

**RESPONDING TO THE CHANGING SHAPE OF
THE WORLD ECONOMY:
CONSUMER-SPENDING AND EXPORT
DEVELOPMENTS IN TURKEY IN A
COMPARATIVE PERSPECTIVE***

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Abstract

This paper addresses the sustainability of Turkey's current-account position by emphasizing household consumption and exports. It highlights Turkey's comparatively high consumption expenditure as a share of GDP, much of which credit financed over the past few years, and the significant increase in the contribution of developing countries, including Turkey, to global economic growth, but shows that these features have been accompanied by the accumulation of large global current-account imbalances. The paper employs GTAP-simulations to analyse the frequently made recommendation that slower consumer demand growth and a durable improvement in the price competitiveness of exports are the key to improving the sustainability of Turkey's external accounts. It argues that demand growth on Turkey's traditional export markets, especially the Euro area, is likely to remain subdued for a protracted period of time and cannot be expected to generate expansionary impulses for other countries' exports. The paper concludes that diversifying the destination markets of Turkey's exports towards rapidly growing developing countries will require product innovation with a view to meeting these

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countries' consumer preferences, which are likely to differ from those in Turkey's traditional high-income markets.

Key Words: Turkish Economy, Balance-of-Payments Constraint, Consumer Demand, GTAP-Simulations.

JEL Classification: O11, D12, F14, O33.

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Özet

Bu makale ihracat ve hanehalkı tüketimine odaklanarak Türkiye'nin cari-ışlemler pozisyonunun sürdürülebilirliğine değinmektedir. Türkiye'nin son yıllarda önemli bir kısmı kredi ile finanse edilmiş olan GSYH içindeki görelî yüksek tüketim harcamalarının ve Türkiye'nin de aralarında bulunduğu gelişmekte-olan ülkelerin global ekonomik büyümeye yaptıkları katkıdaki önemli artışın altı çizilmekte, ancak bu gelişmelerin geniş global cari-ışlemler dengesizliklerinin birikimiyle beraber gerçekleştiğı gösterilmektedir. Çalışma, düşük tüketici talebi büyümesi ile ihracata ilişkin fiyat rekabetçiliğinde kalıcı bir iyileşmenin Türkiye'nin cari işlemler açıklarının sürdürülebilirliği noktasında anahtar bir konumda olduğu yönündeki sıkça yapılan bir öneriyi analiz etmek üzere GTAP simülasyonlarını kullanmaktadır. Özellikle Avro alanında olmak üzere Türkiye'nin geleneksel ihracat piyasalarındaki talep büyümesinin uzunca bir süre zayıf kalacağı ve diğer ülkelerin ihracatları için genişletici etkiler yaratmasının beklenmediğı öne sürülmektedir. Türkiye ihracatının yöneldiğı piyasaları hızlı büyüyen gelişmekte-olan ülkelere doğru çeşitlendirmenin, bu ülkelerin Türkiye'nin geleneksel yüksek-gelirli piyasalarından oldukça farklı olması beklenen tüketici tercihlerinin karşılanması bakışına sahip bir ürün inovasyonu gerektireceğı sonucuna varılmaktadır.

Anahtar Kelimeler: Türkiye Ekonomisi, Ödemeler Dengesi Kısıtı, Tüketici Talebi, GTAP Simülasyonları.

JEL Sınıflandırması: O11, D12, F14, O33.

1. Introduction

Narrowing the large current-account deficit has commonly been identified as one of Turkey's main economic challenges. While the rapid recovery of domestic demand in 2009–2010 smoothed the impact of the global crisis, it also led the country's current-account deficit as a share of gross domestic product (GDP) to reach an unprecedented level of almost 10 per cent in 2011. The ensuing adoption of restrictive monetary and financial policies was followed by a deceleration in domestic demand growth and a narrowing of the current-account deficit. Nonetheless, at its current level of about 7 per cent, the current-account deficit as a share of GDP still leaves Turkey's economy vulnerable to a slow down in capital inflows with potentially negative consequences for financial stability and growth. Such vulnerability occurs especially if capital inflows are short-term in nature and respond to carry-trade opportunities (i.e. large interest rate differentials between source and host currencies) as has been the case in Turkey over the past few years. In June 2013, Turkey was indeed among the countries most affected by capital outflows triggered by the expectation that the United States' Federal Reserve might embark on reducing monetary stimulus, while the Fed's decision in September 2013 to maintain monetary stimulus has widely been interpreted as giving Turkey more time to reduce its dependence on foreign funding.¹

The robust path of domestic consumer demand, recently much supported by credit growth, combined with weaknesses in external price competitiveness have often been cited as the root causes of Turkey's persistent current-account deficit. Given Turkey's lack of natural resources, much of the country's energy needs require sustained imports and leave little room for import suppression. As a result, slower consumer demand growth and a durable improvement in the price competitiveness of exports are often seen as necessary in order to improve the sustainability of Turkey's external accounts and reduce its financial vulnerability (IMF, 2012a; OECD, 2012). However, demand growth on Turkey's traditional export markets, especially the Euro area, is likely to remain subdued for a protracted period of time and cannot be expected to generate expansionary impulses for other countries' exports (UNCTAD, 2013). This implies that diversifying its export markets towards a greater importance of those developing countries whose growth

¹ D Dombey, "Turkey relieved at Fed decision to postpone taper", *Financial Times*, 19 September 2013; available at <http://www.ft.com/intl/cms/s/0/fe64f28-2141-11e3-8aff-00144feab7de.html#axzz2nFPxAo8B>.

performance might continue to outperform that of Euro-area countries is likely to play a crucial role in making Turkey's current-account position more sustainable.

This paper's main objective is to contribute to the literature on ways and means designed to increase the sustainability of Turkey's current account, and to do so by emphasizing the role of household consumption and of exports to rapidly growing developing countries. Section 2 discusses various aspects of the changing shape of the world economy that has seen a significant increase in the contribution of developing countries to global economic growth. The section also examines, in a comparative perspective, the evolution of Turkey's household consumption expenditures. Section 3 discusses links between consumption and a country's current-account position and analyses the implications of global rebalancing for trade flows on the basis of the well-established global model of the Global Trade Analysis Project (GTAP). Section 4 addresses the potential role of innovation in a greater diversification of Turkey's export markets. Section 5 concludes.

2. The changing shape of the world economy

The shape of the world economy has changed significantly over the past three decades. The share of developing countries in global GDP has increased, and several developing countries and regions have become additional drivers of global economic growth. It is particularly noteworthy that during the period 2003–2007, when output growth in developing countries accelerated even as developed countries experienced relatively slow growth, on average, the average annual GDP growth of developing countries exceeded that of developed countries by 4.5–5 percentage points. The onset of the global economic and financial crisis initially reinforced this trend, as the downturn in 2008–2009 was less dramatic and the subsequent recovery more rapid in developing than in developed countries.

Despite the healthy growth in developing and transition economies, developed countries remained the main drivers of global growth until the onset of the current crisis. During the period 1990–2005, these latter countries accounted for about three quarters of global GDP, and the share of their contribution to global economic growth exceeded 50 per cent. By contrast, during the period 2008–2012, as a group they contributed very little to global growth (Table 1). As a result, during the period 2010–2012, global growth was driven mainly by developing countries, which accounted for about two thirds of such growth.

Table 1: Comparative growth performance, selected countries and country groups, 1991–2012

	1991–2002		2003–2007		2008–2012	
	Output growth (annual average)	Contribution to global growth	Output growth (annual average)	Contribution to global growth	Output growth (annual average)	Contribution to global growth
World	2.9	2.9	3.7	3.7	1.7	1.7
Developed economies	2.6	2.0	2.6	2.0	0.3	0.2
Transition economies	-2.6	-0.1	7.6	0.2	1.8	0.0
Developing economies	4.7	0.8	7.0	1.5	5.3	1.4
Africa	2.9	0.1	5.8	0.1	3.6	0.1
East, South-East & South Asia	6.5	0.5	8.3	0.9	6.8	1.0
West Asia	3.7	0.1	6.9	0.2	4.0	0.1
Latin America & Caribbean	2.9	0.2	4.8	0.3	3.0	0.2
Oceania	2.2	0.0	3.1	0.0	3.4	0.0
Memo items:						
Argentina	2.6	0.0	8.9	0.0	5.8	0.0
Brazil	2.6	0.1	4.0	0.1	3.3	0.1
China	10.1	0.2	11.6	0.5	9.4	0.6
India	5.9	0.1	8.6	0.1	7.2	0.1
Indonesia	3.6	0.0	5.5	0.0	5.9	0.0
Mexico	3.1	0.1	3.6	0.1	1.6	0.0
Republic of Korea	6.1	0.1	4.4	0.1	3.1	0.1
Russian Federation	-2.7	-0.1	7.4	0.1	1.5	0.0
Saudi Arabia	2.0	0.0	4.7	0.0	4.4	0.0
South Africa	2.3	0.0	4.9	0.0	2.1	0.0
Turkey	3.3	0.0	7.3	0.1	3.5	0.0

Source: UNCTAD, Trade and Development Report 2013, Table 1.5.

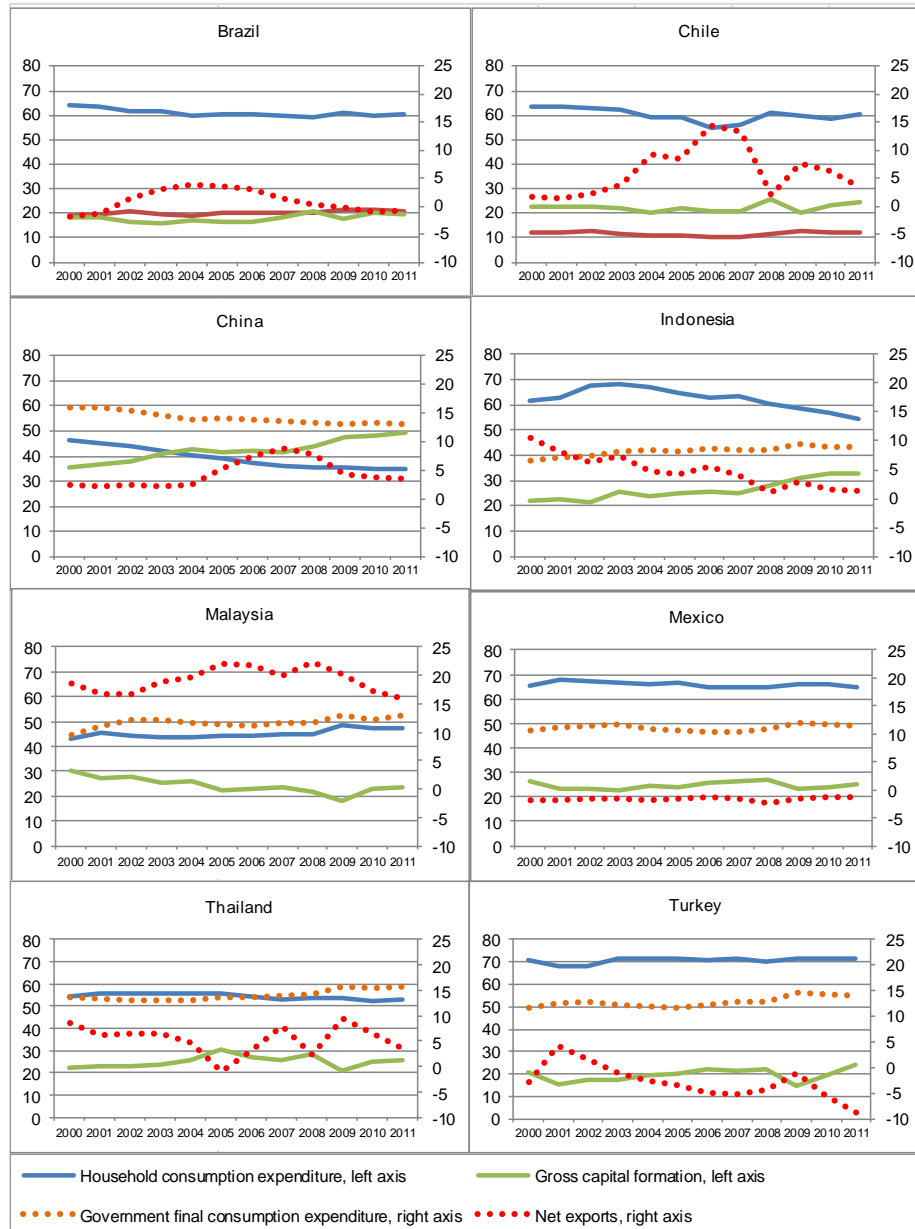
Growth acceleration during 2003–2007, compared with that during the period 1991–2002, has diverged considerably across developing countries. It was particularly pronounced in some of the large developing countries, such as Argentina, India, South Africa and Turkey, but much less so in Brazil, China and Mexico (Table 1). The sharp increase in those rates in Argentina and Turkey was partly due to these countries' swift recovery from severe crises at the beginning of the millennium, which had caused large output losses. In 2011–2012 growth performance gradually worsened in most developing countries, especially in Brazil, India and Turkey. Nevertheless, even in these latter countries, per capita income continues to exceed pre-crisis levels by a significant margin.

Some observers argue that the recent strong growth performance of developing countries was, during the period 2003–2007, mainly due to the favourable global economic environment and, over the past five years, driven by counter-cyclical policies whose effects are, however, fading away (see, e.g., IMF, 2012b). Nevertheless, a range of developing countries (e.g., Brazil, China, South Africa) have improved policy frameworks (such as counter-cyclical policies and more flexible exchange-rate regimes) and rediscovered industrial policies with a view to improving their growth fundamentals from the supply side. Moreover, many of these countries have significant potential for domestic consumption growth and may attempt to rebalance domestic and external sources of growth through labour market policies, including a reversal of the trend towards declining wage shares, as well as through income redistribution based on a change in the structure of public finance and on transfers to households, which would strengthen the purchasing power of those domestic income groups that spend a larger share of their income on consumption in general, and on domestically produced goods and services, in particular, than higher income groups (UNCTAD, 2013).

The episodes of rapid growth discussed above have indeed been accompanied by changes in the composition of aggregate demand in many developing countries. A comparison of the evolution of private consumption, government consumption, investment and net exports shows that, during the period 2008–2011, many developing countries reacted to a decline in their net exports by increasing the share of government consumption in GDP (Chart 1), associated with a rapid expansion of counter-cyclical fiscal spending. Household consumption expenditure as a share of GDP also increased in some of these countries, such as Brazil and Malaysia, while it fell in others, such as China and Indonesia. Regarding China, most of the country's counter-cyclical fiscal stimulus consisted of higher public investment rather than current expenditure. The share of investment (public and private) rose by 8 percentage points, averaging 46 per cent of GDP in 2008–2011. This was accompanied by a significant fall in the share of household consumption in GDP from an average of over 50 per cent in the 1980s to an average of about 36 per cent in the period 2008–2011. Turkey also saw a strong increase in the share of investment in GDP² during the period 2009–2011 when the share of net exports in GDP declined from -1 per cent to almost -9 per cent, while the share of consumption, both public and private, increased in the immediate aftermath of the onset of the global crisis in 2007–2008.

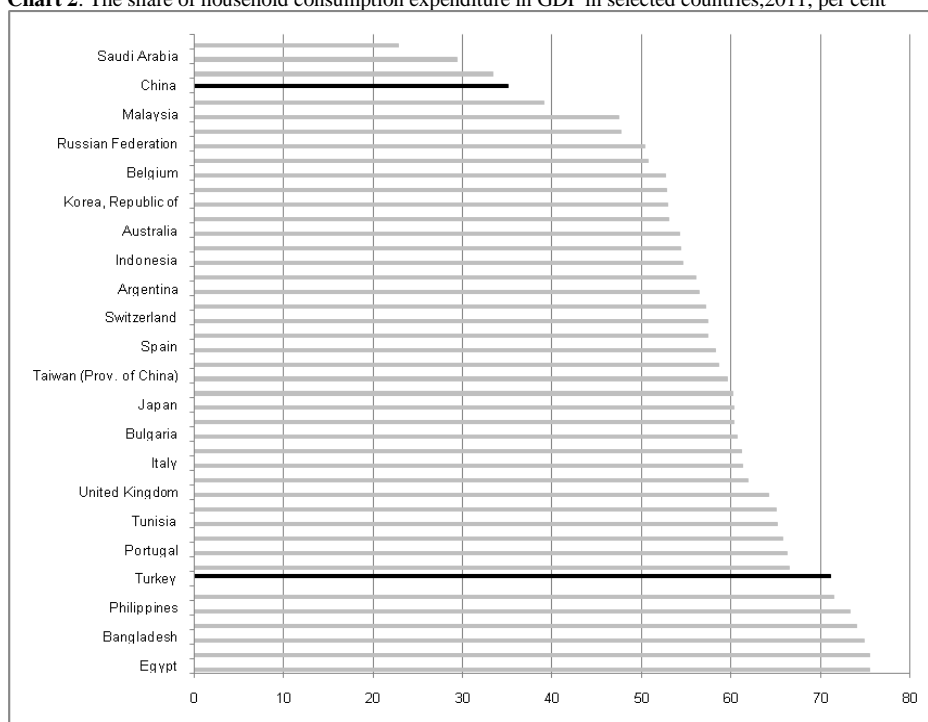
² Nevertheless, at barely 20 per cent, investment as a share of GDP remains significantly below the levels registered by rapidly growing developing countries, especially those in East Asia.

Chart 1: Type of expenditure as a share of GDP, selected economies, 2000–2011



Source: Author's own calculations based on UnctadStat.

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

Chart 2: The share of household consumption expenditure in GDP in selected countries, 2011, per cent

Source: Author's own calculations based on UnctadStat.

These differences in reacting to the crisis have in part reinforced longer term cross-country differences in the importance of household consumption in GDP (chart 2). In China, for example, private consumer spending as a share of GDP is low by international standards, accounting for only 35 per cent in 2011. A relatively low share of private consumption in GDP is a characteristic frequently observed in rapidly industrializing economies during their early phase of economic take-off. However, contrary to the experiences in Japan and the Republic of Korea at similar stages of industrial development, China experienced a sharp decline in the share of private consumption in GDP, combined with a sharp increase in the share of investment since about 2005, which is about 25 years after the country began its economic take-off.³ Other Asian developing countries, such as Indonesia, Malaysia and Thailand, have also recorded shares of private consumption in GDP which, at levels of about 45–55 per cent, are relatively low, especially in comparison to the respective shares in many countries in Latin America, such as Brazil, Chile and

³ For further discussion of this issue, see UNCTAD (2010: 48–53).

Mexico, where these shares are at a level of about 60–65 per cent. Turkey has traditionally had an even higher share of private consumption in GDP which, at a level of about 70 per cent, has been similar to that of the United States.

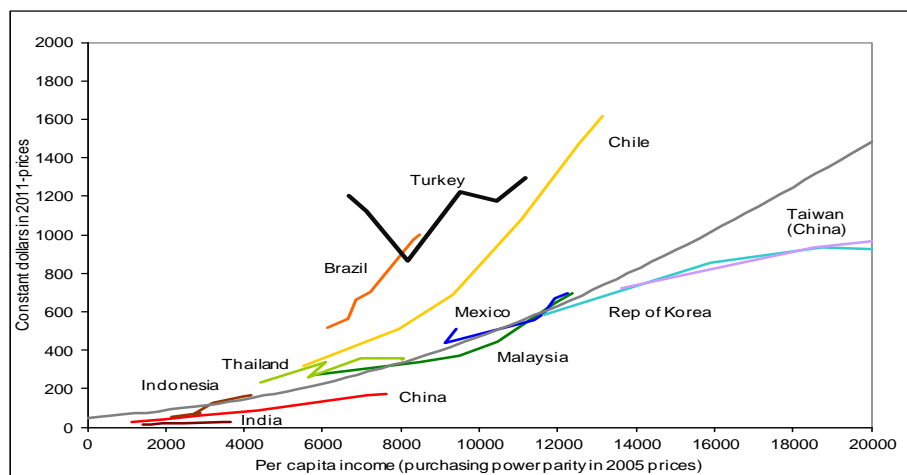
Such differences regarding the importance of private consumption in aggregate demand between developing countries in Asia on the one hand, and those in Latin America, as well as Turkey, on the other, can be observed also for sub-categories of consumer goods. Country-specific time series for the period 1990–2011 show that consumers in many Asian developing countries (e.g., China, India, Malaysia, Republic of Korea, and Taiwan (Province of China)) spend less, and that those in many Latin American countries (e.g., Brazil, Chile and Mexico) and Turkey spend more on durable consumer goods⁴ relative to the cross-country average (Chart 3).⁵ The fact that the growth contribution of consumer spending in the latter group of countries has been considerably larger than in Asian developing countries is likely to be a main reason for this difference. According to calculations of the World Bank (2011: 28–30) for the period 1977–2006, the difference between consumption and export shares of output growth was about 0.5–0.6 in Brazil and Mexico, while it was about 0.2–0.3 in the Republic of Korea. Asian countries have seen a much larger growth contribution from exports than from consumption, particularly during the first decade of the 2000s when in China the trade surplus as a share of GDP increased from 2.4 per cent in 2000 to 8.8 per cent in 2007, while the growth contribution from private consumption had been negative since the early 1990s.

More detailed statistical evidence gives further insight on the relationship between income growth and consumption expenditure. Regarding advanced economies, the statistics indicate the sizeable growth in expenditure for durable consumer goods in the United States during the period 1990–2007, as well as the subsequent substantial fall (Table 2). The statistics also show that during the period 1990–2007, expenditure on durable consumer goods in Japan and the Euro-area, especially Germany, grew considerably less than per capita income, which may reflect these countries' strong export orientation.

⁴ Durable consumer goods are products with an expected life span of at least three years, such as refrigerators, washing machines and audio-visual products.

⁵ For discussion of how this international average was calculated, see Mayer (2013).

Chart 3: Relationship between per capita income and spending on durable consumer goods, international average and selected countries, 1990–2011



Source: Author's own calculations based on Euromonitor, Penn World Tables and UNCTADStat.

In China, the pace of expenditure on durable consumer goods considerably accelerated during the period 2007–2011, pointing to some internal rebalancing. During the period 1990–2007 such expenditure was growing less than per capita income, and the share of household consumption in GDP declined to about 35 per cent. While expenditure on durable consumer goods during the period 2007–2011 held up well in a range of other Asian developing countries (such as Indonesia, the Republic of Korea, and Thailand), a similar acceleration as in China can be observed for Malaysia and Turkey, as well as, especially, for Brazil and the group of other large Latin American economies (including Argentina, Chile, Colombia, Peru and Venezuela). The difference in the pace between expenditure on durable consumer goods and per capita income during the period 1990–2011 was largest in the Russian Federation, probably mirroring pent-up demand prior to the beginning of economic transition. By contrast, the pace of expenditure on durable consumer goods in Nigeria and a group of economies in West Asia is substantially smaller, and often even negative, than per capita income. Finally, the evidence shown in table 2 (last column) indicates that, in 2011, the level of per capita consumption expenditure in the large Asian developing economies (such as China, India and Indonesia) was not even one tenth, and that even in the large economies in Latin America it is only about one fourth, that in the advanced economies. This means that even considering the much larger size of population in these developing economies, absolute levels of

consumption spending in advanced economies remains significantly larger. But it also indicates the significant potential of consumer demand growth in rapidly growing developing countries.

Table 2
The relationship between per capita income and consumption expenditure, selected economies, 1990–2011: descriptive statistics

	Per capita income	Expenditure on durable consumer goods	memo items		Growth of expenditure on durable consumer goods		Share of household consumption in GDP	Per capita consumption expenditure
			Per capita income growth		1990–07	2007–11		
	Average 1990–2011	Average 1990–2011	1990–07	2007–11	1990–07	2007–11	2007–2011	2011
	(constant international dollar)	(constant US-dollar)	(per cent)		(per cent)		(per cent)	(US-dollar)
Developed countries and country groups								
United States	37932	3638	2.2	-1.1	2.1	-3.4	70.6	33575
Japan	29997	2280	0.7	-1.3	-1.3	-1.4	58.3	27161
Germany	30682	3296	1.3	0.5	-0.9	-0.8	57.0	23915
Core Euro area ex Germany	30544	2658	2.0	-0.8	1.1	-2.2	53.5	24264
Transition economies								
Russian Fed.	10877	443	1.5	1.8	9.5	1.2	51.0	6400
Developing economies								
<u>Asia</u>								
China	3508	74	9.1	8.5	9.0	12.1	35.3	2134
India	2162	19	4.3	6.4	4.2	0.3	57.6	892
Indonesia	3033	98	2.0	5.1	5.0	3.6	59.9	1981
Malaysia	9367	412	3.4	1.8	3.4	5.5	47.2	5043
Philippines	2620	124	1.4	2.2	2.7	-1.4	73.5	1703
Rep of Korea	19345	857	4.2	2.6	2.6	2.5	53.9	10810
Taiwan Prov. China	22974	978	4.2	3.2	2.3	-0.3	59.3	11721
Thailand	6305	303	2.4	1.6	1.8	1.7	54.4	2898
Turkey	8429	1056	2.4	1.7	-1.1	3.1	71.0	7755
Western Asia (5)	42484	1520	1.8	0.2	0.3	-5.7	35.6	n.a.
<u>Latin America</u>								
Brazil	7001	654	1.2	2.0	3.5	5.9	60.3	7573
Mexico	10880	563	1.6	-0.6	1.5	0.9	65.0	6811
Other countries (5)	7853	411	1.9	2.2	2.4	4.7	59.6	5720
<u>Africa</u>								
Nigeria	1355	45	2.7	-2.8	-0.3	-5.0	68.2	775
South Africa	6181	302	2.0	0.6	6.5	2.5	61.0	4652
<u>Memo item:</u>								
Major manufactured goods exporters (6)	12063	531	4.1	2.9	3.4	3.7	52.5	6761

Source: Author's calculations based on data from Penn World Tables, Euromonitor, and UnctadStat.

Notes: LA-5 includes Argentina, Chile, Colombia, Peru and Venezuela.

Western Asia 5 includes Bahrain, Kuwait, Qatar, Saudi Arabia and United Arab Emirates.

Core Euro-area excluding Germany includes Austria, Belgium, Finland, France, Italy and the Netherlands.

The group of major manufactured goods exporters includes China, Malaysia, Mexico, Rep of Korea, Taiwan Province of China, and Thailand.

One way of spurring household consumption expenditure is alleviating liquidity constraints by facilitating access to consumer credit for the acquisition of durable consumer goods. 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 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 (UNCTAD, 2013: 76–77). 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 percent 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.⁶

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 4). 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 4). 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,

⁶ As noted by UNCTAD (2013), 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.

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.⁷

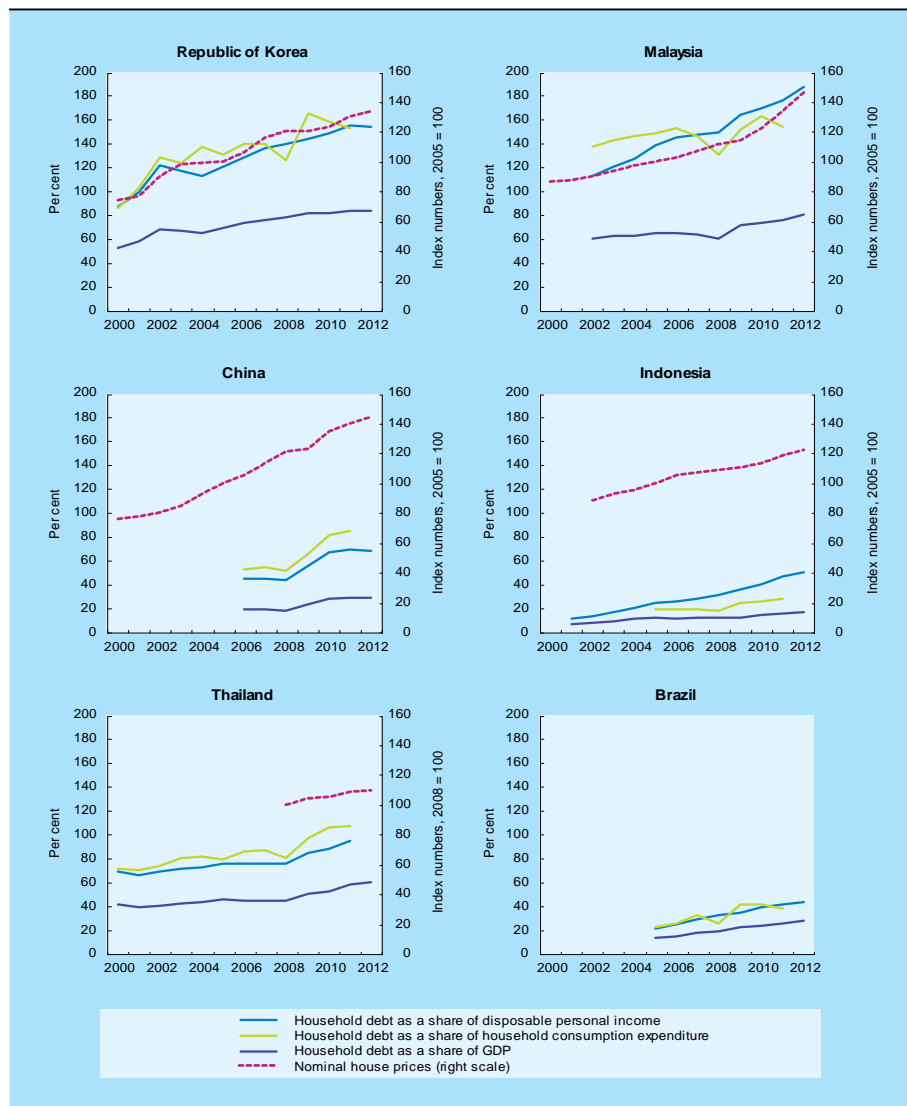
In Turkey, household liabilities have increased rapidly, albeit from low levels. The ratio of households' financial liabilities to their assets reached 50 per cent in March 2013 (Central Bank of Turkey, 2013: 31). At the end of 2012, the ratios of household liabilities to GDP and to disposable income attained 21.2 per cent and 50.7 per cent, respectively, yet remained low with respect to the levels in other developing countries, as well as those in developed countries (Central Bank of Turkey, 2013: 28). Regarding non-financial corporations, the net foreign-liability position as a share of GDP has grown rapidly from about 5 per cent prior to the onset of the current global crisis to over 15 per cent over the past two years (IMF, 2012c: 18), implying significant vulnerability of Turkey's financial sector to a depreciation of its currency.

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 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.⁸

⁷ 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-ratedrops-to-lowest-level-in-16-months.html>.

⁸ This trade-off is part of the debate 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.

Chart 4: Household debt and house prices, selected countries, 2000–2012



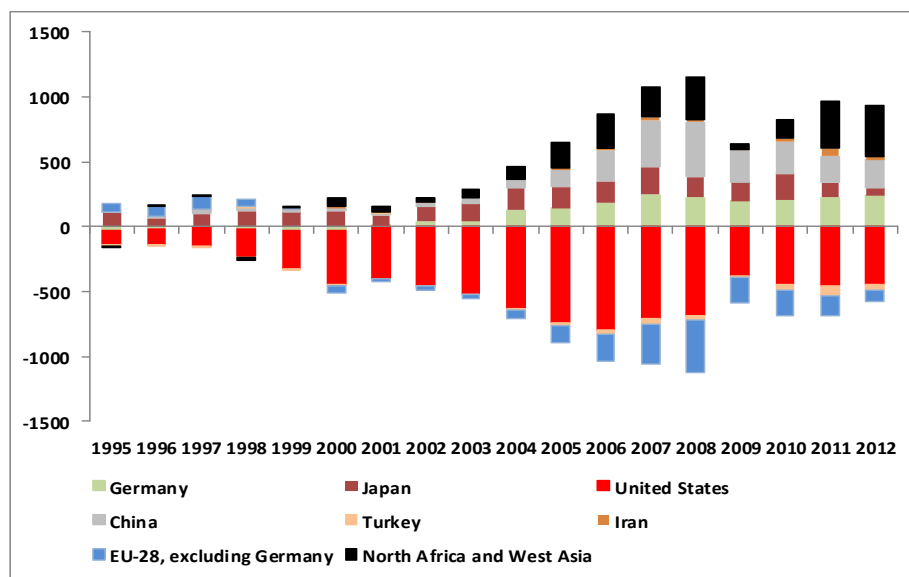
Source: Author's own calculations based on data from the United Nations Statistics Division; Bank for International Settlements, Credit to Private Non-Financial Sectors database; and Federal Reserve Bank of Dallas, International House Price Database.

Note: House price data for Brazil were not available.

3. Global imbalances and the potential impact of rebalancing on trade flows

The role of developing countries as additional drivers of global economic growth and the associated changes in the composition of these countries’ aggregate demand have also been accompanied by the building up of large global current account imbalances. While there are competing views on the origins of global imbalances (Mayer, 2012), it may be argued that credit-driven expansion in a few developed countries, and these countries’ ensuing current-account deficits, sparked the tendency towards rising global imbalances at the end of the 1990s. This tendency was reinforced by the adoption of export-led strategies by developed country exporters of manufactures, such as Germany, as well as by developing country exporters of manufactures, mainly in the aftermath of the Asian financial crisis in 1997–1998, and these countries’ ensuing growing current-account surpluses. Other countries with sustained surpluses included net exporters of energy and raw

Chart 5: Current-account balances, selected countries and country groups, 1995–2012 (Billions of current dollars)



Source: Calculations, based on IMF, World Economic Outlook (WEO) and Balance of Payments Statistics databases, and Economist Intelligence Unit.

materials, especially during the period 2003–2008 when commodity prices experienced a broad-based, sustained rapid increase (chart 5). These factors

together caused global current account imbalances to peak in 2006 at nearly 3 per cent of world income. The reversal that followed from 2007 onwards coincided with the first signs of financial turmoil in the major deficit country, the United States, and culminated with the financial and economic crisis in 2008–2009. Global imbalances have remained at historically high levels since 2009.

The remainder of this section analyses the implications of global rebalancing for trade flows. It assesses these implications through simulations with the well-established global model of the Global Trade Analysis Project (GTAP).⁹ The results from the simulations, which are based on the GTAP-dataset for 2007, may be considered as reflecting the medium-term effects (i.e. spanning a period of 5–10 years) of rebalancing confined to those countries that account for the bulk of global imbalances, i.e. the United States in terms of deficits and China, Germany and the group of countries in North Africa and West Asia, most of which are energy exporters, in terms of surpluses, as well as Turkey that in terms of its own GDP has a sizable current-account deficit which, however, accounts for a marginal portion of global current-account deficits (chart 5).

The simulations, which are based on a matrix of 25 countries and country groups and 25 products and product groups, assume that (i) in China, Germany and the United States, the share of household consumption in GDP is restored to more normal levels which, compared to the shares given in the GTAP-database for 2007, implies for China an increase by 9.5 percentage points (from 37.5 to 45 per cent), for Germany an increase by 5.7 percentage points (from 56.8 to 62.5 per cent), and for the United States a decline by 4.8 percentage points (from 70.8 to 66 per cent), (ii) in countries in North Africa and West Asia this share increases by 7 percentage points (from 46.3 to 53.3 per cent), and (iii) in Turkey the share of household consumption in GDP declines by 5.9 percentage points (from 71.9 to 66 per cent).¹⁰ Given that, in 2007, the GDP of both China and Germany accounted for about one fourth, and that of the countries in North Africa and the Middle East for about one eighth of that of the United States, the assumptions, combined with the assumption of no change in the level of GDP in either of the countries, imply that there occurs roughly no change in the share of household consumption in GDP at the global level.

⁹For documentation of the model, see Hertel (1997), and for the GTAP-8 database, see Narayanan, Aguiar and McDougall (2012).

¹⁰In technical terms, conducting simulations based on these assumptions requires (i) the variable ‘private consumption expenditure (*yp*)’ to become exogenous and the ‘private consumption distribution parameter (*dppriv*)’ to become endogenous, and (ii) the ‘savings distribution parameter (*dpsave*)’ to become exogenous and the ‘average distribution parameter shift (*dpav*)’ to become endogenous.

The results of the simulation are presented in terms of changes relative to 2007. With respect to global imbalances as a whole, the results indicate that the assumed adjustments in China, Germany, countries in North Africa and West Asia, Turkey, and the United States would cause substantial changes in these countries' trade accounts: the trade surplus as a share of GDP would decline by more than nine percentage points for China, and by almost 7 percentage points for Germany, so that a small deficit position would emerge in both these countries; the trade surplus as a share of GDP would decline by almost 8 percentage points for the countries in North Africa and West Asia, so that only a much smaller surplus position would remain; and the trade balance as a share of GDP would improve by more than 5 percentage points in both Turkey and the United States, so that only fairly small deficit positions would remain in these two countries (columns 2 and 3 in table 3). Turkey's sizable depreciation (column 6 in table 3) indicates the role of price competitiveness for this result. By contrast, important trade deficits would persist, and get larger, in other countries. This is true especially for a group of countries that may be considered Turkey's competitors for export markets and experience a sharp decline in their export volumes (column 4 in Table 3). This group includes Romania, whose volume of exports decline by more than 5 per cent, as well as Bulgaria, the Czech Republic and Georgia.

Regarding sector-specific impacts, the percentage changes in Turkey's trade balance would be largest for textiles and clothing, machinery and equipment, and motor vehicles and parts, where the latter two sectors are among those with the largest deterioration in the trade balance as a share of GDP in Bulgaria, the Czech Republic, Georgia and, especially, Romania (Table 4). By contrast, a large part of the sizable improvement in Turkey's trade balance in textiles and clothing would be at the expense of China's exports.

It should be borne in mind that the results of the simulations are only partial and should not be taken as quantitatively precise predictions. They are driven by price adjustments and do not take into account a number of factors, such as difficulties in moving production factors across sectors, subsidies and problems of market access and entry. Moreover, the simulations do not take into account that demand growth in Turkey's traditional export markets is likely to remain subdued for a protracted period of time and that expanding consumer goods markets in developing countries may lead to an increase in demand for goods at levels of quality that differ from those usually demanded by developed country consumers. The following section explores some implications that this possibility may have for innovation.

Table 3: GTAP simulation results for the impact of rebalancing in China, Germany, North Africa and West Asia, Turkey and United States on trade flows, selected countries and country groups

	Change in trade balance (percentage points)	Share of trade balance in GDP (per cent)	Change in export volume (per cent)	Change in import volume (per cent)	Appreciation ^a (per cent)	Memo items:	
						Assumed change in household consumption as a share of GDP (percentage points)	Share of increase in Turkey's total exports (per cent)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
China	-9.1	-1.4	-24.2	6.3	7.4	9.5	1.0
Germany	-6.8	-0.3	-13.8	6.0	4.8	5.7	16.9
North Africa and West Asia	-7.8	3.6	-8.9	10.7	5.9	7.0	19.1
Turkey	5.9	-0.9	27.4	-6.2	-4.4	-5.9	n.a.
United States	5.2	-0.7	41.3	-13.5	-6.5	-4.8	2.0
Belgium	-0.2	-8.4	-0.3	-0.2	1.2	0.0	2.4
Bulgaria	-0.5	-22.0	-0.5	0.5	1.7	0.0	1.5
Czech Republic	-0.2	4.5	-0.7	-0.9	1.2	0.0	0.6
France	-0.3	-2.4	-1.3	-0.2	1.4	0.0	5.5
Georgia	-0.3	-31.5	-0.4	0.6	1.2	0.0	0.4
Greece	-0.3	-17.3	-1.3	0.4	1.7	0.0	1.7
Italy	-0.3	-1.9	-1.1	-0.2	1.5	0.0	6.1
Japan	-0.3	1.7	-1.2	-0.1	0.8	0.0	0.5
Poland	-0.2	-6.4	-0.8	-0.5	1.4	0.0	1.6
Portugal	-0.2	-8.5	-0.7	0.2	1.5	0.0	0.5
Romania	-1.8	-17.1	-5.2	2.4	3.0	0.0	2.9
Russian Federation	-0.1	8.1	-0.4	0.0	1.6	0.0	6.4
Slovakia	-0.2	-4.6	-0.6	-0.4	1.4	0.0	0.3
Spain	-0.2	-7.5	-0.9	0.0	1.4	0.0	4.5
Rest of Advanced economies	-0.3	0.2	-0.5	0.7	1.2	0.0	19.0
India	-0.2	-4.9	-0.4	0.5	1.4	0.0	0.3
Rest of Asia and Oceania	-0.2	7.5	-0.5	-0.2	1.1	0.0	4.3
Mexico	-0.4	2.4	-0.3	3.1	0.4	0.0	0.1
Rest of Latin America	-0.3	1.5	-0.9	1.9	1.4	0.0	0.8
Sub-Saharan Africa	-0.3	1.2	-0.6	0.6	1.7	0.0	1.6

Source: GTAP simulation results.

Note: All changes are relative to 2007; n.a.=not applicable.^a An appreciation indicates an increase in the price for primary factors, which may be likened to an appreciation of the real exchange rate.

Table 4: GTAP simulation results for change in sectoral trade balance, selected countries and country groups (percent of GDP in base year 2007)

	Turkey	China	Germany	North Africa & West Asia	United States	Bulgaria	Czech Republic	Georgia	Greece	Poland	Romania	Slovakia	<u>Memo item:</u> Change in world exports relative to base year
Livestock, unproc. food, and wool	0.26	-0.25	-0.06	-0.31	0.10	-0.02	0.00	0.04	0.00	0.00	-0.03	0.00	3.49
Forestry and fishing	0.01	-0.02	0.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.54
Mining	0.07	0.06	-0.04	-1.10	0.09	0.06	0.01	0.04	0.03	0.01	0.00	0.01	-0.90
Processed food	0.28	-0.38	-0.32	-0.40	0.17	-0.01	0.07	-0.03	0.00	0.08	-0.06	0.02	1.64
Beverages and tobacco	0.02	-0.01	-0.04	-0.03	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	-0.40
Textiles	0.81	-0.53	-0.13	-0.18	0.09	-0.04	0.05	0.00	0.00	0.01	-0.04	0.02	0.34
Wearing apparel	0.67	-0.48	-0.12	-0.20	0.08	0.34	0.08	0.01	0.04	0.06	0.03	0.08	-2.87
Leather products	0.07	-0.40	-0.05	-0.06	0.05	0.04	0.03	0.00	0.01	0.02	0.00	0.10	-2.04
Wood products	0.12	-0.34	-0.10	-0.06	0.11	0.00	0.05	0.00	-0.01	0.06	-0.05	0.04	-3.35
Paper products and publishing	0.08	-0.15	-0.21	-0.07	0.11	-0.02	0.04	-0.02	-0.01	0.02	-0.02	0.02	0.88
Petroleum and coal products	0.05	-0.04	-0.03	-0.22	0.03	0.09	0.01	0.00	0.02	0.01	-0.01	0.01	0.09
Chemicals, rubber, plastic products	0.45	-0.71	-0.98	-0.81	0.70	-0.14	-0.10	-0.10	-0.04	-0.06	-0.19	-0.06	-0.40
Mineral products nes	0.17	-0.13	-0.08	-0.08	0.05	-0.03	0.08	0.00	-0.01	0.02	-0.03	0.01	-0.12
Ferrous metals	0.17	-0.19	-0.06	-0.10	0.06	0.00	-0.02	0.06	-0.02	-0.01	-0.10	-0.02	-0.39
Metals nes	0.01	-0.10	-0.07	-0.26	0.11	-0.15	-0.02	-0.03	-0.03	-0.05	-0.08	-0.05	-0.09
Metal products	0.26	-0.34	-0.24	-0.13	0.14	-0.02	0.06	-0.02	0.00	0.02	-0.07	0.02	-1.43
Motor vehicles and parts	0.79	-0.23	-0.99	-0.41	0.46	-0.07	-0.09	-0.08	-0.01	-0.05	-0.30	-0.16	-1.08
Transport equipment nes	0.09	-0.30	-0.26	-0.29	0.38	-0.15	-0.12	-0.08	-0.04	-0.13	-0.16	-0.07	3.87
Electronic equipment	0.31	-1.45	-0.44	-0.38	0.58	-0.03	-0.05	-0.03	-0.02	-0.02	-0.12	0.02	-2.50
Machinery and equipment nes	0.96	-2.28	-2.01	-0.73	1.39	-0.26	-0.20	-0.13	-0.06	-0.13	-0.60	-0.11	-0.05
Manufactures nes	0.14	-0.65	-0.12	-0.32	0.20	0.01	0.07	0.00	0.01	0.02	-0.02	0.02	-4.76
Utilities and construction	0.10	-0.05	-0.11	-0.14	0.04	0.00	0.03	0.01	0.00	0.03	-0.03	0.01	1.48
Trade and transport	0.62	-0.52	-0.36	-0.80	0.29	-0.07	0.03	-0.01	-0.15	-0.02	-0.06	-0.05	0.89
Commercial services	0.18	-0.31	-0.75	-0.96	0.57	-0.10	0.04	-0.04	-0.07	-0.01	-0.26	-0.01	1.20
Other services	0.15	-0.16	-0.17	-0.49	0.25	-0.05	0.00	-0.14	-0.07	-0.01	-0.03	-0.01	4.51

Source: GTAP simulation results.

Note: Trade balance refers to volumes. Percentage shares of trade volumes and values in GDP in the base year are identical, as prices are assumed to equal one.

4. Tapping developing countries' emerging consumer demand: some innovation issues

In order to achieve a sustained expansion of Turkey's exports of consumer goods, such as motor vehicles and textiles and clothing, Turkish exporters will probably find it necessary to diversify their destination markets away from their traditional markets in developed countries towards the markets of rapidly growing developing countries. While the widely expected prolonged period of slow growth in advanced economies is reducing the opportunities to export to these countries beyond the short term, the claim that a sizeable segment of the population in some of the most populous developing and transition economies (such as 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 (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.

Changes in the composition of consumer demand as per capita income grows and their repercussions on the composition of countries' imports pose new challenges for the market potential of countries' exports in a global economic environment characterized by a secular shift in the contribution to global economic growth away from developed towards developing countries. This is true not only for Turkey where prior to the onset of the current crisis developed countries accounted for almost three fourths, and developing countries for only about one fifth, of manufactured exports. While in 2012 the respective shares were about 50 per cent for developed and one third for developing countries, much of this change is due to the decline in dynamism in exports to developed countries.¹¹

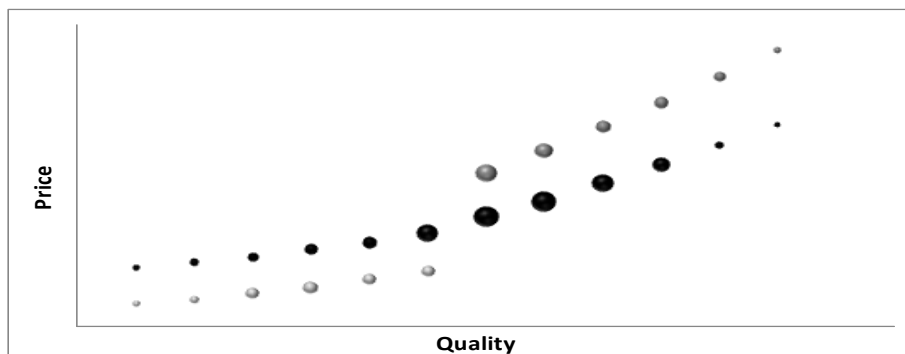
Developing countries whose exports have emphasized developed countries as their destination markets are likely to have their production structure strongly influenced by the preferences of consumers in developed countries with a relatively high level of per capita income. Shifting the destination of exports towards developing countries, by contrast, will need to take into account that consumers in developing countries generally have lower levels of disposable income and, hence, will demand goods with lower prices, thereby also accepting lower levels of product quality. This section argues that firms from developing countries, such as Turkey, may be well placed to compete with those from developed countries in developing country consumer goods markets.

¹¹Quantitative information from *UNCTADstat*.

The positive relationships between product quality and price – better quality goods are more expensive – can be considered as “quality ladders”. Two aspects are of particular importance in this context. First, better quality goods are more expensive because, to produce them, firms need to use better and more expensive inputs, as well as better skilled and therefore better paid workers, and, to distribute them, firms need to present their goods in a more sophisticated way and offer better after-sales services. Second, consumers will demand goods at a level of quality that they can afford, implying that better-off consumers will be prepared to spend more if they can get a better product.

Recent international trade literature (e.g. Khandelwal, 2010) indicates that different degrees of the product heterogeneity of different sectors are of crucial importance for such forms of vertical product differentiation. This is because larger heterogeneity cause product ladders to be longer. The length of product ladders, in turn, determines the competitive pressure faced by producers. The reason is that longer product ladders allow developing country firms to specialize in those segments in which the product-quality combination of their products confers them an advantage over developed country competitors. Shorter product ladders, by contrast, leave little room for vertical product differentiation and make firm subject to greater competitive pressure.

According to Brandt and Thun (2013), quality ladders differ not only in terms of length but also in terms of upper and lower quality limits. Lower quality limits reflect the quality-price relationship that just cover production cost, while upper quality limits reflect the quality-price relationship with the maximum price that consumers are prepared to pay. Going beyond Brandt and Thun (2013), it may be argued that the number of firms, each of which produces a given number of a specific good and which can operate at a specific price-quality relationship at any one time, depends on the size of the market for that specific good. This market size, i.e. the level of demand in a specific market segment, may be represented by the thickness of the respective rung on the quality ladder. Chart 6 shows the resulting three characteristics of product ladders – length, upper and lower quality limits, and market size – in a schematic way.

Chart 6: Quality ladders of different goods

Source: Adapted and extended from Brandt and Thun (2013).

With regard to the risk that a shift in the destination of exports from developed towards developing countries will cause stiff competition with developed country firms, it may be argued, based on Gadiesh, Leung and Vestring (2007), that there is relatively little competition between developed and developing countries in both the least and the most sophisticated market segments. Consumers in the least sophisticated market segments are mostly concerned about price, rather than quality, so that developed country firms do not usually compete in these segments. By contrast, consumers in the most sophisticated market segments generally focus on high quality so that it is generally firms from developed countries that compete in these market segments. Quasi natural market entry barriers prevent direct competition between developed and developing country firms in the least and the most sophisticated market segments. Developing country firms often lack the know-how required for the design, production and marketing of sophisticated goods, while developed country firms tend to be unable to lower production costs enough to be able to engage in price-based competition without damaging the quality image of their products.

By contrast, there tends to be significant competition between developed and developing country firms in middle-rang market segments, because developing country firms can sufficiently improve the quality of their goods and developed country firms can sufficiently reduce their production costs to compete in these segments. Regarding the competitiveness of developed country firms, supply chains play an important role in this context. These firms' high production costs often result from contractual obligations that bind them to source production inputs from other firms with high quality-price relationships, caused by the use of expensive design

and materials. Developed country firms that produce for developing country markets where, as already mentioned, consumers have lower quality requirements, can reduce this cost cutting constraint if they engage with developing country suppliers and use qualitatively worse, yet still “good enough”, materials than they would in production for their home, developed, market. The increased involvement of developing country firms in the production chain, in turn, allow these firms to improve their know-how in terms of design and production and, thus, produce qualitatively better products. Their production and marketing experience in the less demanding market segments allow these developing country firms to successfully compete with developed country firms. Following Gadiesh, Leung and Vestring (2007), this middle part of the various market segments for a specific good may be called the “good enough” market, i.e. that part where products are offered at sufficiently high quality and sufficiently low prices. Table 5 reflects these relationships schematically.

Table 5: Criteria for the distinction among different market segments

Market segment Criteria	Premium market	“good enough” market	Low-quality market
Product quality and characteristics	High quality and top characteristics (modern functionality, high reliability and long durability)	Only critical characteristics (satisfactory value-for-money relationship)	Low quality and basic characteristics (standard functionality, no product differentiation)
Product price	High (corresponding to the leading international brand name)	Intermediate (at least 1/4 below that in the premium market)	Low (40-90% below that in the premium market)
Consumer	High purchasing power	Middle income	Low income
Producers	Transnational corporations	Developing country firms with global ambition, as well as transnational corporations	Developing country firms
Market share	about 10%	about 2/3	about 1/4
Importance of developing country firms	Very low	In competition with transnational corporations	Very high

Source: Adapted and extended from Gadiesh, Leung und Vestring (2007).

In addition to experience in production and marketing, there are two additional ways that allow firms to withstand competitive pressure. The first one is innovation. It is often assumed that developing country firms are technological latecomers that find it difficult to offer products which satisfy consumer preferences. This is likely to be the case for products produced for export to developed countries. This concentration of firms facing competition on developed country markets also often characterizes the concepts used to analyse the relationships between innovation and competition. The literature on global value chains, for example, argues that developed country firms have a competitive advantage because they have the technology and marketing know-how that allows them producing and distributing the high quality and expensive goods that the sophisticated consumers on developed country markets desire (e.g., Schmitz, 2007). This literature deals almost exclusively with supply-side factors given that the export orientation of this approach implicitly assumes that the level and structure of global demand changes only little and slowly.

According to Schmitz (2007), technology gaps of developing country firms result from their (i) lack of access to international sources of technology, including to the feedbacks between producers and consumers that stimulate innovation, (ii) difficulty in getting access to cutting-edge technology that developed country firms can use, and (iii) insufficient domestic innovation sources. Marketing gaps constrain particularly those firms that try to enter new market segments but have difficulty in identifying rapidly changing consumption patterns. According to this line of argumentation, developing country firms need to close both these gaps in order to expand their exports.

However, these kinds of technology gaps play at best a minor role if developing country firms try to meet consumer preferences of the emerging middle classes in developing countries, where low prices are more important than high quality. The technological challenges associated with the production of goods for the emerging middle class of developing countries 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, require the identification of “latent demand” (Schmookler, 1962).¹²

¹²Miles (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.”

The other additional factor that determines producers' competitiveness is the growth rate of their markets. In this context, a particularly interesting feature of growing demand in an emerging economy is that it may create an additional segment on a product ladder. This is likely to be the case in particular for products which have a relatively short ladder and a relatively high minimum quality-price relationship. In Chart 6, this would be the case for the product in the upper right-hand part of the chart. This implies that both the speed and the direction of innovation may be demand driven, making specific market knowledge a valuable asset. It is especially important in this context that innovation can lead to qualitatively worse products which, however, are also cheaper and therefore affordable for newly emerging middle class consumers. These consumers' additional demand may be likened to making the quality ladder longer. And given that lower quality goods can be produced at lower costs, they confer a competitive edge to firms that produce at the lower end of the product ladder, i.e. mostly developing country firms.

Depending on the distribution of income in an emerging economy, it is also possible that such additional demand makes the rungs in the "good enough", middle segments of a quality ladder thicker. In Chart 6, this would be the case for the product in the middle of the chart. This case is likely to arise for rising disposable incomes of middle-class consumers that want to enjoy better-quality products and are able and willing to pay more to satisfy their evolving consumption pattern. It implies that the size of the market in the "good enough" segment grows faster than in either the low-price or the premium sector.

Developing country firms are likely to enjoy a number of competitive advantages over developed country firms in producing products that meet the preferences of the emerging middle class in developing countries, in terms of both adjusting the characteristics of existing goods, as well as – and this is clearly more important – developing new goods. In addition to such technological innovations, it is important to develop new marketing and distribution strategies in order to actually reach the new consumers. Developing country firms have valuable knowledge as to how to tap rural markets which often lack the infrastructure and established distribution chains that are targeted to tapping the markets of better-off consumers in developed countries.

5. Conclusions

Starting from the observations that the role of developing countries as additional drivers of global growth has grown significantly and that demand growth

on Turkey's traditional export markets, especially the Euro area, is likely to remain subdued for a protracted period of time and cannot be expected to generate expansionary impulses for other countries' exports, this paper has argued that making Turkey's current account position more sustainable is unlikely to be achieved by reducing household consumption spending as a share of GDP to internationally more common levels and increasing the price competitiveness of the country's exports. Rather, it will require diversification of Turkey's export markets towards a greater importance of those developing countries whose growth performance might continue to outperform that of advanced economies, and particularly those in the Euroarea. The paper also discussed what kind of innovations might contribute to achieving such diversification of Turkey's export markets.

Diversifying the destination markets of Turkey's exports towards a greater role of developing countries also requires that large developing countries strengthen domestic consumer demand with a view to maintaining the growth dynamics experienced over the past few years. A range of developing countries in Latin America and Asia have experienced rising consumption expenditure on the basis of rising household debt. This involves considerable risks, as amply demonstrated by recent experiences in a number of developed countries, especially the United States. A sustained increase in consumption expenditure must be based on an increase in employment and wage opportunities. It can be supported by an incomes policy, the introduction of minimum wages, as well as a restructuring of public finance that supports the incomes of middle-class households.

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