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Increasing Value Addition in Exports

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February 2014

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Introduction

The past forty years has seen a fundamental change in the nature of global production and trade. Trade liberalisation which led to lower trade barriers and technology-led declines in transportation and communication costs, has led to the emergence of international production networks and the dispersion of production stages across countries and regions. Global Value Chains (GVCs) is the term now most widely used to capture this international network of activities, firms (MNEs and local firms) industries and countries. Many developing countries have effectively used participation in GVCs to integrate themselves into the global economy, East and South-East Asian countries in particular have benefited greatly from participation in global value chains, countries and firms in this region have used global value chains to increase local productive capacity, driving the export-led growth of the region over the past couple of decades, and other developing countries can learn some valuable lessons from the success of these countries.

Research Structure and Methodology

The analysis in this piece of research aims to provide answers to the following queries:

- What kinds of policy initiatives, institutional reforms, and infrastructure developments have helped countries like Vietnam, Botswana, Mauritius, Turkey, Mexico, or other countries that may be good examples of success, in increasing value added component of their exports.
- What kinds of programmes/support did external development partners/donors provide them in successfully undertaking these initiatives, reforms and developments?

In responding to these questions the analysis in this report is set out as follows. The first section briefly explores the emergence of GVCs and the implications for developing countries, particularly in terms of what these countries need to do in order to effectively participate in these GVCs, and provides insights into the key issues or constraints which these countries need to address to build their competitiveness and types of support which external development partners such as DFID can support to assist in this process, thereby providing insights and clues to both questions. These issues are explored in further detail through case studies of two countries, Malaysia and Mauritius, two countries which have developed and grown very successfully over the past thirty years using export-led development models, based on moving away from the export of primary commodities into the export of more value- added manufactured, and more recently services orientated, exports¹. Each case study highlights the key policy initiatives, institutional reforms and infrastructural developments which allowed these countries to overcome some of the constraints highlighted in previous section and diversify and add value to their exports, as well the assistance they received from external donors in implementing these initiatives. It is important to note that external development assistance did not play a hugely significant role in the reforms undertaken by these countries², these countries were selected because of their success in developing their export sectors and to highlight the key lessons which can be learned by other countries looking to undertake similar reforms and types of programs and support which

¹ To optimise the resources available to this piece of research it was agreed with DFID that case studies would be undertaken on two countries, therefore rather than touching on a number of countries the research focuses in on two countries, allowing for more detailed analysis of both.

² In the case of Malaysia, even during the 1980s when the country was actively mobilising resources for development, aid accounted for less than 4 per cent of government expenditure (See Ohno I and Shimamura M (2007) *Managing the Development Process and Aid: East Asian Experiences in Building Central Economic Agencies*, GRIPS Development Forum)

donors could support to facilitate this process. Development partners did however provide important support in certain instances, in building institutions in Malaysia and in the key reforms undertaken by Mauritius during the mid-2000s, and these instances are emphasised in the case studies. The final section captures the key findings from these two sections, emphasising the kinds of programmes or support that external donors can provide to help developing countries overcome the constraints highlighted in the first section and successfully undertake similar reforms and developments to those of Mauritius and Malaysia.

Section 1 Factors Impacting on Export Growth

This section presents a brief overview of the factors affecting a country's capacity to participate in global trade, with a particular emphasis on how developing countries can effectively integrate themselves into the global production networks which have emerged over the past half century. The section provides insights into both of the research questions, providing clues on the types of reforms which developing countries need to undertake to improve their export competitiveness and the types of programs and initiatives which donors can support, emphasising the importance of addressing issues which increase the transaction costs associated with international trade, ranging from improved and more efficient customs procedures to issues in the broader commercial and policy environment in which transactions occur, issues related to infrastructure, institutions (trade/investment related), business and regulatory environment, investment policy regime and support incentives.

1.1 Shifting Patterns of Global Trade - Emergence of GVCs

Michel Porter was one of the first to use the term value chain in the 1980s based on his analysis of trade and industrial organisation of cross-border activities which incrementally added value to the final product³. In simple terms a GVC is the sequence of activities in the process of value creation involving more than one country, where for example raw materials extracted in one country are processed in a second country and then in third country, to be finally exported to a fourth country for final consumption. The movement of the product through successive countries where it acquires new value is designed, coordinated and implemented by a global network system. Apple's iPod is a perfect example of a product whose production involves a network of intertwined goods and services tasks along a value chain - the iPod's components are assembled in China, Toshiba in Japan supplies the hard drive, the American company Broadcom (with facilities in Taiwan) produces the video/multimedia processor chip and other suppliers in East Asia produce the display screen, the processors and the battery.

Trade in global value chains means that the majority of trade now involves intermediate goods rather than final goods with the result that, as a share of global output, trade is now more than four times its level in the early 1950s⁴. Imported inputs now account for a significant proportion of exports, blurring the line between exports and imports as well as between domestic products and imports. The foreign content share in gross exports on average has almost doubled since 1970, with for example more than 50 per cent of the exports of countries such as Estonia, Hungary and Luxembourg consists of imported inputs (Figure 1). A large part of this trade in intermediate inputs is trade that takes place within conglomerates, intra-firm or vertical trade (between affiliate companies or at arm's length) has increased dramatically in recent decades and account for most of the growth in world trade in recent decades, UNCTAD now estimate that 80 per cent of trade involves transactions between TNCs⁵.

Services have been critical to this trade in intermediate products. Services have been critical to the emergence and smooth operation of global production networks, services inputs provide the link or the glue at each point in the value chain without which this geographical segmentation of production would be able to happen. In the Apple iPod example above services inputs (e.g. transport, telecoms, logistics, distribution, marketing design, R&D) are supplied all long the value chain and are critical to its overall functioning and success. These services which facilitate and enable global value chains

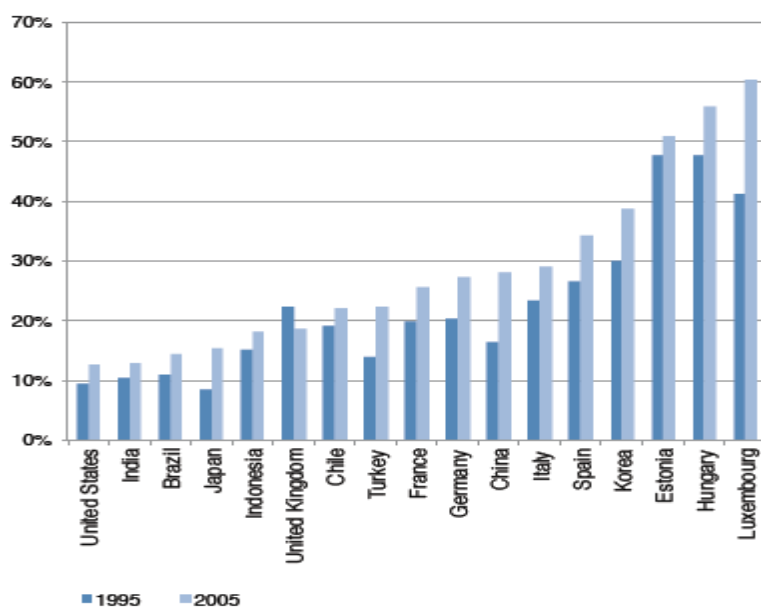
³ Porter, M. E. (1985) *The Competitive Advantage: Creating and Sustaining Superior Performance*. NY: Free Press.

⁴ IMF (2013) *Trade Interconnectedness: The World with Global Value Chains*, Washington; International Monetary Fund.

⁵ UNCTAD (2013) *World Investment Report 2013: Global Value Chains: Investment and Trade for Development*, New York and Geneva: United Nations

growth are the fastest in world services trade. This is the category of other commercial services, which have increased in importance from 40 percent to 53 percent of total services trade from 1995 to 2010⁶.

Figure 1: Import Content of Exports (%)



Source: http://unctad.org/en/PublicationChapters/wir2013ch4_en.pdf, accessed on February 12 2014.

1.2 Implications for Developing Countries

Integrating into global production networks can help developing countries and regions benefit from higher value added exports. Today the extent of developing country exports that depend on global value chains is significant, as a result of either upstream links (foreign value-added or imported inputs in exports) or downstream links (exports that are incorporated in other products and re-exported). East and South-East Asian countries in particular have benefited greatly from participation in global value chains, countries and firms in this region have used global value chains to increase local productive capacity, driving the export-led growth of the region over the past couple of decades. China's income alone from total flows in global value chains increased six-fold between 1995 and 2009, and jobs associated with global value chains increased from 89 million to 146 million between 1995 and 2008⁷. The example of Malaysia will be explored in more detail in the next section, focusing on its emergence as a major player in the global electronics sector.

Other developing countries, particularly African ones, have struggled to capture similar benefits and their involvement in global value chains has remained typically as producers and exporters of primary goods exports (lower value downstream activities), their participation in activities which involve elements of transformation located in the upper end of value chains have been limited. In 2010 34 per cent of non-oil exports (63 per cent of exports including oil) have been in raw products that did not involve any form of transformation, by contrast in other developing regions like Latin America commodities

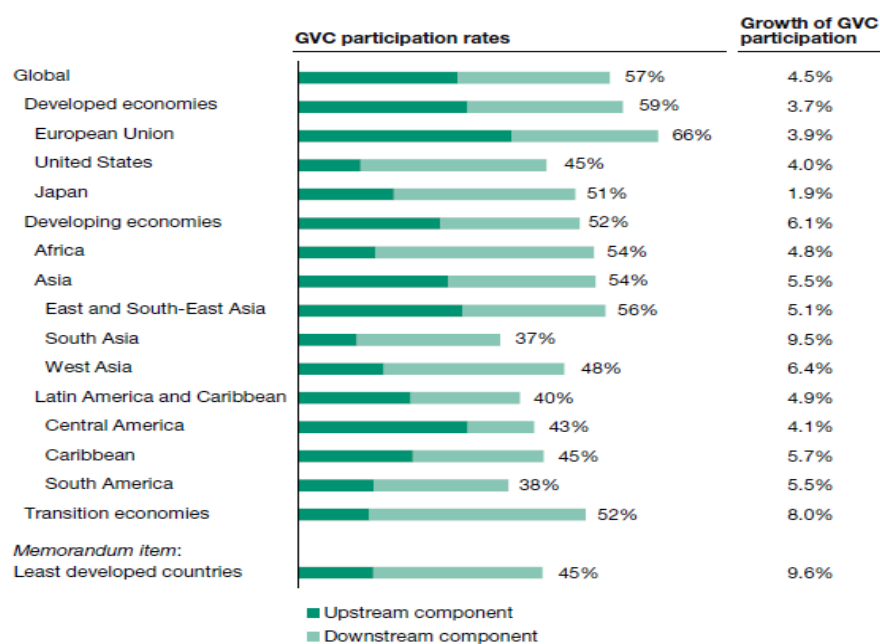
⁶ World Economic Forum (2012) The Shifting Geography of Global Value Chains: Implications for Developing Countries and Trade Policy, available at http://www3.weforum.org/docs/WEF_GAC_GlobalTradeSystem_Report_2012.pdf (accessed on February 14 2014)

⁷ Londiwe Buthelezi, It's Time for Africa to Add Value to Exports to China, 2013, available at http://www.iol.co.za/business/news/it-s-time-for-africa-to-add-value-to-exports-to-china-davies-1.1577875#.Uw9nkfl_sqQ (accessed on February 12 2014)

account for only 23 per cent and in developed regions like the EU less than 5 per cent of non-oil exports⁸.

Focusing on the provision of intermediate inputs or trade in tasks is the way through which most East Asian countries inserted themselves into and climbed global value chains, and this most likely provides the avenue through which other developing regions to integrate into global chains simply because focusing on the production of a “task” or “input” along the production chain is far less daunting and capital intensive than breaking into global markets with a final product.

Figure 2: GVC Participation 2010



Source: http://unctad.org/en/PublicationChapters/wir2013ch4_en.pdf, accessed on February 11 2014.

Gains are not however automatic. Many studies have pointed out that gains are unevenly distributed across the value chains, the gains typically skewed towards more powerful developed economies⁹. Gereffi and Korzeniewicz's (1990)¹⁰ for example find that in low-wage, labour-intensive production, the principal profits are not realized in manufacturing itself, but rather in the corporate coordination and control of what they call the global assembly line, especially design, marketing and retailing - activities that are typically controlled by transnational firms based in core countries, in such cases peripheral countries remain primarily export platforms for simple low-technology, labour intensive goods made by low-wage skilled workers. In the case iPod example an estimated USD\$4 out the total value of USD\$150 can be attributed to producers located in China while most of the value accrues to US, Japan and Korea¹¹. Thus a key consideration for developing countries is how to maximise the benefits from participation in GVCs. The Malaysia case study will highlight how it was able to anchor investment in the country and move from simple low-value assembly activities in the 1970s to the subsequent diversification into higher value added products and services.

⁸ ITC (2012) Africa's Trade Potential: Export Opportunities in Growth Markets, New York and Geneva, United Nations

¹⁰ Gereffi, C., and Korzeniewicz, M. (1990) Commodity chains and footwear exports in the semiperiphery. In Semiperipheral states in the world-economy, ed. W. G. Martin, 45-68. Westport, Conn.: Greenwood Press

¹¹ Dedrick J., Kraemer K.L, Linden G (2008) Who profits from Innovation in Global Value Chains? A Study of the iPod and notebook PCs, Industry Studies.

1.3 Factors affecting GVC Participation

The fragmentation of the production process across different countries has led to the development of what the IMF refers to as a strong *trade-investment nexus*¹², in reference to the fact that investment, particularly FDI from TNCs. As mentioned above TNCs now account for an estimated 80 per cent of global trade, investment from these TNCs therefore plays a critically important role in shaping value added trade patterns, the latest World Investment Report emphasises that the correlation between FDI stock in countries and their GVC participation is strong and positively increasing over time¹³. The implication therefore is that creating an enabling environment for FDI is an important pre-requisite for the effective participation in global value chains.

Trade Facilitation and Reducing Transaction Costs

Creating this enabling environment requires addressing a wide range of issues impacting on the costs and delays involved in international trade, issues related to trade facilitation. Trade facilitation involves reducing all the transaction costs associated with the enforcement, regulation and administration of trade policies¹⁴. As emphasised above, the nature of global production networks means that imports are essential for exports, especially in complex value chains such as transport and electronics. Trade-facilitating and efficient port and custom measures, such as fast procedures, permit the smooth operation of value chains that require goods to cross borders many times. A recent business survey found that more than 80 per cent of businesses involved in GVCs perceive imports of goods and services as being important or critical for their exports¹⁵.

Efficient ports and border procedures

Recently a large body of evidence has emerged on the impact trade facilitation reform and the lowering trade time and costs, quantifying the impact issues such as improvements in port and information infrastructure, more rapid customs clearance time or regulatory reform to remove duplicative technical requirements have on trade performance. Freund and Rocha (2011)¹⁶ analyse data on three components of trade facilitation - transit times; documentation; and ports and customs - for countries in Sub-Saharan Africa, and find that transit times have the most economically significant effect on exports, they estimate that a one day reduction in inland travel times leads to a 7 per cent increase in exports, importantly they emphasise that transit times are heavily dependent on institutional factors such as border delays, road quality and blocks, fleet class, competition and security. Similarly Subramanian, Anderson and Lee (2012)¹⁷ estimate the effect of reducing trade transactions times on exports, their results show that a reduction of one percent in time to export could potentially increase trade by 0.64% on average for Sub-Saharan African countries. Djankov, Freund and Pham (2010)¹⁸ collected data from 98 countries on the number days it takes to move standard cargo from the factory gate to the port, and find that each additional day that a product is delayed prior to being shipped reduces trade by more than one percent- they also find that delays have an even greater impact on the export of time sensitive goods such as agricultural products.

¹² IMF (2013), Trade Interconnectedness: The World with Global Value Chains, Washington; International Monetary Fund.

¹³ UNCTAD (2013) World Investment Report 2013: Global Value Chains: Investment and Trade for Development, New York and Geneva: United Nations

¹⁴ Staples, B. R., (2002) Trade facilitation: improving the invisible infrastructure, in Bernard Hoekman, Aaditya Matto, and Philip English (eds.) Development, Trade and the WTO: a Handbook, Washington, DC, World Bank.

¹⁵ See UNCTAD (2013) World Investment Report 2013: Global Value Chains: Investment and Trade for Development, New York and Geneva: United Nations

¹⁶ Freund C and Nadia Rocha (2011) "What Constrains Africa's Exports?" World Bank Economic Review 25 (3): 361-86

¹⁷ Subramanian U, W Anderson and K Lee (2012) "Less Time, More Trade: Results from an Export Logistics Model" Investment Climate Department, World Bank Group, Washington, DC.

¹⁸ Djankov S, C Freund and CS Pham (2010) "Trading on Time" The Review of Economics and Statistics 92(1): 166:73

Trade facilitation can also be interpreted more broadly to include addressing issues in the broader commercial and policy environment in which transactions occur, what can be called behind-the-border issues or constraints. Constraints behind the border involves addressing supply side issues related to infrastructure, institutions (trade/investment related), business and regulatory environment, investment policy regime and support incentives.

Hard infrastructure

Hard infrastructure (ports, roads, and telecommunications) is obviously crucially important to the efficient movement of goods and services. A recent study by the ITC estimate that the benefits of Sub-Saharan Africa of investing in trade related infrastructure (ports, roads etc.) alone is an increase in exports of up to 51 per cent beyond the baseline forecast, along with GDP gain of US\$20 billion per year by 2025¹⁹.

Limão and Venables (2001)²⁰ explore the relationship between transport costs and trade volumes and estimate that a 10 per cent decline in transport costs for cross-section of countries worldwide would increase trade by up to 25%. They emphasise that the gains could be potentially greater for Africa where transport costs are relatively high compared to other parts of the world, this is attributed to the poor quality of the continent's infrastructure – they estimate that improving transport infrastructure of the bottom quarter of countries (primarily countries in Sub-Saharan Africa) to the median countries in their sample could potentially result in an increase of up to 50% in trade volumes. Similarly Buys et al (2006)²¹ simulate the effects of road upgrading and estimate that connecting all of Sub-Saharan Africa's capitals to population centres with more than 500,000 inhabitants would translate into a US\$250 billion increase in trade volumes over 15 years.

Soft infrastructure and institutional effectiveness

An analysis of the trucking industry across Africa suggests that high transport prices are less a function of poor quality physical infrastructure but more due to inefficiencies in the structure of transport markets, these markets are very often controlled by monopolies – they find that transport prices charged to businesses are high, while the actual costs incurred by trucking companies in Western Africa to move cargo do not differ greatly from those of trucking companies in the developed world²². Thus improvements in physical infrastructure will not translate into time and cost savings unless these *softer* issues are addressed. So called softer dimensions are however crucial to ensuring investment in and the effective functioning of a country's hard infrastructure,, here we're referring specifically to the quality of a country's public institutions. Cross national econometric work shows that the quality of a country's public institutions is critical and potentially the most important determinant of a country's long-term development²³.

Anderson and Marcoullier (2002)²⁴ find that bilateral trade volumes are positively influenced by trading countries institutional quality, emphasising that higher transactions costs associated with poorly enforced commercial contracts and lack of transparency and impartiality in government policies significantly impede international trade, and estimate that a 10 per cent increase in a country's index of transparency and impartiality leads to a 5% increase in its import volume, other things being equal. Francois and Manchin

¹⁹ ITC (2012) Africa's Trade Potential: Export Opportunities in Growth Markets, New York and Geneva, United Nations.

²⁰ Limão N and A Venables (2001) Infrastructure, geographical disadvantage, transport costs, and trade. World Bank Economic Review 15(3), 451–79

²¹ Buys P. U Deichmann, and D. Wheeler (2006) Road Network Upgrading and Overland Trade Expansion in Sub-Saharan Africa. World Bank Policy Research Working Paper 4097

²² See Raballand and Teravaninthorn (2008, Transport Prices and Costs in Africa: A Review of the Main International Corridors, Africa Infrastructure Country Diagnostic, Working Paper 14

²³ Acemoglu D, Johnson S, and Robinson JA (2000) The Colonial Origins of Comparative Development: An Empirical Investigation MIT, Cambridge, MA.

²⁴ Anderson J and D Marcoullier (2002) "Insecurity and the Pattern of Trade: An empirical investigation. The Review of Economics and Statistics 84 342-352

(2007)²⁵ find that export performance, and the propensity to take part in the trading system at all, depends on institutional quality, as well as access to a well-developed transport and communications infrastructure. De Groot (2004)²⁶ examine institutional quality as reflected by such dimensions as effectiveness of governance, regulatory quality, voice and accountability, rule of law, and control of corruption, and find a positive and significant link between improved regulatory quality and increase in bilateral trade. The Mauritius case study highlights how the development of quality institutions has been the key to the country's export led development over the past thirty years.

The challenge for most developing countries lies in governance reform directed at the provision of quality public institutions. Most African countries score very poorly on multiple measures of governance, including political stability, government effectiveness, regulatory quality, accountability and corruption.

Support Services

As emphasised above competitiveness in global value chains in goods is critically dependent upon efficient services inputs. The Logistics Performance Index (LPI) developed by The World Bank, gives us one measure of this efficiency. The LPI ranks countries according to their logistics performance in activities such as transport, warehousing, border clearance and payment systems (the latter two being very information-technology dependent). It is noteworthy that the majority of countries which perform best in logistics are also those which rank highest in their shares of world trade²⁷.

Export Processing Zones (EPZs)

Many emerging economies have used Export Processing Zones (EPZs) as a tool to quickly overcome many of the obstacles which prevent participation in global value chains. These zones provide the appropriate conditions for foreign investors at a small scale which is often easier for governments to implement. The attraction of these zones include low costs, ease of exporting and importing, low or zero tariff barriers and reduced administrative burdens. EPZs were used very effectively by Malaysia and Mauritius to attract investment and drive growth in their exports over the past thirty years.

²⁵ Francois J and M Manchin (2007) Institutions, Infrastructure and Trade, World Bank Policy Research Working Paper, Washington DC: World Bank Group

²⁶ De Groot H, GJ Linders, P Rietveld, and U Subramanian (2004) "The Institutional Determinants of Bilateral Trade Patterns" *Kyklos* 57: 103-24

²⁷ World Economic Forum (2012) The Shifting Geography of Global Value Chains: Implications for Developing Countries and Trade Policy, available at http://www3.weforum.org/docs/WEF_GAC_GlobalTradeSystem_Report_2012.pdf (accessed on February 14 2014)

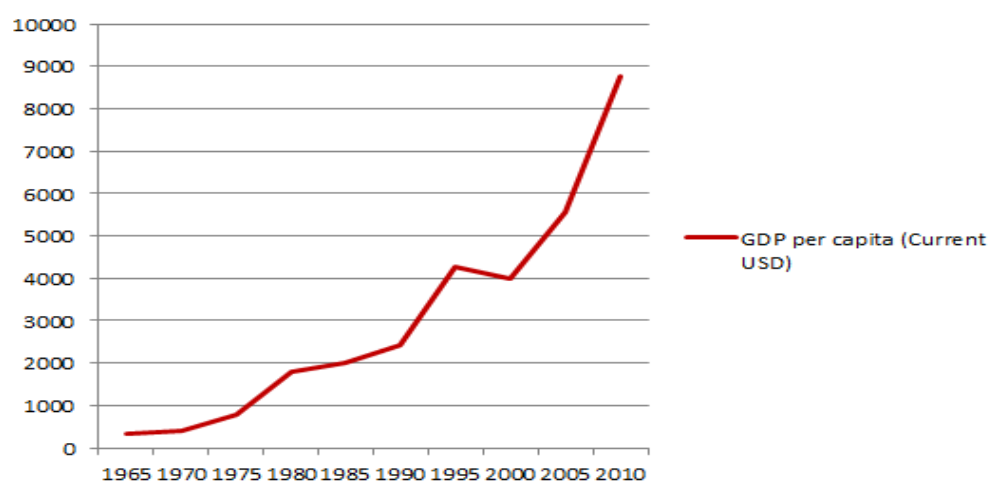
Section 2 Case studies

This section focuses on the first research question, and expands on some of the issues explored in the previous section through case studies of two countries, Mauritius and Malaysia, both of which have followed extremely successful export-orientated development or growth models over the past forty years. As emphasised in the research question the case studies will highlight the key policy, institutional and infrastructural reforms behind the success of these countries, as well as the external development assistance these countries received in implementing these reforms.

2.1 Malaysia

From an under-developed economy dependant on agriculture and resource extraction (tin and rubber) in 1960s, Malaysia has followed a highly successful export-led development path over the past fifty years. Annual growth rates averaged over 7 per cent from the 1960s to 2010, with its GDP per capita increasing more than twentyfold from, USD 392 in 1970 to 8754, during the same period²⁸, and through the New Economic Model (NEM) launched in 2012 aims for the country to reach high-income status by 2020.

Figure 3: GDP per Capita (Current USD), Malaysia - 1965-2010



Source: World Development Indicators, available at <http://data.worldbank.org/data-catalog/world-development-indicators>, accessed on February 12 2014

One of the key factors underpinning this period of sustained growth has been how the Malaysian authorities have successfully managed the country's transition from an economic development model based on import substitution to one based on export led growth, this transition was made possible through liberal trade policies, sustained improvement of the competitiveness of its exports and the effective integration into the global production networks, particularly electronics production networks.

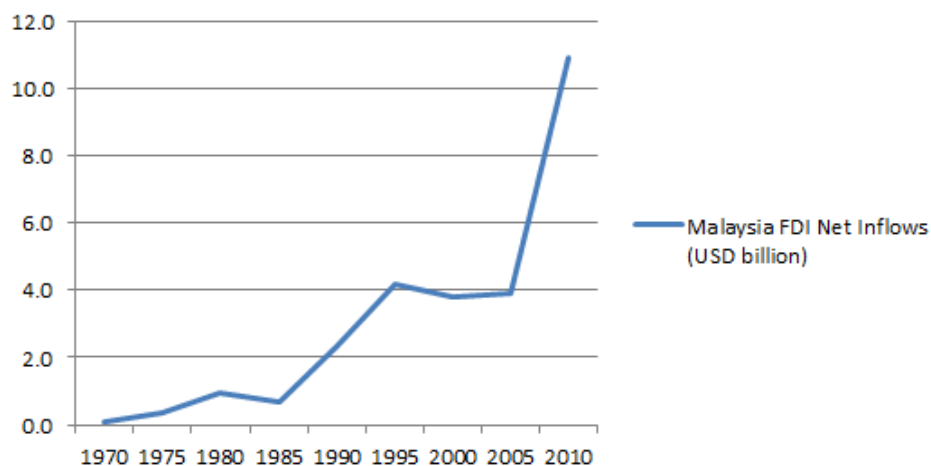
Malaysian exports have grown strongly since the 1960s, the value of exports (Figure below) increased almost twentyfold between 1980 (USD 14.1 billion) and 2012 (USD 265.5 billion). FDI has been an important source of economic growth for Malaysia, bringing in capital investment, technology, and management knowledge²⁹, particularly in

²⁸ World Development Indicators Database, available at <http://data.worldbank.org/data-catalog/world-development-indicators>, accessed on February 12 2014

²⁹ Har, Wai-Mun and Teo, Kai-Lin and Yee, Kar-Mun (2008) FDI and Economic Growth Relationship: An Empirical Study on Malaysia, International Business Research, Vol. 1, No. 2, pp. 11-18, April 2008

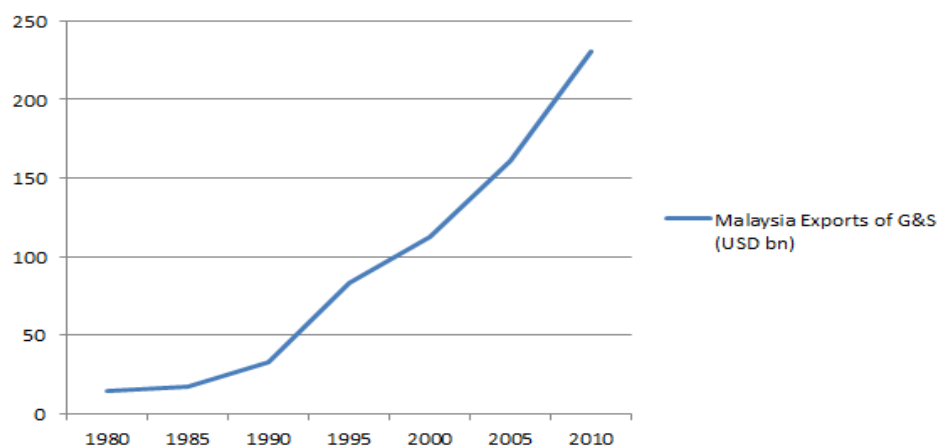
the electronics as highlighted below. Annual inflows have increased substantially since 1970, reaching USD 15.1 billion in 2011.

Figure 4: Malaysia Annual Net Inflows (Current USD Billion, 1970-2010)



Source: World Bank Database, available at <http://data.worldbank.org/data-catalog/world-development-indicators>, accessed on February 12 2014

Figure 5: Malaysia Exports of Goods and Services (USD billion)



Source: UNCTAD Database, available at <http://unctad.org>, accessed on February 13 2014

The manufacturing sector had played an instrumental role in Malaysia's economic success, contributing significantly to output, investment, employment and exports. Increasing value addition has been an important feature of this export-led policy, particularly in high technology sector in which Malaysia has emerged as one of the world's major producers of high-technology products (Figure 6 and Table 2). Malaysia entered the high and medium technology, particularly the E&E (Electrical and Electronics) sector, began in the 1970s, in 2010 accounted for almost 50 per cent of Malaysia's manufactured exports is composed of high-technology products³⁰, dominated by the electronics sub-sector (Table 1). Malaysian firms have undergone a continuous process of industrial upgrading and adding value to exports, with productivity in the manufacturing sector increasing steadily over the past 20 years. Rasiah (2010) finds that between 1974 and 2007 the technological capabilities of electronic firms has

³⁰ High technology refers to products that embody advanced technologies and high levels of R&D intensity

improved significantly during this period and that firms have participated in activities with higher levels of knowledge intensity. This is phenomenon is explored in further detail below.

Table 1: Share of Total High Technology Products in exports 2007-2012 (%)

Sub-Sectors	2007	2008	2009	2010	2011	2012
Electronics – Telecommunications	59.2	60.6	62.8	63.3	70.6	69.3
Computers - Office Machines	36.2	34.4	31.9	30	21.9	21
Scientific Instruments	4.4	4.9	4.9	6.4	6.9	9.2
Aerospace	0.1	0.1	0.1	0.2	0.4	0.3
Pharmacy	0	0.1	0.2	0.2	0.1	0.2
% of HT in Total Man Exports	36.1	29.8	32.1	29.3	26.3	26.5

Source: World Bank Database, available at <http://data.worldbank.org/data-catalog/world-development-indicators>, accessed on February 15 2014

Table 2: Share of High Technology Exports in Total Manufactured Exports (%) - Selected Economies, 1990-2010

Country Name	1990	1995	2000	2005	2010
Brazil	6.5	4.9	18.7	12.8	11.2
China		10.4	19.0	30.8	27.5
India	3.9	5.8	6.3	5.8	7.2
Malaysia	38.2	46.1	59.6	54.6	44.5
South Africa		5.7	7.0	6.7	4.3
South Korea	18.0	26.0	35.1	32.5	29.5
Vietnam			11.1	5.4	8.6

Source: World Bank Database, available at <http://data.worldbank.org/data-catalog/world-development-indicators>, accessed on February 12 2014

The services sector, in particular knowledge intensive services (financial, business, communication education and health services), has become increasingly important over the past twenty years. The value added of the knowledge intensive services sector in Malaysia doubled from RM53.1 billion in 2000 to RM117.4 billion in 2010.

Some of the key policy initiatives, institutional reforms (focused on improving the business environment and trade facilitation), and infrastructural developments which facilitated this growth and development of the export sector in Malaysia are now explored in more detail.

2.1.1. Policy Initiatives

Free Trade Zones (FTZs)

To attract foreign direct investment and provide early impetus to its new export led growth model Malaysia established Free Trade Zones (FTZs) in the early 1970s. August 1972 saw the opening of Malaysia's first Free Trade Zone (now known as Free Industrial Zone) in Bayan Lepas, Penang. The establishment of the Penang FTZ was inspired by Penang Master Plan Study developed by Nathan Associates which recommended a shift in economic structure towards export-led growth what it referred to as *plugging in* the economy into the global economy, effectively the integration into the global production networks described in the first section.

The key attraction of these FTZs is that any goods, from overseas or within Malaysia, and services of any description, except those prohibited by law, may be brought into, produced or provided in the zones without payment of any tariffs, excises, sales or service taxes. Enterprises located in the zones are also eligible for tax exemptions on income from promoted activities.

FTZs were instrumental in the development of the E&E industry, the conducive importing and exporting environment encouraged firms such as Intel, Hewlett Packard, Motorola, Siemens Hitachi, and Sony to first set up in Malaysia in the 1970s. The influx of MNCs in the electronics sector encouraged and facilitated the transfer of technologies to local Malaysian workers, who over the years have assumed leading positions in the managerial as well as technical fields. With the increasing expertise of the Malaysian technical staff, many MNCs have moved some of their research and development (R&D) facilities to Malaysia. The E&E industry has now evolved to a stage where an increasing number of MNCs have turned their Malaysian base into a centre for value added activities such as R&D, design and development, brand development, procurement, distribution and customer service.

Promoting Linkages with Domestic Firms

The Malaysian government placed a heavy emphasis was placed on developing a domestic supplier network around the branch plants of MNEs in the FTZs, helping greatly to increase the economic impact of MNE presence on the domestic economy and was instrumental in anchoring foreign investors in the export hub through tighter and more appropriate supplier relationships. Partnerships between MNCs and local SMEs developed quickly, resulting in the growth of a large pool of local tooling and equipment manufacturing firms, a number of these firms have grown and established themselves as exporters in their own right. Eng Tek Group, established in 1973 as a supplier to a few semi-conductor companies within three decades had established itself as a globally recognised producer in the precision engineering, manufacturing and technology sector. Other local suppliers, after expanding their product lines, became contract manufacturers, undertaking both components production and assembly for MNEs involved in front-end activities in the production chain³¹.

Malaysia's First Industrial Master Plan (1986-1995) placed a strong emphasis on developing linkages between local firms and TNCs and targeted programmes were developed to encourage TNCs to source locally, particularly from local SMEs. The Malaysian authorities established pro-active policies to encourage the development and the strengthening of business linkages. Two programmes were set up to stimulate linkages: the Industrial Linkages Programme (ILP) and the Global Supplier Programme (GSP)³². The Industrial Linkages Programme, created in 1996, was made to encourage large companies to source parts, components and services from SMEs and to promote local SMEs to become competitive suppliers to leading industries. It comprises programmes that support industrial linkages (technology development, skills upgrading, export development and provision of industrial sites), business matching and Fiscal incentives. For example under this programme 100 per cent of expenditures incurred in training employees, developing and testing local products, improving the quality of local inputs or innovating the facilities of local SME partners, were declared deductible from income tax. To encourage SMEs to upgrade and meet required standards in terms of price, quality and production capacity the programme introduced "pioneer status", under which eligible small companies were entitled to a tax exemption of 100 per cent of statutory income for a period of ten years and to an investment tax allowance of 60 per cent (or 100 per cent in industrial sites) on the capital expenditure incurred within a five year period. One of the ILP's recent successes is the progressive sourcing of local food

³¹ ITC (2012) Africa's Trade Potential: Export Opportunities in Growth Markets, New York and Geneva, United Nations

³² UNCTAD, Best Practices in Investment for Development: How to create and benefit from FDI-SME linkages lessons for Malaysia and Singapore, New York and Geneva, United Nations.

processing SMEs by TNC hypermarket such as Tesco. In 2009, over 70 per cent of Tesco's 60,000 products were produced locally and 60 per cent of Tesco Malaysia's suppliers were local firms³³.

The Global Supplier Programme (GSP) aimed to further enhance the capacity of SMEs to provide world-class service and products to TNCs, with a focus on reducing cost and cycle time. It involves training in critical skills, linkages with TNCs, certification of products. Under GSP training subsidies are provided to SMEs for training programmes at a variety of regional centres and institutes, the key factor ensuring the promotion of linkages is that TNCs design the content of the training programmes and participants are selected based on TNC criteria.

Table 3: Linkages Programmes

Industrial Linkages Programme (ILP)	
Aim	Encourage large companies to source parts, components and services from SMEs. Intended to promote and nurture local SMEs to become reliable and competitive manufactures and suppliers to leading industries.
Support	<ul style="list-style-type: none"> • Targeted at electrical and electronics (E&E), transport equipment, machinery and engineering, and resource based • Fiscal Incentives (Pioneer Status with 100% tax exemption for 5 years, or Investment Tax Allowance of 60% on qualifying capital expenditures incurred within a period of 5 years). • Business Matching. • Lead companies can claim expenses incurred in developing SMEs including training, factory auditing and technical assistance to ensure the quality of vendors' products.
Global Supplier Programme (GSP)	
Aim	To further enhance the capacity and capability of SMEs to provide world-class service and products to TNCs. Focus on reducing cost and cycle time
Support	<ul style="list-style-type: none"> • Training in critical skills: Grant for Product and Process Improvement (Matching grant max. RM 500,000) • Certification of product: Grant for Productivity and Quality Improvement and Certification (Matching grant max. RM 250,000) • Factory Auditing Scheme (Diagnostic audit for SMEs with potential to be linked to MNCs under ILP)

Building Domestic Skills and Productive Capacity

During the first decade of industrial transition, electronics firms in Penang were almost exclusively engaged in simple downstream assembly processes in the semiconductor manufacturing chains, an estimated four-fifths of the workforce in the 1970s and 1980s was engaged in jobs requiring little or no skills. The past couple of decades have seen a gradual shift into higher value activities in the sector, driven by domestic cost pressure and strong competition from China as a location for labour intensive assembly activities. However the deep-rooted nature of their production bases, supported by the pool of skilled workers and local suppliers developed over the past decade facilitated the shifting of simple low-end assembly activities to other low cost locations and the establishment of higher value added activities locally in Malaysia. The activities in Penang now for example encompass knowledge intensive activities such as corporate and financial planning, R&D, product design and tooling, sales and marketing. For instance Motorola's largest R&D facility and Altera's largest design centre are now located in Penang.

³³ UNCTAD, *Best Practices in Investment for Development: How to create and benefit from FDI-SME linkages lessons for Malaysia and Singapore*

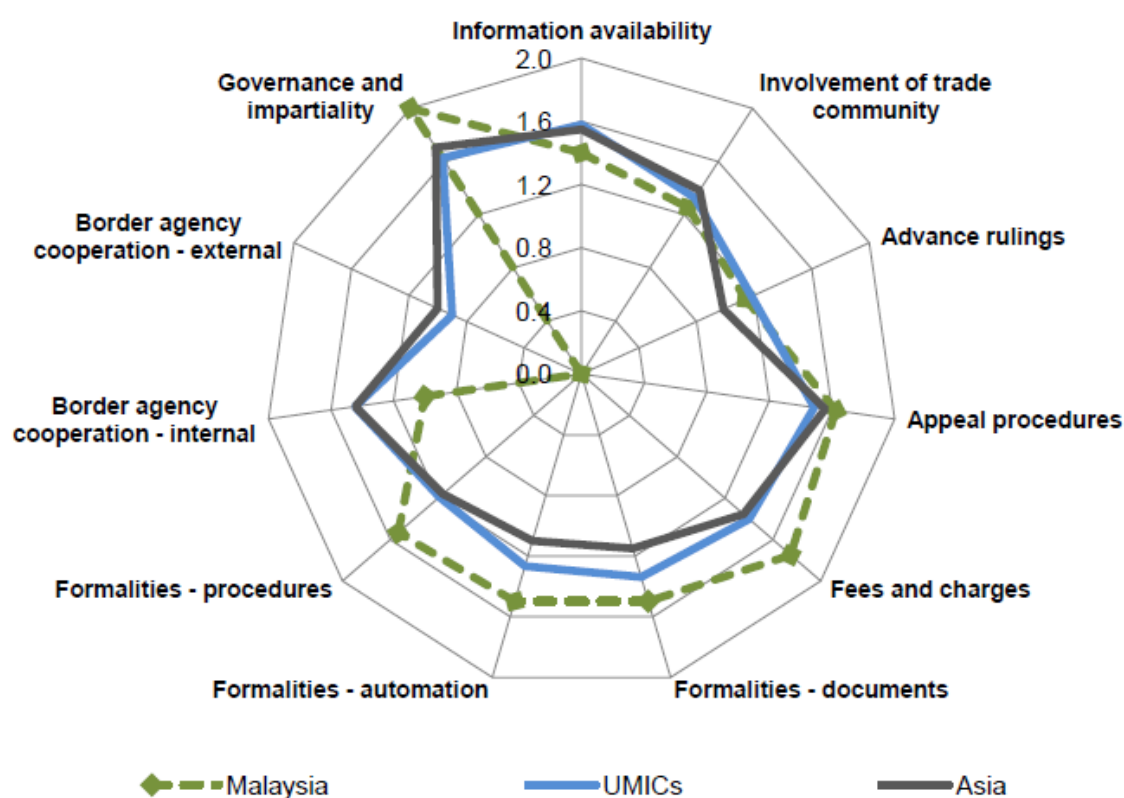
Skills and technological upgrading has also been facilitated by the initiatives such as the Penang Skills Development Centre (PSDC) established in 1989, an innovative tripartite training institution bring together industry, academia and government to address the skills shortages which began to hamper the expansion of the electronics industry during the 1980s. The federal government also helped skill development at the firm level by offering general tax deductions on MNEs' contributions to PSDC schemes and their own skill development efforts.

As a result from virtually zero in in the early 1970s 43.5 per cent of the total employment in the manufacturing sector was classified under the skilled and semi-skilled category by 1995 while 33.8 per cent, this has increased to over 60 per cent by 2005³⁴.

2.1.2. Business Environment Reform

In recent years institutional reforms to facilitate the effective delivery of services and reducing the cost of doing business have been key priorities of the Malaysian Government. Malaysia has continuously reduced barriers to trade, and today it performs better than the averages of Asian and upper middle-income countries in the areas of fees and charges, harmonisation and simplification of documents, automation, streamlining of procedures and governance and impartiality, according to OECD trade facilitation indicators (Figure 8).

Figure 6: Malaysia's Trade Facilitation Performance: OECD Indicators



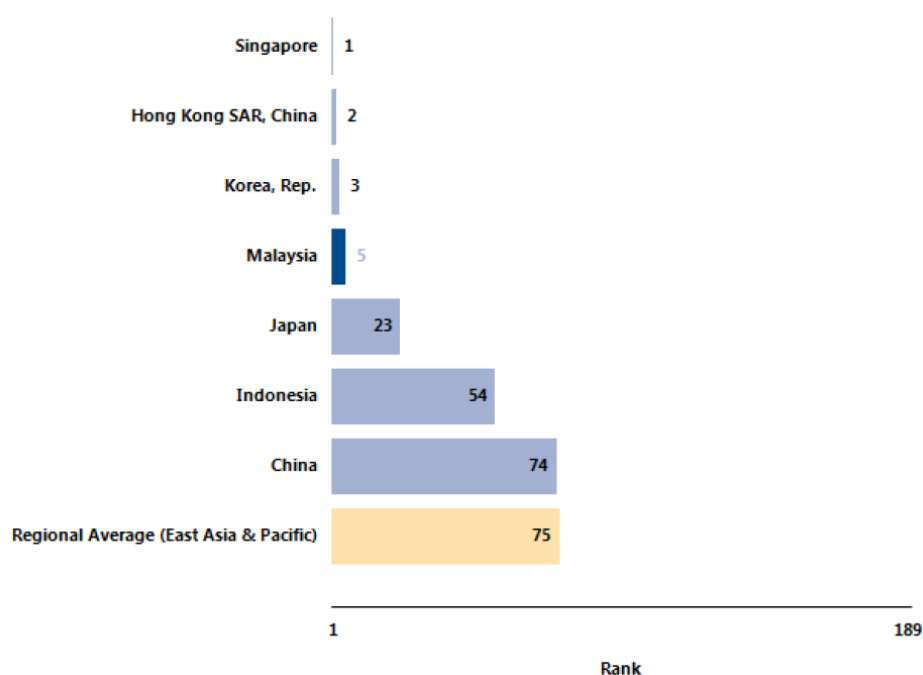
Source: <http://www.oecd.org/>, accessed on February 14 2014

ICT was identified as a key to trade facilitation by the Malaysian government. Malaysia was an early adopter of paperless trade in the region and successfully developed a national single-window facility, an integrated system which enables trade-related information and documents to be submitted by importers and exporters, Customs brokers, freight forwarders, shipping agents, banks, insurance companies only once – at

³⁴ Malaysia Third Industrial Master Plan (IMP3) – 2006-2020

single entry point. Malaysia ranks 24th in the WEF's 2012 Global Enabling Trade Report, with the report highlight the fact that border clearance procedures in the country are the least costly in the world. Similarly Malaysia ranks 5th of 189 economies in the *Trading Across Borders* data sub-set of the *World Bank's Doing Business* report (Figure 9). For example the number of documents to export and import goods and services is very low compared to other developing countries: 4 for both exports and imports (see Table below). As a result of costs to export are very low Malaysia, exporting a standard container requires 4 documents, takes 11 days and costs USD\$485 , much less than the East Asia & Pacific average (\$856) or the OECD (\$1,070)³⁵.

Figure 7: Malaysia and comparator economies rank of the ease of trading across borders



Source: <http://www.doingbusiness.org/>, accessed on February 12 2014

Table 4: Number of documents to export and import goods and services (2013)

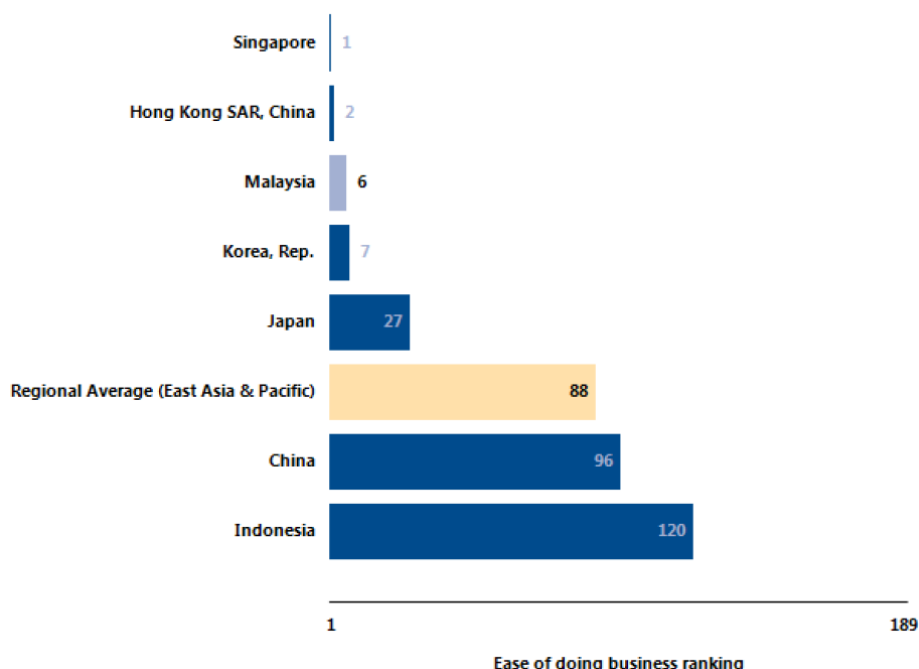
	Documents to Export	Documents to Import
Brazil	6	8
China	8	5
India	9	11
Malaysia	4	4
Russia	9	10
South Africa	5	6
South Korea	3	3
Vietnam	5	8

Source: <http://www.doingbusiness.org/>, accessed on February 12 2014

³⁵ Malaysia Country Profile, Ease of Doing Business, available at <http://www.doingbusiness.org/data/exploreeconomies/malaysia/#trading-across-borders> , accessed February 10 2014

Malaysia ranks a very impressive 6th in the latest 2013 World Bank’s Ease of Doing Business Index, outperforming competitive economies such as South Korea, Germany and Taiwan.

Figure 8: Malaysia World Bank Doing Business



Source: <http://www.doingbusiness.org/>, accessed on February 12 2014

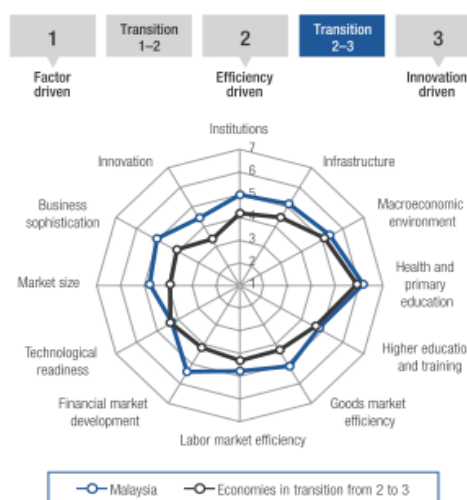
Similarly Malaysia scores very highly in the World Economic Forum’s (WEF) Global Competitiveness Index, highlighting its efficient and competitive market for goods and services (11th) and its very supportive financial sector (6th), as well as its business-friendly institutional framework.

Figure 9: Malaysia Global Competitiveness Index

The Global Competitiveness Index

	Rank (out of 144)	Score (1–7)
GCI 2012–2013	25	5.1
GCI 2011–2012 (out of 142).....	21	5.1
GCI 2010–2011 (out of 139).....	26	4.9
Basic requirements (38.3%)	27	5.4
Institutions	29	4.9
Infrastructure	32	5.1
Macroeconomic environment	35	5.3
Health and primary education.....	33	6.2
Efficiency enhancers (50.0%)	23	4.9
Higher education and training.....	39	4.8
Goods market efficiency	11	5.2
Labor market efficiency	24	4.8
Financial market development	6	5.4
Technological readiness.....	51	4.3
Market size.....	28	4.8
Innovation and sophistication factors (11.7%)	23	4.7
Business sophistication	20	5.0
Innovation.....	25	4.4

Stage of development



Source: <http://www3.weforum.org/>, accessed on February 15 2014

Through the promotion of active public-private collaboration and partnership all ministries and agencies involved in trade related issues are required to undertake industry consultations on a regular basis to further enhance the business environment to facilitate and promote trade and investment³⁶. At the national level, annual consultations are held to discuss trade-related issues. For example, the International Trade and Industry (MITI) Dialogue, chaired by the minister, provides the opportunity for corporate leaders and industry associations to improve the trade and business environment. Malaysian customs has established the Customs-Private Sector Consultative Panel (CCP) that meets twice a year at the national level. The Prime Minister has also set up a special steering committee comprising various government representatives and the President of the Federation of Malaysian Manufacturers to address trade facilitation problems and take measures to solve them.

2.1.3. Infrastructure Development

The availability and quality of infrastructure are critical for GVC participation. Improvements in technology and decreasing data transmission costs can facilitate sourcing of services and knowledge intensive work such as data entry, R&D and consultancy services.

Infrastructure development and upgrading was prioritised by Malaysia at independence, with infrastructure related programmes receiving the largest share of public expenditure in country's early national development plans (the first one was in 1960-1970) and over the last forty years, total infrastructure investment by the Malaysian government amounted to USD 63 billion (current USD), ranging between a low of 1.9 per cent of GDP in the mid-1970s to 9.4 per cent by the 1990s³⁷. Transport has been the main recipient of investment, especially the upgrading of the country's road network. The length of the roads network was multiplied by six between 1966 and 2005. The proportion of paved roads to the total network of roads of high (80.4 per cent in 2010) compared to South Asia (45 per cent) and close to EU and high-income countries standards (respectively 87.1 and 84.6 per cent)³⁸.

Recently, telecommunications and electricity sectors have benefitted from massive investment. The proportion of internet users in Malaysia in 2012 is high (65.8 per cent) compared to South Asia (11.6 per cent) and relatively close to OECD countries (73.3 per cent). The number of mobile cellular subscriptions is 141 per 100 people in 2012. In forty years (1965-2005), the electricity generation capacity has increased from 336 MW to 19,217 MW³⁹. The ports' capacities have been extended substantially through the expansion of existing facilities and the construction of new ports. As a result, the total cargo handling capacity of Malaysian ports rose from 25.5 million tonnes in 1980 to 443.3 million tonnes in 2005.

³⁶ ITC (2010) Public-Private Sector Collaboration for Improving the Business Environment in Malaysia, New York and Geneva, United Nations

³⁷ Naidu, G. (2008), 'Infrastructure Development in Malaysia', in Kumar, N. (ed.), International Infrastructure Development in East Asia – Towards Balanced Regional Development and Integration, ERIA Research Project Report 2007-2, Chiba: IDE-JETRO, pp.204-227.

³⁸ World Development Indicators Database, available at <http://data.worldbank.org/data-catalog/world-development-indicators>, accessed on February 12 2014

³⁹ Naidu G (2008), "Infrastructure Development in Malaysia" in Kumar, N (ed) International Infrastructure Development in East Asia – Towards Balanced Regional Development and Integration. ERIA Research Project Report 2007-2. Chiba IDE-JETRO, pp. 204-227

Table 5: Proportion of Internet Users (%)

Country Name	2012
Malaysia	65.8
OECD members	73.3
South Asia	11.6

Source: World Development Indicators Database, available at <http://data.worldbank.org/data-catalog/world-development-indicators>, accessed on February 12 2014

These infrastructural developments have been instrumental in attracting, retaining and upgrading external investment in the country.

2.1.4. Role of Development Assistance

Official development assistance supplemented domestic resources in addressing the challenges of poverty and redistribution in Malaysia in the 1970s, as the role growth accelerated during the 1980s, the focus of this development assistance changed from supporting efforts to reduce poverty and inequality to supporting the transformation of the economy through the provision of specialised skills, technology, and knowledge required to participate effectively in the global economy⁴⁰. The World Bank and Japan were the largest donors during the 1980s, the finance and technical assistance provided by these donors played an important role in acquiring new knowledge and technology and increasing the export competitiveness of the country⁴¹.

External development assistance played an important role in strengthening the institutional base of Malaysia at initial stages of its development in the 1970s, and the Malaysian authorities actively sought external assistance on the drafting of national development policies and plan and the organisation structure of their development administration. Elite Malaysian technocrats not only acquired outside or foreign knowledge but also ensured that they initiated training programs to ensure human resource and wider institutional development⁴².

Technical assistance also had a significant impact on wider human resource and skills development in in Malaysia, through specialised formal training programmes and on-the-job training. Bilateral donors provided capacity building and advanced technical skills training through the establishment of training institutions such as the Japan-Malaysia Technical Institute, the German-Malaysia Institute and British Malaysia Institute⁴³.

2.2 Mauritius

The Mauritius case study expands on similar themes to those in the Malaysia case. Over the past three decades, the Mauritius economy has undergone a period of sustained economic growth, with GDP growing at an annual average rate in excess of five percent since the 1980s, well above average growth rates in Sub-Saharan Africa for most of the same period. Mauritius has moved rapidly from an under-developed to an upper middle-income country (MIC), transforming itself from a single-crop economy almost completely dependent on sugar, to diversification into the secondary (manufacturing) and most recently higher value tertiary (services) sectors. Export growth has been critical to Mauritius' growth, and this case study outlines some of the

⁴⁰ UNDP (2007) MDG8 Develop a Global Partnership for Development, New York and Geneva, United Nations.

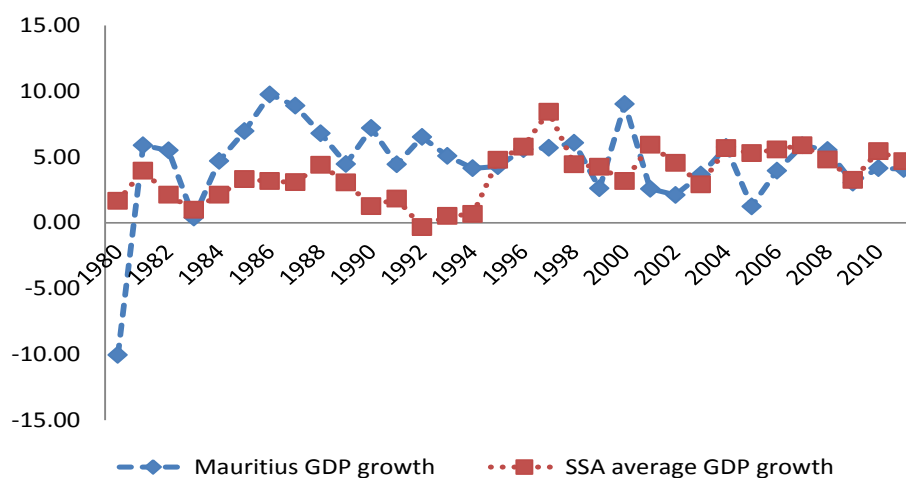
⁴¹ See Ohno I and Shimamura M (2007) Managing the Development Process and Aid: East Asian Experiences in Building Central Economic Agencies, GRIPS Development Forum

⁴² UNDP (2007) MDG8 Develop a Global Partnership for Development, New York and Geneva, United Nations.

⁴³ See Ohno I and Shimamura M (2007) Managing the Development Process and Aid: East Asian Experiences in Building Central Economic Agencies, GRIPS Development Forum

policy initiatives, institutional reforms and infrastructural developments which have been instrumental in this success.

Figure 10: Annual GDP Growth (%)



Source: World Development Indicators Database, available at <http://data.worldbank.org/data-catalog/world-development-indicators>, accessed on February 14 2014

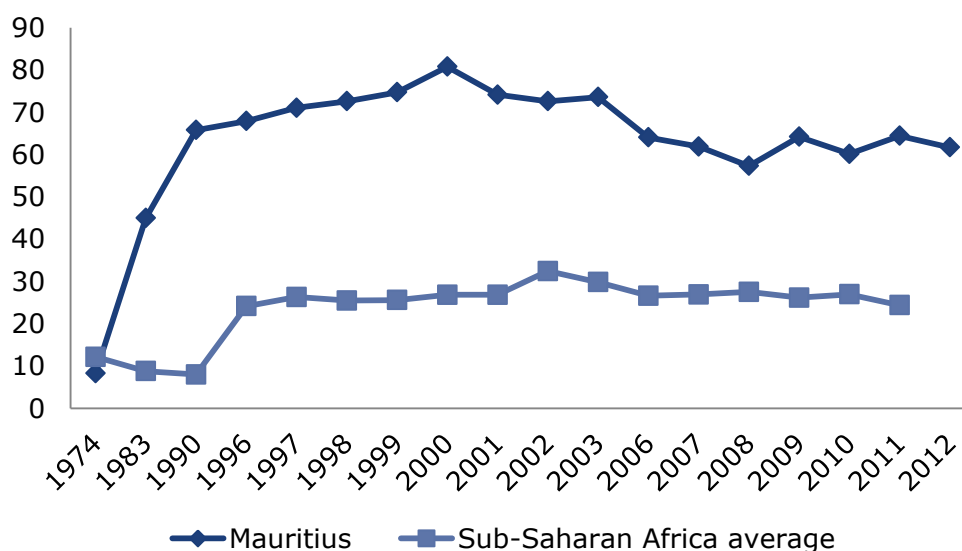
2.2.1. Policy Initiatives

Export Processing Zones (EPZs)

As was the case in Malaysia, EPZs were the key policy initiative used by Mauritius to kick-start its export led development strategy in the 1970s. Mauritius combined an EPZ, operating under free trade principles, with a domestic sector that was highly protected until the mid-1980s, the EPZ policy, which generated new opportunities for trade and employment without removing protection for local firms, was used to manage the political economy of reform and the gradual removal of trade barriers which occurred in the 1980s and 1990s. The key attractions of the EPZ regime in Mauritius included protective import duties and quotas for infant industries, suspension of import duties on materials and equipment for industrial use and not locally available, rebates of import duties on other raw materials and components for specified industries, duty drawback schemes, and favourable long-term loans.

The granting of duty-free inputs for manufactured exports was crucial in expanding Mauritius' export competitiveness on world markets and driven by EPZ investment, primarily in the apparel sector, manufactured exports expanded rapidly from the mid-1970s. Preferential access for Mauritian exports to the EU and US markets and a relatively cheap local labour costs were the key drivers of this investment. During the 1980s the number of firms in Mauritius' EPZs (dominated by clothing firms) increased nearly fivefold, employment in these companies quadrupled from 20,000 to 80,000 and manufactured exports overtook sugar as the country's main export⁴⁴.

⁴⁴ Gary Gereffi (2002) Outsourcing and Changing Patterns of International Competition in the Apparel Commodity Chain, *Journal of International Economics* 48, 1 (June): 37-70.

Figure 11: Manufactured Exports (% total merchandise exports)

Source: World Development Indicators Database, available at <http://data.worldbank.org/data-catalog/world-development-indicators>, accessed on February 12 2014

EPZ output has declined in recent years, primarily due to the phasing out of the Multi-Fibre Agreement (MFA) eroding its preferential access to the EU and US markets, this led to a contraction of 30 percent in value added of the products produced in EPZs and the number of EPZ firms declined from 536 in 1990 to 312 by 2008, with the loss of an estimated 50,000 jobs⁴⁵. This was compounded by share reductions in European Union sugar protocol prices effecting the country's other key export, sugar.

To offset this measures have been adopted at improving the country's competitiveness and incentivise upgrading and diversification into other sectors, with these measures focusing on institutional reform to ease the cost of doing business in Mauritius and investment in skills and infrastructure. These initiatives were supported by financial and technical assistance from the World Bank. The World Bank provided loans totalling USD\$175 million between 2007 and 2009 to support the implementation of a series of reforms to improve trade competitiveness⁴⁶.

2.2.2. Institutional Quality and Reform

One of the keys to Mauritius' economic success has been its effective institutions and history of private-public collaboration. In various surveys of institutional quality (see below), Mauritius repeatedly ranks high vis-à-vis comparator countries, particularly in terms of governance, rule of law, and control of corruption, the country's combination of political stability, democratic legacy, rule of law, and quality of judicial institutions sets Mauritius apart from many Sub-Saharan African countries, making it the most attractive country's in the region to invest and do business.

Business Environment Reform

Good institutions have been one of the fundamental factors underlying its export led growth model. As emphasized by Subramanian (2009)⁴⁷ it was good institutions that allowed Mauritius to set up and effectively manage EPZs in the first place, EPZs were set

⁴⁵ Mauritius Chamber of Commerce and Industry, Bulletin No. 43, July 2009, available at <http://www.mcci.org/>, accessed on February 12 2014

⁴⁶ OECD (2011) Aid for Trade: Case Study, available at <http://www.oecd.org/aidfortrade/47811469.pdf>, accessed on February 20 2014

⁴⁷ Subramanian, Arvind (2009), The Mauritian Success Story and Its Lessons, UN/WIDER Research Paper No. 2009/36, February 2009.

up other African countries at the time, however the EPZ experiment failed in several of these countries due to poor institutional framework which were unable to ensure the rule of law and maintain general stability and security. Mauritius ranks highly in standard measures of the quality of institutions, including political participation, rule of law and control of corruption, this is reflected in the Mo Ibrahim Index of African Governance which Mauritius has topped for the past six years.

The effectiveness of these institutions was severely tested the mid-2000s with the double trade shock the country faced in the form of loss of trade preferences in the key sectors of sugar and clothing. External assistance played an important role in helping Mauritius adjust to the external shocks caused by the erosion of preferences for its sugar and textiles exports. In addition to the loans provided by the World Bank, along with the IMF technical assistance was provided in identifying and articulating the key elements of the reform program, with a particular emphasis on how the measures required to regain its trade competitiveness⁴⁸. An ambitious structural reform programme was proposed which aimed to raise the efficiency of both the public and private sector, these reforms were embodied in the Business Facilitation Act of 2006 whose key reforms included:

- the consolidation of fiscal performance and improved public sector efficiency through tax reforms, enhanced public financial management and fiscal rule;
- the enhancement of competitiveness by reducing trade tariff duties, unifying regulations for EPZ and non EPZ firms, and improvement of telecommunication services and public infrastructure;
- the improvement of the business climate through revamping business registration, regulation and insolvency, easing restrictions on land acquisition by foreigners and increasing labor flexibility⁴⁹;

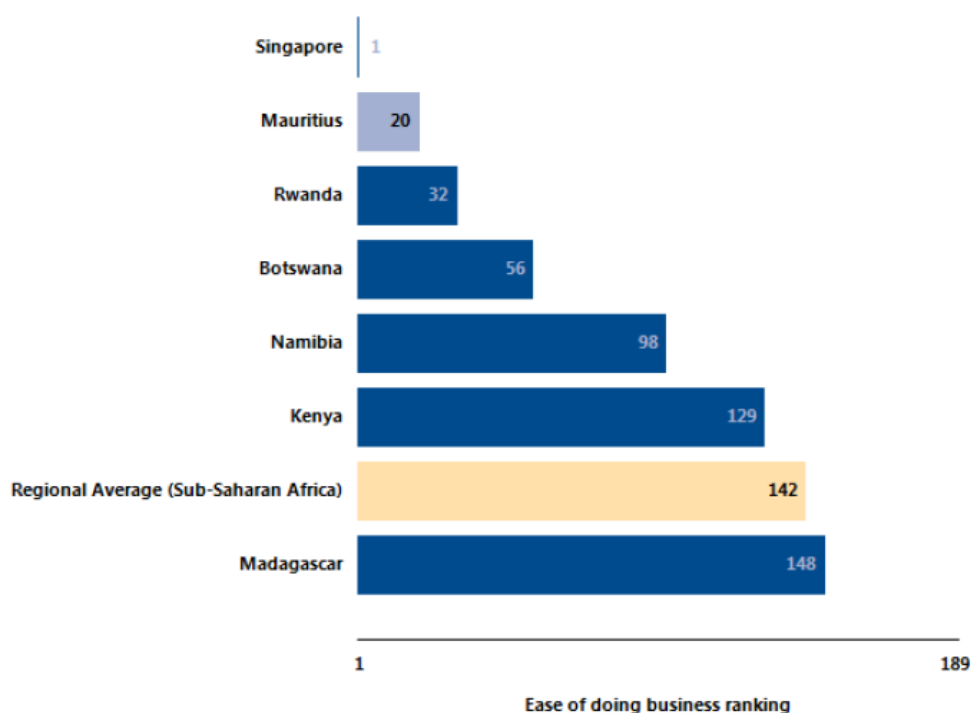
The reforms were a success and GDP growth rose from 1.5 per cent in 2005 to 5.4 per cent in 2007 and 5 per cent in 2008⁵⁰, and FDI inflows began to increase in the ensuing years. The business environment also improved and latest World Bank Doing Business report has rated Mauritius as the easiest place to do business in Africa for doing business, ranking a very impressive 20th globally, scoring very highly in sub-indices measuring trading across borders and investor protection (Figure 15 and Table 4).

⁴⁸ See IMF (2006) Doha Development Report and Aid for Trade, Washington; International Monetary Fund.

⁴⁹ See <http://www.gov.mu/portal/sites/legaldb/files/business.pdf>

⁵⁰ World Development Indicators Database, available at <http://data.worldbank.org/data-catalog/world-development-indicators>, accessed on February 12 2014

Figure 12: Mauritius Doing Business 2013



Source: <http://www.doingbusiness.org/>, accessed on February 12 2014

Table 6: Mauritius Business Environment

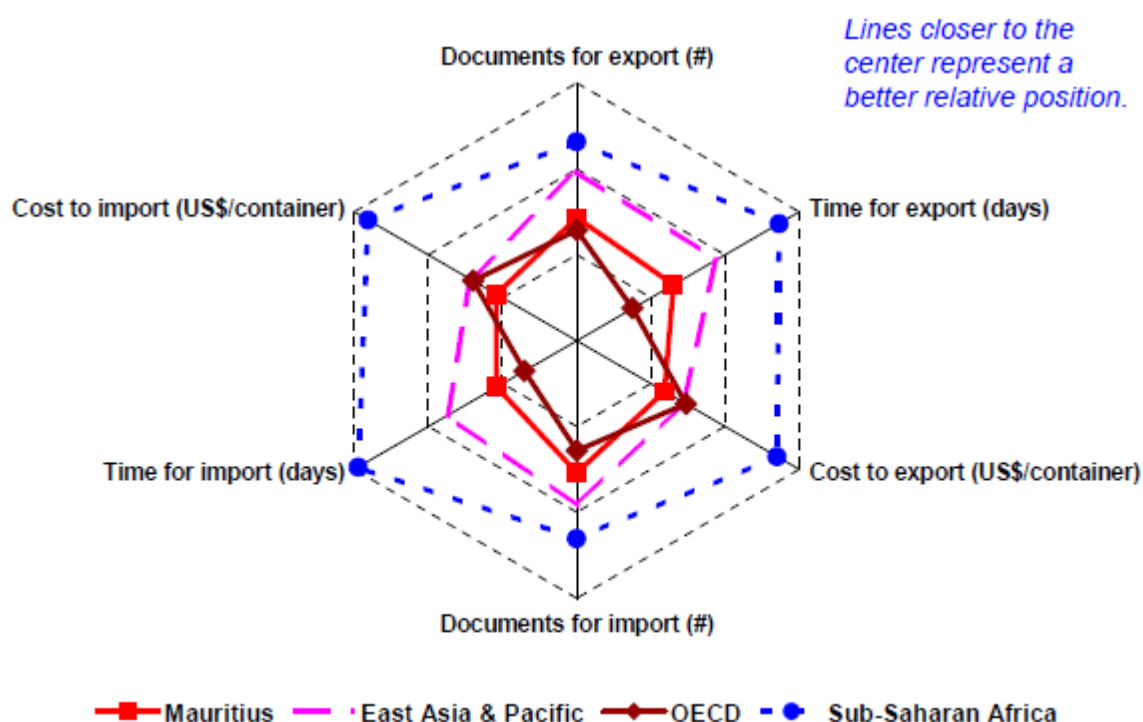
World Bank Doing Business		
Overall ranking	20th	1 st
Protecting investors	12th	1 st
Trading across borders	12 th	1 st
Economic Freedom 2012, World Heritage Foundation and Wall Street Journal	8 th	1 st
Mo Ibrahim Index of African Governance (1st for 6 consecutive years)	n/a	1 st
EIU democracy index 2012	18 th	1 st
Forbes Survey of Best countries for Business 2012	28 th	1 st
Environmental Performance Index 2010, Yale University	6 th	1 st
Global Competitiveness Index 2013-2014	45 th	1 st

Sources: World Bank's Doing Business indicator, World Economic Forum's Global Competitiveness Report, Economic Intelligence Unit Democracy Index, Mo Ibrahim Africa Governance Index, Forbes, Yale University

Mauritius is also Africa's top performer across a range of similar measures of competitiveness, governance and institutional quality. In the latest Global Economic Competitiveness Report (2013-14)⁵¹ ranks Mauritius first in Africa and 45th globally, highlighting its strong and transparent public institutions (39th) and efficient government (29th). In the sub-index looking at trading across borders measure, Mauritius is outperformed only by OECD countries in number of documents required for a transaction, cost in US\$ per container, and time to export.

⁵¹ World Economic Forum World Economic Forum (2012), The Global Competitiveness Report 2013-2014, available at <http://www3.weforum.org/doc>, accessed on February 14 2014

Figure 13: Global Competitiveness Index Trade Costs



Source: World Economic Forum World Economic Forum (2012), The Global Competitiveness Report 2013-2014, available at <http://www3.weforum.org/doc>, accessed on February 14 2014

Investment Facilitation and Promotion

The Board of Investment (BoI) is Mauritius' national investment promotion agency and has been instrumental in both driving the business environment reform process and attracting investment to Mauritius in recent years. The BoI was rated the top performing African IPA in the 2012 FIAS Global Investment Promotion Benchmarking study, recommending the BoI as a reference for best practice in the African region⁵². The BoI has been very effective in attracting inward investment to the island, particularly in the services sector which has been identified as the driver of future growth (Table 5). In addition the BOI has been the key institution driving reform in the Mauritius business environment, and as the chair of the Doing Business Committee, the BoI led on the implementation of the reforms included in the Business Facilitation Act of 2006.

Public- Private Cooperation

The private sector has a long and established presence in the Mauritian economy and considerable trust has been built over the years between businessmen and civil servants which led both parties to negotiate the terms of the Sugar Protocol back in the early seventies when the private sector agreed to a lower price than the then prevailing market rates for their sugar exports to the EU in return for a guaranteed price over a longer term. A crucial role in public-private sector relations in Mauritius is played by the Joint Economic Council (JEC), the JEC represents the key private sector groupings in the country and its overarching goal is to ensure private sector representation in all key government economic decisions. The JEC occupies a central place in the country's institutional landscape, meeting with the prime minister on a regular basis and ensuring private sector input in major policy decisions.

⁵²IFC (2012) Global Investment Promotion Best Practice, available at https://www.wbginvestmentclimate.org/uploads/Global%20Investment%20Promotion%20Best%20Practices_w eb.pdf, accessed on February 24 2014

2.2.3. Infrastructure development

According to the World Bank⁵³, Mauritius leads Africa in terms of level of infrastructure development, based on both stock estimates (such as number of telephone lines per capita) and quality estimates (such as percentage of roads paved or wait time for telephone main line installation).

- **Roads:** according to the Ministry of Finance and Economic Development, 98 per cent of all Mauritian roads are paved, a standard comparable to Europe⁵⁴ while Africa's rate remains below 20 per cent⁵⁵. The authorities have chosen to continue expanding the network in recent years, the road density rate – the ratio of the total number of km of roads to the area of Mauritius – has gone from 1.09 in 2008 to 1.15 in 2012.
- **Telecommunications:** the rate of mobile cellular subscriptions (per 100 people) increased from 84 in 2009 to 113 in 2012, while the percentage of internet users has gone from 22.5 to 41.4 during the same period⁵⁶. The Mauritian government started promoting the use of Information and Communications Technology (ICT) in 1989 and has continually encouraged its access since, implementing numerous projects, in particular in terms of infrastructure development⁵⁷. For example, the development of the South Africa Far East submarine fibre-optic cable links Mauritius to Europe via South Africa and to Asia via India and Malaysia, countries that provide the largest sources of FDI to Africa⁵⁸. Outgoing international Internet bandwidth, has increased more than forty-fold over the period 2005-2011, from 116 Mbps (bps meaning "bytes per second") to 4.34 Gbps⁵⁹. Moreover, the 2014 budget includes measures that aim to continue reducing the cost of bandwidth and improving connectivity⁶⁰. One of these is to establish a cross-connection of the LION and SEAS fibre optic cable systems between Mauritius and Seychelles. Another objective is to reduce the tariffs for International Private Lease Circuits by 16 per cent as from January 2014.

2.2.4. Emergence of the Services Sector

The services sector is now seen as the main area for further economic diversification for Mauritius, the institutional and infrastructural reforms described above along with proactive investment promotion by the BoI have resulted in increased investment in the sector in recent years, particularly the financial services, ICT and tourism sectors which have been the recipients of large recent investment inflows (Table 5). As emphasised in the first section efficient services are a critical enabler of GVCs, and Mauritius is now positioning itself as an extremely competitive offshore services centre, the other sectors being targeted include information technology enabled services (ITES), including business process outsourcing (such as call centres, back-office operations, and data processing); logistics services; health care, medical and education services and consultancy services.

⁵³ Calderon C (2009) Infrastructure and Growth in Africa, World Bank Policy Research Working Paper 4914,

⁵⁴ Ministry of Finance and Economic Development, Digest of Road Transport, October 2013, available at <http://statsmauritius.gov.mu/English/Publications/Documents/Regular%20Reports/road%20transport/Road2012.pdf>, accessed on February 11 2014

⁵⁵ World Bank (2009) Infrastructure and Growth in Africa, available at <http://elibrary.worldbank.org/doi/book/10.1596/1813-9450-4914>, accessed on February 12 2014

⁵⁶ World Development Indicators Database, available at <http://data.worldbank.org/data-catalog/world-development-indicators>, accessed on February 12 2014

⁵⁷ Broadband Commission for Digital Development, Strategies for the Promotion of Broadband Services and Infrastructures: a Case Study on Mauritius, 2012

⁵⁸ The National Investment Promotion Agency of Mauritius website, available at <http://www.investmauritius.com/Reason3.aspx>, accessed on February 14 2014

⁵⁹ Ministry of Information and Communication Technology (2012), National Broadband Policy 2012-2020, January 2012

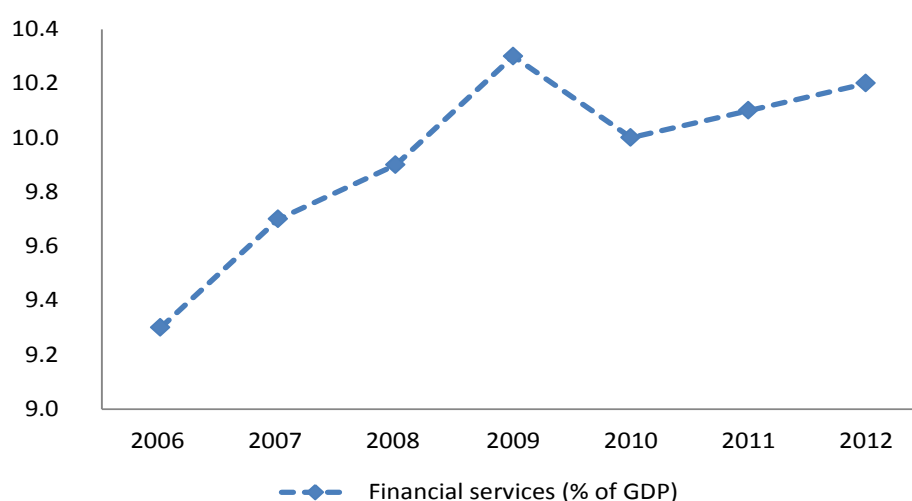
⁶⁰ Government's website, available at <http://www.gov.mu/English/News/Pages/Budget-2014-Highlights-ICT-BPO-Sector.aspx>, accessed on February 14 2014

Table 7: FDI by sector 2012

Sector	2006	2007	2008	2009	2010	2011	2012
Agriculture, forestry and fishing	0.4%	0.2%	3.9%	0.0%	0.0%	1.9%	0.1%
Manufacturing	2.5%	2.4%	1.3%	5.5%	0.5%	0.6%	3.4%
Construction	0.2%	0.4%	0.6%	2.4%	9.3%	22.1%	14.0%
Wholesale and retail trade	2.7%	0.3%	0.9%	3.3%	0.9%	0.2%	1.7%
Tourism	19.1%	27.7%	11.8%	21.0%	6.0%	6.1%	5.1%
Information and communication	0.6%	0.2%	0.1%	0.0%	1.7%	0.8%	0.5%
Financial and insurance activities	49.8%	35.2%	40.0%	15.6%	33.3%	17.4%	34.3%
Real estate activities	23.6%	33.2%	39.6%	49.0%	24.5%	48.4%	40.4%
Other activities	1.2%	0.3%	0.8%	1.5%	4.3%	2.4%	0.5%
Human health and social work activities	0.0%	0.3%	1.1%	1.6%	19.6%	0.0%	0.0%
TOTAL	100%	100%	100%	100%	100%	100%	100%

Source: Bank of Mauritius, available at <https://www.bom.mu/>, accessed on February 12 2014.

The Mauritius offshore financial centre in particular has developed rapidly over the past 20 years, financial services now account for about 10 per cent of the country's GDP (Figure 13). One of the keys factors underpinning the growth of the sector is Mauritius's decision to position itself as a low tax jurisdiction, allowing a range of global businesses to conduct their operations and investment activities from Mauritius - for example it is estimated that between 30 per cent and 40 per cent of the foreign capital in India is routed through Mauritius⁶¹. According to the Board of Investment the global business sector alone has contributed on average 3 per cent to the country's GDP over the past couple of years⁶².

Figure 14: Figure Financial Services (% GDP)

Source: World Development Indicators Database, available at <http://data.worldbank.org/data-catalog/world-development-indicators>, accessed on February 12 2014

⁶¹ The tail that wags the elephant, The Economist, May 12th 2012, available at <http://www.economist.com/node/21554523>, accessed on February 15 2014

⁶² Mauritius Board of Investment, available at <http://www.investmauritius.com/>, accessed on February 12 2014

Section 3 Conclusions and Implications for Donors

For Africa's and other developing regions to participate more effectively in global value chains reforms are required to address an array of constraints, ranging from inadequate transport and telecommunications infrastructure, cumbersome border procedures, complex business environments, lack of technology, to limited skills and institutional capacities. As emphasised in the section two of the report reforms aimed at addressing these constraints can have a very significant impact on the competitiveness of these countries. The case studies of Mauritius and Malaysia illustrated provided practical insights into the policy initiatives, institutional reforms, and infrastructure developments which allowed these countries to overcome these constraints and succeeded in diversifying and increasing the value added component of their exports. The key reforms included the successful adoption of EPZ policies which allowed both countries to quickly develop strong export sectors. Both countries used the success of these EPZ policies to build wider export competitiveness and diversify into other sectors. In the case of Malaysia the key policies focused on improving domestic productive capacity by promoting skills development and linkages between domestic and foreign firms. As emphasised development assistance played an important role in building the capacity and public policy making institutions and the provision of training and skills development. In the case of Mauritius development assistance played an important role in advising and financing the package of reforms which was used to respond to the removal of preferences for sugar and textiles in the mid-2000s, the successful implementation of these reforms increased competitiveness and laid the foundations for the increased growth and investment in the ensuing years.

To support and build the capacity of developing countries to build their export capacity DFID the following are the types of initiatives which external donors can support.

- **Trade facilitation:** As emphasised in the previous sections above reducing restrictions to trade both at and behind the border is critical to integrating into the world economy. This involves supporting customs reform and improved and more efficient border rules and procedures. Aid for Trade Facilitation has been shown to lower trade costs, comparatively small aid figures may cause quite large trade volume increases and therefore can play an important role in helping developing benefit from trade⁶³. Similarly Fujimitsu (2007) finds that aid for trade facilitation reduces the time for customs clearance in Sub-Saharan Africa, estimating that USD\$1 million in aid would reduce the time needed to clear a 20 foot container by 0.22 days (5.7 per cent) for export and 1.17 (20.8 days) for import⁶⁴.
- **Institutional Development and Business Environment Reform:** Programmes aimed at promoting business environment reform and institutional development played a crucial role in driving export growth and improving competitiveness in Mauritius and Malaysia. Massa (2013)⁶⁵ emphasises that the positive effect of aid for trade facilitation is affected strongly by the quality of the institutions of the recipient country, the implication being that recipient countries' governments need to work hard in improving their institutional frameworks to be able to make the most of the aid for trade facilitation flows they receive. Failing to do so will potentially reduce significantly the impact aid for trade facilitation may have on reducing trade costs and increasing exports.

⁶³ Matthias Busse, Ruth Hoekstra and Jens König (2011), The Impact of Aid for Trade Facilitation on the Costs of Trading, available at SSRN: <http://ssrn.com/>, accessed on February 7 2014

⁶⁴ Motohiro Fujimitsu, Quantifying the effect that aid for tradefacilitation has on customs clearance in Sub-Saharan Africa in terms of time and cost, World Customs Journal 7 (1).

⁶⁵ Isabella Massa (2013), Aid for trade facilitation in lower-income countries, available at <http://www.odi.org.uk/publications/7989-aid-trade-facilitation-lower-income-countries-role-institutional-quality>, accessed on February 12 2014

- Services: Linked to the above, services, in particular those related to logistics and transport, are integral to connecting developing countries and external markets and are integral to their participation in value chains (whether they be regional or global). Interventions related to logistics and transportation can assist producers to upgrade their position within a given value chain and also ensure that more value added is created domestically through developing interventions that can benefit many value chains.
- Regional Integration: GVCs increase the importance of regional production networks. For developing countries, traditionally export-oriented industrial policies were typically focused on exports to advanced economies, the nature of GVC networks characterised by trade in inputs or tasks, means that stronger and efficient ties with the supply base in neighbouring developing economies is an important ingredient for countries and regions to integrate into these production networks. Intra-regional trade in East Asia in particular grew rapidly as a result of GVC related production networks in the region. The slow pace of regional integration in regions such as Southern Africa is one of the key factors behind its inability to effectively participate in GVCs, donor programmes aimed at reducing intra-regional trade barriers and promoting regional integration could help mitigate this.