

---

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT  
GENEVA

---

# TRADE AND DEVELOPMENT REPORT, 2013

## *Chapter II*

### TOWARDS MORE BALANCED GROWTH: A GREATER ROLE FOR DOMESTIC DEMAND IN DEVELOPMENT STRATEGIES



UNITED NATIONS  
New York and Geneva, 2013



---

**Chapter II**

---

# TOWARDS MORE BALANCED GROWTH: A GREATER ROLE FOR DOMESTIC DEMAND IN DEVELOPMENT STRATEGIES

---

## A. Introduction

---

The global economy is still struggling to recover from the Great Recession of 2008–2009 resulting from busts in the housing and financial markets of the major developed countries. The examination of the current challenges for the global economy in chapter I of this *Report* indicates that these countries may have a long way to go to achieve a self-sustaining recovery. Meanwhile, a prolonged period of slow growth in these countries will mean continued sluggish demand and thus slower growth in their imports from developing and transition economies beyond the short term. Countercyclical macroeconomic policies might be able to compensate for resulting growth shortfalls for some time, but will eventually result in fiscal or balance-of-payments constraints unless they are followed by policies that adopt a more comprehensive and longer term perspective. This chapter discusses possible longer term policy options to support rapid and sustained economic growth in developing and transition economies, with a focus on the complementarity of external and domestic demand.

Prior to the onset of the economic and financial crisis, buoyant consumer demand in some developed economies, especially the United States, enabled the rapid growth of manufactured exports from industrializing developing economies. The consequent

boost to these countries' industrial development and urbanization, in turn, provided opportunities for primary commodity exports from other developing countries. The overall expansionary – though eventually unsustainable – nature of these developments contributed to a prolonged period of output growth of the world economy, and seemed to vindicate many developing and transition economies in their decision to adopt an export-oriented growth model. However, their continued reliance on such a growth model does not seem viable in the current context of slow growth in developed economies. Accordingly, those developing and transition economies, and especially the larger ones among them, may need to consider a policy shift to a more domestic-demand-oriented growth model.

This chapter examines two main questions: (i) What determines whether developing and transition economies should shift emphasis from an export-oriented to a more domestic-demand-oriented growth strategy? (ii) What policy measures could help smooth such a transition in growth strategy?

The chapter first discusses, in section B, determinants of countries' vulnerability to external trade shocks. It emphasizes that the decline in real final

expenditure was the main reason for the collapse of international trade in 2008–2009. Combined with the recognition that growth in developed countries' final expenditure may remain below pre-crisis rates for a protracted period of time, it argues that: (i) the effects of the trade collapse on manufactured exports from developing and transition economies may be indicative of a less favourable external trade environment for these countries for a number of years to come; and (ii) possible ensuing slower demand growth in the developing and transition economies that have a large proportion of manufactures in their exports, combined with weak growth in developed countries, may also reduce the export earnings of economies that rely mainly on exports of primary commodities. In evaluating possible future developments in the latter countries' export earnings, this section further suggests that this could depend to a large extent on whether commodity prices are in a so-called "super-cycle", and if so, at what point in the cycle they are currently situated. While economic activity in developed countries clearly has a direct impact on primary commodity price developments, its largest impact may be indirect and linked to its effect on the pace of industrialization and urbanization in developing and transition economies whose growth trajectories have been supported by exports of manufactures to developed-country markets. Section C focuses on manufactures, and examines which categories may be particularly affected by weak demand growth in developed countries.

Section D considers economic growth from a demand-side perspective. It begins from the main conclusion of the previous section, that the scope for a switch towards a more balanced growth strategy is greatest for those countries which have relied significantly on exports of manufactures to developed countries. It then builds on an examination (presented in the annex to this chapter) of what such a switch from an export-oriented to a more domestic-demand-oriented growth strategy would entail in economic terms. It discusses the possible implications for countries' balance of payments and for product-specific demand patterns resulting from an acceleration of expenditure in the different components of domestic demand (i.e. household consumption, investment and government spending). Particular attention is given to household consumption expenditure, which is by far the largest component of domestic demand, generally accounting for between half and three

quarters of aggregate demand. Therefore, an increase in this component would appear to be indispensable for sustained growth based on a strategy that places greater emphasis on domestic demand. The section also underlines the importance of both government spending and, especially, investment for boosting demand growth. This is particularly true for many countries in Latin America, where, despite a more rapid pace of gross fixed capital formation starting in the early 2000s, the share of investment in gross domestic product (GDP) has remained relatively low and constrains their potential growth. But it is also true for other developing countries, especially in East Asia, where investment is required in order to switch domestic supply capacities to meet changing demand patterns that are driven by rising household consumption expenditure.

The following are the main findings of this section. First, a more balanced growth strategy with a larger role for domestic demand needs to be based on the creation of domestic purchasing power through additional employment and wage-earning opportunities. Second, it is necessary to manage domestic demand expansion to prevent an excessive increase in demand for imports arising from a switch in growth strategy, which, coupled with lower export growth, might cause a deterioration in the trade balance. Third, nurturing the interrelationship between household consumption and investment will be of crucial importance in a shift towards a more balanced growth strategy. Investment needs to be increased, not only to create the jobs and incomes necessary for sustained growth of household consumption expenditure, but also to enable changes in the sectoral composition of domestic production so that it responds to sales opportunities arising from new demands by domestic consumers. The latter is true especially for large countries, while for small countries an increase in regional and South-South trade is likely to be of particular importance.

Section E discusses the policy implications of these findings at both the national and international levels to help smoothen the transition from one growth strategy to another. It emphasizes that the major policy challenges facing developing and transition economies differ significantly from those facing the developed economies. The latter still need to focus on consolidating their weakened financial systems and on demand management in an effort to return to a path of sustained economic growth, high

levels of employment and socially acceptable distributional outcomes. Succeeding in this task would also have global benefits. It would maintain, and even enlarge, the kind of export opportunities that underpinned much of the successful growth of developing and transition economies during the pre-crisis period. However, such an outcome is unlikely to occur for several years to come because, to a large extent, exports of developing and transition economies to developed-country markets during the decade before the onset of the Great Recession relied on unsustainable policy stances in the developed countries.

It is clear that developing and transition economies should not neglect demand management; rather, they should maintain policies aimed at both strengthening growth and employment creation and at reducing domestic and external vulnerabilities. Nevertheless, the policy stance of developing countries needs to adapt to an external economic environment characterized by slow recovery and weak growth in developed economies. Such adaptation implies the need for a gradual shift in the relative importance of external sources of growth towards a greater emphasis on domestic sources.

---

## B. Global trade shocks and long-term trends: terms-of-trade and volume effects

---

Countries exporting primary commodities are generally believed to be particularly sensitive to changes in the global economic environment for two reasons. One reason relates to commodity prices, which experience frequent and often sharp fluctuations. Another concerns volumes, and the fact that the income elasticity of demand for primary commodities is lower than that for manufactures. This means that demand prospects for exporters of manufactures tend to be more favourable than those for exporters of primary commodities as world income rises. This section examines the price and volume effects of the collapse of global trade in 2008–2009 and prospects for the future growth of demand for primary commodities and manufactures respectively.

### 1. Volume and price components of external trade shocks

---

Greater trade openness has helped promote economic growth in a number of countries, but, increasingly, it has also become a primary channel for the transmission of external shocks. Economic

downturns in developed countries cause sharp contractions in global demand and reduce the export opportunities of developing countries. This can result in an external trade shock for developing countries, reflected in a decline in their export volumes and changes in their terms of trade (i.e. the change in a country's average export price relative to its import price). The impact of such external trade shocks varies considerably across regions and individual countries, depending on their pattern of export specialization.

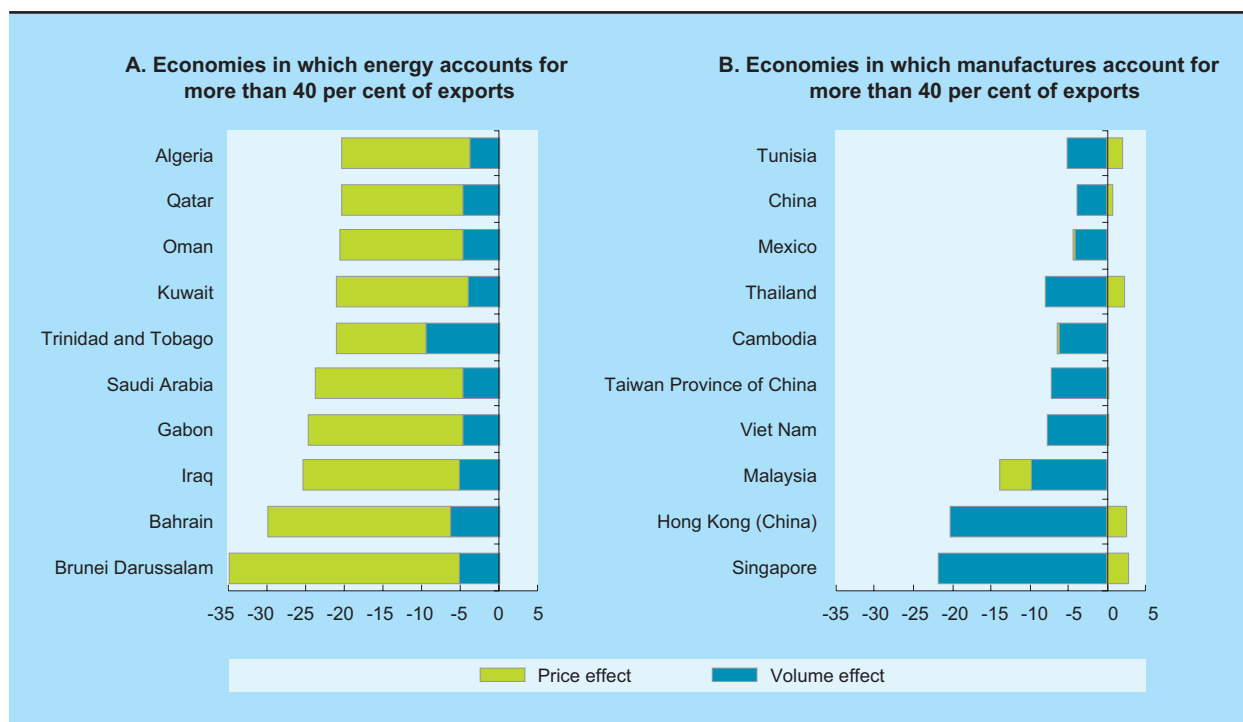
The collapse of world trade in 2008–2009 caused a deterioration in the terms of trade of countries whose exports are heavily concentrated in energy, and countries that export mainly manufactured goods experienced negative volume effects (chart 2.1).<sup>1</sup> Terms of trade and volume changes were equally important in countries which export predominantly minerals and metals, as in countries whose exports are either diversified or concentrated in agricultural products.

The remainder of this section examines issues related to changes in the prices of primary commodities before turning to demand prospects for manufactured exports from developing countries.

Chart 2.1

**THE GLOBAL TRADE COLLAPSE OF 2008–2009:  
MOST AFFECTED ECONOMIES, BY EXPORT SPECIALIZATION**

(Trade shocks as a percentage of GDP)



Source: UN-DESA, 2009.

## 2. Recent movements in the terms of trade

Price movements of internationally traded goods affect an individual country's gains from international trade, or its terms of trade. The extent of gains or losses resulting from changes in the terms of trade depends on the composition of the country's trade basket and the relative importance of foreign trade in its gross domestic product (GDP). Primary commodity production and exports are generally believed to offer limited opportunities for economic growth and development mainly because of a long-running deterioration in the terms of trade of primary commodities versus manufactures (i.e. a declining trend in the prices of primary commodities vis-à-vis those of manufactures) (chart 2.2). Other dimensions of the "commodity problem" relate to high price volatility and the concentration of market structures

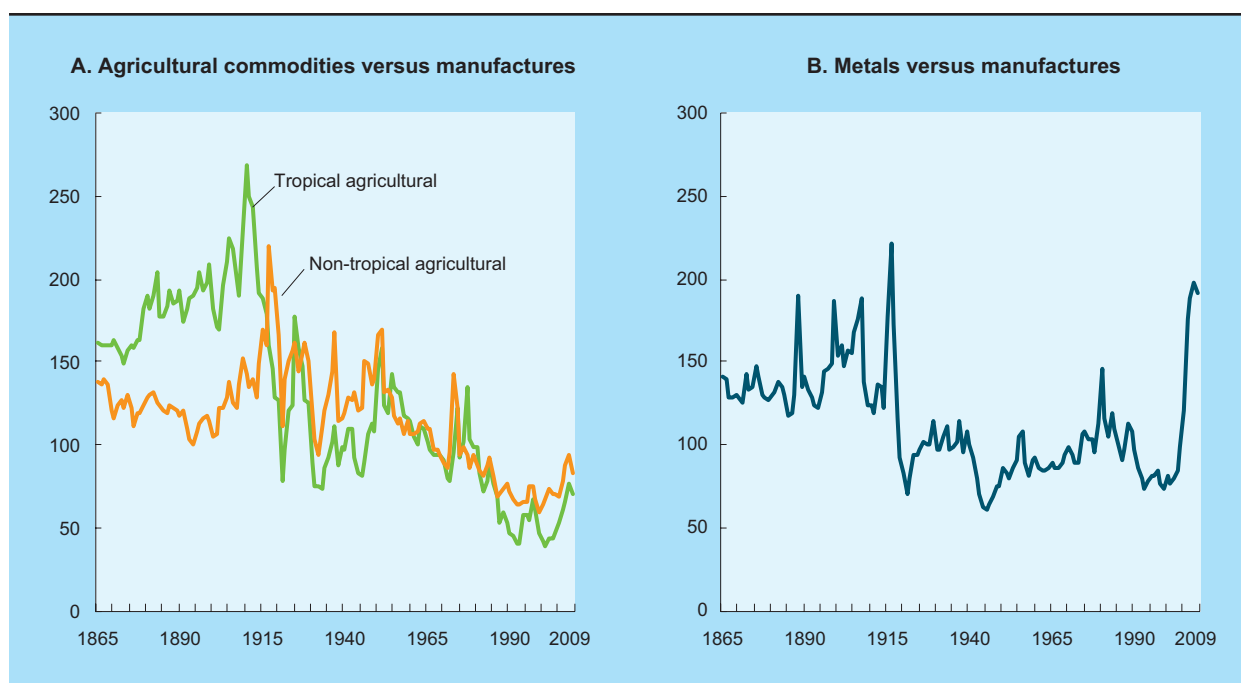
that limits the share of the final price accruing to producers.

Since the turn of the millennium there has been a significant improvement in the terms of trade for commodity exporters vis-à-vis exporters of manufactures, which has also contributed to faster economic growth in commodity-exporting countries. The commodity price boom over the period 2002–2008 and another rapid rebound following a sharp price decline in 2008–2009 (see chart 1.2 and table 1.3 in chapter I) reflect a change in the commodity price trend, at least temporarily, from declining towards rising prices; but they also reflect a decline in world prices of certain, especially labour-intensive, manufactures. This turnaround is related to two structural changes in international trade in which developing countries have played a major role: first, a number of developing countries, notably China, have emerged as major consumers and importers of commodities;

Chart 2.2

### TRENDS IN THE TERMS OF TRADE, SELECTED PRIMARY COMMODITY GROUPS VERSUS MANUFACTURES, 1865–2009

(Index numbers, 1970–1979 = 100)



Source: Ocampo and Parra, 2010.

and second, manufactures now account for a sizeable share of some developing countries' export baskets.

Terms-of-trade trends for different groups of developing countries have tended to diverge (chart 2.3), depending on the composition of their respective exports and imports. Those developing countries whose oil and mineral and mining products account for a sizeable share of total exports experienced the largest gains from higher commodity prices vis-à-vis manufactures since the early 2000s. Oil exporters saw their terms of trade more than double in the past decade, implying that the prices of their exports grew more than twice as fast as the prices of their imports. Mirroring these trends by geographical area, the country groups that saw the largest terms-of-trade gains were the transition economies, Africa and West Asia. Similarly, Latin America registered significant terms-of-trade gains, although more moderate because of a relatively more diversified trade structure. The terms of trade

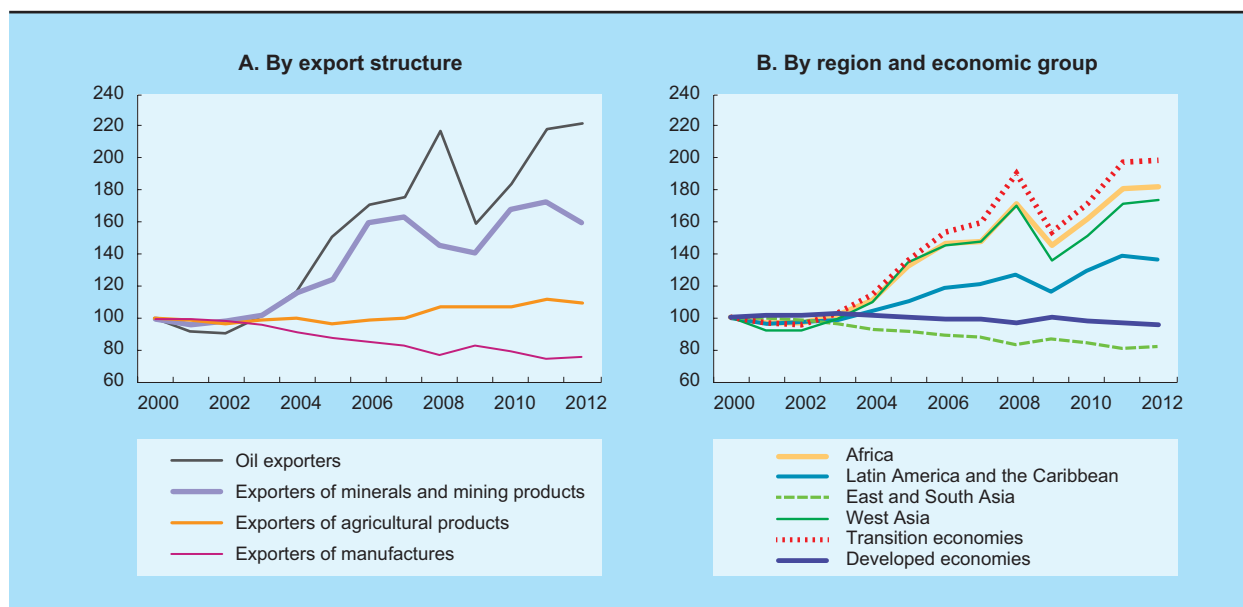
of exporters of agricultural commodities showed a slightly rising trend, reflecting both dissimilar price developments for different agricultural products (i.e. tropical beverages, food and agricultural raw materials) and the different weights of food and fuel imports in their import baskets. On the other hand, developing countries that are major exporters of manufactures, mainly those in East and South Asia, have experienced terms-of-trade losses since 2000.<sup>2</sup>

In 2010 and 2011, the terms of trade of commodity exporters recovered from the commodity price slump of 2009 in what appeared to be a continuation of the rising trend since the early 2000s (chart 2.3A). However, in 2012 their terms of trade stalled as a result of a decline of commodity prices from their peaks in 2011 (see discussion about recent commodity price developments in chapter I). Whether this represents just a pause or a reversal of the rising trend in their terms of trade during the 2000s is the focus of the next section.

Chart 2.3

## NET BARTER TERMS OF TRADE, 2000–2012

(Index numbers, 2000 = 100)



Source: UNCTAD secretariat calculations, based on *UNCTADstat*.

Note: Data for export structure refer to developing and transition economies.

### 3. Factors affecting commodity prices: is a supercycle petering out?

Commodity prices are influenced by a complex interaction of multiple factors, which can span different time periods and can affect the volatility and/or the trend level of those prices. Commodity price developments are determined by the fundamentals of physical supply and demand of commodities, as well as by the greater participation of financial investors in primary commodity markets, because commodities are increasingly considered a financial asset. Another factor influencing commodity prices, which are normally denominated in United States dollars, is the evolution of the exchange rate of the dollar. There are also some factors specific to a particular commodity market, while others affect all primary commodities. Furthermore, it is not only market-related factors, but also economic policy and political aspects that matter. For example, geopolitics can have a very significant influence on the evolution of oil prices. While a precise measurement of the influence of each individual factor on the dynamics of commodity

prices is fraught with difficulties, especially for price forecasting, the objective of this section is to provide a broad assessment of the likely trend of commodity prices over the next one or two decades.

During the past decade, commodity markets have experienced substantial structural changes. One such change is the increasing presence of financial investors in commodity markets (see also *TDR 2009*, chap. II; *TDR 2011*, chap. V). Financial investments have a significant impact on price volatility and may cause extreme price changes in the short term; for instance, the commodity price surges in 2007 and the first half of 2008 were most probably linked to a speculative bubble, which burst with the collapse of prices in the second half of 2008 following the onset of the global financial crisis. A second major structural change, associated with the underlying physical market fundamentals, is the increasing demand for commodities in rapidly growing developing countries, notably China.

The latter factor, which is the main focus of this section, has more of an influence on the longer



term trend of commodity prices. On the demand side, it has underpinned the sustained increase in commodity prices since 2003 that was interrupted only in 2008–2009 by a sharp fall in prices following the eruption of the global financial crisis. On the supply side, the historically low price levels of the 1990s led to a long period of underinvestment in production capacity. As a result, and due to increasing production constraints, supply was slow to react to rising demand. Consequently, with stocks generally declining, the trend was for prices to significantly increase. The tight structural supply and demand balances of many commodities also paved the way for other factors from the financial sector and policy side to lead to excessive price volatility.

Some observers have identified the commodity price surge between 2002 and 2011–2012 as the expansionary phase of a commodity “supercycle” – i.e. a trend rise in the prices of a broad range of commodities which may last two decades or more. It is associated with rising demand in a major country or groups of countries resulting from their process of industrialization and urbanization (Heap, 2005; Standard Chartered, 2010; Erten and Ocampo, 2012; Farooki and Kaplinsky, 2012).<sup>3</sup> The current supercycle has been characterized by rapid economic growth, industrialization and urbanization in a range of developing countries, among which China has played a particularly strong role because of the large size of its economy. Economic growth in China has been extremely natural-resource-intensive, partly driven by high levels of investment, especially in infrastructure and construction, and by the rapid growth of manufacturing, which generally demands more raw materials and energy than growth in the services and agricultural sectors. Consequently, China has become the world’s leading consumer of many primary commodities, accounting for more than 40 per cent of global consumption of several commodities (table 2.1). At the same time, it is also a major producer of a number of commodities. But while Chinese commodity production increased during the first decade of the 2000s, this was not always sufficient to meet the rising demand. As a result, China has become a major importer of some commodities (ECLAC, 2012: box II.3), notably iron ore and soybeans. Indeed, it accounts for about 60 per cent of total world imports of both these commodities. China is also a major importer of other metals such as copper and nickel, and of agricultural raw materials such as cotton and natural rubber. Demand

for commodities strongly increased in other rapidly growing developing countries as well, but to a much lesser extent (table 2.1). And in developed countries, demand for some commodities declined between 2002 and 2012.

The increasing role of China on global commodity markets is due not only to the large size of its economy but also to the nature of its growth. It is for this reason that the recent slowdown in Chinese growth as well as its process of growth rebalancing, involving less reliance on exports and investment and greater efforts to promote domestic consumption, have reignited the debate on whether the expansionary phase of the commodity supercycle might be coming to an end. The lower average annual commodity prices of 2012 compared with those of 2011 could be considered an indication of such a possibility. Certainly, prices will stop rising at some point as supply and demand adjust; eventually they will reach an upper limit whereupon there will be demand destruction, substitution and technological advances in search of greater efficiency of use, and/or increases in supply as a response to high prices. However, the question that remains unresolved is whether such a turning point has been reached or whether the expansionary phase of the supercycle still has a number of years to run. If indeed the turning point has been reached, an additional question is whether commodity prices will plunge in a descendent phase of the supercycle, or whether they will remain at relatively high levels. In the latter scenario, the rise in commodity prices should be seen more as an upward shift than as the expansionary phase of the cycle.

Historical evidence shows that price trends have been closely related to the evolution of global economic activity and aggregate demand, particularly for metals (Erten and Ocampo, 2012). Episodes of rising prices have normally ended in price collapses when demand has fallen as a result of a deceleration of global growth or a recession. A similar outcome could be expected in the current context if global economic growth remains weak due to slow growth or stagnation in developed economies. However, the analysis of commodity consumption in table 2.1 clearly shows that the rise in commodity prices in the 2000s was strongly determined by developments in developing countries. It is therefore the growth outlook for these countries that matters most for future commodity demand trends. In particular, this implies that if China were to continue to depend on its exports

Table 2.1

**CONSUMPTION OF SELECTED COMMODITIES, BY REGION AND ECONOMIC GROUP, 2002–2012**  
(Per cent)

A. Consumption growth between 2002 and 2012													
	China		Other Asia and Oceania, developing		Africa		Latin America and the Caribbean		Transition economies		Developed economies		World total
Aluminium	392.7		105.2		101.8		54.6		-13.0		-4.4		78.5
Copper	223.0		12.6		70.2		32.4		88.3		-23.4		35.8
Nickel	894.1		-2.5		-9.1		-14.6		-4.8		-22.0		48.0
Cotton	24.4		31.4		-21.4		3.1		-13.6		-67.6		9.6
Corn	66.4		40.8		50.4		42.7		48.2		24.5		39.6
Meat, swine	26.6		31.3		99.2		38.7		34.4		-0.5		17.8
Rice	6.1		18.0		61.2		9.1		14.2		5.3		15.0
Wheat	16.9		19.4		42.6		14.9		-2.4		4.2		13.0
Soybeans	117.7		60.8		109.8		37.8		272.6		-12.7		36.5
Oil	95.4		33.9		36.3		25.2		18.8		-8.1		13.5
B. Contribution to global consumption growth between 2002 and 2012													
	China		Other Asia and Oceania, developing		Africa		Latin America and the Caribbean		Transition economies		Developed economies		World total
Aluminium	81.1		18.4		1.8		2.8		-0.7		-3.4		100
Copper	113.4		6.9		1.9		4.8		7.4		-34.5		100
Nickel	132.3		-1.0		-0.6		-0.7		-0.3		-29.7		100
Cotton	74.9		135.4		-6.5		2.5		-5.0		-101.2		100
Corn	33.7		10.4		10.0		14.2		3.2		28.5		100
Meat, swine	69.8		10.3		1.5		11.2		8.3		-1.0		100
Rice	13.6		64.6		17.6		2.5		0.3		1.4		100
Wheat	22.6		40.9		23.4		6.0		-2.4		9.5		100
Soybeans	59.6		13.3		2.3		34.3		4.2		-13.6		100
Oil	48.2		53.1		9.1		16.2		6.9		-33.4		100
C. Share in global consumption													
	China		Other Asia and Oceania, developing		Africa		Latin America and the Caribbean		Transition economies		Developed economies		
	2002	2012	2002	2012	2002	2012	2002	2012	2002	2012	2002	2012	
Aluminium	16.2	44.8	13.7	15.8	1.4	1.6	4.0	3.5	4.4	2.2	60.2	32.3	
Copper	18.2	43.3	19.8	16.4	1.0	1.2	5.2	5.1	3.0	4.2	52.7	29.8	
Nickel	7.1	47.7	19.8	13.1	3.1	1.9	2.3	1.3	3.0	1.9	64.7	34.1	
Cotton	29.7	33.6	41.6	49.8	2.9	2.1	7.8	7.4	3.6	2.8	14.4	4.3	
Corn	20.1	23.9	10.1	10.2	7.9	8.5	13.2	13.5	2.6	2.8	46.1	41.1	
Meat, swine	46.5	50.0	5.8	6.5	0.3	0.5	5.1	6.0	4.3	4.9	37.9	32.0	
Rice	33.4	30.8	53.9	55.3	4.3	6.1	4.2	3.9	0.3	0.3	3.9	3.5	
Wheat	17.5	18.0	27.5	29.1	7.2	9.1	5.2	5.3	12.9	11.1	29.7	27.4	
Soybeans	18.5	29.5	8.0	9.4	0.7	1.2	33.1	33.4	0.6	1.5	39.1	25.0	
Oil	6.8	11.7	21.1	24.9	3.4	4.0	8.7	9.6	4.9	5.1	55.2	44.7	

**Source:** UNCTAD secretariat calculations, based on *World Bureau of Metal Statistics Yearbook 2013*; *BP Statistical Review of World Energy 2013*; and United States Department of Agriculture (USDA), *Production, Supply and Distribution* online database.

for growth, it is very likely to experience a further deceleration of growth as a result of lower exports to developed countries. This could in turn have a strong negative impact on commodity prices. However, if China succeeds in rebalancing its growth through an increase in domestic consumption, prospects for commodity demand and prices will be better.

Favourable demand conditions would also depend on the capacity of other highly populated and rapidly growing developing countries to move to a more commodity-intensive phase of economic growth and industrialization. This again should be based on the development of domestic markets in large developing countries such as India and Indonesia. Indeed, the share of the economies that are at the commodity-intensive stage of development doubled during the first decade of the 2000s, and now represents about 44 per cent of total GDP (Bloxham, Keen and Hartigan, 2012). The following subsection takes a closer look at the main drivers of demand in rapidly growing developing countries, the potential supply response and the prospects for commodity prices.

**(a) Forces driving demand for commodities in rapidly growing developing countries**

**(i) Population and income growth and rising demand for food**

Demand for food depends on population and income growth. The world's population increased by about one billion between 1999 and 2012, to reach a total of more than 7 billion people. Developing countries accounted for 95 per cent of this population increase, of which China and India alone contributed about one third. Although population growth is expected to slow down over the next decade, globally it is projected to increase by about 600 million up to 2020. Developing countries will continue to account for the bulk of the increase in the global population, though this will vary by region. The contribution of developing countries in Asia to population growth is expected to decrease from 58.6 per cent in 1999–2012 to 51.2 per cent in 2012–2020. China's contribution is set to fall from 11.5 per cent to 5.7 per cent, while that of India should remain stable at about 22 per cent. Africa's contribution is expected to increase from 27.6 per cent to 34.4 per cent over the same period, while that of Latin America is likely to remain stable at around 8 per cent (UNCTADstat).<sup>4</sup> The growing

population implies a greater demand for food, especially because the share of food in total household expenditures is higher in developing countries than in developed countries. This will require an increase in food production.

Demand for specific food items is strongly determined by the evolution of incomes and living standards. At low levels of per capita income, income growth mainly translates into increased calorie intake, and it is primarily the consumption of staple foods such as rice and wheat that will rise. Further income growth is typically associated with a shift in dietary consumption patterns. Consumers demand food with higher nutrient and protein content, including meat and dairy products and fruit and vegetables (*TDR 2005*, chap. II). According to the Food and Agriculture Organization of the United Nations (FAO, 2012a: 17), between the early 1990s and the end of the past decade, the shares of cereals, roots and tubers declined significantly worldwide, whereas the shares of fruit and vegetables and animal products, including fish, increased. However, the evolution of dietary changes diverged among regions. The share of cereals increased in Africa while it declined in Asia. By contrast the share of meat was significantly higher in Asia and Latin America. In China, during the period 2000–2010, total expenditure on food items continued to increase but its share in total living expenditure continued to decline. Per capita consumption of staple foods, mainly rice and wheat, followed a declining trend, while that of higher value foods, especially foods of animal origin, increased (Zhou et al., 2012).

Unlike for other commodities, the direct impact of demand for cereals in China on global demand and imports of cereals is likely to have been modest, particularly for rice (table 2.1). Apart from the decline in per capita cereal consumption, China and India have been pursuing a policy of self-sufficiency. Therefore their influence on global markets has been limited. However, the increase in Chinese grain imports since 2010, as reported in UN Comtrade statistics, may indicate that the country's self-sufficiency policy is reaching its limits.<sup>5</sup> The most significant impact of China on global food demand is in soybeans, as both Chinese consumption and imports of this commodity have increased significantly over the past decade. Demand for soybeans used as animal feed increased as a result of higher meat consumption. Demand for meat in China increased by 27.3 per

cent between 2002 and 2010, so that twice as much meat is consumed in China as in the United States. Over the same period, the consumption of milk in India increased by 43.7 per cent (Brown, 2012). Higher demand for animal products exerts increased pressure on the production of feedstock. While the amount of grain fed to animals depends on farming techniques and the efficiency with which various animals convert grain into protein, which varies widely, it takes several kilos of grain to produce one kilo of meat. Generally, these trends are likely to continue over the next decade. Furthermore, the United States Department of Agriculture (USDA, 2013) projects a steady rise in China's imports of corn.

(ii) *Intensity of commodity use in the industrialization process*

China's growth process during the past decade has been characterized by a high and increasing intensity of use of commodities, particularly metals (i.e. a growing volume of metals consumed per unit of output). This is typical of a stage of rapid industrialization, wherein metals are increasingly required as input for growing manufacturing activities, including the production of consumer durables to meet rising demand, and for the construction of housing and physical infrastructure. At a certain point, this intensity of use should start to decelerate as the services sector grows in importance and contributes to an increasing share of the economy. Thus, intensity of use tends to follow an inverted U-shaped pattern as per capita income rises: it first rises as the economy moves from agricultural to manufacturing activities and then falls with an increased participation of services (*TDR 2005*, chap. II).

It may well be that the intensity of use of some metals in China is close to reaching, or has already reached, its peak, and therefore should be expected to slow down in the next few years, as argued by some observers (e.g. Nomura, 2012). However, China's per capita consumption of metals is relatively low (Farooki and Kaplinsky, 2012). This implies that metal consumption could remain robust, although it might grow at a slower pace. Moreover, although China's GDP growth is expected to slow down, it could continue to have a considerable impact on global markets, given the size of this economy. Given its high rates of growth over the past decade, the size of the Chinese economy in 2012 was much larger than it was in the early years of the commodity

boom. Therefore, even at a GDP growth rate of 7 or 8 per cent, China might have a similar impact on commodity markets as it did in previous years when it grew at around 10 per cent (see also CBA, 2012).

A major reason for the increasing intensity of metal use in China is that its rapid industrialization and growth, along with urbanization, have been supported by rising rates of investment in fixed capital, particularly in infrastructure and construction. These high rates have given rise to some concerns about the possibility of reaching overcapacity and the emergence of bubbles, for example in the real estate sector. However, it is worth noting that it is not only the rate of investment, but also the stock of fixed capital per capita, that counts in assessing whether investment may be excessive. Some observers argue that the stock of capital in China is still relatively small (Aglietta, 2012). Thus, the intensity of metal use is likely to remain high, even though the growth rebalancing process may result in an adjustment of the investment rate. Moreover, as the rebalancing process will not be accomplished overnight, eventual changes in commodity demand are likely to be gradual.

In addition, on balance, any potential negative impact of the growth rebalancing process in China on global commodity demand will largely depend on the extent to which demand from other rapidly growing developing countries rises. A number of countries which so far have exhibited a lower intensity of use of metals than China could move to a growth phase involving their more intensive use. If large and highly populated countries, such as India and Indonesia, were to follow China's industrialization path of the last decade, prospects for the demand for metals could remain robust. As it is unlikely that this demand will be based on exports to developed countries to the same extent as has been the case in China over the past two decades, much will depend again on the expansion of domestic demand in developing countries. Overall, infrastructure needs remain high in China as well as in other rapidly growing developing countries, a point that is briefly discussed in the next subsection.

(iii) *Urbanization and infrastructure needs*

Structural change and industrialization processes run parallel to that of urbanization, as the labour force moves from the agricultural to the manufacturing sector and thus from rural areas to cities. According

to estimates by the United Nations (UN-DESA, 2012), the share of the urban population in the total population in China rose from 35.9 per cent in 2000 to 49.2 per cent in 2010, and it is expected to reach 55.6 per cent in 2015 and 61 per cent in 2020. This is still far below the urbanization rates in developed countries, which are projected to increase from about 75 per cent in the period 2001–2010 to around 80 per cent in 2020. According to Aglietta (2012), 400 million people living in the rural areas in China are expected to move to the cities between 2012 and 2030. Furthermore, 200 new cities of between 1 and 5 million inhabitants are expected to be built to develop the central and western areas of the country. However, this process will need strategic planning to be sustainable. The announced speeding up of reform of the *hukou* (household registration) system should help advance the urbanization process.<sup>6</sup> In addition to the construction of housing and other buildings, it involves the development of transport infrastructure, not only within the cities but also to link different cities, as well as other types of services infrastructure needed for the provision of energy and communications. Berkelmans and Wang (2012) expect Chinese residential construction to remain robust for the next couple of decades. Infrastructure needs are also likely to remain high, extending beyond the projects launched with the fiscal stimulus of September 2012.

In other developing countries the process of urbanization can also be expected to continue rapidly. The rate of urbanization in developing countries in Asia grew from 35.5 per cent in 2000 to 42.6 per cent in 2010, and is projected to reach 49.1 in 2020. In Africa, the respective rates of urbanization for these years are 35.5, 39.1 and 43.1 per cent. Urbanization rates in Latin America are much higher, at levels close to those of developed countries. Thus there is strong potential for an increase in demand for commodities by many developing countries in order to meet the development needs associated with urbanization, particularly for infrastructure development (Lawson and Dragusanu, 2008).

(iv) *Increasing demand for energy and the fuel-food linkage*

As noted above, economic growth and industrialization in rapidly growing developing countries are energy intensive. Increasing energy use is also associated with rising living standards. China, for

instance, became the biggest energy consumer in the world in 2010, with its share in global primary energy consumption rising from 8 per cent in 1990 to 20 per cent in 2010 (Coates and Luu, 2012). Coal is its main energy source, but the share of coal in China's total energy consumption is expected to decline with a shift to cleaner energy sources. In the medium term, oil is likely to remain the main energy source for transportation. Indeed, demand for oil for transportation will continue to increase in parallel with rising demand for automobiles in China and other developing countries. While the share of China in global oil consumption and imports is not as high as for other commodities, it accounts for a large share in the growth of global demand for oil (table 2.1). Demand from developing countries, led by China and India, has driven global energy markets over the last decade. For example, between 2002 and 2012, demand for oil increased by 44.4 per cent in non-OECD countries, while it declined by 6.4 per cent in OECD countries. As a result, the share of non-OECD countries in global oil consumption increased from 39.1 per cent to 49.8 per cent (BP, 2013). Although improvements in energy efficiency are expected to contribute to a continued decline in energy use per unit of GDP, the rising demand for energy in rapidly growing developing countries will persist over the next few decades, though at slower rates than in the past decade (BP, 2011).

Surging demand for energy, high oil prices and the search for alternative sources of energy to tackle climate change have boosted demand for biofuels. These include ethanol, which is produced mainly from maize and sugar, and biodiesel, derived from oilseeds. Indeed, an increasing proportion of food crops are now grown for biofuels, leading to increasing competition for different land uses: for food, feedstock for animals and fuel, and for agricultural raw materials such as cotton. The rapid expansion of biofuel production is concentrated in a few areas. According to the FAO (2012b), by 2012 ethanol production absorbed over 50 per cent of the sugar cane crop in Brazil and 37 per cent of the coarse grain crop in the United States. Biodiesel production accounted for almost 80 per cent of the crops grown for vegetable oil production in the European Union (EU). Corn used for ethanol production in the United States reached 44.3 per cent of total corn use, up from only 12.6 per cent in 2002.<sup>7</sup> Government policies, such as mandates and subsidies or other kinds of support, have played a very important role in pushing

this expansion of biofuel production. Without such support, it is doubtful whether such production would be profitable in some areas like the European Union and the United States. It is expected that demand for feedstock for biofuel production will continue to grow over the next decade (OECD-FAO, 2013; USDA, 2013).

### (b) Supply response

The rapidly growing demand for commodities starting from the early 2000s pushed up prices, because, during the first years of the boom, supply was slow to respond. The extractive industries, in particular, which had experienced a long period of underinvestment, were taken by surprise. The mining and oil industries are capital-intensive, and it is only after several years that returns on investments are realized, as it takes a long time from the initial exploration until a mine or an oil deposit actually becomes productive. Moreover, increasingly, this sector is facing supply constraints because the more easily accessible deposits are becoming mature or exhausted. Consequently, exploration is forced to move to more remote areas or dig deeper to find and extract the resource. Mineral ore grades have been decreasing and it is more difficult to process more complex ores. In addition, there has been a shortage of supply of specialized labour in this sector. Added to this, production costs have risen as a result of the need to comply with increasingly stringent environmental requirements.

Overall, these constraints on supply and the rising production costs have contributed to reducing the efficiency of investment in the extractive industries. Nevertheless, investments in exploration have been rising significantly over the past decade, although there was a setback in 2010–2011 that reflected difficulties related to the global financial crisis. According to the Metals Economics Group (MEG, 2013), global exploration budgets increased from about \$2 billion in 2002 to \$21.5 billion in 2012. This investment allowed supply to increase and even led to surpluses in some metals markets (Smale, 2013). Even the copper market, which has been particularly tight over the past decade, is moving into surplus. However, in the current uncertain macroeconomic environment, it is unclear whether further financing for exploration will be forthcoming. This may delay projects, leading to lower production over the next few years.

Overcoming supply constraints in the energy and mining sectors depends strongly on technological innovations. One such innovation is the development of horizontal drilling and hydraulic fracturing techniques (known as fracking) in the oil and gas sector. Such technological advances, achieved mainly in the United States, have the potential to significantly change the global energy landscape. They have enabled that country to substantially increase its production of oil and gas, and could result in it becoming the world's leading oil producer by 2020 (IEA, 2012a). This would also reduce the United States' dependence on energy imports, which currently meet around 20 per cent of its total energy needs. Consequently, it would provide an additional push to the ongoing eastward shift in the international oil trade. It would also contribute to reducing global imbalances, as energy imports have been a major factor contributing to the United States trade deficit over the past few years (*TDR 2010*: chart 2.5). There are indications that these new developments are already affecting the oil exports to the United States of some major African oil-producing countries, such as Algeria, Angola and Nigeria.<sup>8</sup> It is still unclear whether the so-called "US shale gas revolution" can be replicated in some other countries. Moreover, the application of the new technologies remains controversial on environmental grounds, mainly with regard to water pollution.<sup>9</sup>

Agriculture also faces significant supply constraints. The two main ways to increase agricultural production are by expanding the cultivated area and increasing crop yields. However, the potential to increase arable land is limited (FAO, 2011) as is the availability of water for agriculture. And these resources are particularly scarce in those countries that are most in need of increasing their food production. Therefore, the other option is to improve agricultural yields. However, the pace of growth of agricultural productivity has been slowing in recent decades. The average annual rate of growth of grain yields declined from 2.2 per cent during the period 1950–1990 to 1.3 per cent during the period 1990–2011 (Brown, 2012). This decline partly reflects the failure of development policy reforms adopted during the 1990s, which led to a neglect of the agricultural sector such as expressed by reduced official development assistance (ODA) to this sector and less government involvement in developing countries, following structural adjustment programmes agreed with the international financial institutions. A major

area of neglect related to investment in research and development. Indeed, agricultural productivity could be increased by reducing productivity gaps in developing countries (OECD-FAO, 2013) through greater investment in agriculture. In addition, higher prices of energy and other input costs, such as fertilizers and pesticides, have acted as additional constraints on agricultural production.

The supply of food and other agricultural products is also highly dependent on weather conditions, which contribute to short-term price volatility. For example, a severe drought in the United States in the summer of 2012 adversely affected the production of grains and soybeans leading to a third price spike since the global food crisis in 2008. There are also increasing concerns about the impact of climate change on agricultural production. Some of the weather-related disruptions in food supply, their higher frequency, and the slower growth of agricultural yields might partly be associated with climate change. Indeed, some observers suggest that climate change may pose the greatest threat to agricultural production and food prices in the future (Oxfam, 2012).<sup>10</sup>

#### 4. Commodity prices: prospects

Projections about the evolution of commodity prices are particularly challenging given the high level of uncertainty in the current global economic environment. The minerals and metals sector faces the greatest downside risks due to new supply coming onstream just when demand growth from China appears to be decelerating. However, a supply crunch may reappear in a few years time. Regarding the oil sector, specialized energy agencies such as the International Energy Agency (IEA) and the Energy Information Administration of the United States see oil prices falling to slightly lower levels than those of 2011–2012, but nevertheless remaining historically high. In spite of still rising demand from some of the rapidly growing developing countries (although at a slower pace), market conditions should ease somewhat due to rising supplies of non-conventional oil. However, the production costs of these new supplies make them profitable only at relatively high price levels. In addition, the Organization of the Petroleum

Exporting Countries (OPEC) will likely continue to be a key force in influencing oil prices. Non-OECD countries are expected to remain the major sources of any increase in oil demand. Indeed, oil demand from these countries is expected to overtake that of OECD countries by 2014 (IEA, 2012b).

The outlook for the agricultural sector points to elevated prices. According to OECD-FAO (2013), agricultural commodity prices have become structurally higher, and are projected to remain firm over the next decade. This would be due to a combination of slower production growth and stronger demand, including for biofuels, as well as a supportive macroeconomic environment. Ethanol production is expected to increase by 67 per cent and biodiesel production by even more, but from a lower base. By 2022, biofuels will account for a growing share of the global production of sugar cane (28 per cent), vegetable oils (15 per cent), and coarse grains (12 per cent). On the supply side, growth of agricultural production is expected to slow down from an average rate of 2.1 per cent in 2003–2012 to 1.5 per cent in 2013–2022. Global projections by USDA (2013) similarly suggest that, following near-term declines, prices for corn, wheat, oilseeds and many other crops are set to remain at historically high levels.

Bearing in mind that forecasting commodity prices is a difficult task, particularly in the current global economic context, a possible scenario that can be derived from the above discussion is that, owing to slowing growth which could somewhat dampen the strong demand in China, commodity prices may not rise as fast as they have done in the past decade. Allowing for some downward adjustments in the short term, commodity prices should stabilize at a high plateau in comparison with the prices of the early 2000s.

There are three main viewpoints about the prospects for the commodity supercycle:

- The most optimistic observers hold that the expansionary phase of the supercycle still has many years to run, as China will continue along an intensive growth trajectory (Farooki and Kaplinsky, 2012; Coates and Luu, 2012). This will cause commodity prices to remain firm.
- Others argue that commodity prices have entered a calmer and more stable phase of growth, but will nevertheless remain at relatively high

levels or a “new normal” (Bloxham, Keen and Hartigan, 2012; Goldman Sachs, 2012).

- Yet others believe that the expansionary phase of the supercycle has come to an end (Credit Suisse, 2013; Citi, 2013).

However, there seems to be overall agreement that there will not be a permanent collapse of commodity prices or a quick return to a long-running

deteriorating trend over the next few years. Thus, exporters of primary commodities may be less adversely affected by systemic changes in the world economy than exporters of manufactures. As long as commodity prices remain at relatively high levels and commodity producers are able to appropriate a fair share of the resource rents, the main challenge for policymakers will be to ensure that revenues accruing from natural resource exploitation spur production and export diversification.

---

### C. Volume effects on exporters of manufactures

---

Several studies have examined product-specific patterns relating to the sharp fall in world trade that occurred between the third quarter of 2008 and the first quarter of 2009 (e.g. Bems, Johnson and Yi, 2010; Levchenko, Lewis and Tesar, 2010; Gopinath, Itskhoki and Neiman, 2012). These studies indicate that: (i) trade in goods fell more than trade in services and that trade in durable goods (such as automotive products and industrial supplies) fell more than trade in non-durable goods; (ii) the sharp fall in consumer durables and other differentiated goods (branded manufactures) was entirely in terms of volume, with no price reductions; and (iii) declines in real final expenditure were responsible for most of the collapse of international trade in 2008–2009 (e.g. Bems, Johnson and Yi, 2013). The latter finding suggests that changes in the pattern of international trade of manufactures in 2008–2009 may be more than a short-term phenomenon. The high probability of continued slow growth in developed countries’ final expenditure in the coming years, due to a prolonged slowdown in their growth rates, is likely to have a negative impact on the export opportunities of developing countries.<sup>11</sup>

These potential adverse effects may be assessed by examining the impact of declining imports by the United States. This is because the sizeable contribution to global growth of rapidly rising consumer demand in the United States was a main feature of the pre-crisis global economy. As discussed in some

detail in *TDR 2010*, chap. II, prior to the onset of the current economic and financial crisis, United States personal consumption, amounting to about \$10 trillion, represented around 70 per cent of that country’s GDP and about 16 per cent of global GDP; consumer spending also accounted for over 70 per cent of United States GDP growth during the period 2000–2007. Most importantly, imports of consumer goods, including automobiles, accounted for about 85 per cent of the increase in the United States’ non-energy trade deficit between 1997 and 2007. Over the same period, imports of non-food consumer goods, excluding automobiles, increased by about 150 per cent, boosting aggregate demand in the rest of the world by almost \$300 billion in absolute terms.

United States imports of consumer goods, especially the non-food categories (excluding automobiles), became sluggish in 2008 (chart 2.4). Between the first quarter of 1999 and the third quarter of 2008, these imports grew, on average, by almost 2 per cent per quarter, before declining sharply. They then experienced a rebound, starting in the first quarter of 2009, but have stagnated at their pre-crisis level over the past two years.

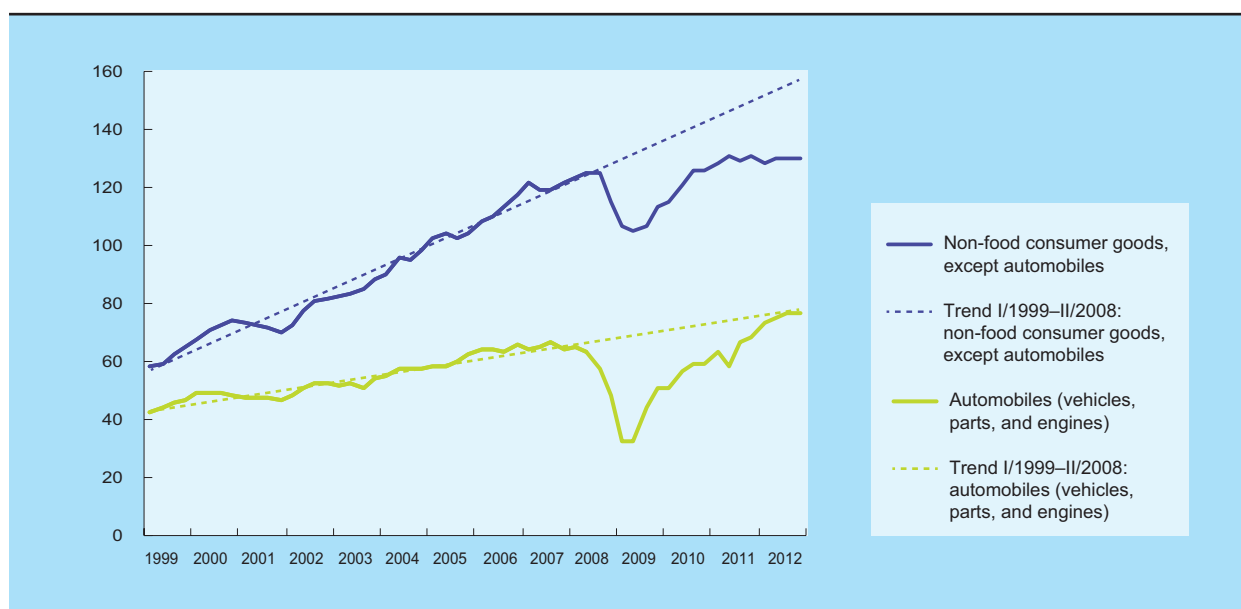
If imports of non-food consumer goods by the United States are disaggregated into durable (excluding automobiles), semi-durable and non-durable goods,<sup>12</sup> there is a clear indication that the loss of import dynamism in the United States matters



Chart 2.4

### UNITED STATES IMPORTS, SELECTED CONSUMER GOODS CATEGORIES, 1<sup>st</sup> QUARTER 1999–4<sup>th</sup> QUARTER 2012

(Billions of dollars)



**Source:** UNCTAD secretariat calculations, based on United States Bureau of Economic Analysis, *International Data*, table 2a.

**Note:** Data for 2012 fourth quarter are preliminary estimates. The trend growth rate for imports of automobiles is 0.6 per cent per quarter, while that of non-food consumer goods is 1.8 per cent per quarter.

for developing countries' export opportunities (chart 2.5). The durable consumer goods category, was the most dynamic of the three product groups, with United States imports tripling between 1997 and 2007. Given that China and Mexico combined accounted for 60 per cent of United States imports of such goods in 2012, a stagnation of demand in the United States at below pre-crisis levels could have a major impact on these two exporting countries. China accounts for more than half of United States imports of semi-durable consumer goods, which continues to be the largest among the three product categories in spite of the decline of its share from over 60 per cent in 1995 to about 45 per cent in 2012. Non-durable consumer goods (a major component of which is pharmaceuticals) is the only category that has moved rapidly back to its pre-crisis dynamism. However, developing countries account for only a small share of United States imports of this product category.<sup>13</sup> Taken together, this evidence suggests that transmission of the economic slowdown through the trade channel has adversely affected developing countries' exports of products such as apparel

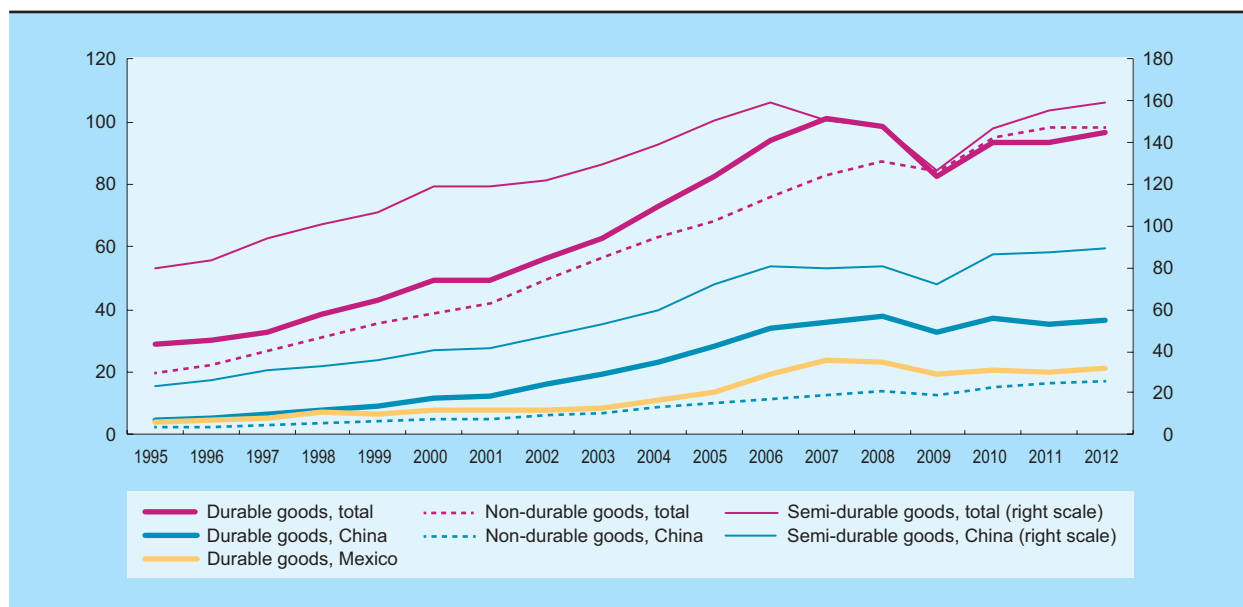
and household equipment to developed countries. Those exports had boosted growth in developing countries prior to the crisis and supported productive transformation.

An examination of data from the euro zone supports this finding. Following a decline in 2008–2009, euro-zone imports (excluding intra-euro-zone trade) of durable (excluding automobiles), semi-durable and non-durable consumer goods rebounded rapidly, and by 2010–2011 they had begun to exceed pre-2008 levels. However, the growth rate of these imports remains considerably lower than in the pre-crisis period: imports of semi-durable consumer goods, which represent more than two thirds of the euro zone's total imports of all these product groups, recorded an average annual growth rate of 12 per cent (and a growth rate of 23 per cent from China, which is by far the most important developing-country source, accounting for almost half of the euro zone's total imports of this product category) during the period 2002–2007, but only 10 per cent (8 per cent from China) during the period 2009–2011.

Chart 2.5

**UNITED STATES IMPORTS OF CONSUMER GOODS (EXCL. FOOD AND AUTOMOBILES),  
BY CATEGORY AND SELECTED SOURCE COUNTRIES, 1995–2012**

*(Billions of dollars)*



Source: UNCTAD secretariat calculations, based on *UN Comtrade*.

## D. Towards more domestic-demand-oriented growth strategies

The possibility of changing rapidly from an export-oriented growth strategy towards a more domestic-demand-oriented one depends largely on what extent the sectoral structure of domestic production is delinked from that of domestic demand. Such a dissociation will be particularly strong in countries that export a large proportion of primary commodities. However, it will also be substantial for other countries that produce sophisticated goods for exports destined for affluent consumers in developed countries, but which few domestic consumers can afford.

Natural-resource-rich economies have long attempted to weaken this dissociation by diversifying

their sectoral structure of production through an increase in manufactures. In those developing and transition economies where manufactures constitute a sizeable share of production and exports, the link between the sectoral composition of production and that of exports may well be strengthened by an increasingly globalizing economy in which domestic demand in developing and transition economies will have a greater weight in global demand, output and trade patterns. The ensuing change in the shape of the global distribution of consumption, with a smaller share of consumption by rich consumers and a larger share by lower and middle-income consumers, implies changes in preferences and a wider

variety of new spending patterns. This, in turn, will guide investment decisions and lead to changes in the sectoral focus of investment, with ensuing changes in the composition of domestic production and output.

Some of the issues associated with a change in growth strategies towards a greater role of domestic demand may be illustrated by the experience of Latin American economies following the Great Depression (box 2.1). The remainder of this section examines issues related to the divergence between the sectoral structure of exports and that of domestic demand, focusing on the balance-of-payments constraint. This is followed by an analysis of changes in the product composition of domestic demand as per capita incomes rise.

### **1. Domestic-demand-oriented growth and balance of payments**

Growth dynamics induced on the demand side sit uncomfortably with most of the existing growth theories, whether neoclassical or endogenous. These theories concentrate on the supply side and neutralize demand effects on long-term growth by assuming that the evolution of consumption of each good is proportional to income growth (i.e. changes in per capita income have no effect on the composition of product baskets).<sup>14</sup> By contrast, early development economists (e.g. Rosenstein-Rodan, 1943) emphasized that demand growth for a specific good, and the ensuing growing size of the market for that good, lead to increasing internal returns to scale in producing that good. Larger markets boost productivity either because of effects stemming from learning by doing (Matsuyama, 2002; Desdoigts and Jaramillo, 2009) or through innovations that allow the development of new methods of production to satisfy the rising new demands (Foellmi and Zweimüller, 2006 and 2008).

The resulting scale economies enable the goods to be produced at lower costs, to the benefit of either consumers or other industries that use those goods as inputs in production. As these goods become affordable to an increasingly large number of households and industries, the markets for these goods expand. This, in turn, induces “further improvement in productivity, creating a virtuous circle of productivity

gains and expanding markets” (Matsuyama, 2002: 1038).<sup>15</sup> But the productivity growth associated with increasing economies of scale may also be used for paying higher wages, rather than for reducing prices. The demand growth stemming from higher wages enlarges the size of the domestic markets for goods and services, which enables scale economies to spill over a wide range of industrial sectors. Murphy, Shleifer and Vishny (1989) developed this insight further, showing that such complementarities of demand work via the buying power of the middle class, which eventually determines the extent of horizontal complementarities across all industries of the economy.<sup>16</sup> These considerations become even more relevant for a development strategy that gives greater importance to domestic demand growth than in the past. Moreover, for such a strategy to be successful, it would also aim at boosting the purchasing power of income groups below the middle class, so that there may be scope for economies of scale in an increasing number of sectors and firms that produce primarily for the domestic market.

However, if a growing market size fails to trigger productivity gains, the two-way causality may well cause the domestic economy to stagnate. This may happen in an open economy where the market-size externalities linked to increasing economies of scale benefit mainly foreign producers (Murphy, Shleifer and Vishny, 1989; Desdoigts and Jaramillo, 2009). In this case, the pace of industrial modernization may be considerably reduced, because domestic producers will continue to concentrate on supposedly technologically simple goods (such as food) that satisfy necessities, while the growing markets for more complex goods (such as cars and audio-visual products) will be captured by foreign producers.

Indeed, to the extent that accelerated spending stemming from domestic demand is satisfied through imports, without a comparable expansion of exports, the growth process of the domestic economy may well face a balance-of-payments constraint and grind to a halt. According to the dynamic analogue of the foreign trade multiplier first presented by Harrod (1933), the rate of domestic output growth depends on the rate of growth of exports, which in turn depends on the income elasticity of demand for exports and the growth rate of world income, as well as on the country’s income elasticity of demand for imports.<sup>17</sup> Prebisch (1950) applied this relationship to the development context, arguing that sustained growth

**Box 2.1****A SHIFT IN DEVELOPMENT STRATEGIES: LESSONS FROM THE LATIN AMERICAN EXPERIENCE AFTER THE CRISIS OF THE 1930s<sup>a</sup>**

With the changing patterns of international demand, developing countries today are faced with the issue of whether to shift their development strategies by giving greater emphasis to domestic demand to drive economic growth. But it is not the first time in economic history that this impulse to shift to domestic-demand-oriented growth has arisen: the Great Depression in the 1930s evoked a similar response from Latin American countries, which advanced the process of industrialization.

Beginning in the 1870s, after a long period of political instability following their independence, most Latin American countries began a process of rapid integration into the global economy as exporters of primary commodities and importers of manufactures and foreign capital. They also attracted labour migration, which contributed to diversifying the pattern of domestic consumption. The expansion of exports spurred economic growth, which in turn generated new resources for their governments, consolidated national States and contributed to greater political stability. However, this development path depended heavily on a continuous expansion of demand for primary commodities from developed countries. It also contributed to worsening living conditions of the often landless rural populations and favoured the rise of a proletariat and urban middle class that claimed better social conditions and greater political participation in what were oligarchic social and political structures.

The vulnerability of such a development path became evident, initially with the First World War which disrupted trade and capital inflows. Thereafter, the Great Depression that began in 1929 led to a collapse of primary commodity exports and, as a consequence, to a severe contraction of imports and fiscal revenues, as well as sovereign debt defaults by most countries in the region. In these circumstances, which in some countries were further complicated by political crises, governments set aside their former liberal credo and adopted more pragmatic and interventionist policies. They abandoned the gold standard and established foreign exchange controls, and introduced quotas on imports and raised import tariffs. Currency devaluations and import restrictions improved relative prices of manufactures at a time when the capacity to import such goods had diminished significantly. The newly created central banks, which supported the domestic banking system, covered the financial needs of the private and the public sectors. These measures enabled the rapid expansion of domestic production of manufactures, which progressively replaced imports, setting in motion a process that came to be known as import substituting industrialization (ISI). Industrial production grew most notably in countries that already had manufacturing capabilities and whose governments supported domestic demand. Between 1929 and 1947, the share of manufacturing in GDP increased from 22.8 to 31.1 per cent in Argentina, from 11.7 to 17.3 per cent in Brazil, from 7.9 to 17.3 per cent in Chile, from 6.2 to 11.5 per cent in Colombia and from 14.2 to 19.8 per cent in Mexico (Furtado, 1976: 137).

After the Second World War, the ISI period came to an end: industrialization continued to rely primarily on domestic markets, but increases in domestic production of manufactured goods were no longer based on the substitution of previously imported goods, which had been reduced considerably by that time. Instead, a rapid expansion of domestic demand became the driving force behind output growth and domestic investment. Industrialization and, concomitantly, urbanization increased the influence of the local bourgeoisie, the middle class and industrial workers in the economy and in national politics. The resulting political change brought with it a deliberate reorientation of development strategy, which, by introducing long-term development projects, aimed at modernizing the productive apparatus and strengthening economic and social integration. Domestic demand was nurtured both by urbanization and the process of industrialization itself, which expanded employment in the modern sectors. In several countries more equal income distribution also boosted demand. Hence, the key elements of that strategy (industrialization and the expansion of domestic markets) supported each other in a virtuous circle (Sainz and Faletto, 1985).

**Box 2.1 (concluded)**

In this context, the economic role of the State was greatly expanded. It fostered industrialization, infrastructure building and the development of domestic firms through several means. In Chile, the Production Development Corporation (Corporación de Fomento de la Producción), created in 1939, developed basic industries; in Brazil, the Government supported industry through trade protection and the creation of State-owned firms (e.g. the steel producer Volta Redonda); Mexico nationalized its oil industry in 1938 and supported its manufacturing sector through the Industrial Promotion Act (1946) and State procurement; in Argentina, the State captured most of the rents from agriculture through its control of foreign trade, and nationalized the transport system, and communication, power and sanitation services (previously owned by foreign investors), while the central bank and State-owned banks extended credit to industrial activities; in Venezuela, the State acquired most of the oil rent and created the Venezuelan Production Corporation (Corporación Venezolana de Fomento) for supporting the steel and agro-industrial sectors; while Bolivia also nationalized its oil sector (1937), and later its tin production (1952), and implemented agrarian reforms (1953) (Thorp, 1997).

This reorientation of development strategy, triggered initially by the crisis of the 1930s, continued to promote economic growth after the Second World War. Latin America grew rapidly in the post-war years, with its GDP growing at an average annual rate of 5.4 per cent between 1950 and 1975, led by the manufacturing sector (6.8 per cent). By 1975, the share of manufactures in its GDP exceeded 25 per cent (ECLAC, 1978), while the proportion of the urban population rose from 42 per cent in 1950 to 62 per cent in 1975. The manufacturing sector also began to diversify, with production evolving from labour-intensive consumer goods to durable consumer goods, industrial inputs and capital goods. By 1965, technology- or scale-intensive industries accounted for around 50 per cent of manufacturing production in the region's largest economies: Argentina, Brazil, Chile, Colombia, Mexico and Peru (ECLAC, 1979). The international environment was also conducive to the region's economic development, as foreign markets regained momentum during the 1960s and foreign direct investment (FDI) in manufacturing contributed to the diversification of industrial production.

However, there were some drawbacks to this development strategy, as evidenced by recurrent imbalances in the balance of payments and persistent inflation. These were the result of structural factors (e.g. rigidities on the supply side, demand elasticities of imports and exports, leading to trade deficits and frequent devaluations; and social tensions related to income distribution) rather than flawed monetary policies (Noyola, 1957; Bajraj, 1977). Retrospective comparison with the East Asian industrial development experiences suggests that the main problem in Latin America was related to the fact that there was comprehensive, rather than selective and well-targeted, protectionism of domestic industries, and government support was not linked to performance requirements (including those related to exports of manufactures). By the beginning of the 1970s, a new phase of the industrialization process seemed to be taking place in the more advanced Latin American countries, which targeted more diversified domestic and external markets. This phase was characterized by high investment and rapid economic growth. However, strong financial shocks and radical policy reorientations, especially after the debt crisis of the early 1980s, brought this development pattern to an abrupt end.

This experience suggests that, while it is possible to anchor industrialization in domestic demand growth, the process of structural changes needs to be carefully managed on both the demand and the supply side. Moreover, the pursuit of such a development strategy needs to be accompanied by macroeconomic and financial policies aimed at keeping inflation low and preventing large external imbalances and financial instability.

---

<sup>a</sup> This box draws on Calcagno, 2008.

in developing countries requires industrialization; otherwise, growth will be held back. The reason is that an unsustainable current-account deficit emerges when the income elasticity of demand for primary commodity exports in world markets is lower than the income elasticity of demand for imported goods needed by developing countries.

Although the global economic context has evolved, the mechanisms highlighted by Harrod (1933) and Prebisch (1950) continue to apply: if a prolonged economic slump in developed countries leads to a decline in developing countries' export earnings, the latter will find it difficult to sustain a high rate of growth if the need to satisfy accelerating expenditure in the various domestic-demand components triggers a surge of imports. However, if there were to be an expansion of demand in several developing-country trade partners simultaneously, they could constitute a market for each other, and therefore reduce their balance-of-payments constraint. Consequently, regional integration and, more generally, South-South trade may be necessary complements to domestic-demand-led growth strategies.

The import intensity of the three components of domestic demand (i.e. household consumption, government expenditure and investment) varies widely, and generally differs from the importance of the three components in aggregate demand. Household consumption usually accounts for by far the largest share of aggregate demand, whereas "imports tend to be strongly correlated on average with exports and investment and, to a lesser extent, private consumption, while they appear to be uncorrelated with government consumption" (Bussière et al., 2011: 10). Moreover, the correlation between imports and household consumption is particularly high during periods of recession.

These findings, relating to differences in the import intensity of the different components, are based on an analysis of almost only developed economies. However, there is little reason to believe that the patterns will differ to any significant extent in developing countries. The correlation between domestic demand growth and imports of capital goods and durable consumer goods in developing countries probably exceeds that in developed countries. But, the

import intensity of exports is probably also higher in developing countries, especially those whose export sectors are closely integrated into global production chains. Indeed, rough calculations reveal little difference between developed and developing countries in the pattern of import intensity across the various elements of aggregate demand (Akyüz, 2011).

If the sectoral composition of domestic production were adjusted to better match the sectoral structure of accelerating domestic demand, it would reduce the import content of that growing demand. It would also allow domestic entrepreneurs to benefit from increasing returns to scale and encourage them to engage in innovative investment. This would also create new employment opportunities. For the domestic economy, it would imply an increase in nominal incomes, which would induce domestic consumers to increasingly engage in discretionary spending. Globally, this could trigger a cumulative process of income and employment growth, as growing demand would spur the output of existing manufacturing industries as well as the creation of new industries. Ideally, this process should take place on a regional scale, with a number of trade partners encouraging domestic demand in a coordinated way. This would boost intraregional trade, which tends to be intensive in manufactured goods, thereby enabling economies of scale and specialization (*TDR 2007*).

The critical importance of the domestic market for domestic industry was stressed long ago by Chenery, Robinson and Syrquin (1986). They noted that growth of domestic demand accounts for about three quarters of the increase in domestic industrial output in large economies, and slightly more than half in small economies. Building on their insights, Haraguchi and Rezonja (2010) showed that the shares in production of different industrial sectors follow a sequence which resembles the changes observed in the sectoral structure of domestic demand. This similarity can be observed particularly with regard to household consumption expenditure in large economies, where the food and beverages sector is a driver of sustained growth at low levels of per capita income, motor vehicles at medium levels, and audio-visual products at high levels. The following section provides further evidence of changes in the product composition of consumer demand as per capita income rises.

## 2. Changes in the product composition of domestic demand

Demand-side mechanisms which reflect changes in the patterns of demand as per capita income rises have constituted only a relatively small part of the larger search for the stylized facts that characterize economic development. The declining share of aggregate consumer spending on food (i.e. an effect known as “Engel’s law”) is usually considered the most notable feature of such demand-side effects. Attempts to generalize Engel’s law by enlarging the scope of analysis to more categories of expenditure have often focused on changes in the basket of necessities (such as food, housing and clothing), while treating non-necessities (such as durable goods) as a residual of little importance (e.g. Houthakker, 1957; Chenery, Robinson and Syrquin, 1986).

Socioeconomic class is likely to be a very important determinant of individuals’ consumption patterns (e.g. Luch, Powell and Williams, 1977). The reason is that people who are better off dispose of discretionary income and can shift their consumption pattern away from only basic necessities. This shift in consumption patterns may be based on a preference structure related to a hierarchy of needs (Maslow, 1954). It implies that consumers will start spending beyond goods that only satisfy their basic or subsistence needs once their income exceeds a certain threshold. Another important assumption associated with such a preference pattern is that consumer demand for any good reaches a saturation point, so that demand growth for that good will slow down and eventually cease as more and more households reach the levels of income that mark saturation points.<sup>18</sup> The thresholds which trigger an acceleration of demand for specific consumption items cluster at certain levels of per capita income (Mayer, 2013). These levels closely correspond to what is typically used to characterize an individual as becoming “middle class”.

There is no generally accepted definition of the term “middle class”. However, in economics and applied empirical analysis, it is generally used to describe the social status of individuals who have a certain amount of discretionary income at their disposal which allows them to engage in consumption patterns beyond just the satisfaction of their basic needs, though not – or only occasionally – their desire for luxury items. Given that many individuals

aspire to middle-class status, individuals identifying themselves as being “middle class” is also often used as a definition. This may explain why interpersonal effects on consumer demand, such as bandwagon effects, whereby each person’s purchasing pattern is influenced by what specific products are bought by a proportion of some relevant group of others, has often been an important element in the discussion of middle-class consumption patterns (e.g. Witt, 2001).

The two boundaries that separate the middle class from the poor, on the one hand, and from the rich on the other, may be defined in relative or absolute terms. Relative approaches use quintiles of income distribution or a band around the median of the distribution. The main drawback of these approaches is that they do not permit international comparisons, whereas the advantage of using an absolute approach is that it does permit such comparisons. An absolute approach is similar in spirit to international poverty measures, and allows the tracing of both the size and the income share of the middle class on a global scale. To ensure comparability across countries, such measures employ purchasing power adjustments to translate income expressed in domestic currency units into an internationally comparable unit (i.e. the international dollar).<sup>19</sup>

Bussolo et al. (2011) have used such an approach, where the two thresholds defining the middle class are set as equal to the per capita incomes of Brazil and Italy.<sup>20</sup> Kharas (2010) has also used this approach to define the global middle class as comprising individuals whose daily expenditures are between \$10 and \$100 in purchasing power parity (PPP) terms. Both these studies set the lower bound at an annual level of per capita income of about 4,000 international dollars. By contrast, the definition used in Bussolo et al. (2011) implies an upper bound of about 17,000 international dollars, while Kharas (2010) sets the upper bound at about 35,000 international dollars. These differences in the upper bound are reflected in differences in historic measures of the size of the global middle class, as well in its future evolution. Bussolo et al. (2011: 14) estimate that the proportion of the middle class in the total world population will increase from 7.9 per cent in 2000 to 16.6 per cent in 2030, and that over the same period, the number of people in developing countries that are part of the global middle class will grow more than fourfold, to exceed one billion. According to Kharas’ (2010: 27) estimates, the size of the global middle class will

increase from 1.8 billion people in 2009 to 3.2 billion in 2020 and 4.9 billion in 2030, which implies that the proportion of the middle class in the total world population will increase from 26 per cent in 2009 to 41 per cent in 2020 and 58 per cent in 2030. Asia will account for the bulk of this increase, with the number of people belonging to the middle class in this region estimated to grow sixfold. China and India will account for more than three quarters of the Asian middle class. The size of the middle class in Central and South America will grow by a factor of 2.5, while in sub-Saharan Africa it will triple, yet remain at only 2 per cent of the total; and it will remain more or less unchanged in Europe and North America.<sup>21</sup>

Of course, these numbers are merely illustrative and should not be considered exact predictions. The two studies' projections on the evolution of the middle class in developing countries may be considered optimistic as an extrapolation of past developments (e.g. in terms of investment and technological change). This is because they do not take into account the unsustainability of the policies pursued by the developed countries during the decade preceding the outbreak of the current global economic crisis, which provided the favourable external economic environment that allowed high investment rates and technological change in developing countries. But they may also be considered pessimistic, as they assume that the share of household consumption in GDP remains constant over time and that, in the case of Kharas (2010), growth is distribution neutral, and thus do not take into account the impact of policies to strengthen domestic purchasing power and reduce income inequality, which this *Report* advocates. As discussed in section E of this chapter, a strategy that accords a greater role to domestic demand growth will require a faster increase in wages than in the past. Thus there may be an accelerated increase in the size of the middle class if this strategy is successful.

Evidence on income distribution indicates that the size of the middle class (as defined by Kharas, 2010) varies widely across countries (chart 2.6). In 2005, which is the most recent year for which comprehensive data are available, the middle class constituted 60 per cent of the population in the United States, compared with only 30 per cent in China, and roughly 5 per cent in India, but about 80 per cent in the Russian Federation. More importantly for the future evolution of consumption expenditure is the number of people that are at around the entry level

of the middle class, where the new spending patterns start emerging. Such income brackets are virtually absent in the developed economies, but comprise more than half of the Chinese and about three quarters of the Indian and Indonesian populations respectively.

Many developing economies continue to have substantial pockets of poverty and lagging regions, especially in sub-Saharan Africa and South Asia. Such pockets hamper the expansion of domestic consumption of durable consumer goods. But this also implies that there is considerable potential for increasing the effective demand for, and domestic supply of, basic and non-durable goods, such as food, as well as other fundamental needs, such as clothing, accommodation, heating and lighting, health, education and safety (Chai and Moneta, 2012), including through a change in income distribution.

However, many other developing and transition economies could witness a rapid acceleration of consumption of durable consumer goods in the medium term. Changes in distributional outcomes that could lift individuals from the lower income brackets to middle-class status are closely related to the creation of well-paid jobs. As noted in *TDR 2012*, much of the decline in income inequality in Latin America over the past few years has been due to the creation of such jobs. This has contributed to some developing countries seeing "the emergence of a working middle class, which has now surpassed 40 per cent of the developing world's workforce" (ILO, 2013: 12).

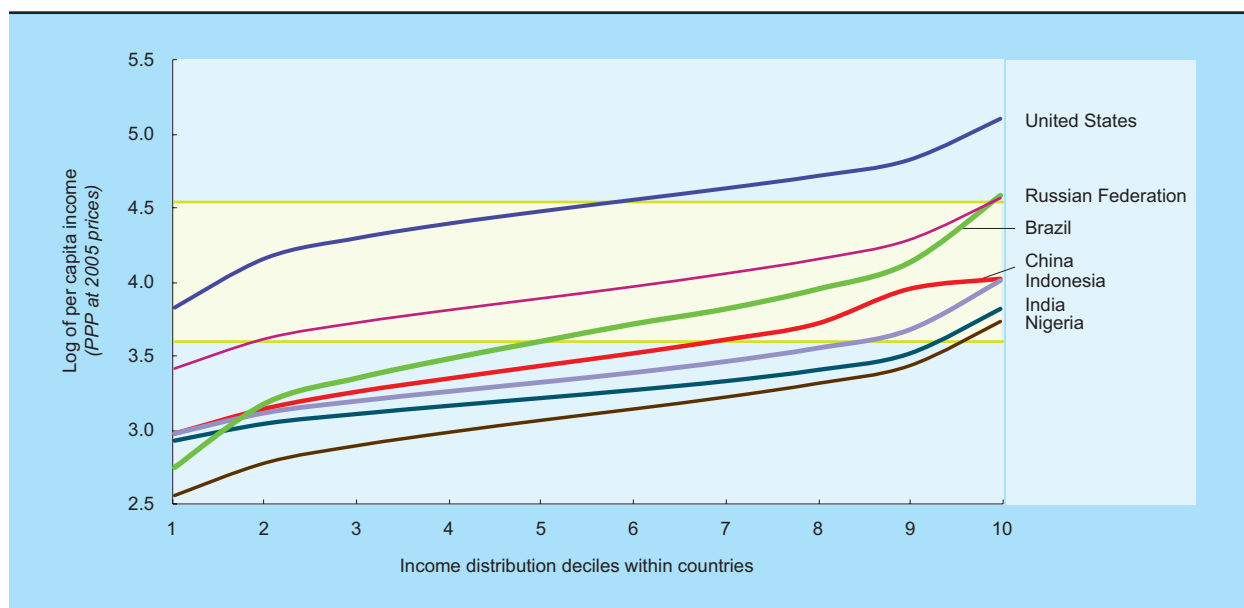
Greater equality of income is widely expected to boost economic growth, which would provide the main impetus to consumer spending. Indeed, there is now broad agreement that growth accompanied by high or rising inequality is unsustainable in the long run, although there may be temporary exceptions in countries with very rapid growth rates, where absolute levels of income may increase sharply despite greater income inequality. Moreover, high levels of income inequality will hold back the pace at which sufficiently large segments of the population attain the thresholds of per capita income that lead to accelerated demand. This could well retard, or even prevent, cumulative processes that drive growth through associated supply responses.

The discussion in this section implies that the process of per capita income growth and/or steps towards a more equal distribution of income are



Chart 2.6

## PER CAPITA INCOME AND DIFFERENT INCOME CLASSES, SELECTED COUNTRIES, 2005



**Source:** UNCTAD secretariat calculations, based on Milanovic, 2012.

**Note:** The two horizontal lines are the lower and upper income limits of the middle class. The size of the middle class in each country is indicated by the respective country line that is within the shaded section.

accompanied by the emergence of a range of investment opportunities to produce goods and services to meet the new demand. These investment opportunities will arise at different points in time with respect to both individual products and individual countries. Products will vary because demand for different products will accelerate at different levels of per capita income. Variation across countries will be due to the different size of the slices of the population that are in,

or about to enter, the middle class, whose boundaries mark the levels of per capita income where product-specific demand elasticities are particularly high. The combination of these variations across products and across countries can engender a sustained dynamic growth process driven by interactions between supply and demand over time. The next section focuses on the economic policy implications of these interactions between supply and demand.

---

## E. Policy implications

---

The preceding sections of this chapter have examined the adverse impacts of slow growth in developed countries on the export opportunities of developing and transition economies. They have emphasized that the reduced export opportunities are likely to concern mainly those countries that export a large proportion of manufactures to developed countries. These countries therefore need to reconsider their growth strategies, giving greater emphasis to domestic sources of demand growth and South-South trade.

This section discusses possible policies that developing and transition economies could adopt in pursuit of such a strategy. It first looks at changes in the relative importance of the domestic demand segments of GDP following the outbreak of the current global economic crisis. It then focuses on policies aimed at: (i) increasing domestic demand by fostering domestic purchasing power, lifting the income of domestic consumers, increasing domestic investment and strengthening the impact of public finances on domestic demand; and (ii) promoting domestic productivity growth and structural change with a view to increasing domestic supply capacities of goods in response to rising domestic demand. Finally, this section looks at the implications of the increased importance of developing countries in the global economy for global development partnerships.

During the period 2008–2009, many developing and transition economies reacted to a decline in their net exports by increasing the share of government consumption expenditure in GDP (chart 2.7). Household consumption expenditure as a share of GDP also increased in some of these countries, such as Brazil, Malaysia and the Russian Federation, while it fell in others, such as China and Indonesia. The latter two countries saw a particularly large increase

in gross fixed capital formation as a share of GDP. In China, for example, this share increased from 39 per cent in 2007 to 45 per cent in 2009. This share also increased, though to a lesser extent, in most of the other economies presented in chart 2.7, many of which are rich in natural resources, such as Chile, Mexico, the Russian Federation and South Africa.

The data for 2011 suggest that there were no similar increases in gross fixed capital formation as a share of GDP, which was possibly a reaction to the euro-zone crisis that gained traction in 2011 (chart 2.7). This difference in reaction may be explained by the fact that in 2008–2009 there were expectations of an early recovery, which were supported by episodic signs pointing to a rapid rebound of growth in developed economies. This had led to the assumption of only a temporary decline in otherwise continuously increasing opportunities for exports to these countries. With the euro-zone crisis, by contrast, policymakers in developing and transition economies may have accepted the likelihood of a prolonged period of sluggish growth in developed economies' aggregate demand, which therefore suggested the need to rely less on exports to these economies for their growth. This variation in responses to the adverse effects of the Great Recession and the euro-zone crisis, respectively, may reflect uncertainty and considerations of how best to deal with the challenge of managing a change in emphasis from a growth strategy based on exports towards one based more on domestic demand. This challenge should not be underestimated.

There are many difficulties associated with such a shift in growth strategy. For this shift to be sustainable in developing and transition economies that export mainly manufactures, there will need to be both sustained improvements in technological

Chart 2.7

## TYPE OF EXPENDITURE AS A SHARE OF GDP, SELECTED ECONOMIES, 2000–2011

(Per cent)

Source: *UnctadStat*.

Note: The shares are based on data measured at current prices in dollars.

dynamism and rising household consumption expenditure based on growth of real disposable income through nominal income growth, rather than cheap imports. And these two goals would have to be achieved simultaneously, because, if domestic productive capacity is not upgraded, any rise in domestic purchasing power through higher earnings and the consequent increase in domestic consumption expenditure would only induce an increase in imports. The resulting import boom would add to the changes in the trade balance resulting from stagnating exports to developed economies. Such multiple pressures on a country's external accounts would risk causing balance-of-payments problems and stall income growth. In that context, an expansion of the markets of other developing countries would be of paramount importance, not only because it would avoid or alleviate trade balance strains, but also because it would provide larger and more dynamic demand, and therefore encourage investment and technological upgrading.

Individuals require real income growth to engage in higher consumption expenditure. This can result from a decline in prices of goods, such as through rising imports of goods that are cheaper than domestically produced ones, made possible by an appreciation of the exchange rate and/or a progressive delinking of the sectoral structure of domestic production from that of domestic demand. However, any attempt to achieve real income growth by increasing imports of cheap goods may cause imports to grow faster than exports and contribute to a growing trade deficit. Thus, policies aimed at enhancing domestic demand need to be accompanied by an appropriate exchange-rate policy to ensure external balance, and by a strategy aimed at increasing domestic supply capacities.

The remainder of this section focuses on policies aimed at fostering both domestic purchasing power through income growth and technological upgrading to boost domestic productive capacity.

### **1. Policies to boost domestic demand**

---

Since the 1980s, developing countries have placed a growing emphasis on export-oriented production to drive expansion of their formal modern sectors. But while this strategy has been successful

in some countries, in most cases domestic demand has not increased at the same pace. This is partly due to weak linkages between the export sector and the rest of the economy, and partly to the strategy of domestic companies and governments to exploit their perceived comparative advantage of cheap labour by keeping wages low in order to strengthen their international competitiveness. But sooner or later such a strategy will reach its limits due to the constraint imposed by low wages on domestic demand growth, especially when global demand weakens and many other countries pursue the same strategy simultaneously.

Therefore, policies to boost domestic demand as an engine of growth are warranted, not only because of the current deflationary trend in the world economy, but also because a strategy of export-led growth based on wage compression, which makes countries overly dependent on foreign demand growth, may not be sustainable for a large number of countries and over a long period of time.

A growth strategy that gives greater emphasis to domestic demand growth must start from the recognition that, even in relatively poor countries and in countries with a relatively large export sector, labour income is the major source of domestic demand. Therefore, policies aimed at increasing the purchasing power of the population overall, and wage earners in particular, need to be the main ingredient of a strategy that favours promoting domestic relative to external sources of growth. In many countries, the two other main components of domestic demand – private investment and public sector expenditure – may also help to advance such a strategy.

In any case, there is a strong interdependence between the three components of domestic demand. First, increased consumption of goods and services that can be produced domestically makes producers of these goods and services more willing to invest in their productive capacity. Second, higher investment will create additional employment and wage income, and thus increase both the purchasing power of domestic consumers and the tax revenue that can be spent by the government. Moreover, productivity gains resulting from additional investment allow a further increase in wages and consumption.

Third, higher public spending can have a positive impact on both private consumption and investment

through various channels. It can create additional income for consumers and improve the conditions for private investment. The latter is not only itself a source of domestic demand (even if a large share of the capital goods may have to be imported), but is also indispensable for expanding domestic supply capacity, and consequently for reducing leakages of domestic demand growth through imports. Public investment in infrastructure is often complementary to, if not a prerequisite for, private investment, and helps to increase overall productivity in the economy. To the extent that the pattern of public revenue and public spending contribute to reducing income inequality, consumption will be higher at any given level of total income, because lower income earners spend a larger proportion of their income than higher income earners, and the share of domestically produced goods and services in their consumption tends to be greater because they are less likely to consume imported luxury goods. Finally, if the public sector's contribution to GDP is larger, governments have more possibility to compensate for fluctuations in domestic and external demand through countercyclical fiscal policies, and thus prevent large swings in consumption and investment.

#### (a) *Increasing domestic consumption*

Policies that result in a decline of the wage share have often been justified as being necessary to reduce production costs and induce investment. However, as noted above, household consumption constitutes the largest share of effective demand in most countries, developed and developing alike.

Indeed, empirical evidence suggests that changes in the wage share are positively correlated with changes in the share of household consumption in GDP (as reflected in the figures on the left hand side of chart 2.8). Given that most countries show a decline in the wage share, this positive correlation implies a decline in the share of household consumption in GDP.<sup>22</sup> By contrast, there is no clear correlation between changes in the wage share and the share of investment in GDP (figures on the right hand side of chart 2.8). The latter correlation is mildly positive in Africa and nil in developed economies. By contrast, it is negative in East, South and South-East Asia and in Latin America, though smaller in absolute terms than the correlation between changes in wage shares and those in consumption.<sup>23</sup>

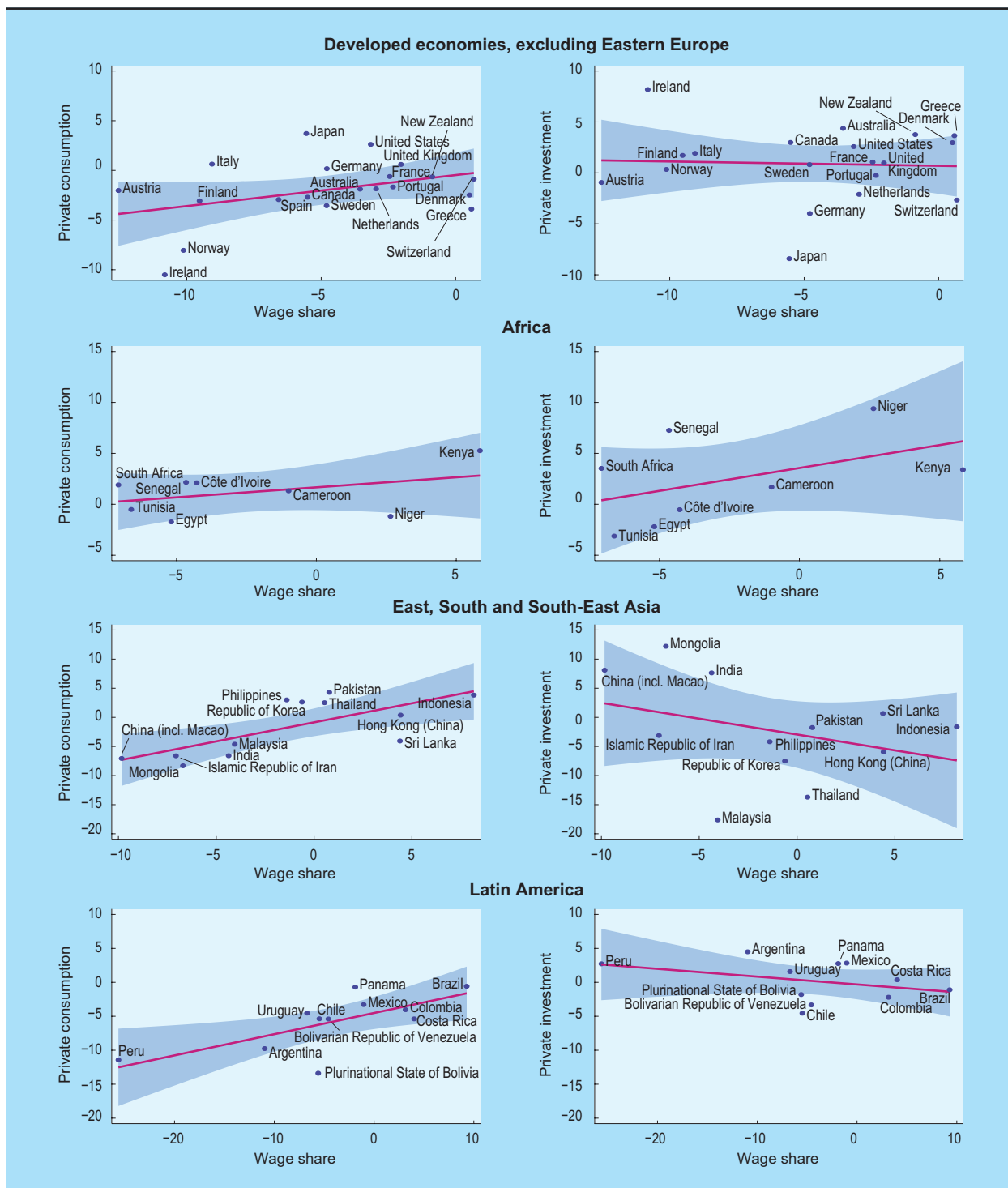
Of course, these correlations need to be interpreted with caution, and should not be considered as indicative of causality. In particular, they should not be interpreted as showing that in Asia and Latin America, higher investment rates depend on wage compression. In most South-East Asian countries, investment rates fell significantly after the Asian crisis of 1997–1998, even in countries where wages and consumption also fell as a share of GDP, and were balanced by a commensurate improvement in the current account balance. Regarding Latin America, the comparison between two points in time may be misleading, because 2002–2003 marked a change in the trends of both income distribution and investment rates. In several countries (e.g. Argentina and the Bolivarian Republic of Venezuela), shares of both investment and labour in GDP declined between the early 1990s and 2002, and then recovered in tandem in the subsequent years, showing a positive correlation that is not apparent in the chart. Finally, the case of China illustrates that as long as a declining wage share is accompanied by rapid income growth, it does not imply an absolute fall in living standards.

Soon after the onset of the current financial crisis, GDP growth in developing and transition economies remained relatively high or recovered quickly, as the deceleration or even a decline of their exports was compensated for by faster growth of domestic demand resulting from expansionary monetary and fiscal policies and faster wage growth. The rapid recovery of some large developing and transition economies also provided a market for smaller countries that cannot rely solely on their domestic demand.

In order to sustain these domestic demand dynamics stemming from countercyclical policies, and in some cases also from terms-of-trade gains, growth-supporting monetary and fiscal policies have to become more permanent features, as they were in the developed countries during “the Golden Age” and in those emerging economies that were the most successful in catching up during the 1980s and 1990s. But in order for governments and central banks to pursue fiscal and monetary policies, including supportive public investment and low interest rates that remain favourable to private domestic capital formation over long periods of time, it is also necessary to keep inflation in check. Achieving both objectives – rapid domestic demand growth and relative price stability – could be greatly facilitated if the traditional

Chart 2.8

### CHANGES IN WAGE SHARES, PRIVATE CONSUMPTION AND PRIVATE INVESTMENT IN SELECTED GROUPS OF COUNTRIES FROM 1991–1994 TO 2004–2007



**Source:** UNCTAD secretariat calculations, based on UN-DESA, *National Accounts Main Aggregates* database; ILO, *Global Wage* database; and *OECD.StatExtracts* database.

**Note:** Data refer to changes in percentage points of the average GDP for each period. When no observation for wage share was available for the period 1991–1994, the first subsequent observation was used. For Brazil, Mongolia and Niger, data refer to 1995; for Cameroon, Chile, Egypt and Kenya, data refer to 1996; for Panama, data refer to 1997; for Sri Lanka and Uruguay, data refer to 1998; for India, Indonesia, Mongolia and Peru, data refer to 1999; for Pakistan, data refer to 2000. The shaded area represents the 95 per cent confidence interval.

macroeconomic policy toolkit were complemented by an appropriate incomes policy.

A central feature of any incomes policy should be to ensure that average real wages grow at least at a similar rate as average productivity. Previous *TDRs* have repeatedly drawn attention to the merits of establishing such a link with a view to creating employment and avoiding a further deterioration of income distribution (*TDR 2010*, chap.V and *TDR 2012*, chap.VI). These considerations are equally relevant for domestic-demand-led growth strategies, because wage growth in line with productivity growth should be able to create a sufficient amount of domestic demand to fully employ growing productive capacities of the economy without having to rely on continued export growth. At the same time, inflation can be kept within a low range when nominal wages are not adjusted to previous rates of inflation, which would risk causing inflation inertia. Rather, nominal wage adjustments should take into account an inflation target that guides the monetary policy of the respective country (see also *TDR 2012*, chap. VI). This would greatly facilitate the task of the central bank to prevent inflation, and widen its scope to stimulate investment and growth, as proposed in chapter III of this *Report*.

The effectiveness of such an incomes policy that ensures a sustained expansion of domestic demand as well as low inflation could be enhanced by a strengthening of collective bargaining mechanisms (or their introduction where they do not yet exist) and by minimum wage legislation. Collective bargaining of wages, and employment conditions more generally, would also help to achieve greater social consensus about income distribution and enhance social cohesion, provided that both workers' and employers' associations, and possibly government recommendations or guidelines for such negotiations, broadly adhere to the wage adjustment rule. Such mechanisms may be difficult to implement in many developing countries where the institutional framework for structured negotiations for determining wages and employment conditions remains to be created.

The introduction of a legal minimum wage may therefore serve as a useful instrument to protect the weaker social groups, but also, if it is regularly adjusted to average productivity growth in the economy, as a means to expand demand for

mostly domestically produced goods and services (*TDR 2012*, chap. VI.D). Minimum wages may push up the prices of some labour-intensive goods and services, but the purchasing power of a large group of employees would also rise, thus helping to create additional income and employment throughout the economy (see also G20, 2012: 12). Moreover, regular adjustment of the legal minimum wage can provide an important reference for wage negotiations in the private sector.

Legal minimum wages already exist in most of the developed countries and in many developing countries, but in countries where there is a large proportion of informal and self-employment, it is often difficult to enforce such legislation. Therefore, in these countries it is important to complement policies aimed at increasing formal employment and increasing the purchasing power of employees in the formal sector with measures to boost incomes and the purchasing power of the informally and self-employed.

In this context, a number of developing countries have introduced public sector employment schemes in order to reduce widespread unemployment and poverty (*TDR 2010*, chap. V; and *TDR 2012*, chap. VI). Such schemes can play an important role within a strategy to raise domestic demand. In countries where a large reserve of surplus labour exists, and where competition between the employed and the unemployed and underemployed tends to drive down earnings, public sector employment not only has a direct demand-generating effect; the terms of such employment, especially the remuneration of workers, can also help to establish a floor to the level of earnings in both the formal and informal sectors. Similar to wages in the private sector and minimum wage levels, remuneration of such employment should also be improved over time at a rate that appropriately reflects the average growth of productivity in the entire economy as well as the increase in tax revenues in a growing economy. The layers of the population that benefit directly or indirectly from the introduction of such schemes are likely to spend most of their incomes, and more than the average, on locally produced goods and services.

In countries with a large rural sector that has many small producers, mechanisms that link agricultural producer prices to overall productivity growth in the economy would be another element of a strategy to increase domestic consumption. At the same

time, it would raise productivity, as higher incomes would enable producers to make greater investments in equipment. Such mechanisms have been applied successfully in all developed countries for decades.

Consumers' disposable income can also be influenced by government provision of basic services (financed, for example, though increased taxation of higher income groups), such as health care, care for children and the elderly, education and housing, which will tend to reduce the precautionary savings of the lower and middle-income groups. It can also be influenced by changes in tax rates and transfer payments with a view to reducing income inequality and boosting the purchasing power of low- and middle-income households.

In addition, governments can take discretionary fiscal actions, including promoting the consumption of durable consumer goods, for example through targeted fiscal transfers such as tax rebates on certain consumer goods.<sup>24</sup> In countries with a domestic car industry, passenger cars have often been such a target, including as part of countercyclical measures. A wide range of developed countries, as well as some developing countries (e.g. China) spurred new car sales through so-called "cash-for-clunkers" schemes in 2008–2009. Given that such schemes generally aim at replacing old cars, which are more polluting and less energy efficient, with new ones, these schemes also help to achieve environmental targets. Some other developing countries have successfully adopted similar schemes targeting "first-car purchases".<sup>25</sup> For example, in 2011 Thailand adopted a scheme that allowed first-time car buyers to apply for a tax refund on cars manufactured in Thailand.<sup>26</sup>

Household consumption expenditure can also be spurred by facilitating access to consumer credit for the acquisition of durable consumer goods.<sup>27</sup> An easing of consumer credit may result from changes in credit conditions or from wealth effects based on increased asset prices that make it easier for certain middle-class consumers to provide collateral for loans. However, there are considerable risks involved in encouraging an increase of household consumption based on consumer credit, as amply demonstrated by recent experiences in a number of developed countries, where episodes of fast growth of such credit were at the origin of, or at least contributed to, balance sheet disequilibria that ended in substantial financial turmoil. In the United States household debt

as a share of GDP increased rapidly during the decade prior to the onset of the Great Recession, reaching a peak of 102 per cent in 2007 (chart 2.9). This increase was closely linked to rising house prices, combined with the fact that almost two thirds of household debt stemmed from mortgages. This also resulted in an increase in household debt as a share of household consumption expenditure, which peaked at 145 per cent in 2007.

In most developed countries, households have strongly reduced debt by paying it off, or often they have defaulted, with attendant adverse effects on household consumption expenditure. By contrast, there seems to be an unabated trend towards increased household leveraging in developing countries. This may be the result of a combination of three factors: a quick economic recovery from the downturn in 2008, which contained job losses, sustained low interest rates, and asset price inflation, including in real estate.<sup>28</sup>

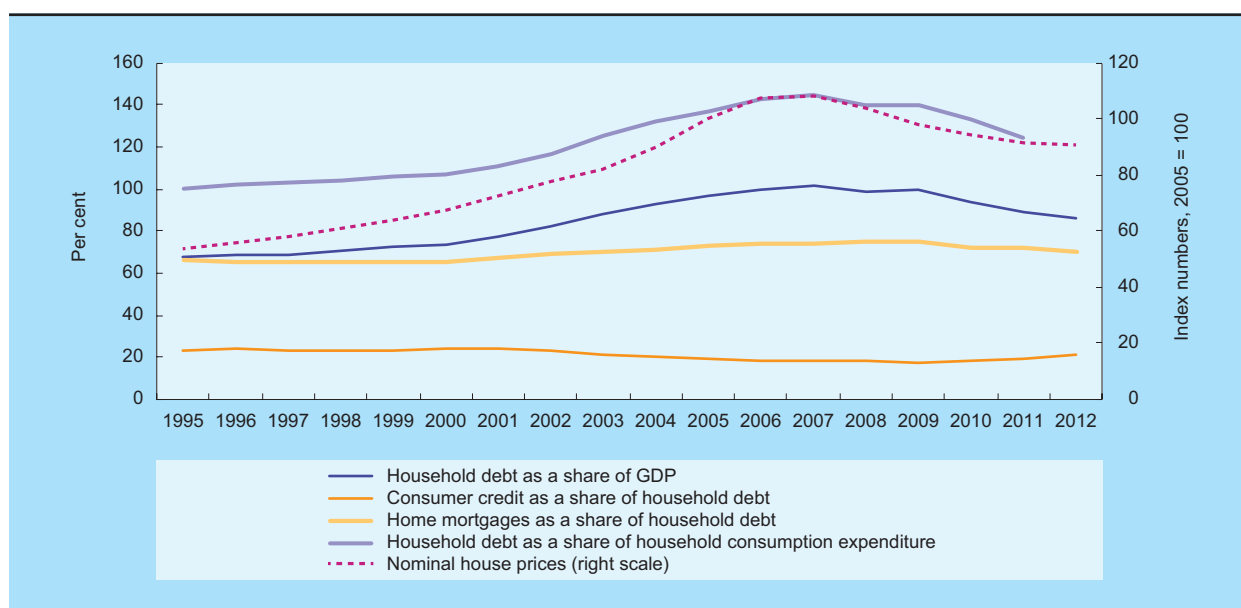
Among developing and transition economies, the level of household debt as a share of GDP has become particularly high in Malaysia and the Republic of Korea, where it exceeds 80 per cent (chart 2.10). Both these countries have also seen a significant rise in house prices. At least in the Republic of Korea, the growth of household debt and house prices may be closely linked, as "mortgages and other housing loans make up almost 53 per cent of household debt" (McKinsey Global Institute, 2013: 25). Household debt in Malaysia has increased sharply since 2008, its ratio to disposable personal income rising from 150 per cent to almost 190 per cent. In Brazil, China, Indonesia and Thailand, there has also been a strong increase in this ratio since 2008, though at considerably lower levels (chart 2.10). Such a rapid growth of household debt can rapidly place a heavy burden on household budgets and considerably reduce their consumption expenditure. Brazil for example, witnessed a sharp increase in default rates on consumer loans in 2011, making banks increasingly reluctant to lend, even though a decline of benchmark interest rates to record lows since then has helped stem default rates.<sup>29</sup>

It is difficult to assess what levels and growth rates of household debt are sustainable. However, there are indications that larger and persistent credit growth, as well as growth episodes that start at relatively high debt-to-GDP ratios, pose a greater risk



Chart 2.9

## HOUSEHOLD DEBT AND HOUSE PRICES IN THE UNITED STATES, 1995–2012



**Source:** UNCTAD secretariat calculations, based on Bank for International Settlements (BIS), *Credit to Private Non-Financial Sectors* database; the Federal Reserve, *Flow of Funds Accounts of the United States*; and the Federal Reserve Bank of Dallas, *International House Price Database*.

of a credit bust, with ensuing adverse effects on the stability of a country's financial system (Dell'Ariccia et al., 2012). It is also difficult to assess the extent to which rapidly rising and/or elevated debt levels translate into excessive debt servicing burdens and declining consumption expenditure. If any thresholds exist in this area, they will be determined by a wide range of factors, including the income structure of debtors and the maturity and interest-rate structure of loans. Related comprehensive data are not available for developing countries. Macro-level monetary policy easing can smooth the burden of the rising cost of household debt servicing. But for the same reason it can also induce further borrowing, unless such macroeconomic policy easing is combined with micro-level measures such as tighter regulations relating to loan-to-value and debt-to-income ceilings.<sup>30</sup>

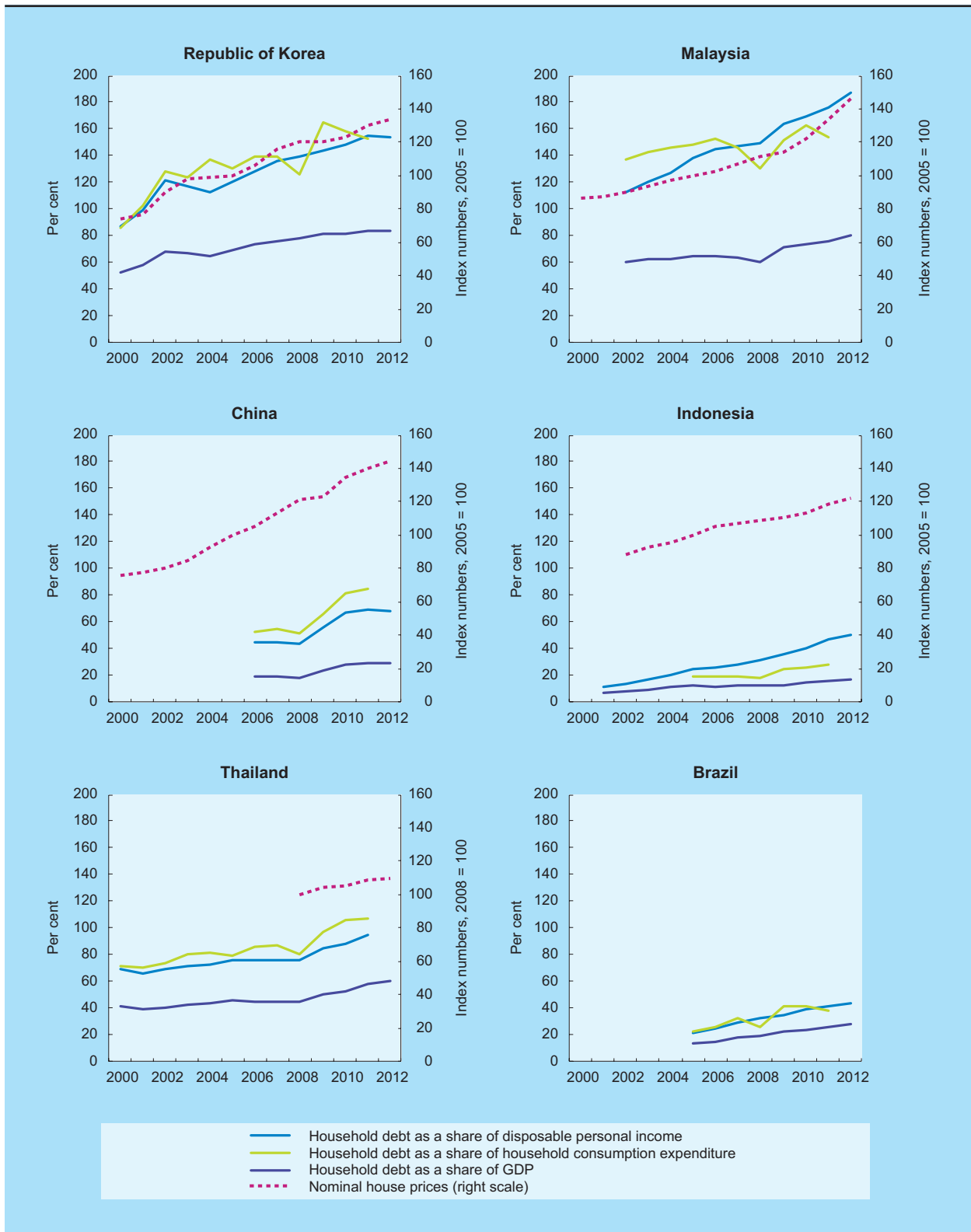
There is the possibility of a looming financial crisis in those countries where the growth of household debt steadily exceeds income growth and/or where the size of outstanding household debt considerably exceeds the size of GDP. A crisis could be triggered by a perception that asset prices are

overvalued, with an associated collapse of household wealth. But the trigger could also be a sudden sizeable increase in interest rates or a renewed global economic downturn that would cause developing-country exports to decline and domestic incomes to fall. This would make it increasingly difficult for households to service their debt, resulting in turmoil in the financial sector of the country concerned.

To sum up, a policy aimed at spurring household consumption expenditure by easing the constraints on borrowing tends to be risky. Unless such a strategy successfully jump-starts a virtuous process of accelerating domestic demand and supply, it may well cause substantial financial and economic turmoil. The debt servicing burden may rapidly become excessive if interest rates rise, growth of household incomes stalls or property prices fall. Any such development would eventually restrain household consumption expenditure. A more sustainable strategy would thus be the implementation of an incomes policy such as outlined above. But the creation of income opportunities and productivity growth that enables sustained increases in real wages is closely associated with fixed capital formation. The latter has been a driving

Chart 2.10

## HOUSEHOLD DEBT AND HOUSE PRICES, SELECTED DEVELOPING COUNTRIES, 2000–2012



**Source:** UNCTAD secretariat calculations, based on data from the United Nations Statistics Division; Bank for International Settlements, *Credit to Private Non-Financial Sectors* database; and Federal Reserve Bank of Dallas, *International House Price Database*.

**Note:** House price data for Brazil were not available.

force for development in those developing countries and emerging market economies that have been the most successful in their efforts to catch up with the developed economies. By contrast, it has remained at relatively low levels in many other developing countries, especially in Africa and Latin America.

### *(b) Promoting domestic investment*

A key determinant of the willingness of entrepreneurs to invest in real productive capacity is the expected profitability of a potential investment, which in turn depends on estimates that help determine whether future demand will be high enough to fully utilize the additional productive capacity.

When wages grow at a slower rate than productivity, the additional supply can only be utilized profitably when there is a continued increase in export demand. In the absence of such demand growth, productive capacity will be underutilized, and this will discourage further productive investment and innovation. Given the current conditions of the world economy, exports are unlikely to grow at the same pace as in the past, thus wage-driven domestic demand growth will become a more important factor in the demand expectations of potential investors. But a favourable environment for domestic investment also requires supportive fiscal policies (discussed in the next subsection) and monetary conditions, including a competitive exchange rate, and financial policies aimed at allowing potential investors access to low-cost credit.

A monetary policy that seeks to strengthen domestic demand and supply capacities would keep the level of interest rates low. In the past, attempts to use only monetary policy to fight inflation often led to high real interest rates, which discouraged private domestic investment for two reasons. First, they meant high financing costs for potential investors, and second, they often attracted foreign capital inflows of a speculative nature, which tended to result in currency overvaluation and a loss of competitiveness. This reduced the export opportunities and demand expectations of domestic producers. An incomes policy based on a regime of productivity-aligned wage growth, as outlined above, would facilitate the pursuit of a monetary policy that fosters domestic investment, because it would also exclude, or at least significantly reduce, the risk of inflation as a result of

rising unit labour costs. Moreover, when exchange rate management and capital account management can ensure a stable real exchange rate, they can prevent unnecessary leakages of domestic demand to foreign markets due to the reduced international competitiveness of domestic producers.

Financial policies should facilitate access to credit for sectors and activities that are of strategic importance for the structural transformation of the economy. Such financial support, which has often been used as an instrument of industrial policy in developed countries and in successful emerging economies in Asia, could also help solve the problem of access to adequate financing faced by many small, often innovative firms, including those in the informal sector and in agriculture, which produce primarily for the domestic market. Examples of such policies include the direct provision of credit by public financial institutions or by intervention in financial markets through such measures as interest subsidies, refinancing of commercial loans and provision of guarantees for certain types of credit.

Such measures are of particular importance where the formal manufacturing sector is still relatively small. In that case, it is not only capital formation in the formal manufacturing sector that can contribute to higher domestic demand and greater domestic supply capacity, but also productivity-enhancing investment in the agricultural sector and in small businesses. Small-scale farmers and the self-employed pursuing non-farm activities in both rural and urban areas are particularly dependent on financial support schemes, because it is often difficult or impossible for them to make even small investments owing to problems or lack of access to low-cost finance from commercial banks (McKinley, 2009).

Productivity in the agricultural sector can also be enhanced through public investment in agricultural research and rural infrastructure and publicly assisted agricultural support organizations. Many such organizations were dismantled during the structural adjustment programmes of the 1990s, partly in the context of sweeping liberalization and privatization, and partly because a number of them had serious governance problems. But if such organizations are equipped with appropriate governance structures, they may be instrumental in fostering income growth in rural areas by providing essential extension services, disseminating information about

productivity-enhancing investments and efficient marketing, and facilitating access of small farmers to affordable credit. Ensuring the participation of the agricultural sector in overall productivity growth and the generation of higher purchasing power of those working in this sector may also require protecting farmers against the impact of competition from highly subsidized agricultural products imported from developed countries.

## **2. The role of the public sector in strengthening domestic demand**

### **(a) Direct and indirect demand effects of public expenditure**

Over many years, economic policy was oriented towards a reliance on market forces as key drivers of growth and development, with a reduced size of the public sector in the economy. Government intervention was considered ineffective on the grounds that an increase in public expenditure would cause a reduction in private expenditure. This, it was assumed, would result in greater distortions in resource allocation than those generated by the market mechanism alone, leading to suboptimal outcomes for the economy as a whole. It is certainly true that the public sector has a significant direct and indirect influence on factor allocation, but the “distortions” this creates are not necessarily negative for the economy and society as whole. Moreover, while public finances influence factor allocation at a given level of income, to the extent that they strengthen aggregate demand they raise the level of national income. Taxation and public spending are potentially key instruments for shaping the distribution of purchasing power in the economy and for establishing linkages between companies in the modern sectors, export industries and the rest of the economy, which the market mechanism often fails to accomplish.

Public investment in vital infrastructure to ensure transport, water and electricity supply or services to specific industrial clusters is often a prerequisite for private investment to become viable. Similarly, public expenditure on education and training can influence the quality and skills structure of the labour force and the potential of labour to contribute to productivity growth. This in turn leads to higher

wages and a strengthening of domestic demand. In most developing countries there is also a pressing need to increase public sector provision of essential social services, especially those concerned with nutrition, sanitation, health and education.

Moreover, governments can provide fiscal incentives in the form of targeted tax rebates and temporary subsidies, as well as improved public services to existing firms and potential entrepreneurs. Successful development experiences have shown that if such measures are conceived as elements of a comprehensive industrial policy, they can accelerate the diversification of economic activities and the development of strategic sectors in the economy. At the same time, they can contribute to employment creation, and hence to an expansion of domestic demand.

By influencing income distribution, the structure of taxation has indirect effects on demand, since it has an impact on the pattern of net disposable incomes across different social groups. Aggregate consumption and the incentive for private firms to undertake fixed investments is greater when a given national income is distributed more equally, because lower income groups spend a larger share of their income on consumption, in general, and on domestically produced goods and services, in particular, than higher income groups. Tax-financed social transfers can have similar effects on domestic demand.

Moreover, countercyclical fiscal policy can stabilize domestic demand during periods of slow growth or recession, and thus the demand expectations of domestic investors. The larger the share of the public sector in GDP, the greater will be the potential for stabilization.

### **(b) Raising public revenues**

Higher public spending for purposes of strengthening domestic demand requires an increase in public revenues from taxes or other sources. Alternatively, it may be rational to finance certain types of public expenditure by borrowing. Yet it is often argued that the fiscal space available to governments in developing countries is too limited to extend public sector spending.

Clearly, fiscal space in developing countries, especially in low-income and least developed countries

(LDCs) is smaller than in developed and emerging economies owing to their low level of national income. Moreover, in developing countries, fiscal space is often strongly influenced by international factors that are beyond the control of these countries' governments, such as fluctuations of commodity prices, of interest rates on the public external debt, and of external financing in the form of either private capital inflows or ODA. However, within these constraints, fiscal space is largely determined endogenously; a proactive fiscal policy influences the macroeconomic situation and the overall tax base through its impact on private sector earnings.

Taxes place a burden on the disposable income of the individual taxpayer. Consequently, it is frequently assumed that taxes divert income and purchasing power away from the private sector. But this is a static view that neglects the fact that the perceived tax revenue will flow back to the private sector and increase aggregate income in the economy, thereby enlarging the tax base. It is often forgotten that the net demand effect of a parallel increase in the average tax rate and government expenditure is positive, since some of the additional tax payments are at the expense of the savings of taxpayers, while spending of the tax revenue will cause aggregate demand to rise by the full amount of the tax yield (Haavelmo, 1945). This net effect of additional tax-financed expenditure tends to be greater if more of the additional tax burden falls on the higher income groups (who, of course, will also see their incomes increase, as they participate in the overall income effect of the additional expenditure), and if the larger share of public expenditure is spent on domestically produced goods and services. The scope for using taxation and government spending for strengthening domestic drivers of growth may therefore be greater than is commonly assumed.

Of course, if tax rates are raised above a certain threshold, the behavioural response of those who have to bear the largest share of the tax burden may cause the tax base to shrink along with the economic activity that determines the tax base. However, it is difficult to determine an upper limit for the tax burden, which not only depends on the level of tax rates, but also on how the tax revenue is used. Regarding the income tax rate, it has been found that in developed countries, the top marginal rate at which the total tax yield will be maximized is close to 60 per cent (Piketty, Saez and Stantcheva, 2011),

and there is little reason to believe that it is much lower in developing countries, where incomes often grow faster than in developed countries. Taxing high incomes at higher rates by using progressive scales does not remove the absolute advantage of richer individuals, and neither does it take away the incentive for entrepreneurs to innovate and move up the income ladder. Regarding the corporate tax rate, it is certainly true that fiscal measures to foster private fixed investment are essential, but this does not mean that taxation of profits must be kept to a minimum; reductions of corporate income tax rates have rarely motivated additional investments in fixed capital (*TDR 2012*, chap. V; Devereux, Griffith and Klemm, 2002).

Given the low degree of progressivity in developing and transition economies' tax systems and the large differences between regions and countries in this regard, there may still be scope for more progressive taxation in many of these countries. Levying higher taxes on the modern sector and on highly profitable export activities enables governments to provide financial support for productivity growth and income generation in the traditional and informal sectors. Of course, this requires suitable administrative capacity. In this regard, the conditions in developing countries vary greatly, depending on their level of development, the size of their informal sector and the composition of their GDP. On the other hand, there are a number of other potential sources of revenue that are also available in low-income countries. Taxation of wealth and inheritance is one such source that could be tapped in many developing countries. It requires relatively little administrative capacity and is harder to circumvent than many other taxes. In many resource-rich countries there may be considerable scope for collecting a larger amount of royalties and taxes from companies active in the oil, gas and mining sectors. This is particularly important because the revenue potential from natural resources has grown significantly over the past decade, especially in Africa, and a disproportionately large share of the rents from the extractive industries are captured by transnational corporations (TNCs).

In the manufacturing sector as well, it may be possible to raise additional revenue through a more rational tax treatment of TNCs. Considerable foreign direct investment (FDI) is attracted to developing countries because it allows TNCs to combine the low-cost labour of the host country with more advanced

technology and more capital-intensive production techniques than are locally available, resulting in unit profits that are many times higher than they could realize in their home country. Alternatively, TNCs can substantially reduce the sales price of their products and thereby gain market shares. Thus, the benefits of FDI in terms of productivity gains will be captured either by the foreign investor in the form of higher profits, or by foreign consumers in the form of lower purchasing prices. Meanwhile, very little of those, often enormous, productivity gains benefit the host economies.

In some countries that pursue a coherent industrial policy, the market mechanism may lead foreign companies to purchase intermediate inputs for their production from the local market. This should generate some demand and employment in the economy of the host country. However, in many instances, the market mechanism may not generate such linkages, in which case local content requirements in investment agreements might help, provided that the necessary local supply capacities exist. If this is not the case, or in addition to those requirements, adequate taxation of high profits resulting from the low labour costs – which attracted the TNCs in the first place – could be instrumental in ensuring that linkages are created with the rest of the economy. Those linkages could lead to the creation of domestic demand.

TNCs can also contribute to strengthening domestic demand in the host countries by offering wages to their local employees that are more in line with their productivity gains. Moreover, governments in these countries may be well advised to re-evaluate the benefits of foreign investment to domestic income growth: not only low wages, but also fiscal arrangements to attract FDI may be depriving the State of crucially needed public revenue to finance development projects that are a prerequisite for promoting a domestic manufacturing sector. Many countries compete with other countries in offering lower taxes to TNCs to attract their production facilities, similar to wage competition, often resulting in a race to the bottom. Such policies are at the expense of all the countries that enter into such tax and wage competition.

In order to stop a downward spiral of wages and taxation from this process, international arrangements may prove indispensable. These may include an international code of conduct for TNCs, governing

the employment conditions they offer to workers in developing countries, and strengthened international cooperation in tax matters. Such cooperation should aim at reducing tax evasion, as with the United Nations Model Double Taxation Convention between Developed and Developing Countries. Equally important, there should be a better balance between ensuring that governments competing for production locations reap a fair share of fiscal benefits from TNCs' operations in their countries, while preserving the advantage that foreign investors can derive from FDI on the basis of labour cost differentials. Taking into account the large differences in unit labour costs between the home and host countries, this balance would likely allow a higher level of tax revenues for the host country, while the level of profits of the foreign investors from their production in the host country may be somewhat lower than before, although still several times higher than if it produced the same goods in its home country.

In several low-income and least developed countries it may still be difficult or impossible to promptly implement any of these measures to increase fiscal space because of their limited administrative and tax collecting capacities. In these cases, the multilateral financial institutions and bilateral donors could help by providing additional resources for social spending, as well as the appropriate technical and financial support for strengthening those capacities.

### *(c) Debt-financed public spending*

Debt financing of public expenditure may be considered an appropriate measure for two strategic reasons. One is the countercyclical effect arising from an increase in public sector demand when private demand is insufficient to maintain economic activity at a level where the labour force and the existing capital stock are fully employed, particularly when this is accompanied by a reduction of net private borrowing, as in the current situation of balance-sheet recession experienced in a number of developed countries. The other is to accelerate domestic capital formation by credit-financed public investment in projects that have a long gestation period, such as infrastructure, which will be used for several years or even decades. These will benefit not only the current generation of taxpayers but also future generations, whose tax payments will then be used to service the debt.

There is a widespread view that, to the extent that public expenditure is financed by government borrowing, private agents will tend to reduce their demand for two reasons. First, increased borrowing by the public sector will push up interest rates, which will cut private investment, and second, consumer demand will fall and savings will rise, because consumers will expect to pay higher taxes some time in the future to enable the government to repay its debt (Barro, 1974). However, both these propositions are flawed. The first is based on the erroneous assumption that the public and private sectors compete for the use of a given pool of financial resources. According to this view, if the public sector absorbs fewer financial resources, more will be available for the private sector for productive use (IMF, 2003: 6 and 110–111). However, there is little, if any, empirical evidence of a crowding out of private investment by public borrowing (*TDR 2010*, box 3.1; Aschauer, 1989). On the contrary, public investment has been found to have an overall crowding-in effect on private investment.

Even a relatively large increase in government borrowing is unlikely to push up interest rates, because this increase would still be marginal compared with the total amount of assets in the capital market. More importantly, the interest rate is itself a policy variable determined by the central bank, which can neutralize any effect that higher government borrowing may have on interest rate levels. But even if there were to be a rise in the domestic interest rate, because monetary policy does not support the increase in the public debt, debt-financed government spending would cause aggregate demand to grow, and this would encourage the private sector to invest in additional productive capacity.

The idea that an increase in the fiscal deficit will restrain current private spending, because it creates an expectation of an increase in the tax rate to enable the State to make net debt repayments in the future, ignores the dynamics of public debt in a growing economy. First, public debt that reaches maturity is usually replaced by new debt for the financing of new expenditure, and the need for a net debt repayment only occurs in exceptional cases. In this respect, sovereign debt differs from that of private agents, since States are supposed to last forever. More importantly, a credit-financed increase in public expenditure will generate new demand and greater output, which in turn will boost both private income and fiscal revenues at a constant average tax

rate. In such a situation, it is more likely that higher public expenditure will raise private demand rather than lower it.

These considerations do not imply, of course, that debt financing of public expenditure has no limits. Indeed, an important issue in public sector financing in developing countries and in the assessment of fiscal space relates to the risks involved in the accumulation of public debt. These risks are related to fluctuations in economic growth and to movements in the interest rate on the public debt that are beyond the control of the debtor government, especially when the debt is denominated in foreign currency (see also chapter III of this *Report*). This is one of the reasons why a limit for public indebtedness is difficult to determine. Another reason is that economic growth and the primary budget balance are both partly endogenous variables (i.e. GDP growth and tax revenues are themselves influenced by the size of debt-financed public spending).

Still, unsustainable fiscal policies can lead to sovereign debt crises. It may be preferable for governments to pay all their current and capital expenditure out of current revenues. Balanced budget rules or public deficit ceilings have their merits, but they can also unnecessarily constrain the potential for countercyclical fiscal action when current fiscal revenues fall and reduce the ability of governments to finance public fixed capital formation. The latter is of particular importance for developing and transition economies that have considerable need for substantial investments in infrastructure. Therefore, rules concerning the public sector deficit should not be applied strictly to every single budgeting period; rather, they should adopt a longer term perspective. Also, they should take into account the purposes of public credit financing.

Regarding the first aspect, a rule according to which the public sector deficit should not exceed the long-term trend growth rate of the economy would allow short-term cyclical variations of the deficit. Since the trend growth rate tends to be significantly higher in developing and transition economies than in the developed countries, the former countries may, in principle, have greater scope for deficit financing than the latter. Regarding the second aspect, it is important to bear in mind that some types of spending are bound to have larger multiplier effects on overall income growth than others. In addition, they may have a

stronger stimulating effect on private investment. These types of public spending are more suitable for credit financing than others and also are well suited to a strategy of domestic-demand-led growth because they contribute to maintaining, or even enlarging, a country's fiscal space.

A rational approach is certainly to finance current expenditure such as the payment of civil servants' salaries, the consumption spending of public entities, and social expenditure from taxation and other current revenues, except in cases where credit-financing of such expenditure is warranted in the context of countercyclical action. In these situations, the multiplier effects tend to be higher, so that the deficit will generally correct itself as a result of higher tax revenue from the additional income created by the initial deficit spending.

Public expenditure for fixed capital formation is quite different from that of current expenditure, because, owing to the complementarities between private and public investment, it has a strong potential to increase private investment outlays in addition to its immediate demand effect. In a way, the viability of public debt incurred for the financing of public investment can be viewed in a similar way as private debt incurred for the financing of private investment. First, the creation of debt is associated with the creation of new productive assets, and second, similar to the pay-off of private investment through the revenues generated by the use of private productive capacity, public investment can also be viewed as having a pay-off in the form of additional tax receipts due to an enlarged tax base resulting from the overall productivity increases generated by public investment.

This suggests that a rational approach would be to limit debt financing in the medium term to the level of expenditure for public investment. With regard to borrowing in foreign currency, this should be limited to meeting a country's actual foreign exchange needs (i.e. borrowing in foreign currency only to the extent that public investments require the import of capital goods, material and know-how), or if there is a perceived need to accumulate foreign exchange reserves over and above that accruing from current account balances and autonomous capital inflows that are not used by the private sector for the financing of imports.

If the space for public sector borrowing, as determined by these considerations, is not fully used,

an increase in credit-financed public expenditure may be considered as a possible means to raise not only domestic demand but also domestic supply capacities.

### **3. Policies for fostering domestic productivity growth and structural change**

#### **(a) Industrial policies**

Within a strategy aimed at giving greater emphasis to domestic demand to drive growth and development, particular attention should be given to strengthening domestic supply capacities. This is necessary in order to avoid a deterioration in the balance of payments and a trade deficit resulting from faster growth of domestic demand coupled with slower growth of external demand, which would increase the dependence on foreign capital inflows to finance such deficits. This is of particular importance for countries that have a large natural resource base but a relatively small manufacturing capacity, because governments of these countries may be tempted to seek short-term welfare gains for their economy by using higher commodity export earnings to pay for imports of consumer goods, with no, or even adverse, effects on development.

Policies promoting structural transformation and technological dynamism<sup>31</sup> will be necessary to overcome the supply and demand challenges arising from what is likely to remain a difficult external environment characterized by a slow recovery and a weak growth path of developed economies.

Developing-country firms are often considered technological laggards that have difficulty supplying products with the characteristics demanded by consumers. This is clearly true for up-market goods produced for export to developed countries. An accelerated and broader transfer of technology from developed to developing countries remains critically important for narrowing this gap. Technology transfer relating to capital goods and equipment also remains crucially important.

However, technological lags play a considerably less important role – or none at all – in meeting



the demands of emerging middle-class consumers. Developing-country firms may be well placed to satisfy the demands of these new consumers, not only by adapting existing goods and services to these consumers' specific needs, but also – and perhaps more importantly – by developing new goods and services tailored to their needs or preferences.<sup>32</sup> In addition to technological innovation, the development of new marketing and distribution networks can be crucial for ensuring that new products reach the new consumers in domestic markets. Developing-country firms may have an advantage over developed-country firms in this respect, as they are likely to possess valuable local knowledge for the development of appropriate new distribution networks and marketing strategies for conquering new domestic markets. Less affluent consumers often live outside the largest cities in places where reliable, high-quality and network-driven infrastructure may be scarce, and where distribution systems may differ from those targeting better-off urban consumers. Developed-country firms, on the other hand tend to use “their *existing high-end* products and services through *standard* distribution channels to target the *most affluent* tier of customers in the *largest cities*” (Boston Consulting Group, 2012: 3; emphasis added).<sup>33</sup>

Another issue concerns the increasingly intense competition among firms to gain access to the emerging consumer markets in developing countries, and this is likely to increase even further. Established developed-country firms, especially multinationals, are targeting these new middle classes as potential consumers, especially as sluggish demand growth in their home markets is slowing down their business activities. In addition to building marketing and distribution networks, developing-country firms will need to improve their innovation capabilities and develop appropriate technologies rapidly to successfully compete and capture this new demand in their domestic markets.

The kinds of technologies needed to satisfy the changing demand structures, and the mechanisms required to develop them, are likely to differ from those associated with large technological spurts. The latter are based on advances in scientific understanding which is translated by applied research into the development of commercial products. By contrast, the changes in market conditions, characterized by potentially large new markets in developing countries, requires the identification of “latent demand”

(Schmookler, 1962) and the “steering” of firms to work on problems or requirements specific to those new markets (Rosenberg, 1969).<sup>34</sup> This means that demand may drive both the rate and direction of innovation, so that producers' proximity to markets becomes a valuable asset.

Changes in the production structure of a country required to meet newly rising demand are unlikely to involve a smooth process. The reason is that such structural changes to prevailing specialization patterns require a different distribution of resources across industries. Governments can use industrial policy to encourage this process. Indeed, recent years have seen a revival of the debate on the role of industrial policy in development, prompted by the realization over the past decade that the Washington Consensus, which excluded any role for industrial policy, had not fulfilled its promises. As a result, developing countries, as well as some developed countries, started to look for alternative development strategies. This search for alternatives was accompanied by a revival of interest in classical ideas of economic development, including recognition of the importance of both domestic demand and an economy's sectoral structure for the generation of linkages and productivity growth.<sup>35</sup> These tendencies have been spurred by the economic and financial crisis that has accentuated the debate about market failures and the need for institutions and rules to govern markets. Moreover, accumulated evidence on the contributions of institutions and policies to some of the successes in development (e.g. Fosu, 2013) has become increasingly difficult to ignore and dismiss. As a result, policymakers have been more willing to engage in experimentation and development of home-grown solutions. Many of these experiments include a good dose of industrial policy, such as in Brazil, China and South Africa.<sup>36</sup>

The reorientation required to address post-crisis economic challenges may also be used in industrial policy to boost developing countries' engagement in environmentally sustainable growth strategies.<sup>37</sup> However, it is clear that not all developing countries can develop and use large-scale green production and technologies for their industrial development. Nevertheless, some opportunities exist for early movers that should not be disregarded. A sizeable share of the fiscal stimulus packages adopted in 2008–2009 by a number of countries, especially China and the Republic of Korea, to address the global economic

downturn was directed to green measures and investments. These green stimulus packages corresponded to 5 per cent of GDP in the Republic of Korea and to 3 per cent of GDP in China. Measured in absolute dollar terms, the United States spent about twice as much as the Republic of Korea. Yet this amount corresponds to only about half of China's expenditure, and it corresponds to less than 1 per cent of GDP in the United States (Barbier, 2011). The Republic of Korea and China appear to have recognized more generally that investments in clean energy technologies can have a major impact on growth and employment creation. For example, in 2009 the Republic of Korea launched a five-year Green Growth Investment Plan, spending an additional \$60 billion on reducing carbon dependence and on environmental improvements, with the aim of creating 1.5–1.8 million jobs and boosting economic growth through 2020 (Zelenovskaya, 2012).

Section B of this chapter has discussed, in addition to the repercussions of shifts in global demand as a result of slower growth in the developed countries, the effects of continuing fast population growth on the demand for food and new climate-change-related challenges to agricultural production. In the light of these effects, there is an urgent need in many developing countries to improve productivity, and thus investment, in the agricultural sector, which has generally been neglected over decades. Increasing agricultural productivity does not necessarily require huge investments in advanced technologies, but primarily catching up with the application of existing technologies. A considerable portion of such investment needs to target basic infrastructure, which can be improved with the help of public works programmes. These would also create additional income and employment in rural areas.

*(b) Issues concerning natural-resource-rich economies*

The strong impact of the global financial and economic crisis on natural-resource-dependent countries has again demonstrated the need for these countries to reduce their dependence on the revenues obtained from only a small basket of commodities by diversifying their production and export structures. In this context, the transformation of their natural resource base into physical capital should become a key objective of their development strategies. It will not only generate new employment opportunities and

increase the purchasing power of all the segments of their societies, but also enlarge their fiscal space in the medium to long term.

To the extent that overall demand for primary commodities remains robust and that commodity prices, broadly speaking, plateau at a level that exceeds that in the 1980s and 1990s, natural-resource-rich economies will continue to benefit from improving terms of trade. Nevertheless, they should remain alert to the cyclicity of prices. Moreover, a situation of relatively high commodity prices also implies that these countries should not allow the exploitation of their natural-resource wealth to jeopardize their growth in the long term. They can prevent this by ensuring that the revenues accruing from resource exploitation are used for investing in new activities that spur production and export diversification.

This challenge relates to how to deal with two potentially offsetting forces: “Over the short run, positive terms-of-trade shocks will always (*ceteris paribus*) raise GDP, and the empirical issue is ... [by] how much. Over the long run, however, a positive terms-of-trade shock in primary product-producing countries will reinforce comparative advantage, suck resources into the export sector from other activities, and cause deindustrialization” (Hadass and Williamson, 2003: 640–641). Improvements in the terms of trade and the resulting increase in government revenues should be used to reduce income inequality and avoid deindustrialization through public investment and the provision of social services which target those segments of the population that do not directly benefit from resource revenues. Also needed are policies that spur industrial production, such as maintaining a competitive exchange rate and pursuing a monetary policy that stimulates private investment. These issues have been discussed in some detail by UNCTAD (2012).

*(c) Implications for development partnerships*

Since the launch of the Millennium Development Goals (MDGs) in 2000 and the adoption of the Monterrey Consensus in 2002, the global partnership for development has concentrated largely on the provision of concessional development assistance with a view to alleviating poverty in developing countries. It has also focused on increased access for developing countries to developed-country markets with a view

to spurring economic development in developing countries through export-oriented growth strategies.

The increased provision of both aid and market access was closely related to the greater integration of developing countries, especially China, into global markets. The focus of the global partnership for development on aid and market access has often been criticized for its neglect of the crucial importance of investment and the creation and expansion of productive supply capacities (see, for example, *TDR 2006*). Moreover, the onset of the Great Recession casts serious doubts on the pertinence of this focus on aid and market access. It is highly unlikely that donor countries will meet the targets for development assistance set at various international summits any time soon in view of their fiscal problems associated with the effects of the Great Recession. It is also clear that the rules and regulations of trade and investment agreements, as well as the conditionalities attached to loan agreements with the International Monetary Fund (IMF) and the World Bank, have reduced the policy space of developing countries. Yet, such policy space is needed to develop the domestic productive capacities required to benefit from improved market access conditions and enhance development.

This shortcoming needs to be redressed by ensuring that the global partnership for development takes into account the structural shifts that have been taking place in the world economy since the early 2000s. One of these shifts, on which this chapter has focused, concerns the likely emergence of about 2 billion additional middle-class consumers over the next decade. This shift could be accelerated by the implementation of a development strategy that gives greater importance than in the past to the expansion of domestic demand. Such a strategy, if successful, may also lead to increased purchasing power among the lower income groups in developing countries. This will open up new opportunities for the enhancement of productive capacity and economic growth. The quest for market shares in the large, but only slowly growing markets of developed countries, as well as in the yet small, but rapidly growing markets in developing countries, will be associated with greater international competition. In order to manage such increased competition, developing countries may need to make full use of whatever policy space they still have at their disposal after the conclusion of various regional and bilateral trade and investment agreements and the Uruguay Round trade agreements.

However, these shifts also have much broader implications. Even though the vastly increased importance of developing countries in global economic growth, trade, FDI and capital flows remains concentrated in only about a dozen of them, this systemic change opens up new possibilities. For one, it gives greater weight to their voice and increases their bargaining power as a group for reshaping the rules and institutions that constrain the policy space available to countries that are latecomers to development. There is also greater scope for regional and South-South cooperation in many spheres and through different forms of institutional arrangements that pool markets and resources for development. But perhaps most importantly, the international community should now realize that, with the structural shifts in the world economy, “it is time to move away from unidirectional or asymmetrical relationships” so that development partnerships between developed and developing countries, as well as among developing countries, move towards a greater consideration of “the logic and the spirit of international collective action” (Nayyar, 2012: 23).

#### 4. Conclusions

Developing and transition economies are likely to face sluggish import demand for their goods as a result of a protracted period of slow growth in developed countries. Thus, for policymakers in the former set of countries, reverting to the pre-crisis policy stance with its emphasis on export-oriented growth is not an option. The external economic environment that benefited such a growth strategy, especially during the five years prior to the Great Recession, was built on unsustainable global demand and financing patterns. Countercyclical macroeconomic policies can boost growth for some time, but will eventually result in fiscal or balance-of-payments constraints unless they are followed by policies that adopt a more comprehensive and longer term perspective.

A longer term policy to support rapid and sustained economic growth in developing and transition economies in the vastly changing global environment will need to consider adopting a more balanced growth strategy that gives a greater role to domestic demand to complement external demand. The possibility of rapidly undertaking such a shift in strategy

and the policy mix needed to support this shift will largely depend on the extent to which the sectoral structure of domestic production is delinked from that of domestic demand. This, in turn, will be influenced by the size of the domestic market. While natural-resource-rich countries may be able to continue to benefit from historically high commodity prices, they should ensure that the resulting revenues are used for investing in new activities that spur production and export diversification.

Particularly in countries where manufactures already account for a sizeable share of production, a shift in growth strategy should seek to achieve an appropriate balance between increases in household consumption, private investment and public sector expenditure. The specifics of this balance will largely depend on the circumstances of individual countries, but in general it will require a new perspective on the role of wages and the public sector in the development process. Export-oriented growth strategies emphasize the cost aspect of wages; by contrast, a more domestic-demand-oriented strategy would emphasize the income aspects of wages, as it would be based on household spending as the largest component of domestic demand. Employment creation combined with wage growth that is in line with productivity growth should create sufficient domestic demand to fully utilize growing productive capacities without having to rely on continued export growth. Household spending could also be encouraged by facilitating access to consumer credit. However, such an approach is risky, as amply demonstrated by recent experiences in a number of developed countries. The public sector can further boost domestic

demand by increasing public employment or undertaking investment, which is often a precondition for private investment. In addition, changes in the tax structure and the composition of public expenditure and transfers could shape the distribution of purchasing power in the economy towards those income groups that spend a larger share of their income on consumption.

Increased aggregate demand from household consumption and the public sector would provide an incentive to entrepreneurs to invest in increasing real productive capacity. Industrial policy could support the associated investment decisions so that the sectoral allocation of investment better corresponds to the newly emerging patterns of domestic demand. Given their better knowledge of local markets and local preferences, developing-country enterprises may well have an advantage over foreign ones in catering to these new demand patterns. They could thus prevent the rise in domestic demand from causing a surge in imports from developed countries.

Perhaps most importantly, distinct from export-led growth, a growth strategy with a greater role for domestic demand can be pursued by many countries simultaneously, including even the largest, without causing adverse spillover effects on other countries and without inducing wage and tax competition. Indeed, if many developing and transition economies were to move towards a more balanced growth strategy simultaneously, their economies could become markets for each other, spurring regional and South-South trade, and thus further growth in all of them. ■

---

## Notes

---

- 1 Evidence in chart 2.1 suggests that China suffered only mildly from the trade collapse in 2008–2009. However, the data for China probably underreport the actual effects by a sizeable margin. It is well known that much of China’s exports are recorded as transshipments and re-exports from Hong Kong, Special Administrative Region of China (Hong Kong, SAR) (e.g. Ferrantino and Wang, 2008), for which the adverse effect shown in chart 2.1 is very strong.
- 2 For a more detailed account of the contribution of different product categories to changes in the terms of trade in selected developing countries, see UNCTAD, 2012: 17–19.
- 3 Standard Chartered (2010:1) defines a supercycle in general as a “period of historically high global growth, lasting a generation or more, driven by increasing trade, high rates of investment, urbanization and technological innovation characterized by the emergence of large, new economies, first seen in high catch-up growth rates across the emerging world”.
- 4 Based on the United Nations Population Division’s medium-variant estimates (see *World Population Prospects*, available at: <http://esa.un.org/wpp/>).
- 5 More recently, China has even surprised the markets by importing rice (*Wall Street Journal*, China rice imports unsettle market, 7 January 2013). OECD-FAO (2013) also reports considerable growth in China’s imports of some other commodities in recent years, including pig meat, dairy products, maize and sugar.
- 6 See, for instance, *Wall Street Journal*, “China to speed up reform of hukou system”, 18 December 2012.
- 7 UNCTAD secretariat calculations, based on data from USDA, Background profile on corn, at: <http://www.ers.usda.gov/topics/crops/corn/background.aspx> (accessed June 2013).
- 8 See, for instance, *Wall Street Journal*, “African oil exports plunge amid swelling U.S. output”, 28 February 2013.
- 9 For a more detailed analysis of the potential implications of shale oil, see Helbling, 2013; Maugeri, 2012; Morse et al., 2012; and PWC, 2013.
- 10 See Farooki and Kaplinsky (2012) for a more detailed discussion on commodity supply response and production constraints.
- 11 As discussed in more detail later in this *Report*, this could also exert downward pressure on the prices of certain internationally traded manufactures, possibly causing producers of such goods to use any productivity increase to reduce unit labour costs. This, in turn, would have a negative impact on the purchasing power of workers in these industries, and thus on domestic demand growth, especially in developing countries that continue to pursue a development strategy that relies on export-oriented growth of their manufacturing industries.
- 12 Durable consumer goods include commodities which have an expected life span of more than three years and are of relatively high value, such as refrigerators and washing machines, together with other commodities with a useful life of three years or more, such as audio-visual products. Semi-durable consumer goods include commodities which have an expected life span of more than one year but less than three years and are of relatively lower value, such as textiles, apparel, footwear and toys. Non-durable consumer goods include commodities with an expected life span of less than one year, such as parts of apparel and pharmaceuticals. These three categories combined accounted for 55 per cent of China’s total exports to the United States in 2007.
- 13 United States imports of automobiles (chart 2.4) have also rebounded to their pre-crisis dynamism. However, developing countries account for only a small share of those imports.
- 14 This assumption relates to what economists refer to as “homothetic preferences”.
- 15 The structure of this theoretical approach is similar to the theory of consumption proposed by Pasinetti (1981) in that it is based on a generalization of Engel’s law (i.e. an income-driven non-proportional expansion of demand and learning processes by consumers which cause them to alter their preferences). However, rather than emphasizing demand, Pasinetti based these learning processes on the appearance of new products that result from technical progress on the supply side.

- 16 Indeed, Murphy, Shleifer and Vishny (1989: 538) view the middle class as a necessary “source of buying power for domestic manufacturers”.
- 17 See the annex to this chapter for a more detailed discussion of these mechanisms.
- 18 For empirical evidence supporting these assumptions with regard to passenger cars, see Dargay, Gately and Sommer, 2007.
- 19 The international dollar is a hypothetical currency unit that is generally expressed in terms of constant prices in a certain base year and has the same purchasing power as the dollar in the United States in that year. For the various issues concerning the use of purchasing power parity and international average prices of commodities to calculate the unit, see United Nations, 1992.
- 20 “Italy’s per capita income was used as the upper threshold because it was the country with the lowest income among the G7; Brazil’s per capita income corresponded to the official poverty line used in rich countries like the US and Germany (about \$ PPP 10 per capita per day)” (Bussolo et al., 2011: 14).
- 21 The estimates in Kharas (2010) are based on projections of GDP for the period 2008–2050, where GDP is a function of the accumulation of labour (based on prospects for the evolution of the working-age population provided by the United Nations) and capital (based on the average investment rate for the period 1995–2005), as well as total factor productivity growth (based on historic long-term technology growth and an assumed process of convergence with the United States). All these are combined with projections of long-term exchange-rate movements and purchasing-power conversion rates, as well as with data on income distribution and estimates of mean consumption per capita. The estimates in Bussolo et al. (2011) result from a broadly similar methodology, though this focuses on the impact of economic growth in China and India on global growth and distribution, and employs growth rates that are disaggregated by economic sector in order to better model the evolution of income distribution. While the methodological approaches used in these two studies may be subject to criticism, they are, nevertheless, useful for illustrating the key issue raised here, namely that the developing countries are progressively accounting for a larger share of global consumption.
- 22 The correlation between the growth of labour income and the growth of household consumption is significant at the 10-per cent level of confidence.
- 23 These findings are supported by a comprehensive study by Onaran and Galanis (2012) which shows that, taking the world economy as a whole, a simultaneous and continuing decline in the wage share leads to a slowdown of global growth. Furthermore, taking countries individually in a more detailed investigation of 16 members of the G20, the authors observe that 9 of them show a positive correlation between wage growth and GDP growth. Moreover, 4 of the remaining 7 economies which show negative correlations between wage growth and GDP growth when taken individually, effectively register lower growth when the wage shares of all the economies fall simultaneously.
- 24 The recent debate on higher aggregate demand that results from an increase in government spending (i.e. “the multiplier effect”) indicates that this effect is generally higher – and exceeds unity – in recessions than in more normal times.
- 25 It should be noted that any scheme that attempts to increase the sales and use of private cars may conflict with urbanization strategies that give priority to expanding public transport systems.
- 26 JP Morgan, “Thailand: autos slowing but domestic demand not stalling”, *Global Data Watch*, 22 March 2013.
- 27 Revenue from capital investments (e.g. dividends) may also boost disposable personal income. However, such sources are unlikely to be of much significance to most of the segments of the population that are targeted as agents of increased household consumption spending (i.e. lower and middle-income classes).
- 28 In some countries, such as Brazil, the rapid growth of household credit has also been affected by capital inflows (which have provided ample liquidity to banks) and by the development of domestic credit markets. Chapter III of this *Report* addresses these issues in detail.
- 29 R. Colitt, “Brazil consumer default rate drops to lowest level in 16 months”, Bloomberg, 26 March 2013; available at: <http://www.bloomberg.com/news/2013-04-26/brazil-consumer-default-rate-drops-to-lowest-level-in-16-months.html>.
- 30 This trade-off is part of the debate (further discussed in chapter III) about whether central banks should be concerned exclusively with price stability (e.g. by pursuing inflation targeting), or whether they should also be responsible for maintaining financial sector stability, which may imply preventing the formation of asset price bubbles. A central bank that pursues inflation targeting would maintain low interest rates when the inflation rate is low. The low interest rates, in turn, would allow households to contain an increase in their debt burden, even if their outstanding debt increases. However, a sudden change in risk perception, caused, for example, by the bursting of an asset price bubble, will lead to a sudden and sizeable rise in the interest rate on outstanding debt, with ensuing adverse effects on spending.
- 31 It is clear that the need for technological dynamism does not concern only manufacturing, which is the focus of this section. However, the primary and services sectors often provide few or only poorly

- paid jobs, and productivity growth in these sectors usually lags behind that in manufacturing.
- 32 A related issue concerns the impact of a shift of major segments of the end markets for manufactures from developed to developing countries on the functioning of global supply chains. Industrialization through participation and upgrading in global value chains has played a crucial role in many countries' export-oriented development strategies over the past two decades. However, empirical evidence suggests that supporting exporters' domestic embeddedness, rather than favouring participation in supply chains, is crucial for product upgrading and for achieving profitability and value added (see, for example, Jarreau and Poncet, 2012; and Manova and Yu, 2012). The existence of such backward linkages may become even more important for the resilience of developing countries, as some segments of the end markets for consumer goods shift to their domestic economies (i.e. closer to the production sites of such goods), thereby also increasing the forward linkages of such production sites. This may eventually provide an opportunity for developing-country firms to lead supply chains, rather than merely integrate into existing chains, and develop by trying to increase the value-added content of their activities.
- 33 It is interesting to note in this context that some market analysts have started to warn even Western producers of luxury goods that the time may soon be over when luxury goods embodying familiar French and Italian cultural values sell well, and that they will increasingly need to offer less standardized items, which take account of values embedded in the cultures of their destination markets (V. Accary, "Le marché du luxe dans les pays émergents est en train de changer, il faut s'y adapter!", *Le Monde Economie*, 25 March 2013; available at: [http://www.lemonde.fr/economie/article/2013/03/25/le-marche-du-luxe-dans-les-pays-emergents-est-en-train-de-changer-il-faut-s-y-adapter\\_1853658\\_3234.html](http://www.lemonde.fr/economie/article/2013/03/25/le-marche-du-luxe-dans-les-pays-emergents-est-en-train-de-changer-il-faut-s-y-adapter_1853658_3234.html)).
- 34 Miles (2010: 3) provides a detailed review of the "schism between Schumpeter's emphasis on technology breakthroughs and Schmookler's stress on innovation responding to the pull of market demand."
- 35 Both these issues were discussed in detail in *TDRs 2003* and *2006*.
- 36 These experiments are not only related to the development of domestic supply capabilities required for satisfying growing domestic consumer demand, which is the focus here; they also concern issues related to global supply chains, where industrial policy involves regulating links to the global economy, such as through trade, FDI and exchange rates (see, for example, Milberg, Jiang and Gereffi, 2013).
- 37 Industrial policy can also be a vehicle for greater regional integration, especially for small countries (for Uruguay, see Torres, 2013).

---

## References

---

- Aglietta M (2012). Chine: Horizon 2030, in *L'économie mondiale 2013*. Paris, Centre d'Etudes Prospectives et d'Informations Internationales (CEPII).
- Akyüz Y (2011). Export dependence and sustainability of growth in China. *China & World Economy*, 19(1): 1–23.
- Aschauer D (1989). Is public expenditure productive? *Journal of Monetary Economics*, 23(2):177–200.
- Bajraj R (1977). La inflación argentina en los años setenta. *El Trimestre Económico*, 44 (176), October–December: 947–996.
- Barbier E (2011). A global green recovery and the lessons of history. *The European Financial Review*, 17 February; available at: <http://www.europeanfinancialreview.com/?p=2497>.
- Barro R (1974). Are government bonds net wealth? *Journal of Political Economy*, 82 (6): 1095–1117.
- Berkelmans L and Wang H (2012). Chinese urban residential construction. *Reserve Bank of Australia Bulletin*, September.
- Bems R, Johnson RC and Yi KM (2010). Demand spillovers and the collapse of trade in the global recession. *IMF Economic Review*, 58(2): 295–326.
- Bems R, Johnson RC and Yi KM (2013). The great trade collapse. *Annual Review of Economics*, forthcoming.
- Bloxham P, Keen A and Hartigan L (2012). Commodities and the global economy — Are current high prices the new normal? Multi Asset, August, HSBC Global Research.
- Boston Consulting Group (2012). Unlocking growth in the middle: How business model innovation can

- capture the critical middle class in emerging markets. *bcg. Perspectives*; available at: [bcgperspectives.com/content/articles/growth\\_globalization\\_unlocking\\_growth\\_in\\_the\\_middle/](http://bcgperspectives.com/content/articles/growth_globalization_unlocking_growth_in_the_middle/).
- BP (2011). *BP Energy Outlook 2030*. British Petroleum.
- BP (2013). *Statistical Review of World Energy*. British Petroleum.
- Brown L (2012). Full planet, empty plates: The new geopolitics of food scarcity. Earth Policy Institute.
- Bussière M, Callegari G, Ghironi F, Sestieri G, Yamano N (2011). Estimating trade elasticities: Demand composition and the trade collapse of 2008–09. Working Paper 17712, National Bureau of Economic Research, Cambridge, MA.
- Bussolo M, de Hoyos RE, Medvedev D and van der Mensbrugge D (2011). Global growth and distribution: China, India, and the emergence of a global middle class. *Journal of Globalization and Development*, 2(2), Article 3.
- Calcagno AF (2008). Reformas estructurales y modalidades de desarrollo en América Latina. In: Déniz J, de León O and Palazuelos A, eds. *Realidades y desafíos del desarrollo económico de América Latina*. Madrid, Los Libros de la Catarata.
- CBA (2012). The resource boom — entering a new phase. CBA Research, Commonwealth Bank.
- Chai A and Moneta A (2012). Back to Engel? Some evidence for the hierarchy of needs. *Journal of Evolutionary Economics*, 22(4): 649–676.
- Chenery H, Robinson S and Syrquin M (eds) (1986). *Industrialization and Growth: A Comparative Study*. Oxford University Press, Oxford and New York.
- Citi (2013). From Commodities Supercycle to Unicycles – 2Q 2013. *Commodities Market Update*. Citi Research.
- Coates B and Luu N (2012). China's emergence in global commodity markets. *Economic Roundup Issue 1*. Australian Government, The Treasury.
- Credit Suisse (2013). *2013 Global Outlook*.
- Dargay J, Gately D and Sommer M (2007). Vehicle ownership and income growth, worldwide: 1960–2030. *The Energy Journal*, 28(4): 143–170.
- Dell'Ariccia G, Igan D, Laeven L and Tong H (2012). Policies for Macroeconomic Stability: How to Deal with Credit Booms. Staff Discussion Note SDN/12/06, International Monetary Fund, Washington DC, 7 June.
- Desdoigts A and Jaramillo F (2009). Trade, demand spillovers, and industrialization: The emerging global middle class in perspective. *Journal of International Economics*, 79(2): 248–258.
- Devereux MP, Griffith R and Klemm A (2002). Corporate income tax reforms and international tax competition. *Economic Policy*, 17(35): 451–495.
- ECLAC (1978). *Series históricas de crecimiento*. Cuadernos de la CEPAL No. 3, Santiago, Economic Commission for Latin America and the Caribbean.
- ECLAC (1979). *América Latina en el umbral de los años 80*. Santiago, Economic Commission for Latin America and the Caribbean.
- ECLAC (2012). *Latin America and the Caribbean in the World Economy: Continuing Crisis in the Centre and New Opportunities for Developing Economies*. Santiago, Economic Commission for Latin America and the Caribbean.
- Erten B and Ocampo JA (2012). Super-cycles of commodity prices since the mid-nineteenth century. Working Paper No. 110, United Nations Department of Economic and Social Affairs (UN-DESA), New York, February.
- FAO (2011). *The State of the World's Land and Water Resources for Food and Agriculture: Managing Systems at Risk*. Rome.
- FAO (2012a). *The State of Food Insecurity in the World*. Rome.
- FAO (2012b). *The State of Food and Agriculture: Investing in Agriculture for a Better Future*. Rome.
- Farooki M and Kaplinsky R (2012). *The Impact of China on Global Commodity Prices: The Global Reshaping of the Resource Sector*. London and New York, Routledge.
- Ferrantino MJ and Wang Z (2008). Accounting for discrepancies in bilateral trade: The case of China, Hong Kong, and the United States. *China Economic Review*, 19(3): 502–520.
- Foellmi and Zweimüller (2006). Income distribution and demand-induced innovations. *Review of Economic Studies*, 73(4): 941–960.
- Foellmi and Zweimüller (2008). Structural change, Engel's consumption cycles and Kaldor's facts of economic growth. *Journal of Monetary Economics*, 55(7): 1317–1328.
- Fosu A (ed.) (2013). *Achieving Development Success: Strategies and Lessons from the Developing World*. Oxford, Oxford University Press.
- Furtado C (1976). *La economía latinoamericana, formación histórica y problemas contemporáneos*, editorial Siglo XXI (eighth edition in Spanish, reprinted in 1998), Mexico, DF.
- G20 (2012). Boosting jobs and living standards in G20 countries. A joint report by the ILO, OECD, IMF and World Bank. June. Available at: [http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms\\_183705.pdf](http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_183705.pdf).
- Goldman Sachs (2012). *The Old Economy Renaissance: 2013-2014 Issues and Outlook*. Goldman Sachs Commodities Research, December.
- Gopinath G, Itskhoki O and Neiman B (2012). Trade prices and the global trade collapse of 2008–09. *IMF Economic Review*, 60(3): 303–328.
- Haavelmo T (1945). Multiplier effects of a balanced budget. *Econometrica*, 13: 311–318.
- Hadass YS and Williamson JG (2003). Terms-of-trade shocks and economic performance, 1870–1940:



- Prebisch and Singer revisited. *Economic Development and Cultural Change*, 51(3): 629–656.
- Haraguchi N and Rezonja G (2010). In search of general patterns of manufacturing development. Working Paper 02/2010, United Nations Industrial Development Organization, Vienna.
- Harrod R (1933). *International Economics*. Cambridge, Cambridge University Press.
- Heap A (2005). China – The engine of a commodities super cycle. Citigroup Smith Barney.
- Helbling T (2013). On the rise. *Finance & Development*, March issue. Washington, DC, International Monetary Fund.
- Houthakker HS (1957). An international comparison of household expenditure patterns, commemorating the century of Engel's law. *Econometrica*, 25(4): 532–551.
- IEA (2012a). *World Energy Outlook*. Paris, International Energy Agency.
- IEA (2012b). *Medium Term Oil Market Report*. Paris, International Energy Agency.
- ILO (2013). *Global Employment Trends 2013 – Recovering from a Second Jobs Dip*. Geneva, International Labour Office.
- IMF (2003). Evaluation report: Fiscal adjustment in IMF-supported programmes. Washington, DC, Independent Evaluation Office.
- Jarreau J and Poncet S (2012). Export sophistication and economic growth: Evidence from China. *Journal of Development Economics*, 97(2): 281–292.
- Kharas H (2010). The emerging middle class in developing countries. Working Paper No. 285, OECD Development Centre, Paris. January.
- Lawson S and Dragusanu R (2008). Building the world: Mapping infrastructure demand. Goldman Sachs Global Economics Paper, 166.
- Levchenko AA, Lewis LT and Tesar LL (2010). The collapse of international trade during the 2008–09 crisis: In search of the smoking gun. *IMF Economic Review*, 58(2): 214–253.
- Lluch C, Powell AA and Williams RA (1977). *Patterns in Household Demand and Saving*. New York and Oxford, Oxford University Press.
- Manova K and Yu Z (2012). Firms and credit constraints along the value-added chain: Processing trade in China. Working Paper 18561, National Bureau of Economic Research, Cambridge, MA.
- Maslow AP (1954). *Motivation and Personality*. New York, Harper and Row.
- Matsuyama K (2002). The rise of mass consumption societies. *Journal of Political Economy*, 110(5): 1035–1070.
- Maugeri L (2012). Oil: The next revolution. Cambridge, MA, Harvard Kennedy School, Belfer Center for Science and International Affairs.
- Mayer J (2013). Towards a greater role of domestic demand in developing countries' growth strategies. UNCTAD Discussion Paper (forthcoming). Geneva, UNCTAD.
- McKinley T (ed.) (2009). *Economic Alternatives for Growth, Employment and Poverty Reduction*. London and Basingstoke, Palgrave Macmillan.
- McKinsey Global Institute (2013). Beyond Korean style: Shaping a new growth formula.
- MEG (2013). *Worldwide Exploration Trends 2013*. Metals Economics Group.
- Milanovic B (2012). Global income inequality data, 1988–2005; available at: <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/0,,contentMDK:22261771~pagePK:64214825~piPK:64214943~theSitePK:469382,00.html>.
- Milberg W, Jiang X and Gereffi G (2013). Industrial policy in the era of vertically specialized industrialization. In: Kozul-Wright R and Salazar-Xirinachs JM, eds., *Growth, Productive Transformation and Employment: New Perspectives on the Industrial Policy Debate* (forthcoming).
- Miles PI (2010). Demand-led innovation. *Global Review of Innovation Intelligence and Policy Studies*. Manchester, University of Manchester; available at: <http://grips-public.mediaactive.fr/ministudies/view/11/demand-led-innovation/>.
- Morse E, Lee EG, Ahn DP, Doshi A, Kleinman S and Yuen A (2012). Energy 2020: North America, the new Middle East? *Global Perspectives and Solutions (Citi GPS)*, March.
- Murphy KM, Shleifer A, Vishny R (1989). Income distribution, market size, and industrialization. *Quarterly Journal of Economics*, 104(3): 537–564.
- Nayyar D (2012). The MDGs after 2015: Some reflections on the possibilities. Paper prepared for the UN System Task Team on the Post-2015 UN Development Agenda; available at: [http://www.un.org/en/development/desa/policy/untaskteam\\_undf/d\\_nayyar.pdf](http://www.un.org/en/development/desa/policy/untaskteam_undf/d_nayyar.pdf).
- Nomura Equity Research (2012). How much metal can China use? Nomura China Non-Ferrous Metals Special Report.
- Noyola JF (1957). Inflation y desarrollo económico en Chile y México. *Panorama económico*, 11(170). Santiago, Chile, Editorial Universitaria, July.
- Ocampo JA and Parra MA (2010). The terms of trade for commodities since the mid-19th century. *Journal of Iberian and Latin American Economic History*, 28(1): 11–43.
- OECD-FAO (2013). *Agricultural Outlook 2013–2022*. Paris and Rome.
- Onaran O and Galanis G (2012). Is aggregate demand wage-led or profit-led? National and global effects. *Conditions of Work and Employment Series* No. 40. Geneva, International Labour Office.
- Oxfam (2012). Extreme weather, extreme prices.
- Pasinetti LL (1981). *Structural Change and Economic Growth: A Theoretical Essay on the Dynamics*

- of the *Wealth of Nations*. Cambridge, Cambridge University Press.
- Piketty T, Saez E and Stantcheva S (2011). Optimal taxation of top labor incomes: A tale of three elasticities. NBER Working Paper 17616, National Bureau of Economic Research, Cambridge, MA.
- Prebisch R (1950). The economic development of Latin America and its principal problems. Reprinted in *Economic Bulletin for Latin America* (1962), 7(1): 1–22.
- PWC (2013). Shale oil: The next energy revolution.
- Rosenberg N (1969). Direction of technological change – inducement mechanisms and focusing devices. *Economic Development and Cultural Change*, 18(1): 1–24.
- Rosenstein-Rodan PN (1943). Problems of industrialisation of Eastern and South-Eastern Europe. *Economic Journal*, 53(210/211): 202–211.
- Sainz P and Faletto E (1985). *Transformación y crisis: América Latina y el Caribe 1950-1984*. ECLAC, Santiago, Chile.
- Schmookler J (1962). Economic sources of inventive activity. *Journal of Economic History*, 22(1): 1–20.
- Smale D (2013). Review and outlook for copper, nickel, lead and zinc. Presentation to the UNCTAD Multi-year Expert Meeting on Commodities and Development. International Lead and Zinc Study Group, International Copper Study Group, International Nickel Study Group, Geneva, 20–21 March.
- Standard Chartered (2010). *The Super-Cycle Report*.
- Thorp R (1997). Las economías latinoamericanas 1939-c.1950. In: Bethell L, ed., *Historia económica de América Latina*, Vol. 11. Barcelona, Editorial Crítica.
- Torres S (2013). Industrial policy in Uruguay. In: Kozul-Wright R and Salazar-Xirinachs JM, eds., *Growth, Productive Transformation and Employment: New Perspectives on the Industrial Policy Debate* (forthcoming).
- UNCTAD (2012). Excessive commodity price volatility: Macroeconomic effects on growth and policy options. Contribution of the UNCTAD secretariat to the G20 Commodity Markets Working Group; available at: [http://unctad.org/meetings/en/Miscellaneous%20Documents/gds\\_mdpb\\_G20\\_001\\_en.pdf](http://unctad.org/meetings/en/Miscellaneous%20Documents/gds_mdpb_G20_001_en.pdf).
- UNCTAD (TDR 2003). *Trade and Development Report, 2003. Capital accumulation, growth and structural change*. United Nations publication, Sales No. E.03.II.D.7, New York and Geneva.
- UNCTAD (TDR 2005). *Trade and Development Report, 2005. New Features of Global Interdependence*. United Nations publication, Sales No. E.05.II.D.13, New York and Geneva.
- UNCTAD (TDR 2006). *Trade and Development Report, 2006. Global Partnership and National Policies for Development*. United Nations publication, Sales No. E.06.II.D.6, New York and Geneva.
- UNCTAD (TDR 2007). *Trade and Development Report, 2007. Regional Cooperation for Development*. United Nations publication, Sales No. E.07.II.D.11, New York and Geneva.
- UNCTAD (TDR 2009). *Trade and Development Report, 2009. Responding to the Global Crisis: Climate Change Mitigation and Development*. United Nations publication, Sales No. E.09.II.D.16, New York and Geneva.
- UNCTAD (TDR 2010). *Trade and Development Report, 2010. Employment, Globalization and Development*. United Nations publication, Sales No. E.10.II.D.3, New York and Geneva.
- UNCTAD (TDR 2011). *Trade and Development Report, 2011. Post-crisis Policy Challenges in the World Economy*. United Nations publication, Sales No. E.11.II.D.3, New York and Geneva.
- UNCTAD (TDR 2012). *Trade and Development Report, 2012. Policies for Inclusive and Balance Growth*. United Nations publication, Sales No. E.12.II.D.6, New York and Geneva.
- United Nations (1992). *Handbook of the International Comparison Programme*. Studies in Methods, Series F, No. 62, document ST/ESA/STAT/SER.F/62. New York, Department of Economic and Social Development, Statistical Division, United Nations.
- UN-DESA (2009). Global Vulnerability to Trade Shocks. *World Economic Vulnerability Monitor* No. 1. United Nations, New York, 12 August.
- UN-DESA (2012). *World Population Prospects: The 2011 Revision*. Population Division. United Nations, New York.
- USDA (2013). *USDA Agricultural Projections to 2022*. Outlook No. (OCE-131), February. Washington, DC, United States Department of Agriculture.
- Witt U (2001). Learning to consume: A theory of wants and the growth of demand. *Journal of Evolutionary Economics*, 11(1): 23–36.
- Zelenovskaya E (2012). Green growth policy in Korea: A case study. International Center for Climate Governance; available at: [http://www.iccgov.org/FilePageStatiche/Files/Publications/Reflections/08\\_reflection\\_june\\_2012.pdf](http://www.iccgov.org/FilePageStatiche/Files/Publications/Reflections/08_reflection_june_2012.pdf).
- Zhou Z, Tian W, Wang J, Liu H and Cao L (2012). Food consumption trends in China. Report submitted to the Australian Government Department of Agriculture, Fisheries and Forestry, April 2012.

**Annex to chapter II****SHIFTING GROWTH STRATEGIES:  
MAIN IMPLICATIONS AND CHALLENGES**

Many developing countries have pursued export-oriented growth strategies over the past three decades. The success of such strategies depends on rapidly growing global demand and the identification of new export markets or the expansion of existing ones, combined with the ability of an exporting country to enter market segments with high growth and potential for productivity growth.

With the onset of the global crisis, such strategies are no longer viable. Demand growth in

developed-country markets, especially the United States and Europe, has declined sharply. Despite an early swift rebound, it is widely expected that slow growth in the developed countries will reduce export opportunities to these countries for a long time. This raises the question as to whether developing and transition economies, and especially the large ones among them, can shift from an export-oriented to a more domestic-demand-oriented growth strategy. This annex addresses what such a shift would entail.

**1. The national income accounting identity and economic growth**

The orientation of a country's growth strategy, whether more towards exports or more towards domestic demand, implies differences in the growth contribution of the various elements of the national income accounting identity expressed as:

$$Y=C+I+G+(X-M) \quad (1)$$

where a country's output ( $Y$ ) is the sum of household consumption expenditure ( $C$ ), investment ( $I$ ), government expenditure ( $G$ ) and the current-account

balance, i.e. the difference between exports ( $X$ ) and imports ( $M$ ).<sup>1</sup> Each element on the right-hand side of the equation has two components, one of which is autonomous and the other a function of national income, which in turn equals output ( $Y$ ). An export-oriented growth strategy will pay particular attention to the relationship between exports and imports, while the other three components will be of greater interest in a more domestic-demand-oriented growth strategy.

Most models of economic growth pay little attention to the various components of the national income accounting identity. Such models are supply-driven, with output growth being a function of factor inputs and factor productivity. Aggregate demand for output is assumed to be sufficient for full utilization of capacity. Trade is the one component of the accounting identity that enters supply-based growth analyses, sometimes through the terms of trade (defined as the ratio of export prices to import prices), but more usually on the assumption that “trade openness” contributes to capital accumulation or productivity growth. Different studies measure openness differently: some through tariff rates or non-tariff barriers, but most commonly as some ratio of trade flows to output (Harrison and Rodriguez-Clare, 2010).

From such a supply-based perspective, “export-oriented growth” refers to a high ratio of exports and imports relative to output  $((X+M)/Y)$ , i.e. being very open to trade. A high degree of openness to trade may contribute to growth if imported inputs are more productive than domestic inputs, or if there are technological spillovers or other externalities from exporting or importing. The literature on global value chains suggests that a high degree of trade openness will have a positive effect on growth, particularly in countries that export a large proportion of manufactures and succeed in “moving up the value chain”, i.e. they increase the value-added content of their exports. A high degree of trade openness is also of microeconomic relevance, since it determines the degree to which the sectoral structure of domestic production is delinked from that of domestic demand. This gap will be particularly wide for countries that export a high proportion of primary commodities; but it will also be substantial for countries that produce goods, such as consumer electronics, which few domestic consumers can afford.

The national income accounting identity is of immediate relevance for the macroeconomic causation of growth if it is considered from the demand side. From a demand-based perspective, “export-oriented growth” refers to a large difference between exports and imports relative to output  $((X-M)/Y)$ , i.e. running a large trade surplus. The reason why this perspective considers the degree of openness as being less relevant for growth is that, focusing on the share of household consumption in

output, the national income accounting identity can be rearranged as:

$$\frac{C}{Y} = 1 - \frac{(I + G)}{Y} - \frac{(X - M)}{Y} \quad (2)$$

where any given share of household consumption in output (i.e.  $C/Y$ ) is compatible with an unlimited range of values of trade openness (i.e.  $(X+M)/Y$ ). A country can have a high share of consumption in output and still export most of its output. By contrast, the larger the trade surplus (i.e.  $(X-M)/Y$ ), the larger will be the growth contribution of exports, and the smaller will be the contributions of the domestic demand elements (i.e.  $C$ ,  $I$  and  $G$ ) required to attain a given rate of growth.

A related demand-based meaning of export-oriented growth emphasizes the role of the balance-of-payments constraint in limiting output growth. From this perspective, export orientation is relevant for a country’s growth strategy for at least two reasons (Thirlwall, 2002: 53).<sup>2</sup> First, exports are the only truly autonomous component of demand, i.e. they are unrelated to the current level of national income. The major shares of household consumption, government expenditure and investment demand are dependent on income. Second, exports are the only component of demand whose revenues accrue in foreign currency, and can therefore pay for the import requirements of growth. Growth driven by consumption, investment or government expenditure may be viable for a short time, but the import content of each of these components of demand will need to be balanced by exports. Of course, such balancing is not necessary if a country accumulates external debt, absorbs a rising amount of net capital inflows or lets the real exchange rate depreciate. However, the length of time any of these three strategies can be pursued depends very much on the external economic environment (e.g. the size of the rate of interest on international capital markets), and they can quickly spiral into a balance-of-payments crisis.

At what point in time the balance-of-payments constraint is felt depends on the import content of the various components of aggregate demand ( $Y_D$ ) which are a part of leakage, i.e. the fraction of a change in national income that is not spent on current domestic production, but instead saved ( $s$ ), paid in taxes ( $t$ )

or spent on imports ( $m$ ). Thus, the determination of aggregate demand can be schematically expressed as:

$$Y_D = \frac{I + G + X}{s + t + m} \quad (3)$$

A special case of this equation is the dynamic version of Harrod's foreign trade multiplier. In this case, household consumption, investment, and government expenditure have no autonomous element and trade is assumed to be balanced in the long run (i.e.  $X=M$ ), because all output is either consumed or exported and all income is consumed either on domestic goods or imports. This means that savings and taxes must equal investment and government expenditure (i.e.  $s+t=I+G$ ). Thus, the growth rate of country  $i$  ( $g_i$ ) is determined by what is known as "Thirlwall's law", and expressed as:

$$g_i = \frac{\varepsilon_i z}{\pi_i} \quad (4)$$

where  $\varepsilon_i$  is the world's income elasticity of demand for exports from country  $i$ ,  $\pi_i$  is the income elasticity of demand for imports by country  $i$ , and  $z$  is the rate of world income growth (Thirlwall, 1979). According to equation (4), a country's growth rate is determined by the ratio of export growth to the income elasticity of demand for imports. The growth of a country's exports ( $x_i$ ) – with  $x_i = \varepsilon_i z$  – is determined by what is going on in the rest of the world. It influences the growth of  $Y_D$ , and hence the growth of output (in the short run via the rate of capacity use and in the long run by motivating the expansion of capacity).<sup>3</sup> Given the current situation of slow growth in developing countries' main export markets, equation (4) implies that developing countries' economic growth will be constrained by a slowdown in the expansion of their exports.

In addition to the impact on the expansion of exports taken as a bundle, the extent to which an exporting country's growth rate is affected by economic growth in the rest of the world also depends on its pattern of specialization.<sup>4</sup> If a country exports goods and services with a relatively large potential for innovation and technological upgrading, output growth could be boosted through improved factor productivity or through an increase in the income elasticity of demand stemming from innovation-based improvements in the quality of goods. If a country

exports from sectors with more rapid international demand growth, it could benefit from a larger income elasticity of demand for its exports, thus boosting output growth by attaining a higher  $\varepsilon/\pi$  ratio. Sectors in which there is significant potential for innovation may be called "supply dynamic", while sectors that benefit from a rapid growth of international demand may be called "demand dynamic" sectors. And there is a significant degree of overlap between the two groups (Mayer et al., 2003). Compared with primary commodities, manufactures are usually considered as having both greater potential for innovation and technological upgrading as well as better international demand prospects. Export-oriented industrialization is a strategy that exploits this overlap during periods of favourable export opportunities with a view to increasing a country's  $\varepsilon/\pi$  ratio (especially through an increase in  $\varepsilon$ ) and therefore its growth rate. On the other hand, this also means that, in the current context, the adverse impact of slow growth in developed countries is likely to be greater on developing countries that pursue an export-oriented growth strategy that relies mainly on exports of manufactures than on developing countries whose similar strategy relies mainly on exports of primary commodities.

The argument made in this chapter adopts a demand-side perspective mainly because it facilitates an examination of the processes involved in shifting the orientation of a country's growth strategy from one component of demand (i.e. exports) to another (i.e. domestic demand). But taking a demand-side perspective on growth also allows establishing a link between the orientation of growth strategies and the current debate on rebalancing, much of which relates to the share of household consumption in aggregate demand. The G20 Leaders' Statement (2009) at the Pittsburgh Summit called for a rotation of global demand from countries with a current account deficit (especially the United States) towards countries with a current account surplus (such as China and Germany), where domestic expenditure in deficit countries would no longer exceed their income but rapid global growth would be maintained. This is because surplus countries would, at least for a period of time, record accelerated domestic demand growth in excess of their income. Finally, some of those countries whose export opportunities may be adversely affected by a prolonged period of slow growth in developed economies may risk falling into

the so-called “middle-income trap”, as the decline in their manufactured exports may significantly slow down economic growth. It is generally argued that those countries will increasingly need to rely on

innovation (i.e. investment in the national accounting identity), and household consumption expenditure in order to continue to catch up with the income levels and standards of living of the developed countries.

---

## 2. A demand-side perspective on the transition from an export-oriented to a more domestic-demand-orientated growth strategy

---

Considered from a demand-side perspective, there are three main challenges in switching from a growth strategy based on exports to one based more on domestic demand. One relates to the size of the domestic market. According to equation (2), the increase in the sum of  $C$ ,  $I$  and  $G$  must be sufficiently large to compensate for the decline in the trade surplus caused by a fall in exports without having a negative impact on growth. With  $\Delta$  denoting changes, this can be expressed as:

$$\frac{\Delta(C + I + G)}{Y} = - \frac{\Delta(X - M)}{Y} \quad (5)$$

Concentrating on household consumption, the claim that a sizeable segment of the population in some of the most populous developing and transition economies (e.g. Brazil, China and the Russian Federation) has attained middle-class status, and that this status is not far from being attained in some other economies as well (such as India and Indonesia) (e.g. Bussolo et al., 2011; Kharas, 2010) suggests that these economies have a sufficiently large domestic market for rising household expenditure to compensate for at least a major part of any decline in export demand due to low growth in developed countries.

The second challenge concerns the risk that a switch in growth strategy will rapidly become unsustainable by triggering a surge in imports and ensuing balance-of-payments problems.<sup>5</sup> Differences in the import intensity of the different components of

aggregate demand imply that the relative importance of  $C$ ,  $G$  and  $I$  determines the evolution of imports. Rewriting equation (1), with  $m_C$ ,  $m_I$ ,  $m_G$ , and  $m_X$  denoting the import intensity of  $C$ ,  $I$ ,  $G$ , and  $X$ , leads to

$$Y = (C - m_C C) + (I - m_I I) + (G - m_G G) + (X - m_X X) \quad (6)$$

which shows that these differences imply that changes in the composition of a country's aggregate demand will cause significant changes in imports, which occur even if the level of national aggregate demand does not change. Statistical evidence indicates that in most countries the import intensities of exports and investment exceed that of consumption, and that the import intensity of household consumption exceeds that of government consumption, since the latter includes a large proportion of non-tradables such as services (e.g. Bussière et al., 2011). A variation in the import contents of the different elements of aggregate demand implies that changes in the trade balance have different indirect impacts on growth.<sup>6</sup> As noted by McCombie (1985: 63), “an increase in exports allows other autonomous expenditures to be increased until income has risen by enough to induce an increase in imports equivalent to the initial increase in exports.”

Maintaining some export growth will most likely be necessary in order to finance the imports of primary commodities and capital goods required for ongoing urbanization and for an expansion of

domestic productive capacity. In the current context, maintaining some export growth may be more feasible for developing-country exporters of primary commodities, especially energy. For developing countries exporting manufactured goods to developed countries, it will depend on the evolution of import demand in developed countries, but would probably also require seeking other destination markets, mainly in developing countries where consumption expenditure is increasing. Maintaining export growth could also be achieved by the inclusion of more sophisticated goods in the export basket, such as through upgrading in global value chains which could both raise exports and reduce imports, but much of the scope for doing so will also depend on the evolution of import demand in developed countries. However, it must be borne in mind that from the perspective of the global economy, any country's trade surplus must be absorbed by a commensurate growth in other countries' imports.

The third challenge relates to the fact that, unlike exports, the bulk of the other components of aggregate demand (i.e. household consumption expenditure, government expenditure and investment) is not autonomous, but induced by income (e.g.  $C=cY$ , where  $c$  is the marginal propensity to consume). This means that for a shift in growth strategy to be sustainable, an initial increase in expenditure in the, usually small, autonomous segments of  $C$ ,  $G$  and  $I$  must trigger an increase in expenditure in those segments of  $C$ ,  $G$  and  $I$  that are induced by income, and income itself must be generated in the process. The remainder of this annex discusses how the autonomous segments of the various components of domestic demand can be increased, and how such increases can create income that, in turn, would enable growth in those segments that are a function of income.

Some part of government expenditure is autonomous, and can be financed by issuing government bonds or imposing higher tax rates. However, much of government expenditure and revenue is endogenous (such as payments for unemployment benefits and tax receipts), and is therefore a function of income. The income effects of an increase in government expenditure, in turn, depend on its multiplier effects and on the degree of internationally coordinated fiscal expansion. There is an ongoing debate about the size of the multiplier effect, but it is generally agreed to be higher in a slump than in more normal

times (Blanchard and Leigh, 2013). In 2008–2009, simultaneous fiscal expansion played a crucial role in compensating for the adverse growth effects of declining export opportunities for developing countries. However, these countries may not have the necessary fiscal space to enable the adoption of such measures a second time (or even on a continuous basis over a given period). Moreover, there are questions as to how much of a country's fiscal expansion undertaken individually spills over to other countries through rising imports. Coordinated fiscal expansion would greatly bolster the growth prospects of all participating countries, but this requires considerable solidarity among States and peoples, which is unlikely in the foreseeable future.

Investment also has an autonomous component, particularly public investment in infrastructure and housing. However, the bulk of investment is endogenous and is determined by the opportunity cost of capital. This is mainly a function of the short-term interest rate set by the central bank and expectations of future growth of sales. If entrepreneurs expect a strong and sustained increase in demand for what they produce, they will engage in large investment expenditures financed, for example, through the creation of liquidity by commercial banks. This means that a country's overall share of investment in GDP must be compatible with its overall share of consumption in GDP to achieve a balanced expansion of domestic demand. If investment continuously outpaces consumption, the productive capacity created will be underutilized, which will depress revenues and, to the extent that investment is debt financed, it will create problems in the domestic financial system.

Turning to the third component of domestic demand (i.e. household consumption expenditure), the financial ability of a sizeable group of consumers to delink, at least temporarily, consumption from current income will facilitate a broad-based increase in consumption expenditure. Such a delinking might occur, for example, in anticipation of a higher future income or for reasons of social interdependencies in consumption. Both these factors may well be considered key characteristics of middle-class households. Usually, low-income households will not have the discretionary income or the savings required to engage in spending unrelated to current income, even if tax policies and government transfers to low-income households affect consumption spending by

this category. High-income households are likely to prefer spending on conspicuous, luxury goods, and their number will generally be smaller than that of middle-class households. Moreover, generally it is middle-class households that seek access to consumer credit which finances purchases of durable consumer goods. An initial provision of the purchasing power required for accelerated consumption expenditure through sources delinked from wage income would also limit any adverse consequences for international competitiveness that can be due to a shift from an export-oriented growth strategy, which has often relied on low wages, to a growth strategy that relies more on private consumption. However, to be sustainable, this will eventually require a higher wage income.

The autonomous part of middle-class consumption could also be financed by borrowing from abroad, which would appear as an external deficit in the national income accounting identity (equation 1), or through various possibilities that would reduce leakage by increasing the size of  $s$  (=1 minus the marginal propensity to consume out of income) in equation (2): a reduction of spending or savings by another class of households, for example by a redistribution of income (through taxes or transfers) from high-income to middle-class households, borrowing from domestic lenders, and/or improved social security systems.

However, if a greater role of household consumption in a country's growth strategy is to be sustainable in the current context, where the growth of its exports is constrained by slow growth in its destination markets, the bulk of the rise in consumer demand must be met by domestic production rather than by imports. Some of this domestic production may consist of those goods that were formerly exported to developed countries, but the rest will need to come from increased domestic production made possible by induced investment. This in turn

will create employment and income for domestic consumers and lead to an increase in consumption linked to current income. Thus the creation of domestic purchasing power through jobs and income is an essential condition for a shift from an export-oriented to a more domestic-consumption-oriented growth strategy to be sustainable, as it will boost the non-autonomous component of household consumption.

This latter point illustrates that even a growth strategy based on an increase in domestic demand needs to give strong emphasis to the supply structure of the economy. Induced investment may be particularly sensitive to two factors. First, the tastes and preferences of middle-class consumers in developing countries may well differ from the existing high-end products much sought after by consumers in developed countries and by the most affluent groups of consumers in the largest cities of developing countries, who are the standard targets of developed-country firms. It may be easier for domestic producers than foreign producers to develop goods whose characteristics match the preferences of local middle-class consumers. Second, emphasizing that trade is not costless, and that geographical distance to markets still matters, the literature on international trade and economic geography has shown how market size and relative geographic position affect specialization patterns. In particular, greater domestic demand for manufactured consumer goods "will lead to higher wages which, in the presence of non-homothetic preferences combined with positive trade costs, will shift local production towards the manufacturing sector" (Breinlich and Cuñat, 2013: 134). In taking advantage of the associated innovation opportunities, developing-country firms would need to combine investment in supply- and demand-dynamic sectors, thereby reducing the import content of rising domestic consumption expenditure, i.e. increasing their country's  $\varepsilon/\pi$  ratio, as expressed in equation (4), especially through a decline in  $\pi$  associated with private consumption. ■



---

## Notes

---

- 1 Treating the current account as exactly equal to net exports is an approximation, which assumes transfers to equal zero. Transfers in the form of workers' remittances play a significant role in the national income of poor countries.
- 2 For a discussion of other demand-oriented growth models, see Setterfield, 2010.
- 3 This relationship is subject to a number of assumptions, including constant relative prices (or the real exchange rate), and the Marshall-Lerner condition being just satisfied (i.e. the sum of the price elasticities of demand for imports and exports equals unity), so that the growth of exports is solely determined by the growth of world income. Thirlwall (2013: 87–90) concludes from a review of a “mass of studies applying the model in its various forms to individual countries and groups of countries” that the “vast majority of studies support the balance of payments constrained growth hypothesis for two basic reasons. The first is that it is shown overwhelmingly that relative price changes or real exchange rate changes are not an efficient balance of payments adjustment mechanism either because the degree of long-run change is small, or the price elasticity of exports and imports is low. ... The second reason why the model fits so well is that even if balance of payments equilibrium is allowed ... there is a limit to the current account deficit to GDP ratio that countries can sustain”. For further discussion of the debate about this relationship, see McCombie (2011). For a full discussion about how Thirlwall's law relates to Kaldorian growth theory and about the robustness of its basic hypothesis to extensions such as taking account of relative price dynamics, international financial flows, multi-sector growth, cumulative causation, and the interaction between the actual and potential rates of growth, see Setterfield (2011).
- 4 For an extension of Thirlwall's law to a multi-sectoral economy, see Araujo and Lima (2007) and Razmi (2011).
- 5 While induced imports may be the main factor in the leakage identified in equation (3), savings and taxation also play a role. Savings cause households' expenditure to be lower than their total income. Households' net acquisition of financial assets and other forms of wealth reduces the amount of disposable income that constitutes consumption expenditure. However, depending on the age structure of the population and the availability of social security systems, especially for senior citizens, this reduction is likely to be small for most individuals, especially those belonging to middle-class households. Data on the distribution of household wealth indicate a high concentration, with the share of the top 10 per cent of adults holding over two thirds of global wealth (Davies et al., 2010). Moreover, accumulated wealth is usually used to finance housing, rather than durable goods consumption.
- 6 The composition of private consumption between tradable goods and non-tradable services also plays a role. Workers in the latter sector demand more imports but do not contribute to exports, with ensuing adverse effects on the balance of payments.

---

## References

---

- Araujo RA and Lima GT (2007). A structural economic dynamics approach to balance-of-payments-constrained growth. *Cambridge Journal of Economics*, 31(5): 755–774.
- Blanchard O and Leigh D (2013). Growth forecast errors and fiscal multipliers. Working Paper No 13/1, International Monetary Fund, Washington, DC.
- Breinlich H and Cuñat A (2013). Geography, non-homotheticity, and industrialization: A quantitative analysis. *Journal of Development Economics*, 103 (July): 133–153.
- Bussière M, Callegari G, Ghironi F, Sestieri G, Yamano N (2011). Estimating trade elasticities: Demand composition and the trade collapse of 2008–09. NBER Working Paper 17712, Cambridge, MA, December.
- Bussolo M, de Hoyos RE, Medvedev D and van der Mensbrugge D (2011). Global growth and distribution: China, India, and the emergence of a global middle class. *Journal of Globalization and Development*, 2(2): Article 3.
- Davies JB, Sadström S, Shorrocks A and Wolff EN (2010). The level of distribution of global household wealth. *The Economic Journal*, 121(1): 223–254.
- G20 (2009). Leaders Statement: The Pittsburgh Summit. At <http://www.g20.utoronto.ca/2009/2009communique0925.html>.
- Harrison A and Rodriguez-Clare A (2010). Trade, foreign investment, and industrial policy for developing countries. In: Rodrik D and Rosenzweig M, eds. *Handbook of Development Economics*, Vol. 5. North-Holland, Amsterdam: 4039–4214.
- Kharas H (2010). The emerging middle class in developing countries. Working Paper No. 285, OECD Development Centre, Paris. January.
- Mayer J, Butkevicius A, Kadri A and Pizarro J (2003). Dynamic products in world exports. *Review of World Economics*, 139(4): 762–795.
- McCombie JSL (1985). Economic growth, the Harrod foreign trade multiplier and the Hicks' super-multiplier. *Applied Economics*, 17(1): 55–72.
- McCombie JSL (2011). Criticisms and defences of the balance-of-payments constrained growth model, some old, some new. *PSL (Paolo Sylos Labini) Quarterly Review*, 64(259): 353–392.
- Razmi A (2011). Exploring the robustness of the balance of payments-constrained growth idea in a multiple good framework. *Cambridge Journal of Economics*, 35(3): 545–567.
- Setterfield M (ed.) (2010). *Handbook of Alternative Theories of Economic Growth*. Cheltenham and Northampton, MA, Edward Elgar.
- Setterfield M (2011). The remarkable durability of Thirlwall's law. *PSL (Paolo Sylos Labini) Quarterly Review*, 64(259): 393–427.
- Thirlwall AP (1979). The balance of payments constraint as an explanation of international growth rate differences. *Banca Nazionale del Lavoro Quarterly Review*, 32(128): 45–53.
- Thirlwall AP (2002). *Trade, the Balance of Payments and Exchange Rate Policy in Developing Countries*. Cheltenham and Northampton, MA, Edward Elgar.
- Thirlwall AP (2013). *Economic Growth in an Open Developing Economy: The Role of Structure and Demand*. Cheltenham and Northampton, MA, Edward Elgar.