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Foreword by the WTO Director-General

Since the start of the millennium we have seen strong evidence of how trade, as a critical component of economic growth and development, can make a positive difference in people's lives. Rapid economic growth in many developing economies over this period has been combined with deeper integration into the global trading system. This experience has highlighted the role that trade can play in boosting per capita incomes, helping developing countries to achieve wider societal goals, and in improving access to advanced technologies and knowledge, thereby setting the stage for future growth.

This period has also brought an evolution in the challenges of development and the emergence of new trading patterns and practices. Therefore, it is important to consider how the interplay between trade and development has evolved – and to support our members to reflect on what this means for the work of the WTO. That's what the 2014 *World Trade Report* sets out to do. The report focuses on how the relationship between trade and development has changed since the start of the millennium, identifying four key trends which have altered the way that trade affects development outcomes.

The first trend we identify is the accelerated economic growth in developing countries since the start of the millennium. Average rates of economic growth have tripled compared to the 1990s, although there is marked variation from country to country. The growth trajectory seems to be in line with long-term historical experience, including that of Japan and the newly-industrialized economies in East Asia, suggesting that once a catch-up process commences, rapid development is possible and has the potential to push incomes toward developed country levels. In each of these cases, rapid growth has been accompanied by increasing trade flows, which in many instances were preceded by the lowering of tariff barriers.

This gives rise to a number of development challenges, such as how to initiate catch-up processes in those countries still left behind, or how to ensure, once growth begins to accelerate, that it is inclusive and sustainable. Recent experience has shown that, while growth can lead to improvement in human development indicators, better environmental outcomes or a more equitable distribution of income do not automatically follow.

The second trend is the expansion of global value chains. Global value chains, or GVCs, are not a new phenomenon, but they have expanded and deepened significantly in recent years, offering greater opportunities for developing countries to integrate into the global economy at lower costs. Improvements in communication technology and declining transportation costs worldwide have made it easier to “unbundle” tasks internationally. Thus, tasks that were once performed in a single factory or country are increasingly divided up between different countries to take advantage of their different skills and cost advantages. This allows countries to export by mastering certain specific tasks or manufacturing certain components instead of the entire final product. This report shows that over the last decade developing

countries have increased their involvement in GVCs, and that South-South GVCs have become more important. The developing countries that have been most successful in integrating into GVCs have been those with a favourable business environment, good infrastructure, and lower tariff and investment barriers.

However, access to GVCs is not automatic, and unlocking their development potential can pose a series of challenges for developing countries. A country wanting to integrate into these production chains needs already to be at the cusp of producing at globally competitive levels of quality and efficiency. In practice this has meant that some are not able to participate meaningfully in GVCs, with many least-developed countries being left behind. While initial integration into the lower end of value chains typically triggers productivity improvements, competition to carry out these low-skilled tasks is often intense. Upgrading to higher value-added tasks can enable developing countries to capture more benefits from GVCs but can be difficult and costly to achieve. In addition, when competing for the investments that many countries require in order to participate, developing countries can risk being drawn into a race to the bottom on regulatory standards.

The third trend identified in this report is the surge in agricultural and natural resource prices over the last decade, and the growing importance of commodity exports. This shift has bestowed significant gains on those developing countries that are in a position to export commodities. Although the risk of a reversal cannot be ruled out, the state of global demand – and especially the strong demand from emerging economies – suggests that prices of agricultural goods and natural resources will remain robust in the foreseeable future.

This means that the agricultural sector, which employs more than half of the labour force in developing countries, can continue to play a critical role in lifting people out of poverty. This role could be strengthened if remaining obstacles to agricultural exports were reduced. Tariffs in destination markets and distortive subsidies continue to be high. Moreover, product standards, which are growing in importance, can be costly for smaller producers in developing countries to meet. High degrees of market concentration, which seem evident in some segments of agricultural value chains, can also undercut bargaining positions of small producers in developing countries. In the longer term, agriculture's ability to contribute to development will depend on achieving continuous improvements in productivity and lowering tariff barriers and distortive subsidies globally.

Favourable price movements have translated into significant per capita GDP growth in several resource-rich developing countries, especially in Sub-Saharan Africa and Latin America, with a number of them managing to achieve broad-based prosperity. Nevertheless, implementing a resource-based trade and development strategy presents a number of challenges. For example, the quality of institutions is important in ensuring that revenues are harnessed in a way that avoids boom-bust

cycles and in encouraging diversification to reduce macroeconomic volatility. In addition, while attracting foreign direct investment to develop the natural resource sector is critical, there are risks that very capital-intensive methods of extraction cannot be converted into broad societal benefits and that they will displace non-resource-based investments. Similarly, environmental risks need to be anticipated and mitigated.

The fourth trend is the increasingly global nature of macroeconomic shocks. While the crisis of 2008-09 had its roots in the financial markets of a number of developed countries, the impacts were felt globally. A sharp reduction in trade and investment flows, exacerbated by a fall in aggregate demand and the drying up of trade finance, helped transmit the economic shocks to producers and traders in developing economies. However, the fact that we did not see an outbreak of protectionism on the scale experienced in previous crises meant that a significantly worse fall in international trade was averted.

Some trade restrictions were put in place during the crisis, but neither developing nor developed countries systematically raised trade barriers. The WTO's rules-based system and its monitoring of members' trade policies played a crucial role in keeping protectionist responses under control. Ultimately, the coordinated response, combining macroeconomic stimulus with a commitment not to introduce protectionist measures, was critical in pointing the way back to growth and in safeguarding the development gains that were made in the period before the crisis hit.

In analysing these trends, it is clear that both trade and the WTO have been contributing to economic development in a number of important ways. Foremost, the WTO provides a trading environment with clearly defined rules. At the same time, it allows developing countries to take advantage of flexibilities in implementing their commitments. As a result, it has supported wider integration into global value chains, allowed developing countries to take advantage of rising commodity prices, and helped resist the adoption of protectionist measures during the global crisis. The changes we have seen during this period underline the fact that an open, predictable, non-discriminatory, rules-based multilateral trading system will be a necessary tool to make trade work more effectively for development in the future.

While some developing economies have made significant progress in recent years, much still needs to be done to close the gap for many poor economies. The WTO's work is therefore more important than ever. In December 2013, WTO members took a series of decisions in Bali that, by also setting the stage for future negotiations, will help poor countries realize their export potential and sustain the development momentum created in the past decade.

In highlighting how the relationship between trade and development has changed since the start of the millennium, this report provides food for thought for WTO members. It shows again the importance of our work in updating the WTO's rules, disciplines and flexibilities, and it illustrates some of the challenges that we will need to address if we are to ensure that all countries are able to participate fully in the global economy in the years to come, and that people all over the world are able to feel the benefits of trade in improving their lives and the prospects of their families and communities.

As we look to the future, I am always conscious that discussion on the post-2015 development agenda is currently taking shape at the United Nations. This is an important exercise in marshalling the development efforts of the international community, and it is a conversation in which the WTO and its members are deeply involved. The launch of the *World Trade Report* is an opportune moment to recognize again the contribution that trade and the open, non-discriminatory, rules-based multilateral trading system of the WTO makes to development – and the contribution that it can make to the post-2015 development agenda.



Roberto Azevêdo
Director-General

Executive Summary

A. Introduction

The *World Trade Report 2014* examines four trends that have characterized the last decade: (i) the rise of the developing world, (ii) the expansion of global value chains, (iii) the increase in prices of commodities and the growing importance of commodity exports, and (iv) the increasingly global nature of macroeconomic shocks. In analysing these trends, the report explores how they have reshaped the role that trade plays in facilitating development, while highlighting remaining impediments for the expansion of global development. Building on this analysis, the report illustrates how the WTO system's features have helped underpin the recent development gains of many developing countries by allowing them to adapt to, take advantage of and mitigate risks arising from the four trends.

The world has experienced several major waves of economic development since the industrial revolution of the late 18th and early 19th centuries. Each wave has been accompanied by an equally major expansion of international trade and marked by faster catch-up growth than the previous wave. The initial wave, in the latter half of the 19th century, saw early industrializing Europe and North America pull away from the rest of the world while expanding their trade. A subsequent wave after the Second World War was underpinned by the gradual post-war restoration of open trade after its interwar collapse, and saw Japan and other newly industrialized economies rapidly catch up with the West, whose growth was also accelerating. The current and most extensive wave started after the 1980s and has seen some countries, including China and India, opening up and embark on the most rapid process of industrial catch-up experienced to date.

As global economic development has widened, deepened and accelerated, the international economic system has had to adapt. In the mid-19th century, economic relations were governed by a Europe-centric network of bilateral trade agreements and the international gold standard, nominally led by Great Britain, which was the dominant economic power at the time. After 1945, economic relations were governed for the first time by a multilateral system of rules, including the General Agreement on Tariffs and Trade (GATT) and Bretton Woods institutions. These same institutions, dramatically expanded, also underpin the most recent phase of global economic development.

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B. The increasing importance of developing countries in the global economy

Incomes in developing countries have been converging with those of rich countries since the 1990s because growth has accelerated in developing economies, while in developed economies it has slowed down. The performance of developing country G-20 members has been particularly strong.

The growth spurt in developing countries has been dramatic: After growing a mere 1.5 per cent annually in the 1990s, incomes have grown by 4.7 per cent per year on average thereafter. Meanwhile annual per capita income growth in the developed world slowed to just 0.9 per cent, down from 2.8 per cent in the 1990s. Developing country G-20 members have done particularly well (5.2 per cent), while both least-developed countries (LDCs) and other developing countries have grown 3.7 per cent. Given their size, rapid industrialization and greater trade openness among developing country G-20 members such as China, India and Brazil may have drawn along other developing countries. Higher demand for commodities resulted in higher prices in the 2000s, consequently boosting incomes in resource-exporting developing countries, including many LDCs. Developing economies as a whole now constitute around half of both global output and global trade (rising from 39 and 32 per cent respectively in 2000).

These development patterns have been transforming the world's income distribution. The distribution has become much more equal overall through decreases in inequality *between* countries. Until 2000, the distribution was characterized by two peaks, one representing poor developing economies and the other corresponding to rich developed economies. Thereafter, developing economies' convergence has narrowed the gap between rich and poor nations. Most notably a third peak has emerged in the middle, reflecting the higher growth of many G-20 developing countries, such as China, relative to other developing countries.

Despite having narrowed the income gap with industrialized countries, developing economies still have a long development path ahead of them. LDCs remain far behind, with per capita incomes of just 4 per cent of the developed economies' average.

Higher GDP per capita can help to achieve other societal objectives. Given that more trade is

associated with faster growth, trade can make it easier to achieve these goals.

Trade can increase GDP in a number of ways – for example, by improving resource allocation through specialization according to comparative advantage or by allowing economies of scale in production to be exploited. Open economies also grow faster because trade fosters investment, innovation, and institutional reform.

However, development goes beyond higher GDP per capita. Other important indicators of well-being include life expectancy at birth, infant mortality, nutrition, literacy, gender inequality and employment. Some of these factors are summarized in Human Development Indices (HDIs), which are positively correlated with GDP growth when figures are weighted by population.

No clear picture emerges of the impact of growth on other dimensions of development such as income inequality and environmental performance.

Higher per-capita GDP may not benefit many people if growth is accompanied by rising income inequality. Available evidence does not suggest a systematic relationship between per capita GDP growth and income inequality. The “Kuznets curve” hypothesis suggests that as a country develops, income inequality may worsen at first but then improve as the country reaches a certain level of development. However, this is not strongly supported by empirical evidence. Technological change and government policies likely exert a stronger influence on inequality in particular countries and at particular times.

Various environmental indicators ranging from greenhouse gas emissions to deforestation can be summarized by an Environmental Performance Index (EPI), which in turn can be compared to income growth. In the last decade, there has been a positive relationship between growth and environmental quality. This suggests that countries with rising incomes were able to pay more to preserve the environment. To the extent that trade and other policies can promote economic growth, they may indirectly help to improve the natural environment. However, empirical evidence has to date produced mixed results on this question.

Over the last couple of decades, developing countries as a whole have reduced most-favoured nation (MFN) tariffs. Focusing on MFN tariffs only, their average reduction has been greater in G-20 developing countries.

The main periods of trade opening in developing economies have occurred since the 1980s and this

trend has accelerated in the last decade. As a group, developing countries have reduced the most-favoured nation tariffs they apply to imports. They have also increased the number of products with a “bound” tariff ceiling, and reduced these bound tariff rates.

Abstracting from their use of other trade policy measures, G-20 developing countries have been the most active in reducing MFN tariffs – significantly exceeding the average cuts made by other developing countries and LDCs. They have reduced their MFN applied rates by more than a third, from 15.6 per cent in 1996 to 10.1 per cent in 2009-11. They have bound over 80 per cent of their tariff lines and reduced their bound rates by a fourth, from 39 per cent in 1996 to 29.2 per cent in 2009-11. For example, China’s average MFN tariff has fallen from about 40 per cent in 1985 to under 10 per cent today. Several studies have shown that China’s accession to the WTO in 2001 has played a major role in this regard and had a positive impact on economic growth.

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C. The rise of global value chains

Developing countries are increasingly involved in international production networks and South-South global value chains (GVCs) are becoming more important.

GVCs are not a new phenomenon. However, the importance of GVCs in trade has been growing over time.

Although GVCs have been usually thought of as a relationship between developed countries (the North) and developing countries (the South), data show that developing countries are engaging in more GVC trade among themselves. While North-South GVC-based trade has remained stable, the share of trade in parts and components between developing countries increased from around 6 per cent of total trade in 1988 to almost 25 per cent in 2013.

Quantifying the importance of international production networks requires measuring exports in value added terms. Yet, data in value added are available only for some economies. Notwithstanding this limitation, the data illustrate that almost half of the world’s gross exports are related to GVCs, and that the economies which increased their participation in GVC trade between 1995 and 2008 the most are the Republic of Korea, Chinese Taipei, the Philippines, India and China. However, LDC participation in supply chains remains limited.

Foreign direct investment (FDI) flows are often crucial in establishing GVC linkages. Their evolution also highlights increasing involvement of developing countries in GVCs. Developing countries absorbed more than half of global FDI flows in 2012, versus less than 20 per cent in 2000. Developing countries have also become important sources of investments: while only 7 per cent of global FDI originated from developing countries at the end of the 1980s, developing countries accounted for 34 per cent in 2012.

Available data suggest that, on average, developing countries' participation in GVCs through services exports has increased.

Services traded across borders within GVCs account for almost 16 per cent of developed country exports and slightly more than 10 per cent of developing country exports. However, these figures neglect indirect exports of services value added embodied in manufactured goods. In value added terms, services exports within GVCs are only slightly lower than manufacturing exports in developing countries and even higher in developed countries.

Measuring GVC involvement in terms of IT and business offshoring, developing countries increased their share of global exports of these services from 25 per cent in 2005 to 31 per cent in 2012. However, LDC participation remains low. The share of LDCs in global exports was only 0.33 per cent in 2013, which is significantly lower than their share of world exports in commercial services (0.65 per cent) and merchandise (1.14 per cent) in 2013.

In general, services trade is less regionalized than merchandise trade. While market proximity might be less relevant for offshoring services, other factors such as language, skills, the business environment or barriers in the form of behind-the-border regulations are still significant in determining to what extent developing countries can integrate into GVCs.

GVCs offer an opportunity to integrate in the world economy at lower costs. But gains from GVC participation are not automatic.

GVCs offer countries the possibility to join global trade by becoming good at producing just some components or tasks instead of complete products.

Not all countries manage to join GVCs; to join, a country needs to be sufficiently close to having the capacity to produce at world standard quality and efficiency levels. If this is the case, then technology and knowledge transfers from other countries – often facilitated through foreign direct investment (FDI) – can catapult it over the quality and efficiency thresholds. Such initial integration

into GVCs may trigger development gains by shifting labour from agriculture to higher-productivity tasks in manufacturing and services.

Developing countries initially join GVCs by performing low-skill tasks, for example, in manufacturing and assembly stages that can be easily shifted to suppliers in competing countries. Value capture at these stages is low and declining relative to activities such as research and development (R&D), design, branding and marketing which are typically the domains of lead firms in GVCs and where capabilities are harder to replicate. Therefore, to avoid getting stuck at middle-income status, “functional” upgrading of the activities performed, e.g. moving from assembling products to designing them, could be an important step for achieving further development gains. While technology transfers may be helpful in upgrading production processes and product quality, functional upgrading is harder to achieve.

... and there are risks involved.

First, GVC participation increases a country's exposure to global business cycles and to supply disruptions in faraway locations, if these produce crucial inputs into production.

Secondly, the fact that integrating into a GVC may be done with a relatively narrow set of skills implies that competitive advantage becomes more fleeting and risks of industries relocating are higher.

Thirdly, the competition to attract new investments exposes countries to a potential race-to-the-bottom on domestic regulation.

Fourthly, GVCs may increase income inequality as highly skilled individuals' remuneration tends to rise relative to that of low-skilled individuals. At the same time, the share of profit in output increases relative to that of labour, which may be likely as a result of increasingly oligopolistic structures in many markets.

Obstacles for developing countries seeking to integrate into GVCs include infrastructure and customs barriers. Directing Aid for Trade resources toward these objectives should therefore remain a priority.

A recent survey conducted by the WTO and the Organisation for Economic Co-operation and Development (OECD) reveals the main barriers that developing country firms perceive as hindering their participation in value chains. Both developing country suppliers and lead firms regard transportation costs and delays, customs procedures as major trade-related difficulties. Import duties and licensing

requirements are also deemed significant barriers. The survey also highlights inadequate infrastructure, limited access to trade finance, and standards compliance as obstacles.

Evidence suggests that GVC participation is greater in countries with higher indexes for quality of infrastructure and institutions, as well as lower customs barriers.

Directing Aid for Trade resources to trade facilitation is particularly important as customs procedures are perceived to be major obstacles to the participation of developing countries in value chains. Implementation of the WTO Trade Facilitation Agreement will provide an important contribution to remove barriers that reduce developing countries' ability to participate in GVCs.

Tariffs on intermediate goods have declined. Countries are entering into deep preferential trade agreements.

The effect of a marginal increase in trade costs is much higher when production is spread across different countries than when there is a single production site. On average, developing countries have significantly decreased their tariffs on parts and components, but variation among countries is high.

The proliferation of preferential trade agreements (PTAs) reflects to some extent the increasing demand for deeper integration that can address new cross-border effects resulting from the changing nature of trade. In fact, these PTAs increasingly cover disciplines related to behind-the-border non-tariff measures. In particular, provisions related to competition policy, investment, standards and intellectual property rights were present in more than 40 per cent of PTAs in force in 2012. However, since the subjects that these agreements attempt to address are global in nature, they will eventually emerge as issues at the multilateral level.

Countries with higher GVC participation have also made deeper commitments under the WTO's General Agreement on Trade in Services (GATS).

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D. A new role for commodities in development strategies

Commodity prices increased significantly between 2003 and 2008, leading several commentators to argue about a commodity "super-cycle". Several supply- and demand-side

factors have contributed to the emergence of this super-cycle.

The prices of energy and metals and minerals more than doubled between 2003 and 2008. The resource- and energy-intensive growth of several G-20 developing economies was the main driver of the upward trend in the prices of mineral and energy commodities. In the same period, the real price index of agricultural commodities almost doubled. The price hikes that began in 2003 were due to a number of factors, including extreme weather, policies to promote use of biofuels, depreciation of the US dollar, longer-term economic growth in several large developing countries, increased demand for commodity futures markets as a result of both speculation and portfolio diversification, low levels of stocks, trade policies and stockpiling.

Boom-bust cycles in commodities are not uncommon. Even though commodity prices have eased recently, they are still twice as high compared with a decade ago. There are various reasons to believe that prices will remain high and subject to boom-bust cycles in the years to come.

Price volatility is a characteristic of natural resources. Analysis shows that, despite not having reached the peaks observed during the 1970s, price volatility in the last five years has been higher than in the previous two decades. It is likely that volatility will continue to be a concern for importing and exporting countries.

Supply-side developments, technological change, the evolution of public policies and of consumer preferences are hard to predict. Projections on demand patterns, however, clearly suggest that high prices for commodities could persist in the years to come. The Food and Agricultural Organization of the United Nations (FAO) has suggested that by 2050 global food production will have to further expand by 70 per cent in order to feed a growing world population and simultaneously address existing malnutrition and hunger. Another reason why agricultural and food prices will probably remain high in the years to come is the co-movement between oil and food prices, which has increased dramatically since 2006.

In many developing countries the agricultural sector is important in terms of employment, production and consumption. Increases in agricultural productivity are crucial ingredients of poverty reduction. Agriculture is therefore of utmost importance to development strategies in the developing world.

The agricultural sector employs around half of the labour force in the developing world. The sector

represents over 70 per cent of the labour force in LDCs. The sector is particularly important in the context of poverty reduction considerations for two reasons: because poor households tend to spend a large share of their income on food; and because three out of four poor people live in rural areas in developing countries and most of them depend on agriculture for their livelihoods.

Evidence suggests that growth in agriculture delivers more poverty reduction than growth in other sectors in low-income economies. Moreover, virtually all economies that managed to reduce poverty significantly went through a period of increased agricultural productivity. This positive effect on poverty also materializes if agricultural productivity is enhanced through integration in global value chains.

Recent decades have witnessed an increase in agricultural trade, contributing to growth and poverty reduction.

In terms of value, exports of agricultural products nearly tripled between 2000 and 2012. In terms of volume, they increased by around 60 per cent over the same period. Agricultural trade as a share of domestic agricultural production and consumption has also increased in recent decades, reflecting increased integration of the agricultural sector in global markets.

Increased demand for high-value products and high prices in international food markets has created opportunities for developing countries to generate economic growth and poverty reduction through increased exports. The channels through which agricultural exports contribute to poverty reduction include employment creation in export value chains.

The changing nature of agricultural trade includes new market segments, new destination markets and new production structures.

During the last 50 years, the share of raw traditional agricultural exports in total agricultural exports has declined significantly. Processed agricultural products are now the largest share of total agricultural exports, representing over 60 per cent of the total. The share of fresh fruits and vegetables exports has also increased steadily over the past decades and now represents 10 per cent of total agricultural exports. Trade patterns have also changed: trade among developing countries and the share of Asia and Africa in global agricultural trade have increased significantly.

In recent years, the agricultural sector has attracted significant levels of investment, including in the form of foreign direct investment (FDI). Food safety and quality standards are spreading rapidly, as are food supply

chains, characterized by increased levels of “vertical coordination”, whereby successive stages in the production, processing and marketing of products are carefully coordinated. These changes in agricultural trade have important implications for developing countries. Most notably, they can contribute to increased technology transfers to developing country producers in those chains. The new production structures, however, have sometimes resulted in situations of capture, whereby lead firms in the value chain use their dominant position to appropriate most of the gains generated within the chain.

The challenges and opportunities arising from the changing nature of agricultural trade, including from high prices and volatility, differ significantly across countries.

The increased market share of developing countries in recent years mainly reflects the increased role of large emerging economies and, to a lesser extent, growth in other non-LDC developing countries. LDCs experienced a constant decline in their share of global agricultural exports. This suggests that non-LDC developing countries have been more successful than LDCs in taking advantage of the price boom for agricultural products.

The revealed comparative advantage of emerging economies has increasingly shifted towards processed agricultural goods. The fresh fruits and vegetables segment is the only area in which LDCs have expanded their market share in the past two decades. It now represents around 14 per cent of LDCs' total agricultural exports.

Issues related to food security also appear to be very important for LDCs since most LDCs are net food importing countries. Because food represents a high share of spending for poor households and because poor households can typically not further reduce the quantities they consume (low price elasticity), price hikes hit poor households particularly hard. It has been estimated that rises in food prices between June and December 2010 pushed an additional 44 million people below the US\$ 1.25 a day poverty line, with negative effects on food intake.

Developing countries are faced with five main challenges when integrating agriculture into their development strategies.

First, developing country producers face productivity gaps.

Stimulating private investments in agricultural R&D will be an important way for developing countries to strengthen their export position in agriculture. However, because of the many market failures in this sector,

public investment in agricultural R&D will continue to play a significant role. On the trade policy side, the lowering of barriers to the importing of new technologies could also contribute to fostering private investments in agricultural R&D.

Secondly, tariffs, subsidies and other price-based policy measures have been used frequently in the agricultural sector and continue to affect exporters in developing countries.

LDC exports of agricultural products face the lowest tariffs in developed countries markets. Developing countries applied an average duty on agricultural imports from LDCs of over 12 per cent in 2011. This is significantly higher than the average duty applied on oil or minerals (close to zero) and to non-agricultural products (around 2 per cent, taking preferences into account).

Subsidies have been used frequently in the agricultural sector. Support to agricultural products tends to be higher than support to non-agricultural products, especially in some developed countries, while the opposite is true in some developing countries. Support to agricultural products differs significantly across products, with some individual export products such as sugar, rice and milk receiving significant support. These subsidies continue to affect developing country exporters.

Thirdly, trade-related fixed costs play an important role in agricultural trade, including notably the cost of implementing sanitary and phytosanitary (SPS) measures related to food safety and animal and plant health.

The number and complexity of standards in international food trade have increased in recent years. As argued in the *World Trade Report 2012*, these measures can seriously hamper trade, even if they pursue valid policy objectives. Costs can arise through a variety of channels, including additional production costs to meet foreign standards (including private sector standards) or regulations, and certification costs to prove that a product actually meets such standards.

Costs incurred at the border constitute another type of fixed costs that can have a significant impact on trade flows. To the extent that administrative or logistical processes related to the importing or exporting of goods take time, they can significantly hamper trade, in particular for time-sensitive products such as fresh fruits and vegetables or flowers.

Fourthly, numerous value chains in the agricultural sector are characterized by market concentration,

sometimes at multiple points along the value chain. This creates problems particularly for small producers in developing countries.

The presence of economies of scale in various segments of the food chain has led to situations where individual segments are dominated by a few companies, often large multinational agro-enterprises. In 2004, the four top providers of agrochemicals held 60 per cent of the global market. Similar levels of concentration can be observed towards the end of the chain with, for instance, the top four international traders of coffee holding a market share of 40 per cent and the top four coffee roasters a share of 45 per cent.

Fifthly, price volatility creates difficulties for resource-constrained consumers and for producers in their investment decisions.

In periods of increased concern about food security, governments often intervene directly in markets, with the objective of reducing domestic prices and price volatility. Evidence suggests that if countercyclical measures are introduced simultaneously by net importers and net exporters, price hikes may actually be exacerbated. Indeed, if governments restrict exports of net-exporting countries and subsidize consumption in net-importing countries, this is likely to increase excess demand globally and lead to further price increases.

Trade in natural resources increased significantly between 2003 and 2010.

Between 2003 and 2008, trade in fossil fuels and metals and mineral ores more than tripled in value terms and increased by approximately 50 per cent in terms of volume. The great trade collapse of 2008 and the 2009 recovery were relatively more marked for metals and ores than for fossil fuels.

Mostly because of rising prices (at least until 2008), the share of fuels and mining products in world merchandise exports increased from 13.2 per cent in 2000 to 22.7 per cent in 2012.

For regions such as Sub-Saharan Africa and Latin America and the Caribbean, the share of fuels and mining products in their total merchandise exports has increased significantly in the last decade. Globally, the number of "resource-driven" countries increased from 58 in 1995 (representing a share of 18 per cent of global GDP) to 81 in 2011 (with a share of 26 per cent of global GDP).

Favourable commodity-price developments and large investment in new resource discoveries

have been reflected in significant GDP per capita growth in several resource-rich developing countries, especially in Sub-Saharan Africa and Latin America.

In Sub-Saharan Africa, resource exporters have experienced high GDP per capita growth since 2000. Analysis suggests that the correlation between GDP per capita growth and natural resource exports was negative or statistically not significant in the 1980-99 period, while it became positive and statistically significant in the 2000-12 period, when accounting for other factors.

For Latin America, it has been argued that the rise in world prices of commodities and the related increase in their output (and exportation) may have accounted for between one-third and half of the region's growth over the decade 2000-10.

But resource abundance is not a necessary, let alone sufficient, condition for growth and development.

None of the top six growth performers in Sub-Saharan Africa between 1995 and 2010 was resource-rich at the beginning of the sample period, implying that natural resource abundance has not been the only route to strong and sustained growth in the region. Some resource-rich countries have managed to translate GDP growth into broad-based prosperity.

There are several challenges faced by resource-abundant countries in the implementation of a resource-based development strategy. Firstly, in the presence of high but volatile natural resource prices, it is important to harness revenues and to avoid boom-bust cycles.

The commonly held view is that natural resource revenue windfalls should not be consumed immediately, but should be put in a fund, typically a sovereign wealth fund, to spread the benefits across generations and deal with the otherwise adverse effects of the "Dutch disease", when an increase in revenue from natural resources leads to a decline in the manufacturing sector due to an increase in the real exchange rate, and the so-called resource curse. The optimal policy from a classical economic theory point of view is, however, dependent on factors such as the price volatility of the resource in question, the level of development of the country and the broader constraints faced by the economy.

Building a domestic investment fund to channel part of the windfall towards domestic investment in infrastructure, health and education, and a liquidity fund

to collect precautionary savings in order to cope with price volatility, has proved to be useful.

Cyclicality of fiscal policy was common in developing countries until the early 2000s. Since then, there has been a historical shift towards countercyclical fiscal policy in a large number of countries, including resource-abundant ones. This report estimates that out of 45 resource-rich developing countries for which data on government spending is available, 16 (around 35 per cent) moved from a pro-cyclical to a counter-cyclical fiscal policy between the period 1960-99 and the period 2000-09.

Secondly, some degree of economic diversification is desirable.

There are several rationales for economic diversification that apply in particular to economies that specialize in natural resources. These include the positive spillovers that non-resource sectors can have on the rest of the economy, the problem of resource depletion; the possible detrimental impact of natural resource depletion on the environment, technological shocks altering comparative advantage, and substantial price volatility for natural resources.

Thirdly, it is important that FDI in natural resource sectors has a development-friendly dimension.

Due to a combination of high commodity prices and concerns about the security of supply of critical resources, in recent years there has been a global surge in investment activity – including exploration – in resource sectors. For instance, exploration and development expenditure by the 70 largest global companies in the oil sector increased from US\$ 315 billion in 2007 to US\$ 480 billion in 2011.

While resource abundance unambiguously increases FDI in resource sectors, its effect on overall FDI is less clear, with some studies arguing that resource-based FDI displaces non-resource-based FDI. A potential risk is that resource-based FDI is very capital intensive and leads to fewer beneficial spillover effects into the non-resource sectors of the host economy.

Fourthly, social and environmental issues are likely to be major concerns.

There is a positive correlation between natural resource abundance and inequality, while the correlation between natural resource abundance and environmental performance is negative. However, both correlations lose statistical significance when other country specific circumstances and global business cycles are taken into account.

Tariffs in the natural resources sector are generally lower than for overall merchandise trade, while export restrictions are more prevalent than in other sectors.

Tariffs are very low in the mining and fuels sectors. In the mining sector (but not in fuels) there is evidence of tariff escalation (higher import duties are imposed on semi-processed products than on raw materials) in developed countries, which represent the biggest markets for developing country exporters.

Available data on export restrictions suggest that, on average, 5 per cent of total world trade is covered by export taxes, and that 11 per cent of world trade in natural resources is covered by export taxes. Export taxes accounted for approximately half of the 5,000 restrictions applied by 57 countries between 2009 and 2012 collected in a recent OECD database.

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E. Increased synchronization and globalization of macroeconomic shocks

In 2008, despite suffering the greatest economic downturn since the 1930s, the world did not see a repeat of the wholesale protectionism which had marked that previous era. Among other explanations, the existence of a set of multilateral trade rules was a major reason for this.

Macroeconomic volatility is damaging for development because it can reduce economic growth and unfavourably affect the distribution of income.

Developing countries as a group exhibit more macroeconomic volatility than developed countries. The principal, but not the only channel, through which volatility cuts growth is by lowering the pace of capital accumulation, because it makes the returns on investment in human and physical capital more uncertain. The sources of volatility in developing countries can be broken down into domestic factors (the economic structure – particularly the supply side – institutions etc.) and external factors (the openness of a country and its integration with the global economy).

Trade may be a transmitter of shocks but also a source of diversification.

Countries with closer trade links tend to have more tightly correlated business cycles, suggesting that trade acts as

a transmission mechanism of country-specific shocks. In the context of the recent 2008-09 crisis, some have argued that trade was a major channel of transmission that made the crisis global. Others have underlined the role of global value chains and the so-called “bullwhip effect”, which refers to how small changes in final demand can cause a big change in the demand for intermediate goods along the value chain, including through inventory adjustment effects.

However, trade openness can also reduce volatility. If shocks are largely domestic in nature, trade becomes a source of diversification. Similarly, when a country has multiple trading partners, a domestic recession or a recession in any one of its trading partners translates into a smaller demand shock for its producers than when trade links are limited.

There are more robust findings for the relationship between macroeconomic volatility and the structure of a country's exports. If exports are concentrated in a narrow range of primary commodities, terms of trade shocks typically have a significant impact on the volatility of aggregate output.

Since the mid-1990s, the “great moderation” has extended to developing countries.

Another feature of macroeconomic volatility in developing countries is its long-term decline since the mid-1990s, although it increased again with the global crisis. This pattern is consistent with the “great moderation”, which describes reductions in output and inflation volatility in the G-7 countries that began around the same time. It turns out that the great moderation extended to developing countries as well, a result that may not be all that surprising given that developed countries are major export markets and principal sources of finance for developing countries.

The global crisis highlighted the importance of a coordinated international response to such global shocks.

The 2008-09 trade collapse and recovery revealed the dependency of developing and emerging economies on cyclical developments originating in large developed economies. The synchronization of downswings and upswings across the world illustrated the strong interconnectedness of economies through trade and financial links, in particular the role of supply chains in the propagation of shocks and the drying up of trade finance.

Given the above-mentioned links and their weight in world output and trade, developing economies have to be part of any coordinated policy response, be it on the fiscal, monetary or trade policy side. This will remain one

of the important lessons of the crisis response led by the G-20.

Low-income countries have been on the receiving end of the global economic shock, despite having little or no responsibility for the origins of the crisis. They suffered from knock-on effects of the financial crisis – for example, in the form of reduced trade finance availability, reduced income from remittances of workers living abroad, or lower demand for raw materials and commodities. However, macroeconomic buffers built up prior to the crisis helped them to mitigate the shock.

Since the crisis, developing market economies have been able to recover appreciable rates of growth, in part due to the continuation of their internationalization. The rebound of their exports has been faster than that of developed countries thanks to higher demand in developing countries themselves. Low-income countries, however, remain vulnerable to a reversal of the commodity cycle and still see their internationalization slowed by significant supply-side constraints.

The protectionist response to the crisis has been muted.

Trade theorists have argued that levels of protection should move in a countercyclical fashion to economic activity. There is empirical support for the countercyclical behaviour of protectionism, particularly in the case of trade remedies although this evidence does not go unchallenged.

It is striking then that the economic crisis of 2008-09 did not trigger a protectionist surge by either developed or developing countries bearing resemblance to the experience during the Great Depression of the 1930s or even to predictions based on countries' reactions to previous business cycles. Academic studies and information contained in the WTO's monitoring database confirm that protectionism remained muted. Furthermore, trade-restrictive measures only provide half of the story since many developing countries also simultaneously lowered trade barriers.

Possible explanations for the muted protectionist response include the existence of trade rules, the effectiveness of monitoring efforts by the WTO, countries' anticipation of the self-harming impacts of protectionism in light of participation in global value chains, and international coordination of macroeconomic policies.

The first explanation why protectionism did not materialize is that countries have an aversion to risk or

uncertainty. This uncertainty is greater during times of economic volatility and made worse if there are no restraints on the behaviour of trade partners. Thus, governments have more to gain by sticking to a trade agreement when the economic environment becomes more volatile.

Secondly, careful monitoring of trade-restrictive measures, including through the WTO, was effective although it remains possible that governments – intent on raising barriers to trade – may to a limited extent have used other measures with similar effects (“policy substitution”).

Thirdly, there is no evidence in hindsight that economies which took a more restrictive stance performed better than those which took fewer trade-restrictive measures. To the extent that policymakers could anticipate such an outcome – for instance by knowing from conversations with stakeholders that in global value chains a country's exports depend very strongly on availability of imports – this may have also discouraged protectionist action.

Last but not least, countries' use of macroeconomic policies limited the need to use trade policy to manage adverse impact on incomes and jobs.

The internationally coordinated macroeconomic policy response was very effective, also because it could draw on substantial resources. This suggests that the consequences of the crisis – and potentially protectionism – could have been much worse with less favourable initial conditions.

Countries addressed the crisis through coordinated expansionary fiscal and monetary policies on an unprecedented scale. A salient feature of the fiscal policy response was the enormous assistance given to the financial sector. There was a huge difference in the amount of support extended by developed G-20 countries and that provided by G-20 developing countries. The amount pledged by the developed G-20 countries to the financial sector was estimated to equal 11 per cent of their GDP. On none of the support measures did the amount pledged by G-20 developing countries reach 1 per cent of their GDP.

Assistance to the financial sector was necessary to avoid a financial collapse but it may also have had trade-distorting consequences.

To the extent that the financial sector bailout prevented a financial meltdown and shored up aggregate demand, it helped sustain developed countries' demand for imports, including those originating from developing countries. Nevertheless, there is evidence that it led to

reductions in cross-border lending. Furthermore, since financial conditions appear to be highly correlated with export performance, the bailouts would have had the effect of sustaining developed countries' exports more than in their absence, at the expense perhaps of exports originating from developing countries.

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F. The WTO and developing countries

The WTO has underpinned the progress made by many developing countries by allowing them to take advantage of, adapt to and mitigate risks arising from the four trends identified in this report. It has done so through binding commitments, flexibilities, technical assistance, and its institutional infrastructure.

The strong economic performance of many developing countries has been associated with reductions in their levels of protection, a significant part undertaken in the context of implementing WTO commitments. This has been particularly apparent in the case of countries acceding to the WTO. Flexibilities allowed in WTO rules, specifically through preferential access, also played a role in buoying the economic performance of the poorest countries.

Integration of developing countries into GVCs has been made possible by the creation of a predictable business environment and the reduction of trade barriers and of trade costs. These have in turn been aided by WTO commitments, not only in goods but importantly also in services, given the large role the latter plays in GVCs. The new Trade Facilitation Agreement signed at the Ninth WTO Ministerial Conference, when implemented, would provide further momentum for reducing trade costs globally, helping expand the participation of developing countries in value chains. Technical assistance can play a vital role in this process, by directing Aid for Trade resources to assist implementation of trade facilitation.

High commodity prices have been beneficial for many developing country exporters. They can, at the same time, pose a challenge for others, particularly net food importers. WTO agreements have mechanisms that help mitigate the problem and members are presently negotiating flexibilities like those provided by the Bali Decision on Public Stockholding for Food Security Purposes. Further progress on the Doha Development Agenda could help realize the full potential of the agriculture sector to contribute to development.

Finally, the WTO has helped safeguard the economic gains achieved by many developing countries despite

the world suffering from the biggest economic crisis of the past seventy years. The WTO helped contain protectionism through its system of trade rules and the effectiveness of its monitoring efforts.

Economic literature supports the view that commitments under the WTO are important for developing countries to promote their trade and development. At the same time, it provides arguments why developing countries need flexibilities because their economic circumstances can hamper their ability to implement obligations.

Commitments are key tenets of international trade agreements. Several studies have shown the empirical relevance of the GATT/WTO in this regard, including by fostering economic growth in developing countries. One study has found that countries undertaking substantial reforms in the context of WTO accessions have grown about 2.5 per cent faster for several years thereafter.

At the same time, in order for a trade agreement to be viable, the possibility to suspend certain commitments temporarily under specific conditions is important – a flexibility available to all participating countries. Flexibility is required not for its own sake, but in order to allow members to the trade agreement to make deeper commitments.

In the case of developing countries, economic theory provides a number of reasons related to market failures typical in those economies that explain why special and differential treatment (S&D) can be useful as long as these market failures persist. Developing countries' small economic size has been a long-standing rationale for non-reciprocity and preferential market access in developed countries. Higher levels of uncertainty, imperfect financial markets or insufficient governmental resources are other constraints that may make it harder for developing countries to adjust quickly to open trade. S&D aims at allowing developing countries to take and implement commitments, as well as pursue trade opportunities, in a manner and pace that reflects the economic conditions that they confront.

Developing countries can take advantage of many forms of special and differential treatment.

One of the principal ways in which developing countries have been accorded special and differential treatment in the GATT and the WTO is through less-than-full reciprocity in commitments in the context of negotiations on market access, in particular in tariff reduction negotiations. Numerous provisions in the WTO Agreement seek to address the resource limitations of developing countries in undertaking certain

commitments by allowing transition periods for the implementation of commitments or by calling for the provision of technical assistance. In addition, of course, developing countries benefit from rules that are applicable to all WTO members.

The WTO provides specific fora and institutions aimed at developing countries.

The Committee on Trade and Development is the focal point on development issues in the WTO. It plays an important role by considering issues raised by developing countries and specific groups of developing countries (small economies, LDCs), by promoting transparency in preferential tariff treatment and regional trade agreements, and overseeing implementation of WTO trade-related technical assistance. For LDCs, trade policy reviews play an additional important role in identifying of trade capacity development needs, apart from their role in providing transparency over policy regimes.

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G. Conclusions

The WTO can further contribute to the achievement of its development objective through the successful conclusion of the Doha Development Agenda. The agreement reached in the Bali Ministerial Conference in December 2013 is a positive step in this direction and offers new opportunities for developing countries.

This report shows how integration into the global economy has gone hand-in-hand with the successful development stories of the last two decades. It also shows that global value chains can contribute to integration into the world economy, how increasing

prices have offered commodity-exporting countries the opportunity to increase GDP through higher export revenues and the role the WTO has played in preserving the global trading system from protectionist reactions following the crisis.

In the context of the four trends of the last decade, the report also shows that remaining obstacles for developing countries to further benefit from the trading system are significant. Lack of skills, poor infrastructure, the high cost of meeting standards, and high levels of protection against products of interest to developing countries are among these. The report also stresses how initiatives such as Aid for Trade can help developing countries participate effectively in global markets.

The Doha Round is about creating the conditions for the development of all countries. In particular, it aims to expand the opportunities for developing countries to benefit from effective inclusion in the global trading system. The decisions reached in Bali are important contributions of the multilateral trading system to development.

Trade and an open rules-based multilateral trading system have central roles to play in addressing the development challenges of a post-2015 world.

The four trends of the last 10 years and the history of development show that trade is one of the key enablers of development. Trade has played a central role in lifting millions of people out of poverty in recent years and helped to achieve many of the UN millennium development goals (MDGs). The WTO and its rules should be seen as an integral part of the enabling environment for realizing any post-2015 development agenda.

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