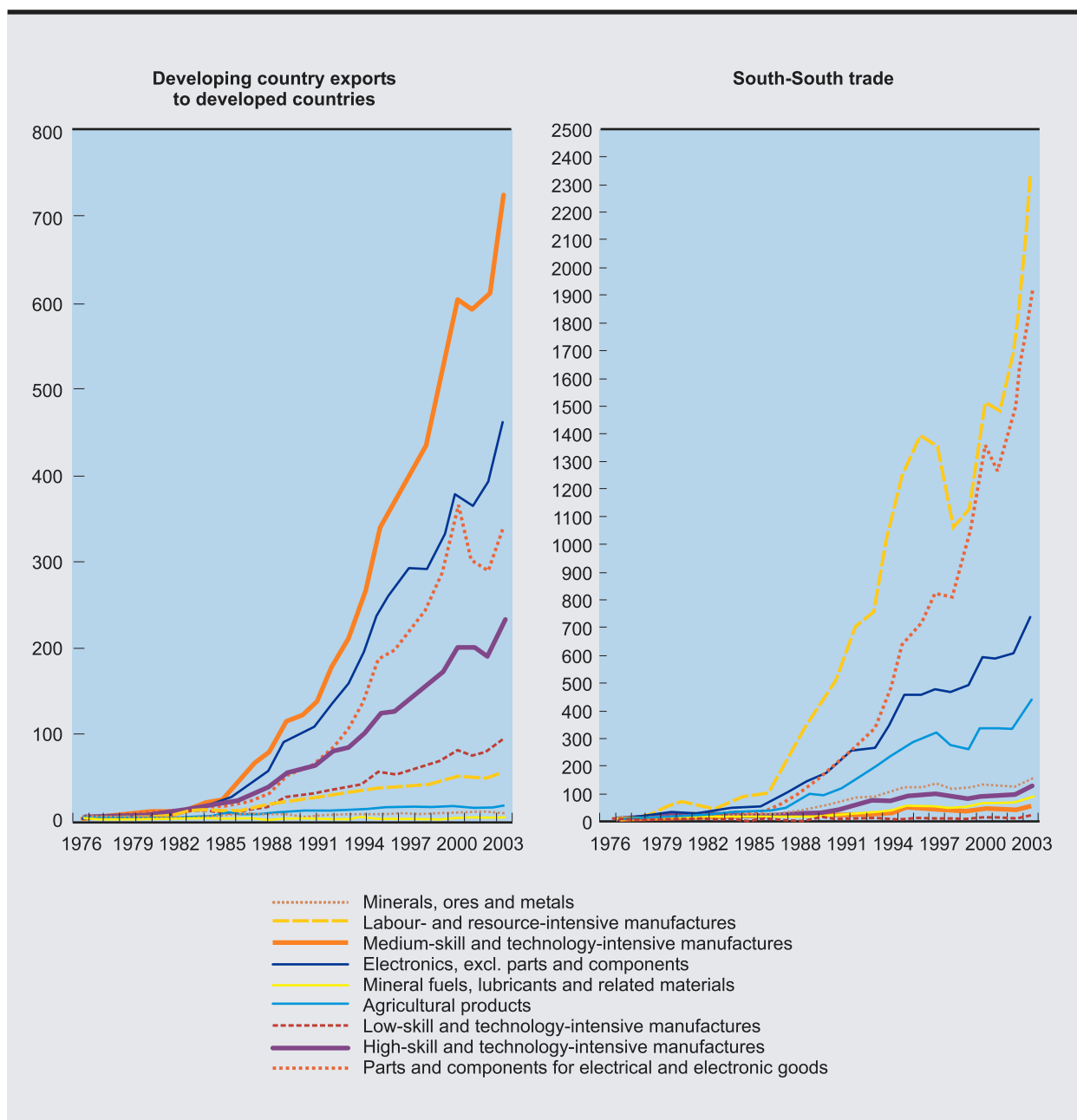
The ranking of broad product categories by dynamic export growth in South-South trade varies significantly with changes in the base year. Growth in terms of export values of labour- and resource-intensive manufactures in South-South trade had already taken off in the late 1970s, but was particularly dynamic between the mid-1980s

> **Primary commodities have played a more important role in the dynamism of South-South trade than in South-North trade.**

Figure 4.3

**EVOLUTION OF DEVELOPING-COUNTRY EXPORTS,
BY BROAD PRODUCT CATEGORY, 1976–2003**

(Index numbers, 1976 = 1)

**Developing country exports
to developed countries**

South-South trade

.... Minerals, ores and metals
– – – – – – Labour- and resource-intensive manufactures
━━━━━ Medium-skill and technology-intensive manufactures
───── Electronics, excl. parts and components
───── Mineral fuels, lubricants and related materials
───── Agricultural products
- - - - - - Low-skill and technology-intensive manufactures
━━━━━ High-skill and technology-intensive manufactures
.... Parts and components for electrical and electronic goods

Source: See table 4.1.

and mid-1990s and between 2000 and 2003. The first of these three periods broadly coincides with the beginning of production-sharing in the textile and clothing industry between the NIEs and the ASEAN-4 (Indonesia, Malaysia, the Philippines and Thailand). The second period broadly coincides with China's participation in production-sharing in this sector. The third period probably reflects an intensification of China's involvement following its accession to the WTO and quota

Table 4.7

**EXPORT VALUE GROWTH AND SHARE IN TOTAL SOUTH-SOUTH EXPORTS
OF THE 30 MOST DYNAMIC PRODUCTS,[a] 1990–2003**

(Per cent)

SITC code	Product group	Average annual value growth of South-South exports 1990–2003	Share in total South-South exports 1990	Share in total South-South exports 2003	Memo item: Share in total exports from developing countries 1990	Memo item: Share in total exports from developing countries 2003
871	Optical instruments and apparatus	32.4	0.1	1.0	0.1	0.6
759	Parts of computers and office machines	22.1	1.6	5.3	1.6	4.3
681	Silver and platinum	22.0	0.0	0.1	0.1	0.3
752	Computers and office machines	21.5	0.9	3.6	2.6	5.7
776	Transistors and semiconductors	21.3	3.8	12.5	3.5	8.0
212	Fur-skins, raw	19.1	0.0	0.1	0.0	0.0
772	Electrical apparatus such as switches	17.4	0.9	2.0	0.7	1.8
884	Optical goods nes	17.3	0.1	0.3	0.2	0.3
714	Non-electric engines and motors	17.2	0.0	0.1	0.1	0.1
718	Other power-generating machinery	16.8	0.0	0.0	0.0	0.0
323	Briquettes; coke and semi-coke; etc	16.7	0.0	0.1	0.0	0.1
511	Hydrocarbons, nes, and derivatives	16.4	0.4	0.7	0.3	0.4
222	Seeds and oleaginous fruit	15.9	0.3	0.5	0.5	0.4
764	Telecommunications equipment, and parts	15.8	2.7	5.6	2.3	5.2
873	Meters and counters, nes	15.8	0.0	0.0	0.0	0.0
289	Ores and concentrates of precious metals	15.7	0.0	0.0	0.1	0.1
513	Carboxylic acids, and their derivatives	15.5	0.3	0.6	0.2	0.4
582	Condensation products	15.2	0.5	0.9	0.3	0.6
778	Electrical machinery and apparatus, nes	15.0	1.1	2.1	0.8	1.9
771	Electric power machinery, and parts thereof	14.6	0.5	0.9	0.5	0.8
233	Synthetic rubber, latex, etc	14.4	0.1	0.1	0.1	0.1
874	Measuring instruments	14.4	0.3	0.5	0.3	0.6
683	Nickel	14.2	0.0	0.0	0.0	0.0
872	Medical instruments and appliances, nes	14.1	0.1	0.1	0.1	0.3
322	Coal, lignite and peat	13.9	0.2	0.4	0.2	0.4
335	Residual petroleum products	13.7	0.2	0.2	0.2	0.2
716	Rotating electric plants and parts thereof, nes	13.3	0.4	0.7	0.3	0.6
684	Aluminium	13.2	0.5	0.7	0.7	0.6
251	Pulp and waste paper	13.0	0.2	0.2	0.2	0.2
781	Passenger motor vehicles (excluding buses)	13.0	0.4	1.0	1.0	2.1
	Total for 30 most dynamic products	18.3	15.8	40.5	16.9	36.1
	Parts and components of electronics[b]	19.7	9.0	25.4	8.0	19.2
	Memo items:					
	Total merchandise exports	9.8	100.0	100.0	100.0	100.0
	Manufactures	10.5	72.8	81.7	70.7	82.1
	Fuels, minerals and metals	9.1	11.2	8.6	12.1	8.3
	Agricultural products	6.1	16.1	9.6	17.2	9.6
	Total world exports	6.1	-	-	-	-
	Total developing-country exports	9.2	-	-	-	-

Source: See table 4.1.
   a Includes SITC 0 through 8, except product groups 286, 351, 675, 688 and 333 because of poor data reporting for these categories.
   b Includes SITC 759, 764, 772 and 776.

Table 4.8

**COMPOSITION OF DEVELOPING-ECONOMY EXPORTS TO DEVELOPED COUNTRIES,
BY BROAD PRODUCT CATEGORIES, 1980–2003**

Exporting economies	Shares (Per cent)				Value change up to 2003 (Index numbers)	
	1980	1990	2000	2003	1976 = 1	1990 = 1
All developing economies						
Agricultural products	13.2	15.1	8.9	9.2	18.9	1.7
Minerals, ores and metals	4.7	4.6	2.7	2.5	10.6	1.5
Mineral fuels, lubricants and related materials	65.0	23.7	14.2	12.2	4.4	1.4
Labour- and resource-intensive manufactures	9.4	24.6	20.3	20.7	56.9	2.4
Low-skill and technology-intensive manufactures	1.6	5.1	5.3	5.6	96.0	3.1
Medium-skill and technology-intensive manufactures	1.0	7.4	14.1	15.6	724.8	5.9
High-skill and technology-intensive manufactures	1.7	5.0	6.3	6.9	235.8	3.9
Electronics excluding parts and components	1.4	7.7	11.2	12.9	470.6	4.7
Parts and components of electrical and electronic goods	1.9	6.8	17.0	14.4	339.3	5.9
Total merchandise exports	100.0	100.0	100.0	100.0	25.7	2.8
Developing economies, excl. NIEs						
Agricultural products	13.8	20.9	11.7	11.5	20.1	1.8
Minerals, ores and metals	5.2	7.0	3.7	3.2	10.3	1.5
Mineral fuels, lubricants and related materials	75.2	36.3	19.1	15.5	4.2	1.4
Labour- and resource-intensive manufactures	3.8	19.1	21.4	22.0	274.2	3.8
Low-skill and technology-intensive manufactures	0.3	2.9	4.3	5.0	218.3	5.7
Medium-skill and technology-intensive manufactures	0.3	5.3	14.0	14.9	4 200.9	9.5
High-skill and technology-intensive manufactures	0.6	4.1	5.8	5.8	611.1	4.8
Electronics excluding parts and components	0.1	1.7	8.3	11.7	29 632.9	23.4
Parts and components of electrical and electronic goods	0.7	2.8	11.6	10.3	4 388.3	12.4
Total merchandise exports	100.0	100.0	100.0	100.0	22.0	3.4
Developing economies, excl. NIEs and China						
Agricultural products	..	20.9	12.8	14.0	17.6	1.8
Minerals, ores and metals	..	7.3	4.2	4.0	9.2	1.4
Mineral fuels, lubricants and related materials	..	38.1	22.9	20.9	4.0	1.4
Labour- and resource-intensive manufactures	..	17.3	18.1	19.1	171.8	2.9
Low-skill and technology-intensive manufactures	..	2.6	3.4	3.7	117.4	3.7
Medium-skill and technology-intensive manufactures	..	5.3	14.3	15.8	3 193.8	7.8
High-skill and technology-intensive manufactures	..	3.7	5.3	5.5	413.2	3.9
Electronics excluding parts and components	..	1.7	7.1	7.6	13 943.7	11.7
Parts and components of electrical and electronic goods	..	3.0	12.1	9.5	2 902.6	8.3
Total merchandise exports	..	100.0	100.0	100.0	15.5	2.6

Source: See table 4.1.
  Note: Data for 1980 in the third panel of the table are not provided, as data for China for that year are not available.

elimination associated with the implementation of the second stage of the Agreement on Textiles and Clothing (ATC) at the beginning of 2002. By contrast, production-sharing in the electronics sector, mainly among the East Asian economies, broadly began in the mid-1980s. As a result, parts and components of electrical and electronic goods have been the most dynamic product category in South-South trade in terms of export value growth for the period 1985–2003. Hence, changes in the pace of export dynamism of labour- and resource-intensive manufactures and of parts and components of electrical and electronic goods broadly coincide with different waves of production-sharing among developing countries in these sectors. Taken together, these results further support the above finding, that the statistical effects associated with production-sharing have been a key determinant of the growth of South-South trade in manufactures as reflected in trade statistics.

> The most dynamic manufactures in South-South trade tend to be less skill- and technology-intensive than those in South-North trade ...

However, the fact that in most products, rapid growth of South-South trade started from a relatively small base in the late 1970s has also played a role in both the rapid rate of growth in export values and the variety of broad product categories that have driven growth in South-South trade over the past three decades. For example, in 1976 the value of developing-country exports of labour- and resource-intensive manufactures to developed countries was about 200 times higher than the value of their exports of such products to other developing countries, and that of agricultural products was about 20 times higher, while the same magnitudes were 4 and 2 for parts and components of electrical and electronic goods, and electronics excluding parts and components, respectively.

> ... but industrialization in East Asia accounts for much of the expansion of skill- and technology-intensive exports from developing to developed countries.

A characteristic common to the evolution of both South-South and South-North trade is that a few Asian developing economies have a strong in-fluence on shifts in the broad export patterns of developing countries taken together. If the exports from the NIEs – whose production and export patterns have become very similar to those of developed countries, as mentioned above – are excluded from South-North trade, the most dynamic product categories are electronics (both finished products and parts and components), as shown in the second panel of table 4.8. If China is excluded as well (third panel of table 4.8), the dynamism of finished electronics drops by more than half, even though it remains the most dynamic product category. This, of course, reflects the statistical effects of triangular trade. Taken together, it indicates that much of the expansion of relatively skill- and technology-intensive manufactured exports from developing to developed countries is closely linked to successful economic growth and industrialization in East Asia.

Table 4.9 shows that in the segment of South-South exports which excludes the NIEs and the ASEAN-4, the two electronics categories recorded the most dynamic growth. However, irrespective of whether this growth performance is measured over the period 1976–2003 or 1990–2003, it occurred from a very low base, so that the share of these two categories remains low.

Turning to interregional trade, the growth in the value of developing country exports to Asia stands out for two reasons (third panel of table 4.9). First, it expanded by more than 155 times between 1976 and 2003, signifying that the dynamism of this segment of South-South trade has been more than double the already impressive expansion of South-South trade overall. Second, for the period 1990–2003, primary commodities have been of crucial importance in this expansion, as their various categories rank much higher here than in the other segments of South-South trade shown in the table.

Table 4.9

COMPOSITION OF TRADE AMONG DEVELOPING ECONOMIES, BY BROAD PRODUCT CATEGORIES, 1980–2003

Exporting economies	Shares (Per cent)				Value change up to 2003 (Index numbers)	
	1980	*1990*	*2000*	*2003*	*1976 = 1*	*1990 = 1*
Importing economies: all developing economies						
All developing economies						
Agricultural products	5.6	11.6	12.6	13.0	445.8	4.5
Minerals, ores and metals	10.0	22.5	16.8	15.2	153.2	2.7
Mineral fuels, lubricants and related materials	2.6	3.3	3.3	3.3	87.9	4.0
Labour- and resource-intensive manufactures	1.8	4.2	4.6	5.6	2 360.3	5.3
Low-skill and technology-intensive manufactures	47.3	16.6	13.2	9.6	8.8	2.3
Medium-skill and technology-intensive manufactures	19.3	15.1	9.5	9.5	55.2	2.5
High-skill and technology-intensive manufactures	5.2	7.1	5.9	6.6	129.8	3.7
Electronics excluding parts and components	5.4	10.9	11.6	12.1	775.0	4.4
Parts and components of electrical and electronic goods	2.7	8.5	22.5	25.0	1 921.5	11.7
Total merchandise exports	100.0	100.0	100.0	100.0	67.4	4.0
Developing economies, excl. NIEs and ASEAN-4						
Agricultural products	12.4	18.6	15.4	14.5	112.8	2.9
Minerals, ores and metals	2.4	4.7	5.0	5.2	59.9	4.1
Mineral fuels, lubricants and related materials	71.9	24.7	22.9	14.9	5.6	2.2
Labour- and resource-intensive manufactures	4.6	19.8	19.1	20.3	678.0	3.8
Low-skill and technology-intensive manufactures	1.9	7.7	6.8	7.9	692.1	3.8
Medium-skill and technology-intensive manufactures	3.5	10.5	11.0	11.6	572.6	4.1
High-skill and technology-intensive manufactures	2.8	10.1	10.3	9.9	555.5	3.6
Electronics excluding parts and components	0.3	2.7	2.9	5.7	6 860.7	7.7
Parts and components of electrical and electronic goods	0.1	1.1	6.6	10.0	5 263.8	32.7
Total merchandise exports	100.0	100.0	100.0	100.0	34.9	3.7
Importing economies: Asia						
Developing economies, excl. Asia						
Agricultural products	48.6	31.6	31.2	35.3	174.9	4.6
Minerals, ores and metals	15.5	15.0	15.8	15.7	44.1	4.3
Mineral fuels, lubricants and related materials	11.4	12.0	30.4	22.7	535.1	7.7
Labour- and resource-intensive manufactures	3.5	4.9	4.7	4.4	294.3	3.7
Low-skill and technology-intensive manufactures	3.6	20.1	6.0	9.6	2 259.5	2.0
Medium-skill and technology-intensive manufactures	0.7	3.7	3.0	4.2	1 134.5	4.6
High-skill and technology-intensive manufactures	16.1	11.9	6.3	5.5	259.4	1.9
Electronics excluding parts and components	0.5	0.4	0.2	0.1	8 471.0	1.3
Parts and components of electrical and electronic goods	0.1	0.3	2.5	2.5	36 396.0	33.0
Total merchandise exports	100.0	100.0	100.0	100.0	155.9	4.1

Source: See table 4.1.

D. What has changed? An assessment

While increased South-South trade is a fact, recent developments for the developing countries as a whole require a careful assessment of the statistical data. Indeed, such an assessment leads to a number of qualifications to the prima facie impression that trade among developing countries has grown massively over the past decade or so, and that exports of manufactures account for much of this rise.

The trend towards a "new geography of trade" appears to be the result, above all, of the above-average growth performance of a few Asian developing economies, and the associated shifts in the level and composition of their external trade. The fact that most developing countries outside East Asia do not appear to have participated significantly in the emerging "new geography of trade" suggests that interpretations of this trend need to be treated with caution in order to avoid unrealistic expectations of its ultimate scope and impact.

The outstanding growth performance of the NIEs and China has had a significant impact on international trade flows because it has further increased the already sizeable weight of these economies, which account for about 16 per cent of world income (in terms of purchasing power parity) and 22 per cent of the world population. Perhaps most importantly, the production structures of some of the NIEs, namely the Republic of Korea and Taiwan Province of China, have become increasingly similar to those of the major developed countries in terms of both production and export of manufactures (*TDR 2003*). As a re-

sult, the rise in South-South trade has occurred in a hierarchical way. On the one hand, the Republic of Korea and Taiwan Province of China trade skill-intensive manufactures directly with developed countries. On the other hand, both domestic firms and affiliates of foreign TNCs located in these economies (and, to a lesser extent, in South-East Asian countries such as Malaysia) take advantage of increased intraregional cooperation and specialization among the East Asian economies. For example, the Republic of Korea and Malaysia export intermediate production inputs to China where these inputs are assembled for export to developed countries (i.e. in a triangular trade pattern). The rising specialization of all these Asian economies in manufacturing activities is, in turn, associated with their growing import demand for products with a high natural-resource content, such as energy and industrial raw materials, required for industrialization. Many of these products are sourced from other developing countries.

The important role of triangular trade in the measured rise of South-South trade in manufactures implies that the bulk of such trade has not reduced the dependence of developing countries' manufactured exports on aggregate demand in developed-country markets. As long as demand from developed countries – notably the United States, which is East Asia's most important export market – remains high for products for which production-sharing within East Asia plays an important role, triangular trade and, thus, South-South trade, will remain strong. But this also implies that a drastic reduction in United States imports of such products may lead to a major decline

in South-South trade of manufactures. A similar outcome may result from an adjustment of the current trade imbalances between the United States and East Asian economies which would be associated with at least a partial offsetting of the gains in competitiveness of East Asian exporters in recent years.

For South-South trade in manufactures, other than that related to triangular trade, developing countries' pace of economic growth and the soundness of their liquidity situation are of key importance. In particular, instead of rapid capital accumulation and technical progress, Latin America has recorded low investment performance in industry over the past two decades, which has caused productivity growth to be cyclical and related to labour shedding (*TDR 2003*). Thus industrial upgrading has been limited, and progress in certain industries, such as aerospace and automobiles, has not been deep enough to establish a dynamic momentum in industry. The macroeconomic environment of high interest and exchange rates and volatile capital flows has done little to support the new investment required for sustained industrial upgrading. Moreover, the tendency towards sharp real currency appreciations, particularly during the early 1980s and the 1990s, has been a major factor in the deterioration of the international competitiveness of these countries' manufacturers, including their competitiveness vis-à-vis East Asia. However, the recent improved growth performance of a range of Latin American countries probably improves the scope for intra regional trade in manufactures, as well as for their trade with other developing regions.

The growth of South-South trade has not reduced the strong reliance of the vast majority of developing countries on primary commodity exports. However, the rise in their exports of primary commodities to the rapidly growing Asian developing countries is likely to evolve into the most resilient feature of the "new geography of trade". Since two of the most rapidly growing Asian developing countries – China and India – still are in the early phases of industrialization, they will continue to source their imports of primary products from the group of natural-resource-abundant countries. Thus there is significant potential for cooperation between China and India, on the one hand, and other developing countries, on the other, for strategic resources such as energy products and minerals (e.g. iron ore and copper). Indeed, Chinese and Indian FDI in such resources has gained in importance over the past few years and evolved as a complement to trade-related South-South cooperation.

The promotion of South-South trade remains a desirable objective for a variety of reasons. Firstly, sluggish growth in developed countries and their continued trade barriers against products of export interest to developing countries implies that developing countries need to give greater attention to each other's markets to fill the gap in export growth consistent with achieving their economic growth targets. This concerns both primary commodities and manufactures. In the case of primary commodities, structural change away from raw-material-intensive industrial production continues to reduce the intensity of raw material use in the major developed countries; for manufactures, the case for greater skill intensity in manufactures traded among developing countries remains intact. Secondly, the vast size of the rapidly growing Asian economies reduces the need for developing countries to seek developed country markets in order to benefit from economies of scale. Thirdly, continued dependence on developed-country markets exposes developing countries to possible pressure that link better access to those markets with binding commitments to rapid trade and financial liberalization, protection of intellectual property and open-door policy for FDI. More generally, it also entails the risk of increasingly narrowing the policy space for developing countries.

> While the increase in South-South trade is a fact, this trend requires a careful assessment to avoid unrealistic expectations.

> The promotion of South-South trade remains a desirable objective for a variety of reasons.

To the extent that trade barriers present a major impediment to the growth of South-South trade, lowering tariffs and non-tariff barriers is a priority. This holds within RTAs among developing countries, as well as for stimulating inter-regional trade based on the Global System of Trade Preferences among Developing Countries (GSTP). However, attention needs to be given also to other trade barriers, including inadequate transport facilities and the absence of established business and banking linkages.

Indeed, the issue of finance remains of crucial importance to the prospects for South-South trade growth. For example, the absence of efficient financing not only increases transaction costs for South-South trade, but may also act as an effective barrier to trade if neither of the two Southern partners has access to adequate financing. Developed-country export credit agencies can provide credits and credit insurance for exports to most developing countries; but there are only a few such agencies in developing countries and those that do exist often are only able to cover exports to developed countries (UNCTAD, 2005e). Moreover, regional financial arrangements and cooperation frameworks can support the stabilization of the exchange rates of developing country currencies with respect to each other. In particular, mechanisms of intra-regional support against currency runs – such as the Chiang Mai Initiative (*TDR 2001*) – can bring considerable benefits to intraregional trade, as they reduce exchange rate spreads and commissions in currency trading associated with regional trade.

E. Policies for managing the new forms of global interdependence

A new form of global economic interdependence is taking shape, primarily as a result of the increasing weight of the rapidly growing Asian developing economies, in particular the large ones of China and India, in the global economy.

The first-tier NIEs and China are already playing a crucial role in global trade flows, not only as suppliers of manufactures to the world market and importers of primary commodities from other developing countries, but also as importers of developed countries' manufactures. Moreover, through their large current-account surpluses and their accumulation of foreign exchange reserves, they have also become influential actors in international financial and monetary relations. India is set to join this group of East Asian economies as a major importer of primary commodities; its export growth has so far been concentrated in services, but in the future this may also extend to manufactures of similar kinds as those produced in the East Asian economies when they were at the earlier stages of their industrialization process.

The analysis in this and the preceding chapters shows a complex and nuanced picture of the new features of global interdependence, which pose new challenges for policy-makers in different countries, depending on their stage of development and their position in the global economic landscape. The smooth integration of large and rapidly growing economies into global economic relationships has the potential to benefit all countries. However, this will depend to a considerable extent on how the new forms of interde-

pendence between these rapid industrializers, the advanced industrialized countries and other developing countries is managed. Coherent policies are required at both the international and national levels.

Despite their rapid growth over the past two and a half decades, both China and India still have relatively low levels of per capita income. However, due to their size – with a combined population representing two fifths of the world population and a combined GDP accounting for one fifth of the world total – their economic performance will inevitably have repercussions on international trade patterns and global output growth. Given their increasing dependence on imports of primary commodities for industrial output growth, in particular fuels and industrial raw materials, the growth performance of these large Asian economies will have greater repercussions on other developing countries as their catching up process advances. This inevitably raises the question of the sustainability of the pace of growth of these two economies in the medium and long term. Problems could arise from their heavy dependence on exports, insufficient domestic demand, and a sharply rising bill for imported raw materials, especially energy.

As discussed in chapter I, section E, China has already acquired a solid manufacturing base, and it has been able to maintain a broad balance between growth impulses from domestic demand and those from foreign demand. It should therefore be able to maintain GDP growth at a pace that will permit a considerable further rise in per capita income, and at the same time induce growth in other developing countries. In India, it is the services sector that has so far been leading economic growth, but it is unclear for how long this can be maintained. Historically, there has been no case of economic catch-up based on the development of the services sector (perhaps with the exception of a few small island economies that depend on tourism or financial offshore centres), where the scope for productivity gains is more limited than in manufacturing. The IT-revolution has

certainly changed the potential for the services sector to support rapid growth in developing countries, as has been the case in some developed countries. However, the size of the world market for IT-based services is smaller than that for manufactures, especially when the rising demand for manufactures from developing countries themselves, not least as a result of poverty reduction efforts, is taken into account. Thus there can be little doubt that India will substantially improve its growth prospects if it succeeds in accelerating the development of its manufacturing industry.

In both China and India it will be crucial to ensure that all segments of the population participate in income growth. This is not only essential for accelerating the eradication of poverty and gaining broad-based social acceptance of the enormous structural changes required; wage increases throughout the economy, in line with rising productivity, are also key to the expansion of domestic consumption and, thus, to the sustainability and stability of output growth. Fixed capital formation depends on favourable demand expectations in general, and not just on exports, which are subject to the vagaries of the world market and to changes in international competitiveness. Among final demand, private consumption is the most important stabilizing factor of private investment.

Policy options for China and India may be identified by drawing on the successful experiences of earlier catching up episodes in Asia, taking account of both the difference in the current international environment relative to that prevailing during these earlier episodes, and the difference in the sizes of the Chinese and Indian economies relative to those of the first-tier NIEs. The effects of growth and changing trade patterns in China and India are having a much stronger impact on world markets, and thus on the terms of trade of the two countries themselves. In any case, a sustained growth process will require a rapid and well sequenced upgrading of manufacturing production and exports, and a greater emphasis on the domestic market for outlets of labour-intensive production activities as well as

> China and India need to ensure further productivity gains in manufacturing, and the participation of all segments of their population in income growth.

for the supply of intermediate goods. In China, in particular, an increase in labour productivity in the rural areas and rising incomes in the agricultural sector would contribute to generating the demand needed to absorb greater domestic-oriented production; it would also help secure a higher degree of food self-sufficiency.

The availability of raw material imports, and their prices, will be another critical factor for the sustainability of the current pace of development in the rapidly growing Asian economies. Domestic policies in this regard will need to focus on the provision of incentives to raise the efficiency of raw material use, in particular of fuels. This is a challenge that all countries, developed and developing alike, are facing, and it also has important implications for global environmental sustainability. But the supply of primary commodities depends to a large extent on responses by producers to the rise in the volume of global commodity consumption and to the favourable price changes that have occurred recently.

Other developing countries should seek to adopt policy measures that will enable them to derive the most benefits from the rising import demand from the Asian industrializers, and to translate the eventual gains into stronger domestic investment in support of greater diversification and faster industrialization. Continuing growth in East and South Asia and recovery in other developing regions is likely to sustain the demand for primary commodities. However, depending on the pace of reduction in the intensity of use of raw materials, the extent and speed with which new supply capacities come on-stream, and the size of possible changes in primary commodity demand of the developed countries, the rise in primary commodity prices may come to a halt, or may even be reversed.

Thus the basic problems of instability in primary commodity prices and of their long-term deteriorating trend vis-à-vis the prices of manufactures – especially those exported by developed countries – cannot be considered as resolved. With the boom in the fuels and mining sectors there is a tendency for investment to shift into these sectors, at a risk of neglecting further development and upgrading of the manufacturing sector, including the processing of locally available natural resources. Exporters of primary commodities that have recently benefited from higher prices and, in some cases, from higher export volumes, would be well advised to seek greater diversification, not only within their primary commodity sector, but also, and more importantly, by developing their manufacturing and services sectors. Gains from recent improvements in the terms of trade and higher export earnings should be translated into greater investment in infrastructure, education and productive capacity with a view to accelerating productivity growth and reducing commodity dependence. This is not the time for complacency, either at the national or at the international level, with regard to the commodity issue.

In many developing countries, the recent gains in the terms of trade have also led to renewed attention to the long-standing issue of the sharing of export revenues, and especially rents from the extraction of non-renewable fuels and minerals. Increasing global demand and higher international prices for fuels and mining products have been attracting additional FDI to these sectors in a number of developing countries. However, government revenues from taxes on profits in these sectors have typically been very low. Since the beginning of the 1990s, there has been increasing competition among developing countries to attract FDI by offering fiscal incentives. Some potential host countries have sometimes risked engaging in "a race to the bottom". In order to ensure that the considerable rents accruing in the extractive industries are used in a way that maximizes the gains for development and social welfare, governments need to strike a balance between the use of fiscal incentives for stimulating investment, including FDI, and realizing public revenue from these industries.

Additional means of obtaining fiscal revenues from primary export-oriented activities may be

> **Oil and mineral exporting countries should cooperate in the formulation of agreed principles relating to the fiscal treatment of foreign investors.**

through royalties, the conclusion of joint ventures, or full public ownership of the operating firms. However, efforts to obtain adequate fiscal revenue should not deprive the operators, private or public, of the financial resources they need to increase their productivity and supply capacity, or their international competitiveness. Recent upward trends in world market prices of fuels and minerals and mining products provide an opportunity to review the existing fiscal and ownership regimes. Such a review – already under way in several countries – and possible strategic policy adjustments, could be more effective if oil and mineral exporting countries were to cooperate in the formulation of some generally agreed principles relating to the fiscal treatment of foreign investors. But it is crucial to ensure that the higher income accruing to the public sector or to domestic consumers from the rent generated by extractive industries be used for purposes that enhance development and progress towards the MDGs. Measures to increase the domestic share of the rent from non-renewable natural resources should be taken in the context of a comprehensive strategy that ensures the use of the proceeds for physical and human capital formation.

> The international community should review mechanisms to reduce price instability of a wider range of commodities, not just oil, so as to minimize its adverse impact on national income.

Despite the fast pace of the catching up process in Asian economies, and their growing importance in world output and trade, the performance of most developing countries continues to depend on growth as well as on macroeconomic and trade policies of the major industrialized countries. The role of the fast growing Asia has added another dimension to these linkages: in addition to their direct trade relations with the developed countries, indirect relations, via exports to the Asian suppliers of manufactures to the North, are gaining in importance. Thus, the benefits that other developing countries will be able to reap from further industrialization in East and South Asia would be enhanced by further trade liberalization in the developed countries, including in the agricultural sector. Moreover, the attitude in these countries towards increasing competition from Asia in the markets for certain types of manufactures will

have important repercussions not only for the Asian exporters of such products, but also for those developing countries that are exporters to the latter. Instead of giving in to protectionist pressures, developed countries should adopt proactive policies to accelerate structural adjustment towards high-technology-intensive sectors and a greater share of services in GDP. Obviously, such adjustments are much easier to achieve in a context of growth (as in the United States) than in a context of stagnation (as in much of Western Europe and Japan).

At the international level, the main challenge is to find a global approach to manage the integration of the rapidly growing, large, low-wage countries in Asia in a way that is beneficial for all countries. One aspect is to ensure that the boom in the markets for a number of primary commodities translates into real gains for development in those countries that depend on the exports of these commodities. The inherent volatility of commodity markets, combined with the economic dependence of many developing countries on a small number of primary commodities, continues to be a major obstacle to development.

Over the past few decades, most internationally traded commodities have experienced a long-term decline in prices as well as a high degree of short-term price volatility. Even though prices for a number of commodities have surged recently, productivity increases and low elasticity of demand are likely to support the downward trend of commodity prices in the long run. Overall price volatility also appears to have declined since the price shocks of the 1970s. Nonetheless, there are several commodities, important to developing countries' export earnings, for which price instability has remained very high. In addition, commodity export dependence and export concentration have not decreased significantly in most developing countries.

Wide fluctuations in commodity prices are not in the interests of either producers or consumers. This has also been recognized by the International

Monetary and Financial Committee of the International Monetary Fund (IMF): at its April 2005 meeting, it underscored, *inter alia*, "the importance of stability in oil markets for global prosperity" and encouraged "closer dialogue between oil exporters and importers". Although instability in markets for commodities other than oil may be less of a problem for the developed countries, they are equally, if not more, important for those developing countries that depend on their exports. And since in many of these developing countries extreme poverty remains a pressing problem, the issue is of crucial importance for global prosperity, particularly for attaining the MDGs. Consequently, in the spirit of a global partnership for development, the international community might consider reviewing mechanisms at the global as well as the regional level to reduce commodity price instability, thereby mitigating its impact on national income in the exporting countries.

Commodity price risk management through market-based instruments can offer some protection against price uncertainty; yet it has clear limitations as far as developing countries are concerned. Therefore, producer countries and international commodity organizations might reconsider the practical and political feasibility of supply management systems (based on information networks), commodity-specific arrangements among producers, and international cooperation among producers and consumers. This could be accompanied by a system of low-conditionality finance to compensate for shortfalls in commodity export earnings, which responds to the needs of developing countries better than the instruments that have been available in the past (see also UNCTAD, 2003).

Another area for strengthened international cooperation and policy coherence is the search for an appropriate macroeconomic solution to the large current-account imbalances that have shaped the world economy in recent years. Such imbalances represent the greatest short-term risk for stable growth in the world economy and for the sustainability of the recent growth performance of the developing countries. These imbalances are closely linked not only to the growth differential between the United States and other major industrialized countries, but also to the expansion of United States imports from the highly competitive suppliers in East and South Asia. Yet it would be a mistake to treat these imbalances as bilateral problems. Given their global dimension and the repercussions of any adjustment on the world economy as a whole, it appears that the safest way to redress the global imbalances lies in an adequate sharing of the adjustment burden between the deficit countries – especially the United States – and the surplus economies of Western Europe, Japan and the rapidly growing developing economies of East Asia, including China.

A solution sought exclusively through a further sharp depreciation of the dollar and lower absorption in the United States would imply a reduction of exports from the rest of the world, with attendant effects on primary commodity export earnings and fiercer competition in the markets for certain manufactures. This would risk pushing out of the market those developing-country producers whose productivity growth has been slower than that of the fast growing Asian economies.

Similarly, correcting global imbalances, or the external deficit of the United States, mainly through massive exchange rate appreciation and lower absorption in China and other developing economies in Asia would have a strong deflationary effect on the world economy as a whole. It would not only render more difficult China's attempts to integrate a vast pool of rural workers and, more generally, to reduce poverty in the country, it would also imply a setback to the efforts of other developing countries to make progress towards the MDGs. Most of the surplus countries in East Asia, and in particular China – on which international pressure for revaluation has been the strongest, from both financial markets and policymakers – have actively managed the floating of their currencies or have pegged them to the dollar. The sizeable revaluation of any single currency vis-à-vis the dollar could destabilize regional trade and financial relations, in particular, in light of China's bilateral deficits with its trading partners

> It would be a mistake to treat the global current-account imbalances as bilateral problems.

in Asia. It is essential to prevent greater exchange rate flexibility vis-à-vis the dollar from causing higher intraregional volatility. Therefore, if a re-valuation of China's renminbi is deemed inevitable as a contribution to an internationally coordinated solution to the global imbalances, it should be sought in the context of a multilateral or regional arrangement.

The stronger the contribution of faster growth in the euro area and Japan, the less deflationary the correction of the global imbalances will be. Indeed, both the euro area and Japan have compelling reasons to stimulate domestic absorption with a view to solving their unemployment problems, especially since this entails a minimal risk of overheating or accelerating inflation. Such an action would also greatly help reduce their trade surpluses, while at the same time supporting growth momentum in the world economy.

Thus a well coordinated international macro-economic approach would considerably enhance the chances of the poorer countries to consolidate the recent improvements in their growth performance. The Plaza Agreement of 1985, which was a joint political effort among the major industrialized countries, provides an example of how a correction in large current-account imbalances can be achieved at the global level. The world economy has changed in the past 20 years, and a new agreement of a similar kind would certainly need to involve the developing countries that have come to play a major role in the performance of the entire world economy and in its stability. ■

Notes

1 Table 4.1, as well as tables 4.3–4.9 and figure 4.3, are derived from data that countries report to the United Nations. The UN COMTRADE is the most comprehensive database available for the purposes of this chapter. However, given that some countries do not (or not comprehensively) report trade data, the tables are not an exhaustive listing of developing-country trade. This is the case mainly for the early periods shown in the tables, when non-reporting countries accounted for a very small share in world trade, and for recent years for some of the major fuel exporters in West Asia. The latter has led to an underrepresentation of developing-country exports of fuels for recent years. However, these data constraints do not affect the overall pattern of the findings discussed in this chapter.

2 The strong involvement of transnational corporations (TNCs) in international production networks, and the associated rise in intrafirm trade and transfer pricing, has increased the difficulties in correctly accounting for international trade in manufactured goods. This is because the prices set by TNCs for intrafirm transfers (i.e. transfer prices) are often not the prices that would be negotiated between arm's-length parties. Rather, TNCs tend to set transfer prices in a way that minimizes tax and tariff payments, as discussed, for example, by Eden (2001).

3 UNCTAD secretariat calculations, based on UN COMTRADE database.

4 Sudan's exports to other developing countries have also been boosted by the surge in oil exports to China.

5 Taking averages only for those countries for which data for both periods are available slightly reduces the numbers for Africa and Latin America for the period 2000–2003.

6 Data available at www.indec.gov.ar.

7 In what follows, these latter categories are called low-, medium- and high-skill manufactures.

8 See *TDR 2002*, table 3.A1 for a complete list detailing which products are included in each category.

9   The following analysis complements the examination in *TDR 2002*, chap. III of dynamism in world trade and dynamism in total developing-country exports. Its main findings were that (i) manufactures have been the sector in which values have grown the most rapidly both in world trade and in developing-country exports, and (ii) the higher the skill and technology content of exports, the faster is the growth of exports of developing countries compared to growth in world trade. This latter finding was attributed to the fact that rapid growth in developing-country exports of skill- and technology-intensive goods started from a relatively low base in the early 1980s, and, more importantly, that such exports usually have stemmed from the involvement of developing countries in international production networks, where the most skill-intensive parts of the exported product have often been imported from developed countries.

10 These findings are based on trade flows at a high level of aggregation and, therefore, may mask substantial variation across individual developing countries in terms of the contribution of South-South trade in skill- and technology-intensive manufactures to the dynamism of their exports. However, country-specific analyses are beyond the scope of this *Report*.

REFERENCES

Aglietta M (2004). L´économie américaine au fil de rasoir. In: Chevalier JM et Mistral J,eds., *La Raison du plus fort. Les paradoxes de l'économie américaine*. Paris, Robert Laffont.

Ahluwalia MS (2002). Economic reforms in India since 1991: Has gradualism worked? *Journal of Economic Perspectives*, 16 (3): 67–88.

Akiyama T and Larson DF (1994). The adding-up problem. Strategies for primary commodity exports in sub-Saharan Africa. Policy Research Working Paper, 1245, World Bank, Washington, DC, January.

Akyüz Y and Gore C (1996). The profit-investment nexus in East Asian industrialization. *World Development*, 24 (3): 461–470.

Amsden AH (2001). *The Rise of "the Rest": Challenges to the West from Late-Industrializing Economies*. New York, Oxford University Press.

Anderson K (2003). Agriculture and agricultural policies in China and India post-Uruguay Round. Centre for International Economic Studies Discussion Paper, 0319. Australia, University of Adelaide.

Andriamananjara S, Arce H and Ferrantino MJ (2004). Transshipment in the United States. Office of Economics Working Paper No. 2004-04-B, United States International Trade Commission, Washington, DC, April.

Arora A and Gambardella A (2004). The globalization of the software industry: perspectives and opportunities for developed and developing countries. NBER Working Paper No. 10538. Cambridge, MA, National Bureau of Economic Research, June.

Balassa B and Noland M (1988). *Japan in the World Economy*. Washington, DC, Institute for International Economics.

Banco de Mexico (2005). Informe sobre inflación, January-March; at: www.banxico.gob.mx

Bank Negara Malaysia (2005). Economic and financial developments in the Malaysian economy in the first quarter 2005, May; at: www.bnm.gov.my.

Barro RJ and Lee JW (2001). International data on educational attainment: updates and implications. *Oxford Economic Papers*, 53 (3): 541–563. Oxford, Oxford University Press.

Benham F (1940). The Terms of Trade. *Economica,* N.S.7: 360–367.

Bethell L (1986) (ed.). *The Cambridge History of Latin America*, *Volume V: 1870 to 1930*. Cambridge, Cambridge University Press.

Bhalla GS, Hazell P and Kerr J (1999). Prospects for India's cereal supply and demand to 2020. Food, Agriculture and the Environment Discussion Paper 29. Washington, DC, International Food Policy Research Institute.

Bleaney MF (1993). Liberalisation and the terms of trade of developing countries: A cause for concern? *The World Economy*, 16: 453–466.

Bresnahan TF and Ramey VA (1992). Output fluctuations at the plant level. NBER Working Paper No. 4105. Cambridge, MA, National Bureau of Economic Research.

British Petroleum (BP) (2004). *Statistical Review of World Energy.*

British Petroleum (BP) (2005). *Statistical Review of World Energy.*

Brook, AM et al. (2004). Oil price developments: drivers, economic consequences and policy responses. Economics Department Working Paper No. 412. Paris, Organisation for Economic Co-operation and Development (OECD).

Brown LR (1995). *Who Will Feed China? Wake-up Call for a Small Planet*. New York, WW Norton.

Burghardt G (2005). Futures Industry Association Annual Volume Survey: the invigorating effects of electronic trading. *Futures Industry Magazine*, March/ April.

Campodónico H (2004). Reformas e inversión en la industria de hidrocarburos de América Latina. *Serie Recursos Naturales e Infraestructura*, 78. Santiago, Chile, ECLAC, October.

Chadwick W (2003). Global trends in the information technology outsourcing services market. *United States International Trade Commission Industry Trade and Technology Review,* November.

Channel News Asia (2005). Asian countries subsidizing fuel hit hard by higher oil prices; at: www.channel newsasia.com (accessed May 2005).

Chauvin S and Lemoine F (2003). India in the world economy: traditional specialisations and technology niches. Working paper, 2003–09. Paris, Centre d'Etude Prospectives et d'Informations Internationales (CEPII).

Chenery HB, Robinson S and Syrquin M (1986). *Industrialization and Growth: A Comparative Study*. New York, Oxford University Press.

Chevalier JM (2004). *Les Grandes Batailles de l'Energie.* Paris, Gallimard.

Cline WR (1982). Can the East Asian model of development be generalized? *World Development*, 10 (2): 81–90.

Croke H, Kamin SB and Leduc S (2005). Financial market developments and economic activity during current account adjustments in industrial economies. International Finance Discussion Paper 827. Washington, DC, United States Board of Governors of the Federal Reserve System, February.

Crompton P and Wu Y (2005). Energy consumption in China: past trends and future directions. *Energy Economics*, 27: 195–208.

Debelle G and Galati G (2005). Current account adjustment and capital flows. Working Paper 169, Bank for International Settlements, Basel, February.

Del Pino V, Marambio G , Muñoz C and Venegas L (2005). Desempeño Financiero y Tributario. Gran Minería del Cobre de Chile. Santiago, Chile, Chilean Copper Commission (Cochilco).

Diamond J (1997). *Guns, Germs and Steel.* London, Chatto and Windus.

Eatwell J, Murray M and Newman P (2002). *The New Palgrave: A Dictionary of Economics.* Basingstoke, Palgrave Macmillan, 3: 6.

ECLA (1951). *Economic Survey of Latin America 1949.* New York, United Nations, Economic Commission for Latin America.

ECLAC (2005). *Economic Survey of Latin America and the Caribbean, 2004-2005*. Santiago, Chile, Economic Commission for Latin America and the Caribbean.

Eden L (2001). Transfer pricing, intrafirm trade and the BLS international price program. Working Paper No. 334, United States Bureau of Labor Statistics, Washington, DC.

EIA (2004). Country analysis brief: Kazakhstan. United States Energy Information Administration website at: www.eia.doe.gov.

EIU (2005a). China economy: gathering speed again? *ViewsWire*, Economist Intelligence Unit, 20 June.

EIU (2005b). *Business Latin America.* London, Economist Intelligence Unit*,* 25 April.

Ernst D (2004). Internationalisation of innovation: Why is chip design moving to Asia? Working paper 64, East-West Center, Honolulu, HI, March.

ESCWA (2005). *Survey of Economic and Social Developments in the ESCWA Region* 2005. Summary. Beirut, Economic and Social Commission for Western Asia; at: www.escwa.org.lb (accessed 28 April 2005).

Espinasa (2005). Domestic fuel pricing and taxation in Latin American and Caribbean energy exporters: the cases of Ecuador and Venezuela. Paper presented at the Third Regional Workshop on Fiscal Policy and Environment organized by the Economic Commission for Latin America and the Caribbean, Santiago, Chile, 25 January.

Fan S and Zhang X (2002). Productivity and productivity growth in Chinese agriculture: new national and regional measures. *Economic Development and Cultural Change*, 50 (4): 819–838.

FAO (2002). *World Agriculture: Towards 2015/2030.* Summary report. Rome, Food and Agriculture Organization of the United Nations.

FAO (2003). *Medium-term prospects for agricultural commodities: Projections to the year 2010.* Rome, Food and Agriculture Organization of the United Nations.

Fisher-Vanden K et al. (2004). What is driving China's decline in energy intensity? *Resource and Energy Economics*, 26: 77–97.

Flassbeck H, Dullien S and Geiger M (2005). China's spectacular growth since the mid-1990s: Macroeconomic conditions and economic policy challenges. In: UNCTAD, *China in a Globalizing World.* Forthcoming. Geneva, United Nations Conference on Trade and Development.

Freund C (2000). *Current Account Adjustments in Industrialized Countries.* International Finance Discussion Paper 692, Board of Governors of the Federal Reserve System. Washington, DC, United States, December.

Gaffney, Cline & Associates Inc. (2004). Proyecto de Evaluación Económica, Financiera y Ambientales de las operaciones que realiza la empresa estatal Petrocecuador, Informe final de la Fase I. February.

Gale F (2005). China's agricultural imports boomed during 2003–04. (WRS-05-04). Washington, DC, United States Department of Agriculture, Economic Research Service.

Gale F, Lomar B and Tuan F (2005). China's new farm subsidies. (WRS-05-01). Washington, DC, United States Department of Agriculture, Economic Research Service.

Ghoshal R (2003). *Eastern India: The Emerging Employment Scenario.* New Delhi, International Labour Office, Subregional Office for South Asia.

Gulati A and Mullen K (2003). Responding to policy reform: Indian agriculture in the 1990s and after. Working paper 189, Stanford University, Stanford Center for International Development, Stanford, CA.

Hannesson R (2002). Energy use and GDP growth, 1950–97. *OPEC Review*, 26 (3): 215–233.

Hooper P, Johnson K, and Marquez J (1998). Trade elasticities for G-7 countries. International Finance Discussion Paper 609, Board of Governors of the Federal Reserve System, Washington, DC, United States, April.

Houthakker H and Magee S (1969). Income and price elasticities in world trade. *Review of Economics and Statistics* 51: 111–125.

Huang J and Rozelle S (2003). Trade reform, the WTO and China's food economy in the twenty-first century. *Pacific Economic Review*, 8 (2): 143–156.

Huang J, Li N and Rozelle S (2004). Projections of food supply and demand and impacts of green policies. In: van Tongeren F and Huang J, eds., *China's Food Economy in the Early 21st Century*. Report 6.04.04. The Hague, Agricultural Economics Research Institute, February.

Hummels D (2001). Time as a trade barrier. Mimeo. West Lafayette, IN, Purdue University, July.

IEA (2004a). Analysis of the impact of high oil prices on the global economy. Paris, International Energy Agency.

IEA (2004b). *World Energy Outlook 2004*. Paris, International Energy Agency.

IEA (2005). *Oil market report*. Paris, International Energy Agency, March.

IMF (2004a). Advancing structural reforms. *World Economic Outlook*. Washington, DC, International Monetary Fund.

IMF (2004b). China's emergence and its impact on the global economy. *World Economic Outlook*. Washington, DC, International Monetary Fund.

IMF (2004c). India. Staff Report for the 2004 Article IV Consultation. Washington, DC, International Monetary Fund.

IMF (2004d). Country Report: United Arab Emirates. Report no.04/175. Washington, DC, International Monetary Fund, June.

IMF (2005a). *World Economic Outlook*. Washington, DC, International Monetary Fund, April.

IMF (2005b). Country Report: Chad. Report no. 05/74. Washington, DC, International Monetary Fund, March.

INEGI (2005). Estadísticas económicas database, at: www.inegi.gob.mx. Mexico, Instituto Nacional de Estadística, Geografía e Informática.

International Copper Study Group (ICSG) (2004). *Copper Bulletin,* 11 (4). April, Lisbon.

International Iron and Steel Institute (2004). *Steel Statistical Yearbook 2004*. Brussels.

International Rubber Study Group and Economic Social Institute (IRSG) (2003). The future of the tyre and rubber sector of China and consequences for the world rubber industry: a multi-client study. London, International Rubber Study Group, and Amsterdam.

IPEA (2005). *IPEA Economic Quarterly*. Rio de Janeiro and Brasilia, Instituto de Pesquisa Econômica Aplicada, June.

ITTO (2003). *Annual Review and Assessment of the World Timber Situation*. Yokohama, Japan, International Tropical Timber Organization.

Jha V et al. (2005). Product patents: Implications for the pharmaceutical industry and consumers. Mimeo. Study prepared for the DFID/Government of India/UNCTAD project on Strategies and Preparedness for Trade and Globalization in India. New Delhi, UNCTAD.

Kaplinsky R (2004). Globalisation, Poverty and Inequality: Between a Rock and a Hard Place. (Book manuscript). Cambridge, Polity Press.

Kaufmann R (2004). The forecast for world oil markets. *Project LINK Oil Forecast*, Fall 2004; at: www.chass.utoronto.ca/link/.

KDI (2005). *Current Economic Trends: The Green Book*. Seoul, Korea Development Institute; at http://epic.kdi.re.kr. (accessed June 2005).

Kim S, Moon S and Popkin BM (2000). The nutrition transition in South Korea. *American Journal of Clinical Nutrition*, 71: 44–53.

Klein LR and Ozmucur S (2005). Weekly update on the US economy and financial markets. Forecast summary. Philadelphia, PA, University of Pennsylvania; at: www.chass.utoronto.ca/link/ (accessed 27 June 2005).

Krugman P (1988). Differences in income elasticities and trends in real exchange rates. NBER Working Paper No. 2761. Cambridge, MA, National Bureau of Economic Research, November.

Lardy NR (2002). *Integrating China into the Global Economy*. Washington, DC, Brookings Institution Press.

Lavandero J (2003). *Royalty, regalía o renta minera*. Santiago, Chile, Lafken.

Lemoine F and Ünal-Kesenci D (2004). Assembly trade and technology transfer: the case of China. *World Development*, 32 (5): 829–850.

Lipkewich MP (2003). Teck Cominco Operation, Presentation at Teck Cominco Investors Day. Toronto (ON), 30 September; at: www.teckcominco.com/presentations/investorday/.

Malembaum W (1973). Material requirements in the United States and abroad in the year 2000. Philadelphia, PA, University of Pennsylvania. Research Project for the National Commission on Materials Policy.

Mann C (2003). *The US Current Account, New Economy Services, and Implications for Sustainability*. Washington, DC, Institute for International Economics, August.

Marsh P (2004). A little local difficulty in the supply chain. *Financial Times*, 23 June.

Mattoo A (2004). The services dimension of China's accession to the WTO. In: Bhattasali D, Li S and

Martin W, eds., *China and the WTO: Accession, Policy Reform, and Poverty Reduction Strategies*. Washington, DC, World Bank and Oxford University Press.

Maury T-P and Pluyaud B (2004). The breaks in per capita productivity trends in a number of industrial countries. Working Paper No. 111, Banque de France, Paris,

Mayer J (2004). Not totally naked: textiles and clothing trade in a quota free environment. UNCTAD Discussion Paper 176, Geneva.

Metals Economics Group (MEG) (2005). *World Exploration Trends*. A special report from the Metals Economics Group for the PDAC 2005 International Convention.

Morgan Stanley (2004). *India and China: A Special Economic Analysis. New Tigers of Asia*, 26 July.

Moussa N (1999). El desarrollo de la minería del cobre en la Segunda mitad del Siglo XX. *Serie Recursos Naturales e Infraestructura,* 4. Economic Commission for Latin America and the Caribbean, Santiago, Chile, November.

NESDB (2005). *Economic Performance in Q1/2005 and Outlook for 2005*. Bangkok, National Economic and Social Development Board of Thailand; at: www.nesdb.go.th. (accessed 6 June 2005)

NIESR (2005). The World Economy. *National Institute Economic Review* 192: 19. London, National Institute of Economic and Social Research, April.

Ocampo JA and Parra M (2003). The terms of trade for commodities in the twentieth century. *CEPAL Review* 79, April .

OECD (2003). *Science, Technology and Industry Scoreboard*. Paris, Organisation for Economic Co-operation and Development.

Otto J et al. (2000). *Global Mining Taxation Comparative Study* (second edition). Golden, CO, Colorado School of Mines.

Panagariya A (2004). India in the 1980s and 1990s: a triumph of reforms. Working Paper 04/43, International Monetary Fund, Washington, DC.

Popkin BM (1993). Nutritional patterns and transitions. *Population and Development Review*, 19 (1): 138–157.

Prebisch R (1950). *The Economic Development of Latin America and its Principal Problems*. Lake Success, NY, United Nations Economic Commission for Latin America.

Prebisch R (1952). *Problemas teóricos y prácticos del crecimiento económico*. Santiago, Chile, ECLA (reprinted in *Cincuenta años de pensamiento de la CEPAL, Vol 1*. Comisión Económica para América Latina y el Caribe, Fondo de Cultura Económica (CEPAL-FCE) Santiago, Chile, 1998).

Rodrik D and Subramanian A (2004). From "Hindu growth" to productivity surge: the mystery of the Indian growth transition. NBER Working Paper No.10376. Cambridge, MA, National Bureau of Economic Research, March.

Rosegrant MW et al.(2001). *Global food projections to 2020. Emerging Trends and Alternative Futures*. Washington, DC, International Food Policy Research Institute.

Sánchez Albavera F, Ortiz G and Moussa N (2001). Mining in Latin America in the late 1990s. *Serie Recursos Naturales e Infraestructura*, 1. Santiago, Chile, ECLAC.

Singer HW (1950). The distribution of gains between investing and borrowing countries. *American Economic Review*, 15. (Reprinted in *Readings in International Economics*. London, George Allen and Unwin, 1968).

Singh N (2003). India's information technology sector: What contribution to broader economic development? Working paper 207, OECD, Paris.

Sinton JE and Fridley DG (2000). What goes up: recent trends in China's energy consumption. *Energy Policy*, 28: 671–687.

Syrquin M (1988). Patterns of structural change. In: Chenery HB and Srinivasan TN eds., *Handbook of Development Economics,* 1. Amsterdam, Elsevier.

Syrquin M and Chenery HB (1989). Patterns of Development, 1950 to 1983. Discussion Paper 41, World Bank, Washington, DC.

The Economist (2004). Amazingly, China has labour shortages. London, 9 October.

Tilton J, ed. (1990). *World Metal Demand: Trends and Prospects*. Washington, DC, Resources for the Future.

Timmer CP (2002). Agriculture and economic development. In: Gardner B and Rausser G, eds., *Handbook of Agricultural Economics,* 2. Amsterdam, Elsevier.

UNCTAD (1994a). *The Outcome of the Uruguay Round: An Initial Assessment. Supporting Papers to the Trade and Development Report 1994*. United Nations publication, sales no. E.94.II.D.28, New York and Geneva.

UNCTAD (1994b). A review of major developments in the world copper market and industry from 1980 to 1992 and future prospects. UNCTAD/COM/37, Geneva, 8 February.

UNCTAD (2003a). *Economic Development in Africa: Trade Performance and Commodity Dependence*. United Nations publication, sales no. E.03.II.D.34, New York and Geneva.

UNCTAD (2003b). *Report of the Meeting of Eminent Persons on Commodity Issues*. TB/B/50/11, Geneva, UNCTAD, 22–23 September.

UNCTAD (2004a). *World Investment Report 2004*. United Nations publication, sales no. E.04.II.D.33, New York and Geneva.

UNCTAD (2004b). *The Iron Ore Market 2003–2005*. Geneva.

UNCTAD (2004c). New geography of international trade: South-South cooperation in an increasingly interdependent world. TD/404, Geneva, 4 June.

UNCTAD (2005a). *Review of Maritime Transport 2005*. Geneva.

UNCTAD (2005b). *World Investment Report, 2005*. United Nations publication, sales no. E.05.II.D.10, New York and Geneva.

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UNCTAD (2005d). International trade negotiations, regional integration and South-South trade, especially in commodities. UNCTAD/DITC/TNCD/MISC/2004/3, Geneva, 18 March.

UNCTAD (2005e). Some key issues in South-South trade and economic cooperation: outcome and papers presented to the workshop on trade, Doha High-level Forum on Trade and Investment. UNCTAD/DITC/TNCD/2005/6, Geneva, 28 April.

UNCTAD (various issues). UNCTAD *Handbook of Statistics*. New York and Geneva.

UNCTAD (various issues). *Trade and Development Report*. New York and Geneva.

UNESCO (2003). *Global Education Digest*. Montreal, UNESCO Institute of Statistics.

United Nations (2004a). China common country assessment: balancing development to achieve a *xiaokang* (well-off) society in China. Report of the UN China Country Team, Beijing, August:16.

United Nations (2004b). World Commodity Trends and Prospects. Note by the Secretary-General. Report prepared by UNCTAD and submitted by the Secretary-General of the United Nations to the 59th Session of the General Assembly. General Assembly Document A/59/304, New York, United Nations.

United Nations, IMF, Commission of the European Communities, OECD and World Bank (1993). *System of National Accounts 1993*. Brussels, Luxembourg, New York, Paris, Washington, DC.

United States Department of Agriculture (2005). Oilseeds: world markets and trade. Circular series FOP 3-05. Washington, DC, March.

van Meijl H and van Tongeren F (2004). Projections of the Chinese economy to 2020: the impact of agricultural and trade policies and implications for global trade. In: van Tongeren F and Huang J, eds., *China's Food Economy in the Early 21st Century*. Report 6.04.04. The Hague, Agricultural Economics Research Institute, February.

Wood A and Calandrino M (2000). When the other giant awakens: Trade and human resources in India. *Economic and Political Weekly,* XXXV (52, 53): 4677–4694, 30 December–5 January 2001.

World Bank (1996). *Global Economic Prospects and the Developing Countries*. Washington, DC, World Bank.

World Bank (2004a). *Global Economic Prospects, Commodity Market Briefs;* at: http://globaloutlook.worldbank.org/globaloutlook/outside/ (accessed November 2004)

World Bank (2004b). *Global Economic Prospects*. Washington, DC, World Bank.

World Bank (2005). *Global Economic Prospects*. Washington, DC, World Bank.

World Bureau of Metal Statistics (various issues). *World Metal Statistics*. Ware, Hertfordshire, United Kingdom.

World Tourism Organization (2005). *World Tourism Barometer*, 3 (2). Madrid, June.

WTO (2003). *World Trade Report*. Geneva, World Trade Organization.

WTO (2005a). World trade 2004, prospects for 2005. World Trade Organization, Press release 14. Geneva, April.

WTO (2005b). Developing countries' goods trade share surges to 50-year peak. World Trade Organization, Press release 401, Geneva, 14 April.

Wu Y (2005). Growth, expansion of markets, and income elasticities in world trade. Working Paper, No.05/11, International Monetary Fund, Washington, DC, January.

Yang DL (2005). China's Looming Labor Shortage. *Far Eastern Economic Review*, 168 (2), Jan/Feb.

Yeung G and Mok V (2004). Does WTO accession matter for the Chinese textile and clothing industry? *Cambridge Journal of Economics*, 28: 937–954.

Zhang ZX (2003). Why did the energy intensity fall in China's industrial sector in the 1990s? The relative importance of structural change and intensity change. *Energy Economics*, 25: 625–638.

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