

THE ROLE OF CITIES IN
PRODUCTIVE TRANSFORMATION:

**SIX CITY CASE
STUDIES FROM
AFRICA, ASIA AND
LATIN AMERICA**

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SIX CITY CASE STUDIES FROM AFRICA,
ASIA AND LATIN AMERICA**

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THE ROLE OF CITIES IN PRODUCTIVE TRANSFORMATION: SIX CITY CASE STUDIES FROM AFRICA, ASIA AND LATIN AMERICA

INTRODUCTION

Gulelat Kebede and Marco Kamiya

Productive transformation policies have gained renewed prominence in recent years. In both developed and developing countries, governments and private sector actors have begun planning and implementing programmes and instruments for private sector development; cluster promotion and value chain; as well as supply chain approaches linked to infrastructure provision, innovation and equity.

Many triggers have led to this revival: (a) the economic crisis of 2008 demonstrated to governments the importance of regulation and policies to addressing market failures; (b) the significant rise of intermediate cities and the dynamism of large cities, who are pushing for locally promoted policies with more autonomy and leverage; and (c) productive policies are increasingly seen as a tool to generate jobs, to support micro and small-sized business, and create wealth.

For the purposes of this report, Productive Transformation Policies (PTP) are defined as public programs and instruments designed to create jobs and achieve sustainable growth through higher productivity and promotion of competitive sectors.

These programs must involve dialogue between public and private sector actors committed to achieve equity. While equity can be difficult to operationalize into policy agendas, the writers consider it a crucial objective. Equity in this context stands for fairness and improved opportunities for all, especially for women and young people, which result from good approaches in urban planning, city design practices, financing and governance.

Given this framework, the main policy instruments of PTP are around cluster, value chain, agglomerations, foreign investment, business climate, and skills development. Though PTP means working with agglomerations, it is not a selective strategy, but rather a concept that can help plan cross-sector horizontal interventions while maintaining focus on equity, city development and growth.¹

A useful framework for PTP design is found in the concept of Economic Complexity, according to which a diversified economy allows for improved growth and innovation by leveraging productive capacities and producing increasingly complex products. The production of complex products requires a high economic capacity, and these products have the potential to capture a larger share of international markets thanks to their value added.

Economic Complexity is intuitive - the more advanced an economy, the more growth it can achieve; but where specific countries (and cities) are located in the complexity order remains an open question. The Center for International Development at Harvard University has developed the Atlas of Economic Complexity.² The authors have used this tool to assess the position of cities covered in this report: Lima, Peru, and Quito, Ecuador.

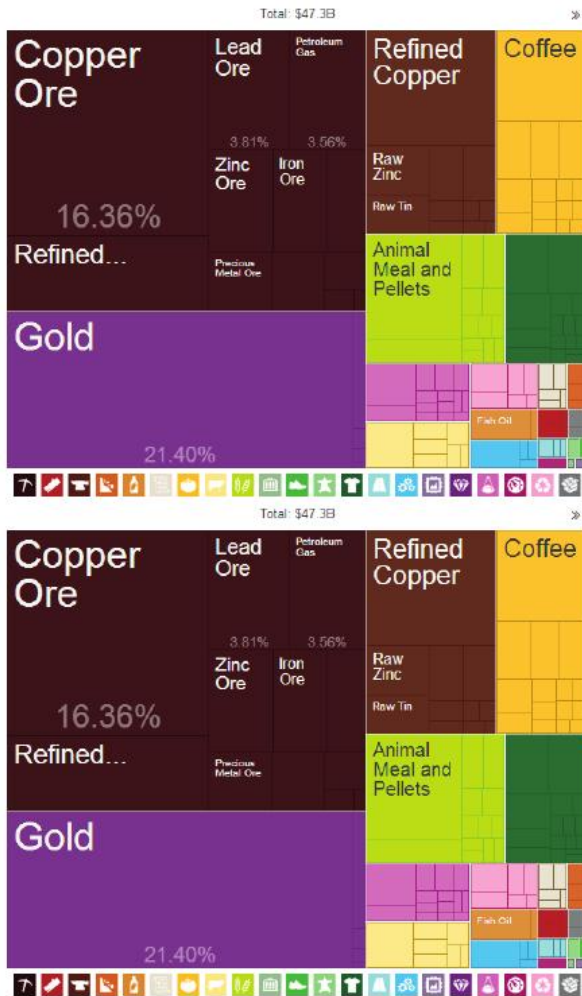
Figures 1–3 depict the exports of the study countries. In the case of Peru and Ecuador, more than 50% of exports are commodities with a low level of value added; though in recent years exports of food products have improved in terms of their level of processing, labeling, and quality certification.

¹ See IADB (2014), “Rethinking Productive Development Policies”.

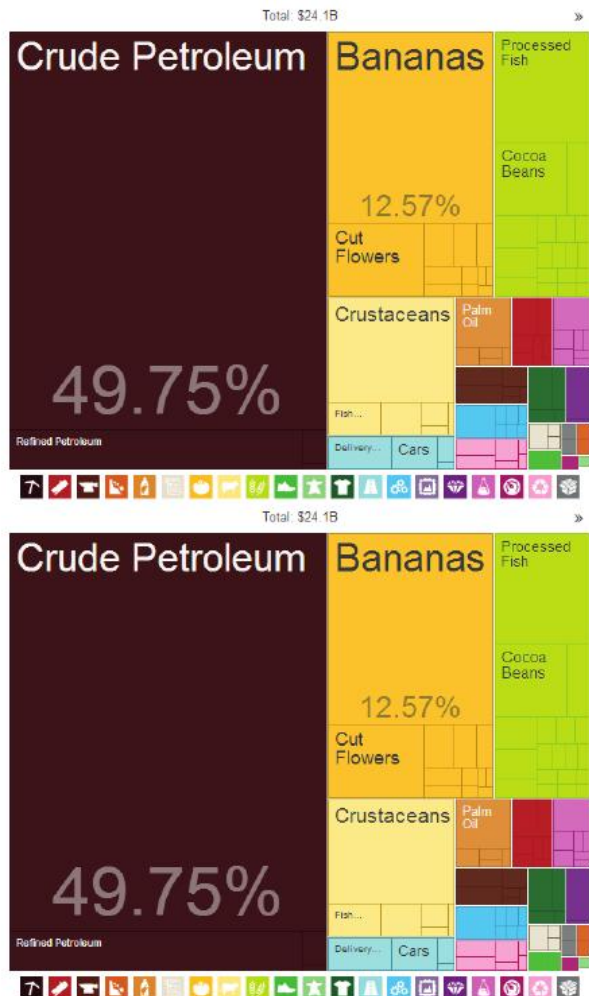
² The Observatory of Economic Complexity, <http://atlas.media.mit.edu/>

Figure 1: Exports of study countries, Latin America

Peru



Ecuador

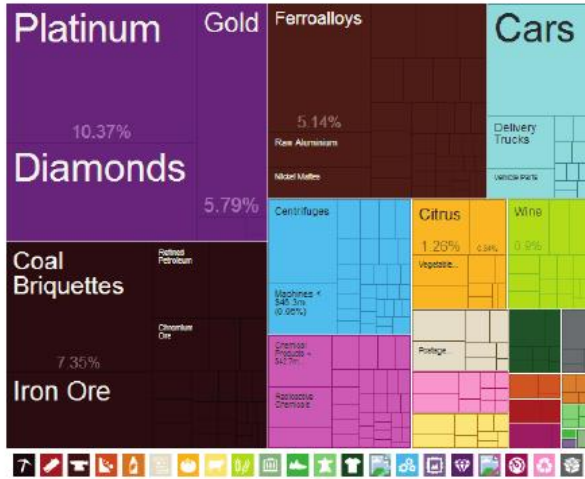


The African case studies – namely Cape Town and Nairobi, and through them South Africa and Kenya – offer a contrasting view. In South Africa commodities (mostly minerals) are dominant, however manufacturing is also strong, representing 50% of exports. In Kenya

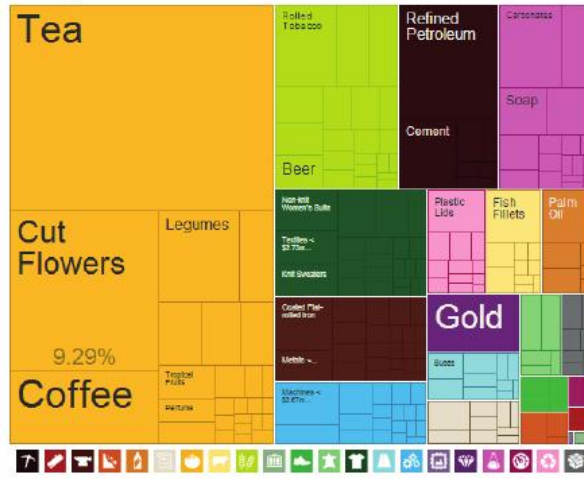
basic agricultural products make up the bulk of exports and continue growing, but there is also a small promising IT sector, emerging through public policy and financial support.

Figure 2: Exports of study countries, Africa

South Africa



Kenya

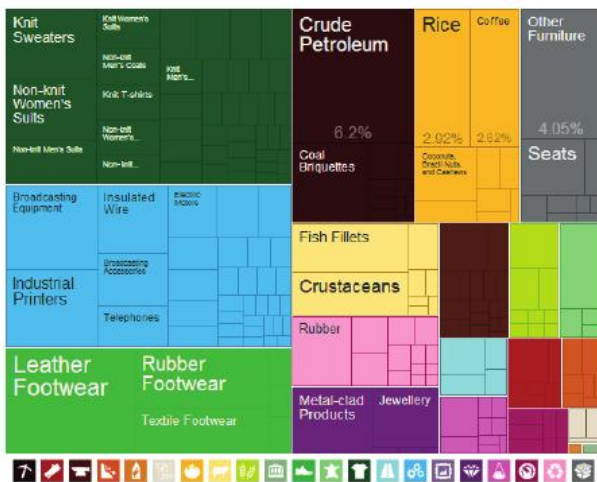


In Asia, the cities of Ho Chi Minh and Dili seen through the prism of their national economies, Viet Nam and Timor-Leste, reflect different realities. While Viet Nam has managed to become an outsource

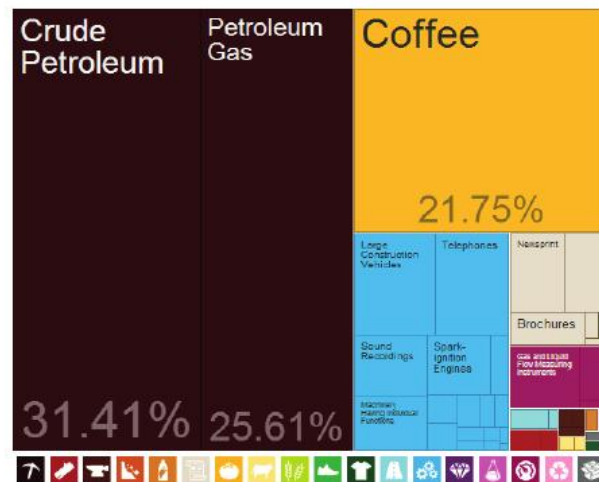
production center in Asia, Timor-Leste has not significantly diversified its exports.

Figure 3: Exports of study countries, Asia

Vietnam



Timor-Leste



There is consensus that complexity is often achieved through knowledge transfer from abroad; by attracting foreign direct investment into the country, obtaining intellectual property, or training and educating labor force. In this regard, public policies are essential to support infant industries and to promote agglomeration and clusters. Yet it is still unclear whether PTP is needed, and if so –to what extent, and in which sectors. Countries’ limited resources and their allocation to support private sector activities (instead of more traditional social policies) remains controversial, and therefore requires strong supportive quantitative analyses. While perfect quantification and identification of sectors will not possible, available tools can help determine the potential competitiveness of a sector to explore whether its potential can be further driven through horizontal policies.

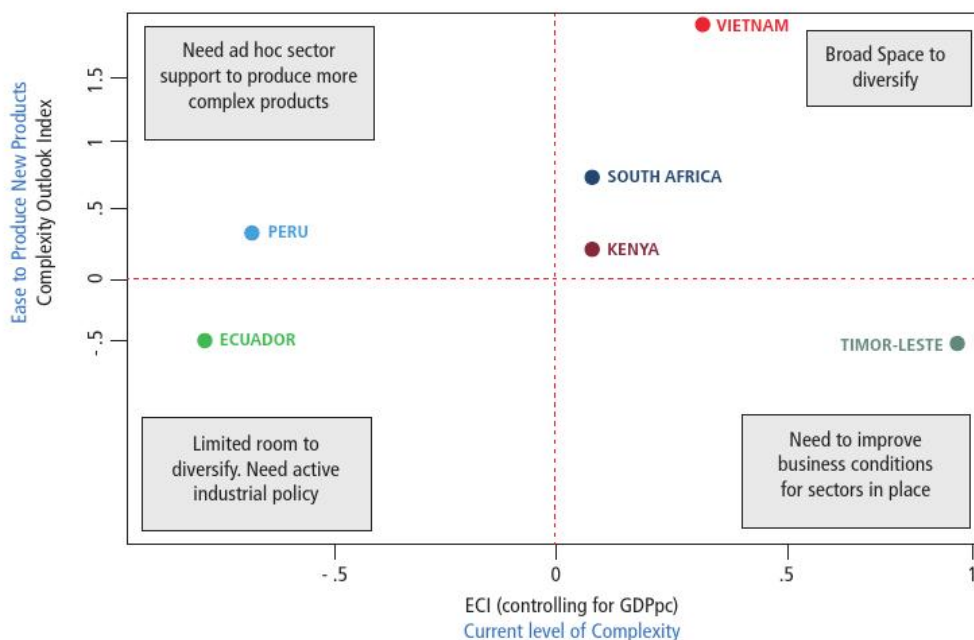
Analysis would include looking at the gross value added found in industrial statistics, computing revealed comparative advantage; or other methods such as direct surveys (World Bank’s enterprise surveys for example). Using the data from CID’s Atlas, the authors constructed the quadrants shown in Figure 1. It presents the six study countries’ for their ease to produce new products (in the vertical

axis), against current level of complexity controlled for income (on the horizontal axis).³

Results are somewhat counter-intuitive. The results for South Africa, which has strong productive regions such as Pretoria and Cape Town, and Viet Nam – which in the last decade has attracted foreign investment in manufacturing of cars, motorcycles and electronics – are no surprise. On the other hand, Kenya – which given its low level of income was expected to score low on complexity, was found ahead of Peru and Ecuador.

In the figure, countries in the upper right quadrant have relatively broad space to diversify and therefore do not require strong public support of the private sector; countries in the upper-left quadrant have an overall strong capacity but may need support in some sectors; countries in the bottom right , where Timor-Leste is, have a high level of complexity compared to income but struggle to venture into new products, and therefore require improvement in business conditions; and the left bottom quadrant is where active public policies and programs are needed most.

Figure 4: Productive Transformation Policies by Countries



Source: Author with CID Data, Harvard University

³ Ease to produce new products is when similar products have proximity and therefore are easier to produce because the capabilities are already in place.

These results should be considered as a reference for policies. Yet some caveats must be mentioned: (a) the data is sourced from COMTRADE and therefore does not include services; and (b) though all the study cities represent a major share of their national economies, the analysis is shown at country level and therefore may not capture important local and city specifics.

Nonetheless, this analysis evaluates the national economies in the range of productive transformation and provides broad criteria to determine the type of public policy required to stimulate the economy. Urban economies, which are usually on the frontiers of technology, innovation and economic transformation, will benefit from such policy support.

The case studies presented in this report, if read in the context of the above analytical framework, offer insights into the evolving capabilities of these cities. Despite the mentioned limitations, the case studies presented in this report provide a modest contribution to advancing the role of urban economies and horizontal interventions to achieving productive transformation.

The case studies find that Lima and Quito in Latin America exhibit a recent revival in services: in the case of Lima, the gastronomy sector is expanding and is considered an entrepreneurial activity. Moreover, Peruvian restaurants are emerging across South America and beyond, signaling a small but significant indication of external foreign investments.

In Quito, public support in the form of funding and policies for entrepreneurial activities in the last decade have been significant and coincide with the expansion of the middle class and sustained growth. In Asia, Dili and Ho Chi Minh exhibit contrast. Dili is still small and despite increased development in the agriculture and tourism sectors, the economy still depends on oil revenues. In contrast, Ho Chi Minh is a city in expansion propelled by national reforms offering strong support to the private sector and friendly investment policies. Cape Town, a major economic center in South Africa, doesn't have oil or minerals, therefore scaling up will have to focus on productive policies, which are currently not in place.

Conversely in Nairobi, which is a major economic and commercial hub in East Africa and poorer than Cape Town, productive policies have been announced; but the business environment remains impaired by insufficient infrastructure and financing.

Yet some commonalities are found in the study cities: (a) a recognition that productive development policies are necessary; (B) ICT emerging as a major crossover force (in some of the cities), and (c) emerging patterns offer strong indications that developing a more complex productive economy is necessary for development and growth.



BEYOND GROWTH: THE PRODUCTIVE TRANSFORMATION OF CITIES IN AFRICA: CAPE TOWN AND NAIROBI

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The global economic crisis, rapid technological change and intensified international competition make a compelling case for cities and nations to take economic transformation seriously. National and local economies cannot afford to stand still or become locked into growing along the same trajectory. They risk stagnation, obsolescence and redundancy unless they adapt to shifting circumstances by diversifying and upgrading their productive capacity over time. Similar arguments can be made in relation to the challenges of climate change, poverty and social inequality. Economies need to transition towards more inclusive patterns of growth, greater resource efficiency and lower carbon emissions for the good of their people, the stability of society and the health of the planet.

Economic transformation can clearly take many different forms. It can also originate from many different sources and be brought about by quite diverse mechanisms and catalysts. As they represent the collective expression of citizens' values and interests, national and city governments have vital roles to play in facilitating and guiding the transformation process. They have an influence over the principles according to which economies adjust and adapt, and can potentially steer investment decisions towards more productive, equitable and sustainable directions. Local knowledge is valuable in making policy decisions more responsive to the needs and realities of particular cities and towns and providing the feedback for policy learning and improvement. City-level institutions also enhance the legitimacy of governments to guide the development process by engaging directly with ordinary citizens.

We argue in this report that two features of economic transformation are particularly important:

1. Technological upgrading (economic deepening); and
2. Industrial diversification (economic widening).

First, established sectors of the economy must evolve. They must become more productive by improving the capabilities of firms and

upgrading to higher value-added products, services and functions. Economic concentration and proximity can facilitate this process by improving the flow of ideas and knowledge between firms, entrepreneurs and workers. This raises the productivity of the economy, boosts household incomes, and improves economic durability in the face of growing competitive pressures and the availability of new technologies, such as the revolution in telecommunications.

Second, city economies also need to broaden and diversify their industrial structures by adding new kinds of activities. A more diversified economic base will reduce risks and exposure to volatile markets and technologies thereby enhancing resilience to external shocks. It will also enable new combinations of goods and services to emerge as diversity leads to a greater variety and complexity of skills and capabilities, which can facilitate innovation and technological restructuring. There is a long-established connection between urbanization and structural transformation as economies progress and diversify from low productivity agriculture towards manufacturing and services, which pay higher wages and generate larger multiplier effects. This process should be sustained and deepened as urbanization continues, as cities grow increasingly large, and as the division of labour unfolds and becomes progressively more advanced. Deliberate efforts may be required by the state and other actors to stimulate new ideas and initiatives, and to tackle obstacles to change.

The purpose of this report is to illustrate the process of productive transformation in six cities across the three continents of the South: Asia, Africa and Latin America (presenting the cases of Ho Chi Minh, Dili, Cape Town, Nairobi, Lima and Quito). The cities were selected to provide a range of experience and insights into diverse economic circumstances: complex and simple, more and less advanced, rapid and slow growth. City and national governments performed different roles in each case, from the provision of various forms of infrastructure and public goods, to direct support for specific firms and industries. The findings suggest that city governments can make a significant impact, provided they have a clear vision of their role and develop effective implementation capabilities.

The ICT sector

Africa is the world's poorest continent, with high levels of unemployment and informality. Urbanization is occurring at a faster rate in Africa than it is elsewhere (UN-Habitat, 2014). This rapid urbanization risks bringing concentrated poverty and social dislocation, especially if urban economies cannot absorb the growing low-skilled youth workforce and generate the tax revenues needed to fund the sizeable costs of robust urban infrastructure. Fortunately, aggregate economic growth rates have accelerated in many African countries over the last decade, largely as a result of booming commodity exports, such as oil, gas and minerals (Economist, 2011; Economic Commission for Africa, 2013; Turok, 2013). Yet growth alone is not enough. Productive transformation in the form of technological upgrading and industrial diversification is critical in order to generate many more jobs and to boost incomes. More jobs and higher incomes will help achieve inclusive growth and more sustainable urbanization.

The two African cities selected for study are Cape Town and Nairobi. Cape Town is relatively prosperous by African standards, although marked by deep social and spatial inequalities. Unemployment and poverty are high for a middle income country and economic performance has been sluggish in recent years by the standards of most emerging economies (OECD, 2013). Average living standards in Nairobi are lower than in Cape Town although economic growth has been stronger over the last decade; Nairobi's population is growing more quickly than Cape Town's and there are higher levels of informal enterprises and housing.

In the following analysis we focus particularly on the role of Information and Communications Technology (ICT) because of its transformative possibilities for Africa's development. ICT is a leading and fast-growing global industry in its own right, as well as a potential catalyst for wider economic development. The digital revolution is not just about consumers owning mobile phones and having cheaper calling rates. Computers and mobile devices are powerful tools, impacting how people save and spend their money, how children learn, how doctors and nurses care for patients, how

farmers market their crops, and how commercial firms conduct business and engage with customers and suppliers. Mobile devices, broadband (the technology that enables the high speed transfer of data rather than voice communications) and ICT more generally also create opportunities for businesses to develop new products (including applications and creative content) and access untapped external markets.

Some observers believe that ICT harnesses the potential for Africa to leapfrog through the development process and create a platform on which a larger group of stakeholders can participate in the economy and society. National and local governments in both cities share a commitment to using ICT to accelerate, broaden and deepen economic progress. ICT is recognized to be a disruptive technology with the potential to act as a catalyst for economic transformation and human development. Some observers argue that considerable progress has already been made:

Tech in Africa has come a long way in a very short time. It took less than five years for a small and fragmented group of pioneers to evolve into a sizeable pan-African community. It includes IT start-up centres, experienced computer literates, profitable start-ups, established businesses serving African and global clients and, most recently, a handful of African hardware companies (Grosskurth, 2012, p.v).

The potential for ICT to function as a transformative technology with pervasive economic and social effects has been recognized for about two decades. In 1996, Manuel Castells argued that ICT was ushering in a new information society, where the creation, distribution, integration and application of information were becoming a highly significant economic, political and cultural activity. The knowledge economy was the economic counterpart of the information society, whereby wealth was created through the productive use of information technology and the economic exploitation of information and understanding to gain competitive advantage. In short, ICT was enabling economic diversification through the development of new products, and enabling upgrading through the application of new processes.



In 2006 Thomas Friedman extended this analysis by arguing that 10 structural changes (or flatteners, to use his terminology) driven by the revolution in ICT would ensure that globalization would have an equalizing impact on the world economy in the years to come. ICT (including the internet, integrated software, new forms of computing and telecoms) was creating a global platform that transcends distance, place and geography, and connects users anywhere, irrespective of their location. The ability to interact and exchange information was encouraging global trade and promoting the production and transmission of knowledge and related products and services. In short, it was increasing economic integration, and in the process creating new markets, customers, suppliers, competitors, funders and other economic agents.

Critics recognized the enormous economic significance of the ICT revolution, but argued that it would not necessarily have a flattening or equalizing effect (see for example Christopherson et al., 2008). The infrastructure and flows of the internet and telecoms are spatially skewed and concentrated on the major global cities; hence some socio-economic groups and communities have much greater access to ICT and associated information and knowledge than others. Furthermore, the outcomes of ICT-induced changes are also highly uneven because the distribution of other key factors that determine the production of wealth are still unequally distributed among regions; namely investment capital, the institutional capacity for innovation, and highly-trained and experienced creative talent.

Nevertheless, most observers agree that ICT does open up new opportunities, even if it also exposes regions to greater outside competition. The ultimate outcome of the processes giving rise to geographical concentration and those promoting dispersion remains unclear. ICT and e-business could also cause a loss of jobs (at least in the short-term) by promoting more efficient business practices that substitute capital for labour, and by displacing jobs in established sectors (for example, online shopping causing job losses in high-street retailers, or call centres and business-process outsourcing causing job losses in related administrative occupations).

The unique potential of ICT to transform people's lives and livelihoods was recognized in the Millennium Development Goals. Target 8f calls upon states, "in consultation with the private sector, [to] make available the benefits of new technologies, especially information and communications." Special emphasis was given to this in a report by the Human Rights Council of the United Nations General Assembly in 2011. It described the internet as one of the most powerful instruments of the twenty-first century, enabling access to information, and making freedom of information and expression real. It declared access to the internet a basic human right and vital for socio-economic progress, and recognized that it was also becoming indispensable for business competitiveness. Without universal access there was a risk of creating a digital divide between national elites and ordinary citizens. Countries such as Finland, France, Costa Rica, Estonia, Greece and Spain have already adopted laws ensure widespread internet availability.

Given that the Internet has become an indispensable tool for realizing a range of human rights, combating inequality, and accelerating development and human progress, ensuring universal access to the Internet should be a priority for all States (United Nations, 2011, p.22).

A subsequent report on the impact of broadband on the economy by the International Telecommunication Union (ITU) stated that:

Broadband has become a key priority of the 21st Century, and I believe its transformative power as an enabler for economic and social growth makes it an essential tool for empowering people, creating an environment that nurtures the technological and service innovation, and triggering positive change in business processes as well as in society as a whole (International Telecommunication Union, 2012, p.vii).

The same study concluded that “No one doubts today that computing in particular and ICT in general have significantly contributed to economic growth in the industrialized world during the 1990s and 2000s” (ITU, 2012, p.2).

To sum up, ICT has the potential to stimulate economic development and transformation in various ways:

- a) as a new form of infrastructure or platform for the economy as a whole;
- b) as a source of foreign direct investment in ICT products and services;
- c) as an enabler for the growth of indigenous firms with original ICT products and services;
- d) as a means of improving the efficiency of business processes in other sectors;
- e) as tools for improving the efficiency and responsiveness of public services;
- f) by developing new skills and capabilities for people as workers, consumers, active citizens, public service users and entrepreneurs. Cape Town



CAPE TOWN

Background

Cape Town is a city of enormous economic, social and physical contrasts. It has a population of approximately 4 million, which is growing at about two per cent a year. Only about half of the city's working age population is employed and the level of educational attainment of most residents is low. The economic structure is diverse and overwhelmingly oriented towards services; no single industry or group of industries dominates. The economy is comprised of technologically sophisticated segments that employ highly-skilled, highly-paid workers, as well as segments characterized by low productivity, low-paid, locally-oriented activities, some of which are informal. Some advanced firms now compete internationally after being isolated under apartheid. New forms of foreign direct investment have gathered in telecommunications, software, call centres, business process outsourcing, film production and renewable energy.

Cape Town's economic disparities are linked with deep social inequalities and stark spatial divisions, with many features inherited from the apartheid era. Such a divided society is unstable, volatile and complicated to govern. There are difficult political tensions between a) promoting accelerated growth (more of the same activities, some of which are capital-intensive or employ few low-skilled workers); b) expanding labour-intensive industries (to absorb more of the unemployed); and c) stimulating productive transformation to a more inclusive and advanced structure. For example, agricultural products have been traditional exports from the rural hinterland, but wages are low, rendering the industry an unattractive employer; international competition prevents upgrading and higher earnings, making policy decisions difficult. Contradictory interests and deep political divisions in Cape Town help explain why the city lacks a common economic vision or shared development agenda. There are important economic assets in the city, but it is generally acknowledged that they have not been used to their full potential to achieve neither economic inclusion nor internationally-competitive clusters (OECD, 2013).

External connectivity (physical and electronic) and disjointed infrastructure are additional obstacles to economic progress, along with internal regulatory burdens (red tape) and significant skills shortages. The city has a highly segregated urban form with most poor communities concentrated in peripheral townships and

informal settlements some 20-30 km from the centres of economic opportunity and major public facilities. The resulting high transport costs and congestion are sources of inefficiency as well as social injustice and environmental degradation.

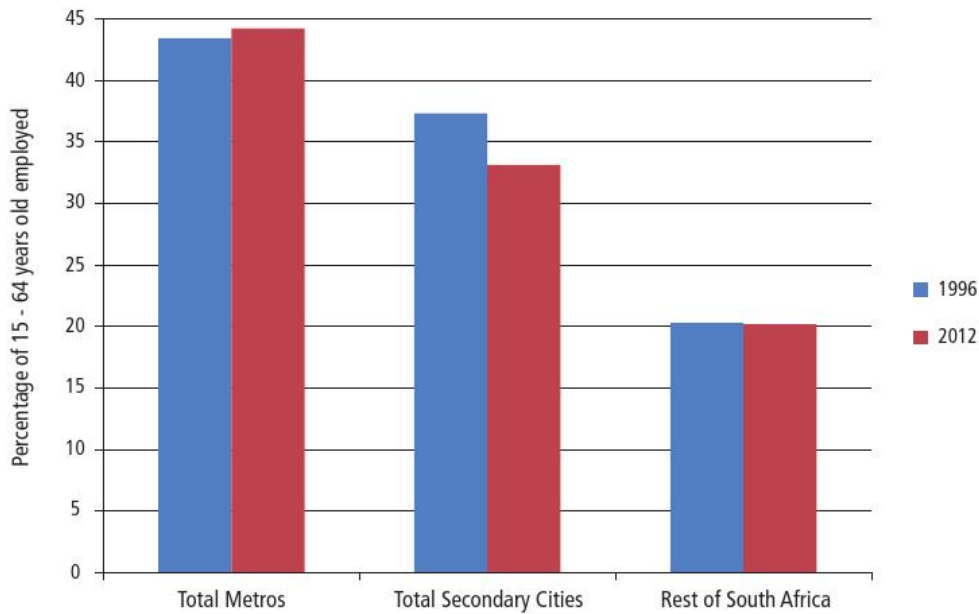
The priority for some parts of Cape Town's economy is to avoid being left further behind the external competition by enhancing industry productivity, such as in clothing and textiles. The priority for other parts of its economy is to remain competitive in terms of the quality and distinctiveness of its products, such as in design, advertising, media and software. The priority for Cape Town as a whole is to expand employment, particularly for low skilled workers. As a result, both technological upgrading and industrial diversification are important for the city.

Overall economic performance

This section provides a brief overview of Cape Town's current economic position and recent performance. It compares Cape Town to the other seven metropolitan municipalities and to the secondary cities of South Africa and the rest of the country. The most important outcomes of economic development are the quantity and quality of employment, average incomes and output or production, as these provide a broad indication of the level of economic prosperity of the city's population.

Employment rate: Uneven economic change is translated into varying rates of employment and unemployment throughout South Africa. The rate of employment measures the proportion of the working age population (15-64 years old) with a paid formal job. The unemployment rate is the proportion of the population who are able, willing and actively looking for work. The employment rate is a more accurate measure of the state of the local economy because it doesn't exclude people who have been discouraged from looking for work by the lack of jobs. Figure 5 compares the employment rates of various areas in South Africa to show the diversity of local economic conditions. The employment rate in the metropolitan areas is more than twice as high as it is in towns and rural areas, where only one in five adults have a job.

Figure 5: Employment rates for different areas, 1996 and 2012

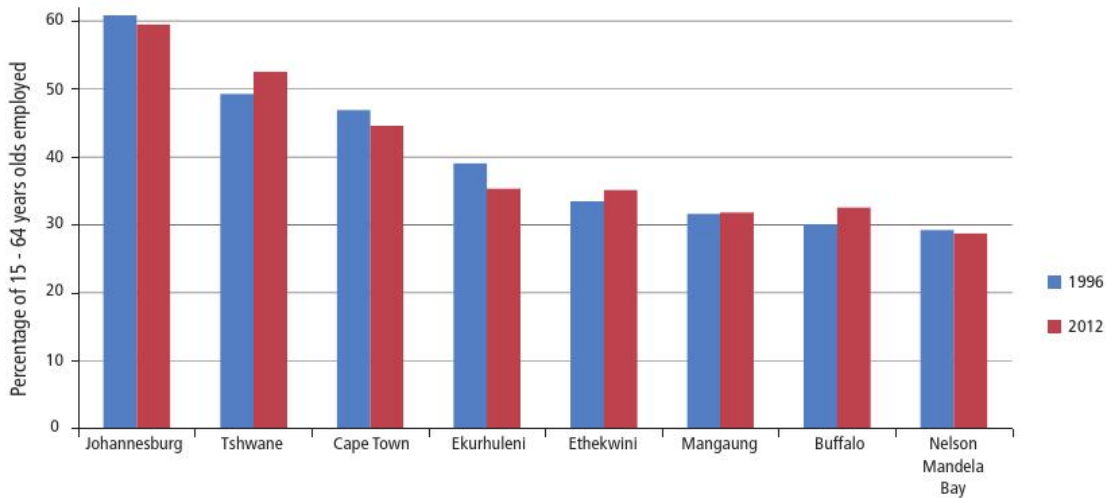


Source: IHS Global Insight database

Figure 6 compares the employment rate across the metropolitan areas. Cape Town’s employment rate is relatively high compared to most areas, yet well below Johannesburg. Johannesburg is the only city with an employment rate that approaches common international

levels, which are generally above 60 per cent. Tshwane has experienced the biggest increase since 1996, presumably reflecting its strong job growth (see figure 6).

Figure 6: Employment rates for the metros, 1996 and 2012



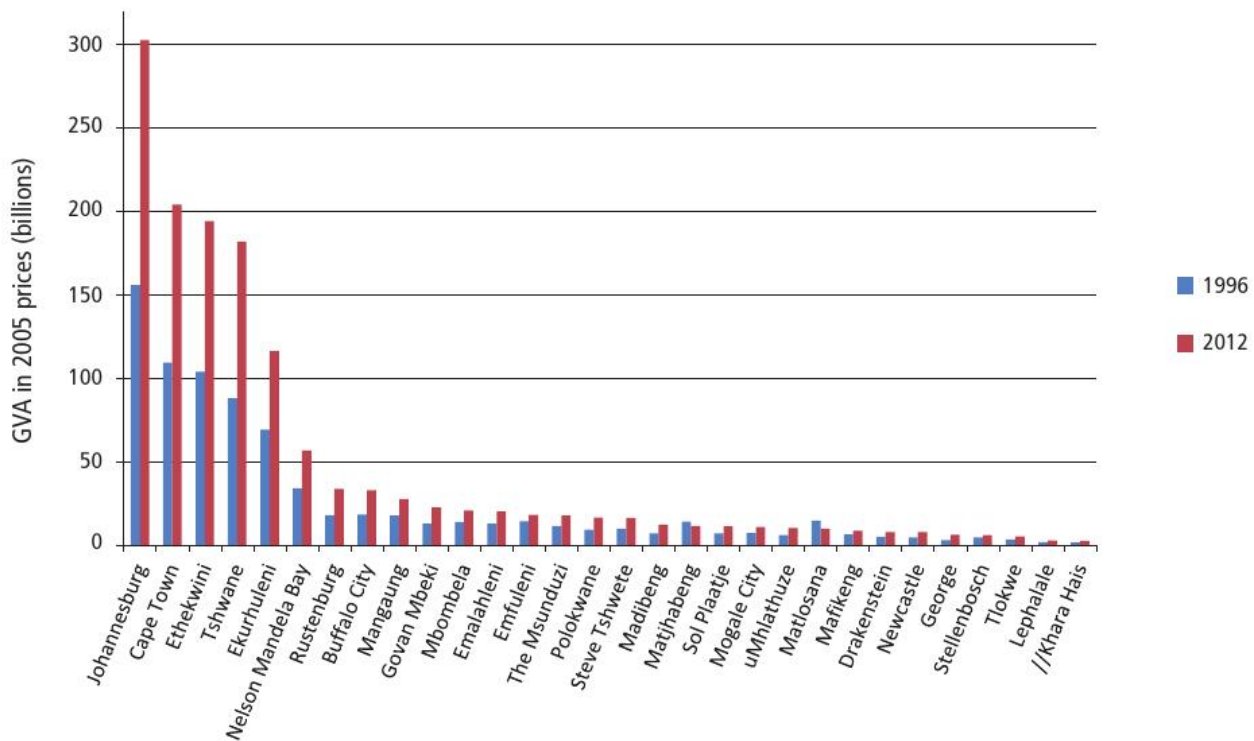
Source: IHS Global Insight database



Economic output: Gross Value Added (GVA) is an important measure of economic production at the city level (also known as Net Economic Output). It is broadly equivalent to gross domestic product (GDP) used at the national level and is a key measure to indicate the size of the local economy, its rate of growth, and average incomes. Figure 7 shows the total value of economic output for the eight metropolitan areas and 22 secondary cities in 1996

and 2013. Johannesburg is estimated to have produced over R300 billion worth of output in 2013, nearly double the value it produced in 1996. Johannesburg’s economy is 50 per cent bigger than Cape Town’s, which is followed fairly closely behind by Ethekwini and Tshwane. The five biggest metropolitan areas clearly dominate the economic landscape of the country.

Figure 7: GVA for Metros and Secondary Cities, 1996 and 2013



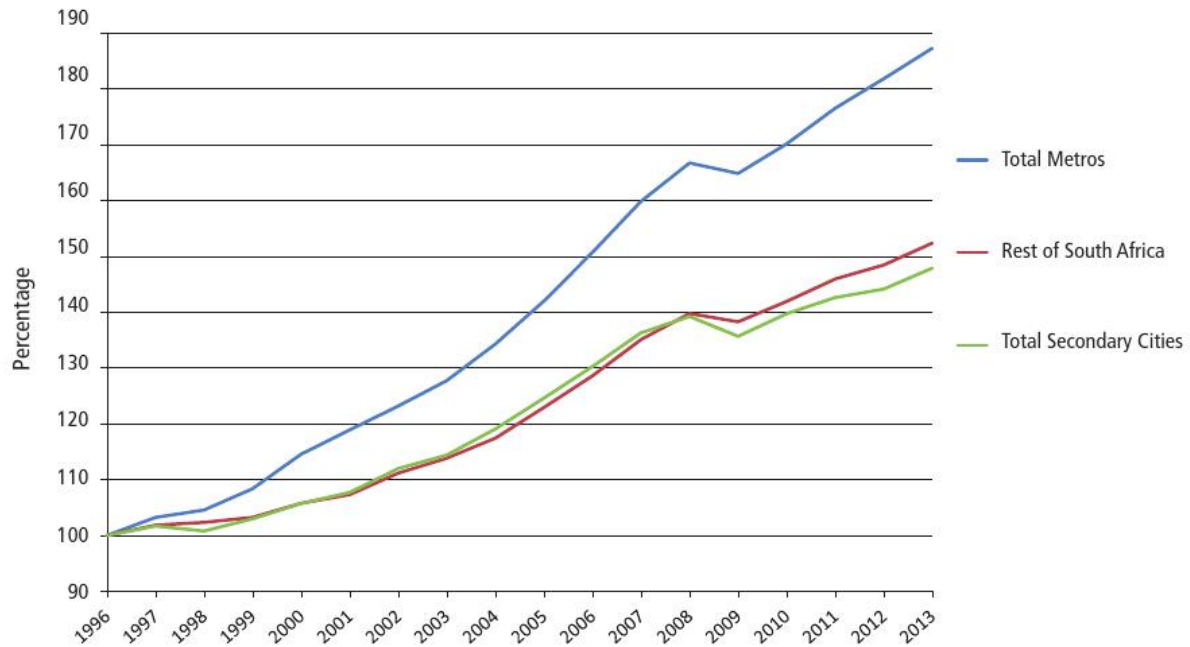
Source: IHS Global Insight database



Figure 8 shows the growth in output for the eight metropolitan areas, 22 secondary cities and the rest of South Africa over the period 1996-2013. Most notably, the metropolitan areas grew at nearly twice the rate of the secondary cities and the rest of the country:

a striking disparity. The sluggish performance of the secondary cities is also apparent, suggesting that they have failed to harness agglomeration advantages.

Figure 8: Index of GVA for the metros and secondary cities, 1996-2013

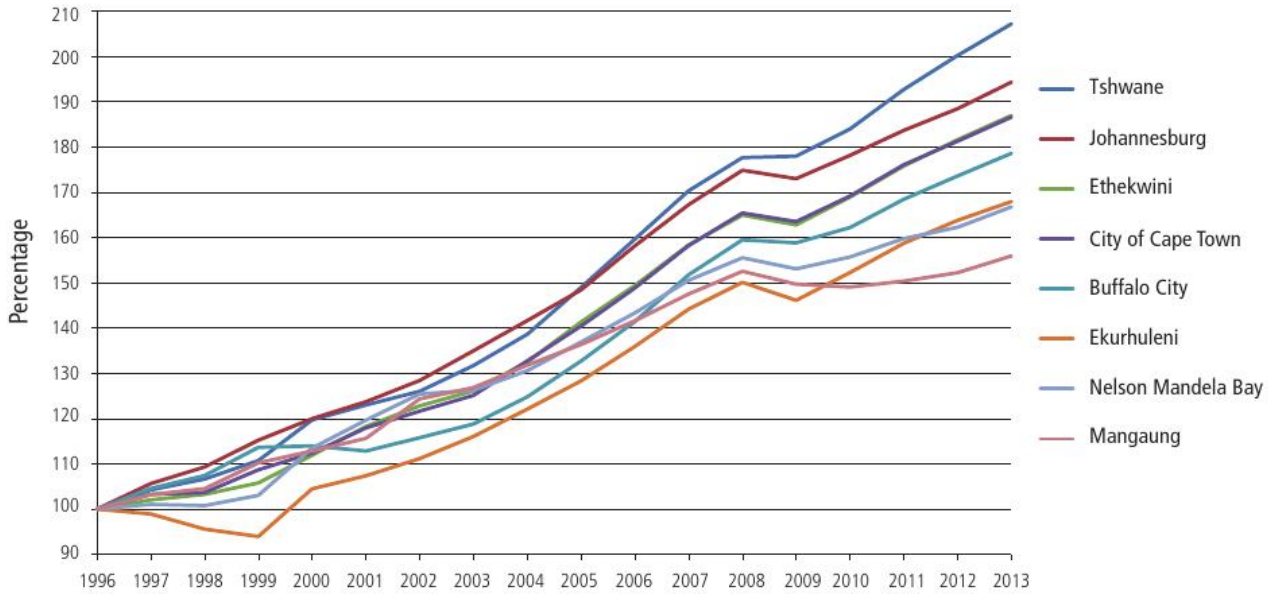


Source: IHS Global Insight database

Figure 9 disaggregates the growth in output for the eight metropolitan areas over the period 1996-2013. Cape Town’s economy had been growing slightly faster than the average, but below Tshwane and Johannesburg. Tshwane’s economy more than doubled in size over this period. Mangaung, Nelson Mandela Bay and Ekurhuleni have had the weakest growth. The recession in 2009

was a severe setback everywhere, and the recovery has been weaker than the preceding period of growth. As the administrative capital of the country, Tshwane has something of a ‘recession-proof’ character, given the strong presence of national government departments and related entities.

Figure 9: Index of GVA for the individual metros, 1996-2013

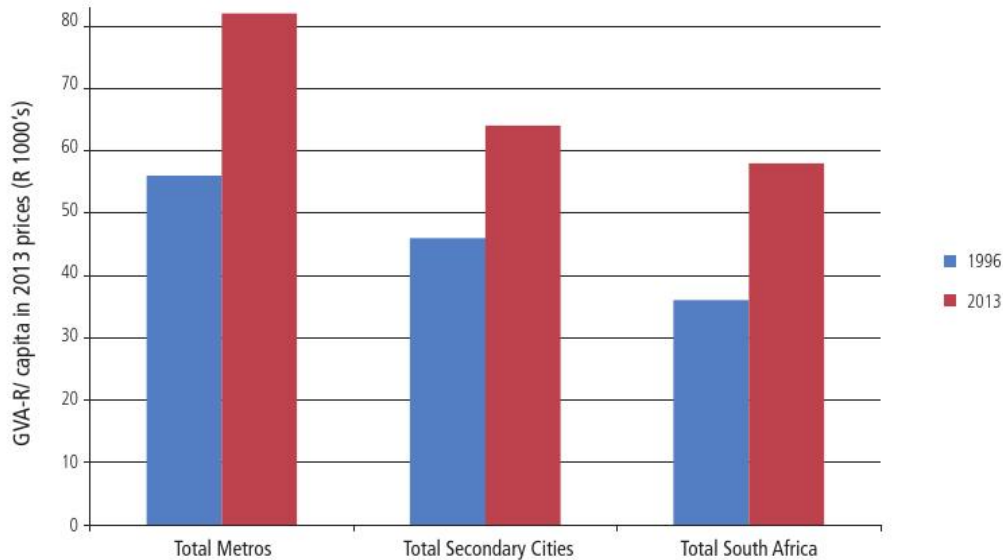


Source: IHS Global Insight database

Average income: GVA per capita (or population heads) is a measure of average income in an area, and reflects the level of productivity and the employment rate. Figure 10 shows that all the metropolitan areas have much higher average incomes than the country as a

whole (about 40 per cent higher), indicating that metropolitan economies are more productive than other areas. All areas have experienced rising levels of output per person since 1996, despite population growth.

Figure 10: GVA per capita for the metros and secondary cities, 1996 and 2013



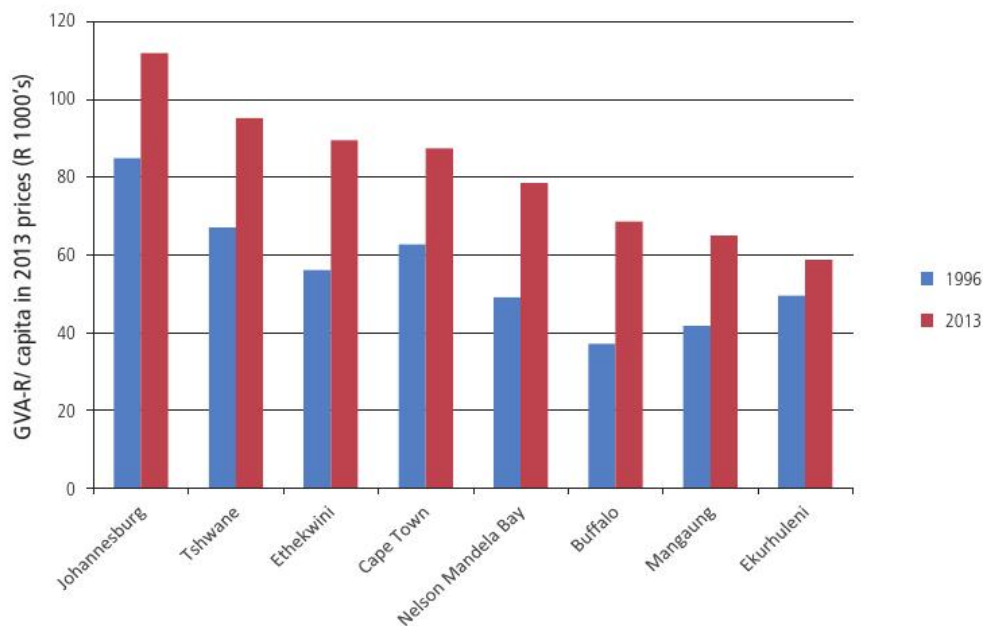
Source: IHS Global Insight database



Figure 11 shows the GVA per person for the individual metropolitan areas. Johannesburg is significantly more productive than the other major cities, partly perhaps because the composition of its economy is skewed towards higher value activities, such as financial services. Cape Town is in fourth position, behind the three Gauteng metros

(Johannesburg, Tshwane and Ekurhuleni). All the metropolitan areas have experienced rising output per person since 1996, although Ekurhuleni has clearly lagged behind the others, perhaps because of deindustrialization and the lack of substantial presence of provincial or national government functions in the area.

Figure 11: GVA per capita for the individual metros, 1996 and 2013

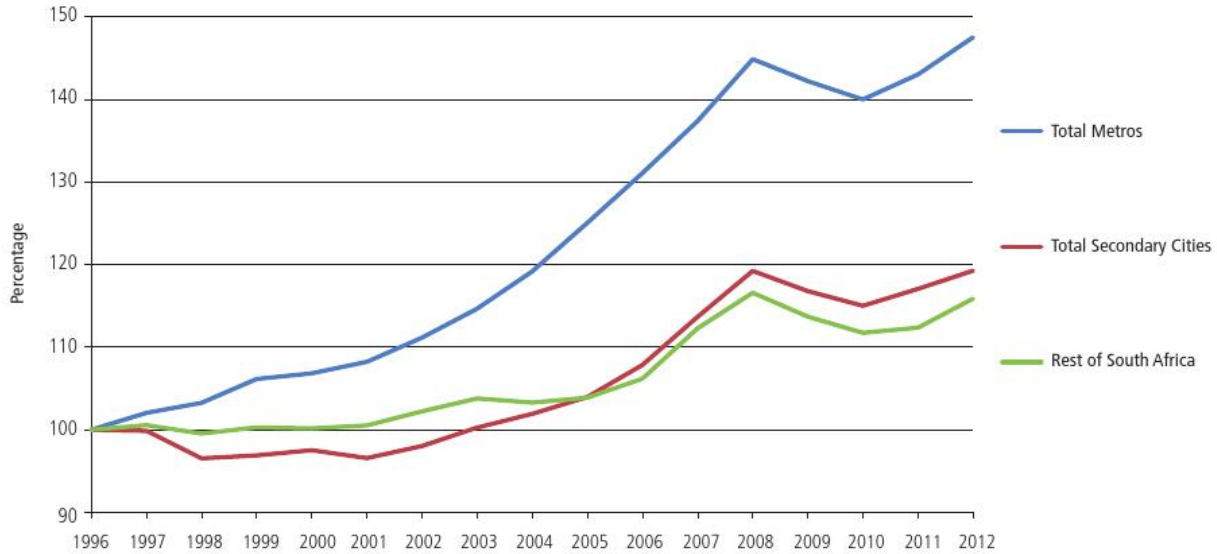


Source: IHS Global Insight database

Employment: The availability of employment is a crucial indicator of the state of the local economy, including the general level of prosperity or poverty. Lack of paid work forces households to rely on transfers from other family members (remittances), or on state transfers in the form of pensions or other social grants. Figure

12 shows the trends in employment for the metropolitan areas, secondary cities and the rest of South Africa. The rate of employment growth in the metropolitan areas was more than twice that of everywhere else.

Figure 12: Index of employment for the metros and secondary cities, 1996-2012

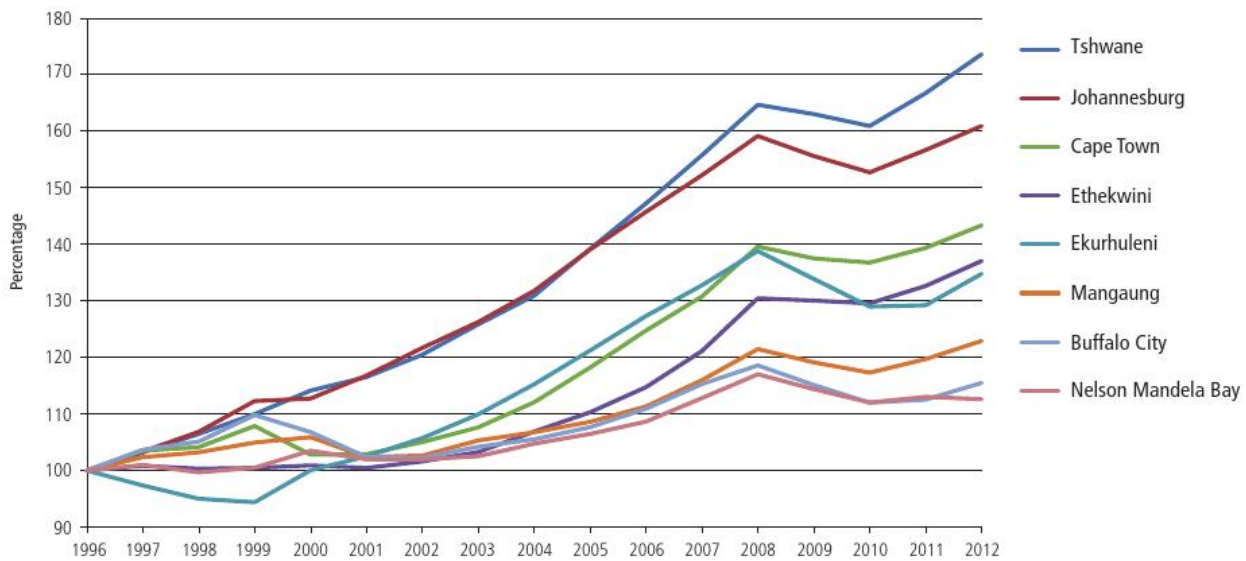


Source: IHS Global Insight database

Figure 13 disaggregates the growth in employment for the eight metros. Tshwane experienced the strongest growth, followed by Johannesburg. This is consistent with the output data shown in figure 9. Job growth in Cape Town was behind, followed closely

by eThekweni. Ekurhuleni suffered particularly from the economic downturn, along with Mangaung, Buffalo City and Nelson Mandela Bay.

Figure 13: Index of employment for the individual metros, 1996-2012



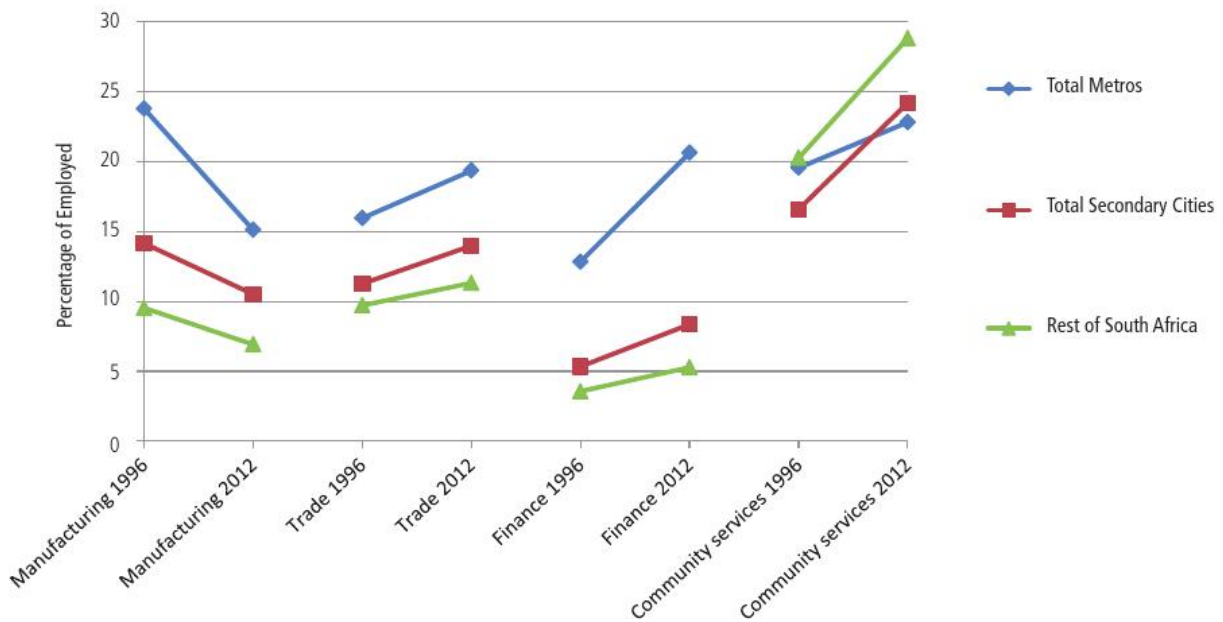
Source: IHS Global Insight database



Industrial composition: It is important to go beyond these aggregate indicators to examine the changing composition of each economy. This has a bearing on the sustainability of the growth path of each area. Figure 14 unpacks overall employment into four main categories: manufacturing, trade (including wholesale and retail, garages, hotels and restaurants), finance (including banks, insurance, real estate and business services) and community services (including also social and personal services such as health and education). Agriculture, mining, electricity, construction, transport and domestic work are excluded. Manufacturing and finance can be considered tradable sectors and therefore part of the economic base of a local economy. Trade and community services are more dependent on the local population and other economic activities.

Figure 14 shows big differences in the economic composition of the metropolitan areas, secondary cities and rest of South Africa, although the direction of change between 1996 and 2012 is more similar. The extent of relative deindustrialization in the metropolitan areas is the first striking feature – their share of employment in industry fell by more than a third. Manufacturing was the largest employment sector in the metros in 1996, but it is now the smallest of the four. Table 1 below shows that this was mainly due to the strong growth in employment in the other sectors, although there was still an absolute loss of 63,000 industrial jobs. Deindustrialization was less dramatic elsewhere because it was not overwhelmed by strong growth in finance and trade.

Figure 14: Employment change by major sector, 1996-2012



Source: IHS Global Insight database

The second major difference is the trajectory of financial services, which grew far more rapidly in the metropolitan areas than elsewhere. It grew from the smallest of the four sectors in the metropolitan areas in 1996 to the second largest by 2012, adding three-quarters of a million jobs in the process. The third point is the relatively strong growth of community services employment everywhere. This sector appeared to grow more rapidly in the towns, rural areas and the

secondary cities than in the metropolitan areas, although this is mainly because they experienced less growth in finance and trade. Community services now dominate the economies of the secondary cities, towns and rural areas. Most of these community services jobs are financed by taxes on other sectors, raising the question of the sustainability of dominance.

Table 1: Employment change by major sector, 1996–2012

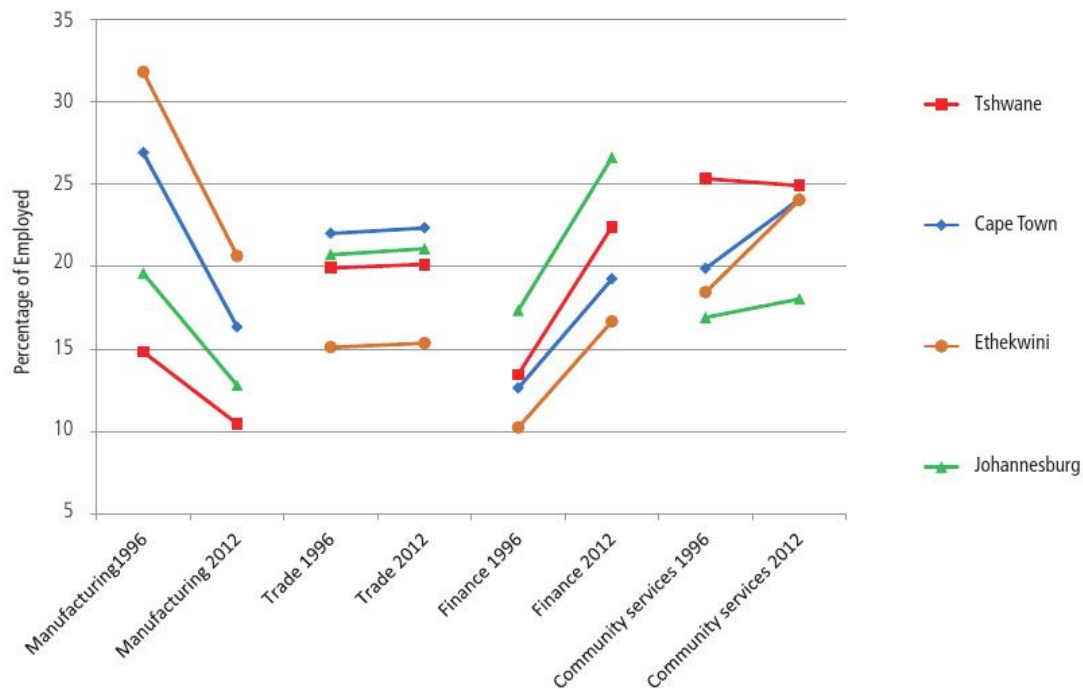
Employment Change, 1996 - 2012	Manufacturing		Trade		Finance		Community Services	
	Absolute Change	Percentage Change	Absolute Change	Percentage Change	Absolute Change	Percentage Change	Absolute Change	Percentage Change
Cape Town	-27,404	-13	105,099	73	118,326	118	115,801	74
Ethekwini	-21,581	-11	54,905	75	77,899	123	89,491	79
Ekurhuleni	-8,672	-5	56,169	62	79,361	129	56,744	72
Johannesburg	11,689	5	184,866	92	295,781	147	140,400	72
Nelson Mandela Bay	-19,381	-30	7,956	30	7,923	48	29,322	67
Tshwane	-21,174	23	115,367	112	161,040	189	113,264	71
Mangaung	-6,740	-40	3,596	22	3,932	40	30,536	77
Buffalo	-11,969	-30	7,877	35	4,363	49	23,825	56
Total Metros	-62,885	-6	535,835	79	748,625	137	599,383	72
Total Secondary Cities	-24,139	-11	80,482	48	68,869	86	182,989	74
Rest of South Africa	-36,827	-16	83,422	35	62,689	72	322,777	65
Total South Africa	-123,851	-8	699,739	64	880,177	123	1,105,149	70

Source: IHS Global Insight database

Figure 15 shows the changing composition of the four biggest metropolitan areas. The decline of manufacturing in Cape Town and eThekweni is particularly striking. Tshwane and Johannesburg had relatively small manufacturing sectors in 1996, but managed to expand them (table 1), although not relative to the growth they experienced in other sectors. The growth in financial services in Johannesburg is particularly striking. It dominates the city's economy

to an extent that was unimaginable in 1996, accounting for more than a quarter of all jobs. Tshwane also experienced growth in this sector, starting from a much smaller base level. The composition of each city's economy remains varied. Ignoring community services, trade is the largest sector in Cape Town, manufacturing remains the most important in eThekweni, and financial services is the most important in Johannesburg and Tshwane.

Figure 15 : Employment change by major sector in the large metros, 1996-2012



Source: IHS Global Insight database

To summarize, Cape Town’s economy has performed reasonably well by the standards of most cities and towns in South Africa, although not in relation to the powerful economic dynamo of the Gauteng province. Growth in employment in Cape Town has been insufficient to absorb the expanding workforce, resulting in higher unemployment. There has been a major decline in the relative importance of manufacturing jobs and rapid growth in financial services and community services.

There are some open questions surrounding the long-term viability of Cape Town’s trajectory. The success of financial services has been driven partly by growing consumer debt, while community services are financed to a large extent by taxes on other sectors. The extent to which financial services consist of externally-traded services remains unclear.



The role of ICT in Cape Town

ICT contributes to economic development in Cape Town in various ways: as a form of infrastructure, a source of FDI, a new technology enabling the growth of indigenous firms with original ICT products, a means of improving the efficiency of businesses in other sectors, tools for improving the efficiency and effectiveness of public services, and a host of new skills for people as workers, consumers, active citizens, public service users and entrepreneurs.

The South African government has expressed a strong commitment to developing the country's ICT infrastructure, recognizing its importance for education, provision of public services, improving job search capabilities and the way businesses interacts with their customers and suppliers.

For example, one of the medium-term targets of the National Development Plan is: "100% broadband penetration by 2020. All schools, health facilities and similar social institutions should be connected and individual citizens should have affordable access to information services and voice communication at appropriate locations" (National Planning Commission, 2012, p.195). To start implementing this commitment, the government's State Information Technology Agency (SITA) is providing funding to provincial governments in order to extend broadband connectivity across their regions.

The Western Cape provincial government has supplemented this national revenue with additional funding. Over the next three years it plans to invest R3 billion (approximately \$300 million – roughly 20 per cent of its capital budget) to roll out broadband connectivity across the province. It has signed a contract with one of the country's leading operators for fixed line telecommunication services (Neotel) to supply broadband connectivity with minimum speeds of 10Mbps, to link over 2,000 government offices and key sites throughout the region.

This includes all schools, health clinics and libraries. These sites will in turn provide the base for 384 wi-fi zones. Neotel will donate wi-fi enabling technology and, because it considers connectivity a basic service in a modern economy, the Western Cape government will fund limited free internet access. Over time, the ICT backbone will be upgraded and replaced by fiber-optic cables for higher speed connections; this will lead to 90 per cent of sites having speeds of 100Mbps while the remaining 10 per cent will enjoy 1Gbps.

It is probably the most ambitious IT project ever attempted in the country, with far-reaching potential to change people's lives. It was described by the premier of the province as "a game changer for the people and the economy of the Western Cape" (Zille, 2014).

The emphasis on expanding access to broadband seems to be supported by research on its economic impact in other countries. A World Bank study of 66 high-income countries found that a 10 per cent increase in broadband penetration yielded an additional 1.2 per cent of GDP growth (Qiang & Rossotto, 2009). In the 54 low- and middle- income countries examined, a 10 per cent increase in broadband penetration yielded an even larger increase in GDP, of 1.4 per cent. Yet a subsequent review of the full range of evidence available suggested that the World Bank study may have over-estimated the impact.

Nevertheless, it agreed that "the higher the penetration of broadband, the more important is its contribution to economic growth" (ITU, 2012, p.92). In other words, greater levels of broadband utilization mean larger critical mass and disproportionate network externalities. Research also seems to support efforts to increase the speed of access: "researchers agree that the speed of Internet access matters" (ITU, 2012, p.94).

Beyond establishing appropriate ICT infrastructure, Cape Town has also experienced some success in attracting foreign direct investment in software and related IT services, including bespoke software development, training, maintenance and support services, managed services, niche software and application development tools. The Western Cape economic development agency (WESGRO) reckons that Cape Town accounts for 26 per cent of all FDI in communications in South Africa.

Furthermore, one in five inward investment projects into Cape Town over the last decade has been in software and IT. Most of the inward investors in software and IT have been small firms, some of which have been attracted by the outdoor lifestyle available in Cape Town. Some of these firms have been successful in developing original products and managed to secure important international contracts. Most provide services and applications to domestic users, including established corporations and government administration. WESGRO helps foreign investors find local partners, comply with legal and administrative procedures, identify suitable premises and secure government incentives.



Aerial view of Cape Town South Africa ©esinell shutterstock



Cape Town has also managed to attract a range of larger call centres and Business Process Outsourcing (BPO) facilities. These services require reliable and relatively low-cost broadband infrastructure in order to operate efficiently. Cape Town has proved reasonably attractive to BPO investment from Europe because labour costs are lower, English is widely spoken and South Africa is in the same time zone.

Generous government incentives have also proved important. Examples of BPO and call centres in Cape Town include Capita, Serco, Amazon, Teletch, Teleperformance, Fusion Outsourcing Services (recently acquired by Mumbai-based WNS Holdings) and Merchants. Total employment in the sector is estimated at 30,000-40,000 in Cape Town, with growth of some 2,000-3,000 additional jobs per annum.

The online retailer Amazon is an interesting example of a company that combines both the upgrading and diversification dimensions of productive transformation in one entity. In 2011 it opened a new customer service and development centre in Cape Town. The main function of the call centre is to support Amazon customers in North America, the UK and Germany. Customer inquiries arrive via telephone, chat or e-mail. The centre also offers technical support for Amazon's Kindle e-reader. Some 1,400 people are employed in the facility.

In addition, at the development centre, software engineers work on Amazon cloud services and design new products. This technical centre is where Amazon Elastic Compute Cloud (Amazon EC2) was first created in 2005, and the centre still plays a key role in developing and running the majority of Amazon EC2's core. It provides software developers around the world with access to cloud infrastructure services based on Amazon's own back-end technology platform.

This is designed to make web-scale computing easier for developers by allowing them to obtain and configure capacity with minimal friction. The centre also houses Amazon's Kumo Development team, which owns the services and user interfaces required to deliver various facilities to customers. The team builds software applications in a variety of technical areas to help with cost optimization, security, fault tolerance and performance. It is considered the first of its kind for cloud computing.

ICT is regarded by the provincial and city governments as a key propulsive sector for economic development. From as far back as 1998 these agencies have provided active support through the formation of the Cape Information Technology Initiative (CITI) to address systemic challenges undermining the growth and sustainability of the technology sector in the region (including IT, ICT, ICTe, Tech&Design and software).

In 2010 CITI expanded its focus to include major technology-enabled sectors, including financial services, retail and government. Growth of the local software and IT sector was being undermined by the systemic impact of skills off-shoring in these sectors. CITI initiated programmes to support the development of start-ups, technical skills, local clustering, research, market growth and trade and investment promotion. It also created a range of forums to encourage networking and dialogue among relevant stakeholders.

The most important initiative has probably been the Bandwidth Barn. Bandwidth Barn is a business incubator facility aimed at supporting enterprise development and innovation in the ICT sector. It was established in 2000 as a subsidiary of CITI.

It provides business space to about 55 firms at different stages of start-up and growth, along with a variety of support programmes and events to promote software development as a career and a craft. More than 50 firms have graduated from its premises and about 2,500 direct and indirect jobs have been supported (WESGRO, 2013). Further details are unavailable. Some of the Barn's programmes are linked with local universities and are designed to train unemployed graduates (both IT and non-IT) in IT skills in critical short supply – particularly business analysis & systems analysis, software development (mobile, java, php, IBM RPG and SAP) and IT Infrastructure and application management.

These government-funded schemes are complemented by a range of other local initiatives. For example, Silicon Cape was started by a group of local entrepreneurs in 2009 with a vision of "creating an ecosystem in the region that would attract and bring together local and foreign investors, technical talent, and promising entrepreneurs, to foster the creation and growth of world-class IP start-up companies in an environment that competes with other similar hubs around the world against the backdrop of one of the most beautiful settings and pleasant places to live, work and play on the globe".

The intention was to complement rather than duplicate other initiatives, and to raise awareness about the potential opportunities existing in the sector. Another objective was to promote the region as a global technology innovation hub – the emerging Silicon Valley of Africa. Silicon Cape has also helped to showcase the work of local entrepreneurs and to foster a network of supportive investors.

In 2011 Google chose Cape Town as a pilot for a new technology incubator called Umbono which aims to bring together seed capital, Google mentorship, angel investors, local technology stars, entrepreneurs and business leaders. Umbono partnered with the African technology accelerator programme called 88mph with support from Bandwidth Barn and Silicon Cape.

The joint programme would seek to find the best start-up teams in Cape Town and provide them with high quality support and resources over a six month period to help drive their idea to market. For six months, teams would enjoy free office space and bandwidth, as well as \$25,000 – \$50,000 in funding from Umbono's panel of angel investors and Google. This investment capital would be exchanged for equity (10 per cent) and governed by standard terms of investment. Google specified that teams should apply for the funding, not individuals, and most applicants should have a technical background. Companies that already had funding were also welcome to apply. No business plan was necessary, just a novel idea, a team, and thoughts on the business execution of the product. Expert mentors would provide guidance on product design, technical issues, commercialization, legal incorporation and valuation.

Google chose Cape Town because the city is in "the process of positioning itself as a hub for innovation and technology". The company expects that successful funders will move to Cape Town and work on-site to take advantage of the opportunity. Google noted that the incubator was "in keeping with its ongoing commitment to foster innovation in Africa and to strengthen the web ecosystem across the continent", and it would help selected start-up teams transform their ideas for internet or mobile businesses into viable companies.

Google hoped that Umbono would further encourage the growth of the developer community and support what it referred to as "the

country's already flourishing tech sector". Luke McKend, Google South Africa Country Manager, said "The South African tech scene is incredibly dynamic, particularly in Cape Town. We've seen some terrific start-ups come from this environment, companies like Yola, MXit and Twangoo. Google's latest investment with Umbono is a great extension of our overall strategy in the region to strengthen the web ecosystem".

As a result of these and other such initiatives, it is estimated that there are now at least 200 companies employing 7,500 people in Cape Town's software and IT services industry. This is a rough estimate given that the basic research to define and monitor the sector has not been completed. Of course the sector is also linked to other industries and activities in the region, which complicates the task of establishing a definition.

Finance, insurance and business services employ over 200,000 people in Cape Town, and are probably the main customers of the software industry. The public sector is also a major purchaser of software and IT services (for internal purposes and to deliver health and other services more effectively), but this is poorly documented. The city of Cape Town has an impressive integrated data management system for all its operations, although the costs and benefits of this are unknown. The city and provincial governments hope that a successful software and IT industry will strengthen the competitiveness of their financial and business services sectors and help it to expand into other African countries.

A recent report on Cape Town's creative software design and development sector provided clear examples of where this has happened (Wesgro et al., 2013), but with no indication of the scale of impact. One example is Naspers, a multinational media and e-commerce corporation with its head office in Cape Town; software design is an important element of its activities.

Old Mutual is a leading insurance company with its main operations in Cape Town, employing about 4,000 people. It relies quite substantially on local software companies for support. Although none of the big four banks in South Africa have their headquarters in Cape Town, their regional operations still utilize local software companies for services and support.



Cape Town Conclusion

As a relatively isolated location in terms of global markets, and lacking natural resources such as oil or minerals, Cape Town cannot afford to be complacent in terms of its economic performance and prospects. Large scale poverty, unemployment and inequality present major risks to political stability and significant challenges to policymakers.

Growth along the established trajectory will not overcome these structural problems. Key sectors of the city's economy need technological upgrading to maintain and enhance their productivity and competitiveness. Industrial diversification is also important to broaden the economic base and expand employment at a rate that impacts local unemployment.

ICT is a leading sector of the global economy and evidence points to continued rapid growth and development. There are signs that the ICT sector is helping to upgrade the local economy through the introduction of new products (such as software applications and creative content in the media and entertainment sectors) and new processes (such as software design and development, and e-commerce).

It also shows signs of helping to diversify the city's economy through the attraction of new functions (such as call centres, BPO and internet-related services). The provision of new ICT infrastructure

and associated services should also help to develop local skills and create opportunities for new productive activities. There is clearly a great deal of interest and investment by multinationals and domestic firms.

Local, regional and national governments appear to play a number of important economic roles, including major investment in infrastructure, direct financial support to individual firms, and support for business incubators, advisory services and training. The public sector is also an important source of procurement for software and IT services, which is poorly documented.

The bulk of the public funding and investment originates from national government, while local and regional governments provide more targeted and tailored assistance by responding to real and perceived needs and opportunities.

The ultimate significance and impact of this activity from the perspective of productive transformation is hard to judge at this stage in the absence of more detailed research. Whether these interventions are helping to reduce regional and global inequalities is also highly uncertain at present.

NAIROBI

Background

Nairobi is a poorer city than Cape Town, although its rate of local economic growth has been higher over the last decade. Nairobi's population is estimated at 3.3 million and is growing more quickly than the population of Cape Town, as a result of rural–urban migration and natural change. Nairobi's higher levels of informal enterprise and shack housing reflect its higher poverty levels. Economic transformation is important both to raise productivity and to boost formal employment. This transformation should lead to higher household incomes and rising living standards.

Nairobi was founded in 1899 as a railway depot on the main line from the coastal town of Mombasa to Uganda in the interior. It quickly expanded to become the capital of British East Africa and performed an important function in the processing and trans-shipment of coffee, tea and sisal during colonialism. It also became the national capital because of its favourable position as a commercial, transport and political hub located fairly centrally within the country.

Nairobi suffers from the legacy of colonialism prior to gaining independence in the 1960s and its subsequent structural-adjustment policies. Urban planning under colonialism embraced the principles of racial segregation and functional separation of different land uses. There was no attempt to accommodate the city's growing African population, resulting in the proliferation of rudimentary shelters without basic services located in informal settlements.

This resulted in a highly unequal and fragmented city, with various symptoms of inefficiency persisting until today, such as severe traffic congestion. Yet the dysfunctional features of the city have not prevented its growth. Indeed some observers have suggested that the coincidence of poverty and informality have given the formal economy a competitive edge as a source of cheap labour and services.

The national context

After independence in 1963, Kenya promoted rapid economic growth through public investment, support for small-holder agricultural production, and incentives for foreign industrial investment. GDP grew at nearly 7 per cent per annum in the following decade. However, the country's economic performance declined between

1974 and 1990. This was partly due to rising oil prices which made manufacturing uncompetitive, and unsuccessful efforts at import substitution. The electricity parastatal and other state entities were inefficient and suffered from under-investment. Consequently, they failed to provide cost-effective services in sufficient quantities. The government responded with tougher controls on the private sector, which discouraged foreign and domestic investment. The early 1990s were met with a crisis situation of economic stagnation, rising inflation and the suspension of foreign aid.

In 1993, the government began a major programme of structural reform and liberalization under the guise of the World Bank and the International Monetary Fund (IMF). It eliminated price controls and import restrictions, removed foreign exchange controls, privatized various public utilities, cut the number of civil servants, and introduced conservative fiscal and monetary policies. These changes proved unpopular and the government began to backtrack on its commitments to governance reforms. The IMF and World Bank then suspended their support in 1997. Several years later an agreement was reached and international assistance resumed.

The performance of the economy remained lackluster in the following years, but the rate of growth has increased slowly over the last decade. This is partly due to improvements in the performance of agriculture, tourism and telecommunications. Kenya's main exports are agricultural products, namely tea, cut flowers, coffee and legumes. Since 2003 the government has pursued a more concerted economic policy aiming to transform Kenya into a newly industrializing middle income country.

The current five-year plan aims to strengthen competitiveness through accelerated governance reforms and increased public investment in transport, energy, water and ICT infrastructure. The government has followed through with substantial investment in undersea internet cables, which has been instrumental in boosting bandwidth and cutting the price of internet access. ICT and BPO are also identified as one of six key sectors intended to drive overall economic growth. ICT is also identified as a cross-cutting enabler of growth and development for other sectors of the economy. The implication is that ICT can assist with both technological upgrading and diversification from dominant primary products.



Central business district of Nairobi capital of Kenya. Illustration by Kishin Kishimoto



The city

The Nairobi city government has traditionally lacked power and resources because the Kenyan government has traditionally been centralized. Economic development was not a policy priority until the last few years. On several occasions, central government has had to rescue the city from financial collapse.

Between 1983 and 1992 the Kenyan government appointed commissioners to run the city after the elected council was dismissed for "gross mismanagement of the council funds and poor services to residents" (Barkan, 1994).

After nearly two decades of debate and contest about democratic government in Kenya, in 2010 the political parties finally agreed to a new constitution. It introduced various checks and balances in an effort to reduce corruption, and laid the basis for a two-tier system of government with much greater devolution of powers to the county level. It established an equitable sharing of resources between the two tiers. Nairobi is one of 47 counties with enhanced powers and resources. The constitution aims to severely curb the role of the central government in relation to the administration of the counties.

Nairobi is believed to produce over half of Kenya's GDP and houses the regional headquarters for most international companies and other organizations present in East Africa. It has a reasonably diversified economy comprised of a large public sector, international development agencies (including the headquarters of UN-Habitat and UNEP), tourism, financial services, consumer goods manufacturing (including food and beverage) and construction. There is also a large and expanding informal economy. This includes furniture production and vehicle repairs. After a difficult period during the 1980s and 1990s, when informality increased sharply at the expense of jobs in the formal economy and the public sector, the Nairobi economy has performed better than the rest of the country over the last decade.

Tourism is a long-standing strength, reflecting Nairobi's proximity to national parks and other attractions, and its many hotels, tour operators and related tourist infrastructure. Financial services have grown significantly in recent years, including banking, insurance, pension funds, the Nairobi stock exchange, building societies, micro-finance institutions and a variety of other savings and credit associations.

The real estate and construction sector is also well-developed, reflecting a current boom in residential, commercial and infrastructure development. Education is another strength, reflecting Nairobi's important political and administrative functions and the largest concentration of universities, colleges and private schools in East Africa.

Despite its strengths, Nairobi faces major challenges of unemployment and underemployment, especially among young people. The business environment is also poor as a result of the shortage and high cost of electricity, serious traffic congestion, other infrastructure constraints and bureaucratic government procedures. In an effort to reduce congestion, the city council recently doubled the fees for car parking in the city centre, but this only resulted in serious protests and disruption to everyday activities.

The role of ICT in Nairobi

Kenya's economic vision envisages an information society and knowledge economy that generates wealth and jobs for all by 2030. Kenya's blueprint for development (Vision 2030) acknowledges the country's inadequate ICT infrastructure and places considerable emphasis on ICT's contribution to economic growth.

The government is perceived to have an important role in accelerating the use of ICT in different economic sectors and within public services (e-governance). The government's recognition of the importance of ICT is partly a reflection of conditions on the ground (the rapid adoption of mobile services and deficiencies in the data communications infrastructure) and partly a realization that it has important responsibilities in this field.

The history of ICT in Nairobi can be traced back to the parastatal Kenya Posts and Telecommunication Corporation (KP&TC) that was established in 1977. It was a regulator, owner of the infrastructure and provider of telecom services, and used its monopoly power to exclude competitors. The lack of competition led to exorbitant telecom prices. In 1994 Kenya was one of the first African countries to access the Internet, through support from the US National Science Foundation. Mobile phones were introduced into Kenya around the same time.

Kenya's legislative framework was clearly inappropriate for the information age, so legislation was introduced in 1998 that brought in a regulatory body for the ICT sector. It was tasked with ensuring efficient, reliable and affordable communication services throughout the country. It introduced a phased approach to competition and diversified suppliers of telecoms to different segments of the market. Two new suppliers of mobile services were introduced in 1999: Safaricom and Celtel Kenya. Within five years of the end of KP&TC's monopoly over telephone, internet and related licenses, the number of mobile subscribers had multiplied from 20,000 to 5.6 million. Kenyans had clearly embraced the mobile phone.

Despite this runaway growth, it was apparent that there were still deficiencies in the system. The emphasis on encouraging competition to attract mobile consumers meant insufficient attention was given to the needs of business for investment in ICT capacity and services.

In 2003, a third operator was licensed, and encouraged to make universal telecoms accessible to all. This expansion of ICT suppliers created a wide range of jobs in engineering, marketing and sales and led to the growth of other businesses involved in supplying associated products and services. Kenya was gradually discovering the link between telecoms and economic development, a step beyond the initial focus on providing low-cost consumer access to communication.

This received explicit attention in the national ICT policy of 2006. It committed the government to invest in ICT infrastructure and support services to help improve transportation, electricity and water services. The policy expressed an intention to support the development of software, manufacturing and assembly of ICT equipment, and incentives for the private sector to provide ICT infrastructure.

The policy stressed the need for Kenya to catch up with the rest of world by accelerating its adoption of e-government, e-commerce and electronic security, and developing ICT content. It also referred to the importance of improving internet access through cable and satellite communications. The government pledged to invest in fibre optic cables, to migrate from an analogue to a digital system, and to provide ICT training. Fibre optic cables were introduced in 2009 and the transition to digital began shortly afterwards. ICT training has involved a joint effort from educational institutions, the government, private sector and NGOs.

A public-private partnership between the government and SeaCom resulted in the provision of four fibre-optic cables in 2009, one of which runs between Nairobi and Mombasa. This improvement in broadband capacity has had a major psychological and tangible impact, described by the World Bank as a "tipping point in Kenya's economy". The World Bank has attributed up to 4 per cent of Kenya's recent economic growth to ICT. For example, the fibre optic cables have transformed Nairobi's attractiveness as a destination for investment in ICT products and related services.

The shift from analogue to digital broadcasting was also a crucial change. It allowed television viewers to receive multiple channels on a single frequency, required less bandwidth and provided high levels of better quality content. Over a million television sets in Nairobi will have to be digitized with a set-box that allows users to access pay TV. There should be substantial benefits to firms providing television content and advertising. Some of the new television distributors are foreign media companies, but the shift is also expected to boost opportunities for local television and film producers, directors, actors, sound designers, editors, writers, wardrobe artists and gaffers. For example, DSTV announced that it planned to film 56 movies in Nairobi in 2014.

The government has also recognized the benefits of ICT to public service delivery. In 2013 it launched an e-government service called Huduma Kenya: a one-stop e-shop allowing access to all government services. It was designed to provide economies of scale and save public funds by reducing government bureaucracy and increasing transparency and accountability.

Various government databases will be merged to simplify form-filling for citizens and ensure more efficient record-keeping for the government. Examples include driving licenses, national identity cards, the National Health Insurance Fund, stamp duty for land transactions, business permits, student loans, making complaints about public procurement and reporting corruption. ICT will be used to enable a web portal that can be accessed online and is linked with a payment system.

The development of human resources is another feature of the government's plan for ICT. The goal is to increase digital literacy and strengthen vocational training by ensuring cooperation between universities and colleges. It specifically aims to create five centres of excellence to support ICT skills training.

Nairobi has been the main beneficiary of private investment in ICT infrastructure and services. It houses the main offices of the three mobile telecoms operators who directly employ over 2,000 people. There are also more than 300 registered equipment companies, internet service providers, and ICT consultancy and support services in Nairobi. At first sight, trends appear to favour the geographical concentration of ICT rather than its dispersion.

Nairobi and other cities and towns have also benefited from the growth of thousands of small enterprises involved in selling airtime, cell-phones, and accessories, and conducting repairs. The first phase saw the growth of community cell-phone services, whereby consumers would pay to make a phone call using a shared cell phone.

As the price of cell-phones fell, more and more people acquired their own phone, and community service providers migrated towards offering access to the Internet through cyber cafes. These services are widely used by students, job seekers, migrants and other groups for typing assignments, writing resumes, applying for jobs and residence permits, emailing relatives abroad, using skype, and social networking; as well as for computer games, watching sports and keeping up with current affairs. As the price of internet access has fallen, the use of these services has increased.

One of the major innovations from the growth of ICT in Kenya has been the use of mobile phone for banking (M-Pesa). This service enables financial transactions such as making cash deposits, withdrawing money, checking balances, making payments to third parties, paying bills and buying goods and services. Safaricom introduced M-Pesa in 2007 with funding from DFID, in conjunction with Vodafone and UK Telecommunications. The service was initially targeted at middle to low income groups who lacked access to formal financial services. It quickly became the preferred way to receive money in Nairobi, reflecting the benefits of *pesamkononi*, meaning money on your hands. Airtel Kenya has also introduced a similar service called Airtel Money. A third service provider, Yu, also introduced the service and was recently acquired by Safaricom and Airtel Kenya.

Mobile banking works through a network of registered agents who operate small shops. The agents maintain an e-float of money that allows them to trade to the extent of their float. In exchange for cash customers receive their e-float, which can then be transferred to other mobile banking customers.

The e-float can also be withdrawn from a registered agent for a small fee charged through the software. Mobile banking has also been connected to financial institutions like banks and cooperatives. Bankers have an option of linking their M-Pesa and bank accounts to allow easy withdrawal of money through M-Pesa agents where ATMS are unavailable. M-Kesho was the first mobile banking and savings platform linked through Equity Bank. A former employee of Equity Bank used an application-programming interface for M-Pesa to launch M-Kesho in 2010. Since then, most banks have options that allow their clients to link to M-Pesa. This has created significant efficiencies and eased the flow of money within the city. Using similar platforms, banks have established banking agents similar to M-pesa agents, where members can deposit and withdraw money.

Another novelty has been the growing use of prepaid cards to replace cash payments. Using agents or mobile payments, customers load money onto the card for future use. For example, BebaPay is a service powered by Google in partnership with Equity Bank that allows public transport passengers to pay conductors with their card. It works through the mobile banking platform, and allows transportation fees to be transferred onto the card. Transport operators registered with BebaPay place the card on an enabled phone which automatically deducts the fare, and notifies the customer of their remaining balance. It reduces the risk of cash theft and helps people manage their household budgets.

Visa cards have also become popular since they allow saving money. Most are linked to a particular department store and a mobile brand. The Safaricom M-Pesa PrePay Visa card is linked to I&M Bank and allows people to trade online. The Safaricom Safari card has opened up opportunities for people to receive money from online services and e-commerce.

Small and medium enterprises in Nairobi are beginning to apply e-commerce in their operations, particularly retailers. The benefits include marketing and communication, better customer service, new business opportunities, cost reduction and efficiency. At present most firms use the internet for information gathering rather than for making transactions or building relationships. Only a minority have interactive websites.



Online platforms for e-commerce have been another field of innovation. Vervient Consulting is one of the country's emerging software developers. It developed PesaPal, which partners with banks, mobile network platforms and credit card companies to allow online trading. PesaPal targets consumers who want to make online payments but lack credit cards. It also allows for the repayment of mortgages and loans. PesaPal has become the main application used for e-commerce and is now available in seven African countries. Paypal is a similar service recently launched by Equity Bank.

A related popular service is called Pay Bill. The mobile provider Safaricom offers an easier way for customers to make payments than the traditional method that required standing in queues and paying by cash or cheque. Kenya Power uses the service to bill its customers for electricity; many microfinance institutions use it for loans repayment. It is also used for insurance payments, TV subscriptions, and so on. Since the Pay Bill service does not require sending paper bills via post, it reduces the chance of payment interruption that might lead to electricity or other service disconnections. Users receive regular information on their cell phones, including reminders when payments are due.

The enormous popularity of cell phones has also stimulated demand for a wide range of other mobile products, services and creative content. Comprehensive information is not available, partly because of the rapid growth and loosely regulated nature of these activities. Some of the innovations include downloading music, entering lotteries, sweepstakes and other competitions, hiring cars, booking holidays, dating services and so on. Some of these applications are international, so there is little economic benefit for Kenya, but others have domestic spinoffs with direct impact. For example, mobile platforms that allow customers to download the work of local musicians can provide them with an additional source of income.

The key to sustainable economic growth and development is in building productive capacity, preferably in the form of a critical mass of strong and dynamic locally-owned enterprises that are innovative and self-sustaining. There are signs of this emerging in Nairobi, according to several independent observers. Graham & Mann (2013) refer to several clusters of creative enterprises that have developed in recent years. Rosenberg (2013) researched a range of ICT start-ups

focused on social media work, marketing, software development, web design, mobile application development, IT consulting and web mapping. The entrepreneurs were a group of young technology creatives drawn from around the world.

The government aims to create 500 medium-sized ICT companies and 20 multinational companies, largely from Nairobi (Graham & Mann, 2013). Already 85 Nairobi companies are listed on angel.co, a website used by angel investors to select potential businesses to support. Nairobi is developing a reputation for technology start-ups, stemming from the M-Pesa revolution and the rapid adoption of related applications. This is helping to attract additional entrepreneurial talent. For example, an award-winning NGO called Ushahidi was started in Nairobi to develop free open-source software for data collection, visualization and interactive mapping to chart the incidence of post-election violence in 2007–08. Other successful tech start-ups include the Kenyan entertainment news website Ghafla and Sokomtaani.

Most of Nairobi's ICT firms emerged from one of its five innovation incubators (iHub, Nailab, Fablab, iLab and the Human IPO's Start-up Garage) that facilitated knowledge-sharing, collaboration and external support. These incubators claim to have assisted over 1,000 software developers and 900 designers (Graham & Mann, 2013). Investors also use the innovation hubs to identify potential enterprises to support. For example, iHub has created 12 start-up companies, 3 of which were fully-funded by investors who sourced the ICT specialists from the hub. Seed funding for many of the start-ups has also come from the government and a Tandaa Digital grant from the World Bank of \$4 million for enterprises engaged in software development and creative content (Graham & Mann, 2013).

One of the first innovation hubs set up in Africa in 2010 was iHub. It was designed as a large and colorful open desk space with high-speed internet access. The concept sought to address a lack of infrastructure, and to test the possibility for developing innovation in such spaces. Following its success, four additional innovation clusters have been established in Nairobi: Nailab, Fablab, iLab and Start-up Garage. They provide an interactive environment for consulting and forming start-up teams and partnerships. Some innovation hubs also

act as incubators, where infrastructure and advice is provided for free in return for a share of the firm's equity. The incubators provide access to investors and a constructive, competitive environment to spur creativity and innovation.

Kenya's major investment in ICT infrastructure has also allowed freelancers to use online work platforms like www.odesk.com, www.elance.com and www.guru.com. These allow freelancers to generate income by selling their skills and expertise to customers all over the world. Such platforms have traditionally been by freelancers in Asia, Europe and America, but African creative talent now has an opportunity to participate.

The services on offer range from software development, graphic design, illustration, data analysis, search engine optimization and mobile application development. Freelance marketers, strategists, writers, editors and virtual assistants offer their services on these platforms. For example, the number of freelancers appearing on www.odesk.com on 6th July 2014 was 2,069 from Kenya, 562 from South Africa, 91 from Uganda and 13 from Tanzania. Many ICT companies as well as freelancers in Nairobi use these platforms to secure work (Graham & Mann, 2013).

The prospect of Nairobi turning into an innovation and technology hub has drawn investment and interest from major multinationals such as Google, Microsoft, IBM and Qualcomm (Economist, 25 August 2012). Google's CEO recently suggested that Nairobi's booming innovation sector could lead Africa. In 2012, IBM opened a research lab in partnership with the Kenya ICT board at the Catholic University based in Nairobi.

The lab focuses on e-governance, urban development and planning and ICT skills enhancement. Nokia's CEO has expressed an interest in investing in a research centre in Nairobi that would help developers build applications targeted and marketed within East Africa. Other global players such as Microsoft, Hewlett Packard and France Telecom have also taken stakes in local companies, support services and infrastructure.

Nairobi Conclusion

In the face of rapid urbanization and large-scale poverty, Nairobi must use its assets and resources to encourage the inclusive growth of its economy. Simply growing along the established course will not address the structural challenges of unemployment and low skills. Existing economic sectors need technological upgrading to improve their productivity and competitiveness. Economic diversification and creative thinking are also important to broaden the industrial base beyond primary products and to expand employment at a sufficient rate to reduce unemployment.

ICT-based activities continue to grow rapidly in most parts of the world. There are signs that such growth is helping to upgrade Nairobi's economy in particular, and reduce the cost of living for the poor through the introduction of new products (such as mobile applications and creative content in the entertainment sector) and new processes (such as software development and e-commerce). There is also evidence of diversification as new activities are attracted to the city (such as internet-related services). The provision of new ICT infrastructure and associated facilities is helping to develop local skills and create opportunities for new business activities and non-profit organizations. Domestic corporations and multinationals are generating considerable interest and investment.

National and city governments appear to play an important role through investment in infrastructure, direct funding of individual firms, and support for business innovation hubs, incubators, advisory services and training. The bulk of the public funding and investment originates from national government and international agencies. The ultimate significance and impact of this activity for productive transformation is still hard to judge given the available evidence, but the momentum appears promising.



Conclusion

The case for economic transformation is compelling in an environment of mass unemployment and poverty. Urban economies need to adapt to intensified international competition and shifts in fundamental technologies.

Productive transformation can take different forms and be driven by different forces. Upgrading and diversifying are particularly important for low and middle income African cities. City and national governments have vital roles to play in facilitating this process of change, and helping to steer investment decisions in more productive, inclusive and sustainable directions.

The Cape Town and Nairobi studies illustrate the important role of ICT in their economies and societies. ICT is recognized by the governments of both cities as a disruptive technology with catalytic potential to shift economic trajectories. ICT creates manifold opportunities to create new products, provide new services, access

new markets, build new economic relationships, develop new skills and capabilities, attract new forms of investment, and empower citizens through access to information and knowledge.

There is ample evidence in both cities that ICT is generating considerable public interest and having wide-ranging effects. It is attracting substantial public and private investment from domestic and international sources, and contributing directly to the start-up and growth of hundreds of businesses. In turn, these businesses are creating new customers for other firms and improving their operational efficiency by creating new techniques for managing information and data.

Crucial infrastructure is being created that will provide far-reaching services to households and firms, and reduce the cost of living for poor communities. It is too soon to judge the cumulative impact of these developments, but alongside considerable buzz and momentum, early signs appear to be significant.

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THE PRODUCTIVE TRANSFORMATION OF CITIES: LATIN AMERICA CASE STUDIES

THE METROPOLITAN DISTRICT OF QUITO: INSTITUTIONAL INNOVATION AND ECONOMIC TRANSFORMATION

Marco Kamiya and Patricia Polo

Overview

Cities are motors of growth in the Latin American and Caribbean economies. Some two thirds of regional GDP is generated in urban centres, where both the service and industrial sectors are concentrated. Given the importance of cities, the realization of their economic potential is essential to sustainable growth in the region.⁶ Quito, the capital city of Ecuador, generates 23.8 per cent of the country's GDP, 40.5 per cent of sales revenue and 26 per cent of national employment.⁷

The economic structure of the Metropolitan District of Quito (MDQ) has transformed in recent decades, following significant growth in the service sector. Quito has specialized⁸ in ten of the 19 economic sectors measured in the last national economic census (INEC, 2010); of those specializations, five are related to service provision.

The most significant changes in the productive sector have taken place in manufacturing, and in professional scientific and technical activities. Some 50 per cent of professionals in the scientific and technical sector in Ecuador work in Quito (INEC, 2010) and in 2012 some 39 per cent of Ecuador's investment in the sector was channelled to activities in Quito. This confirms two stylized facts regarding development of metropolitan areas: firstly, they tend to specialize in service activities; and secondly, that they are the greatest centres of innovation in a country.

The relative weight of manufacturing and other goods-producing sectors in the economic structure of Quito has declined. Currently, the principal industrial activities in Quito are metal works, pharmaceutical products, food products, automobile production and

chemical products. The presence of industry in the county⁹ of Quito is a legacy of the import substitution development model adopted in the 1970s. The industry now faces competitiveness challenges, largely resulting from reliance on low-technology goods and the exploitation of natural resources.¹⁰

Over the last two decades, the municipality of Quito has engaged in a process of institutional innovation, leading to improvements in: city infrastructure, particularly transport infrastructure; coverage and quality of basic services; the level of education of the labour force; poverty and inequality reduction; generation of economic activities; and general improvements of the quality of life of the city's inhabitants.

Through this process of institutional adjustment, the municipality has transformed its management practices, transitioning from a traditional, centrist organizational structure oriented towards the provision of basic services and urban management, to a metropolitan management structure founded on the principles of decentralization, strategic planning and citizen participation. Notably, strategic planning – conceived from a multidisciplinary and intersectoral framework focused on the challenges of the city as gentility – has legitimized a continuity in the construction of the city, enabling avoidance of extreme social externalities which tend to limit the potential of the economic region.

This joined-up approach to city construction has been applied, for example, to large projects which have not been interrupted by changes in administration. The first large municipal project was the provision of drinking water; this was followed by the modernization of the mass transport and road management systems; the creation

⁶ UN-Habitat, 2012.

⁷ Instituto de la Ciudad, 2009.

⁸ A higher proportion are employed in these sectors in Quito than the national average for the sector.

⁹ Canton in Spanish

¹⁰ Mancheno & Carrera (2013)



of green spaces for recreation; the expansion of the drainage system together with the control of flooding from the Pichincha volcano; the restoration of the historic city centre, reconvertng it to the core zone of the capital; the construction of a new airport; and lastly, the current project of constructing a metro system in Quito.

The policies geared toward transformation of the productive heart of Quito are fully integrated into Ecuador's political agenda, from local to national levels. The national government is implementing the National Plan of Wellbeing 2013-2017 which contains two overarching strategies: the national strategy of poverty elimination and the national strategy of productive transformation. In relation to the latter, operational definitions are not yet in place to articulate the macro political economic visions with specific interventions necessary for the territorial sphere.

At the government level of the Metropolitan District of Quito, two specific policies are being formulated: the Metropolitan Development Plan (2012-2014) and the Metropolitan Territorial Zoning Plan (2012-2022). The principal actions related to the local economy are: the promotion and consolidation of an intelligent city; the maintenance of the metropolitan district as a socially and economically inclusive territory; the construction of diverse development projects generating centres in multiple spaces within the territorial centre; and the configuration of a system of protected areas and ecological corridors creating environmental foundations for the local economy.

The present report demonstrates the main findings related to the economic transformation of Quito, as well as the institutional framework of local policies, particularly in relation to the productive economy. The first section of the document describes Quito: its location, current economic and demographic composition, as well as the nature and powers of the local government.

The second section looks at explanations for the contemporary economic transformation of Quito. The section highlights the main economic changes that have taken place in the last two decades in Ecuador and in the Pichincha province, of which Quito is the capital. From there, the report identifies the main transformations in the economic structure of Quito.

The third section of the report addresses the two major transformations that have taken place in the economic structure of Quito. Firstly, it analyses the significant growth of the service sector, starting with a study of the most dynamic branches of activity. Secondly, it examines manufacturing activities: namely the changes within the sector, technological levels, and business structure.

The fourth section analyses the local and national municipal policies of recent decades and seeks to explain the degree to which they have contributed to the economic transformation. This section also describes economic policies that are currently being implemented, looking at their objectives and tools. Finally, the report examines the major aspects of the city's demographic and spatial evolution.

Quito in focus

Description of the City of San Francisco de Quito

Ecuador has a population of some 15.5 million and the highest population density in South America (some 56.5 inhabitants per km² in 2012). The country has a relatively large urban population with 65

per cent living in urban areas, though in the wider Latin American region the level of urbanization is higher, at 77 per cent (CELADE-ECLAC). San Francisco de Quito is the capital city of Ecuador and the Pichincha province. With a population of over 1.6 million, it is the second largest city in Ecuador.

Map 1: City of Quito



Source: www.inviertaenquito.com

According to data from the 2010 National Census (INEC),¹¹ rates of poverty (29.7 per cent) and extreme poverty (7.0 per cent) in Quito are the lowest of the 224 Municipalities (Cantons) in Ecuador. The

incidence of poverty in Quito has fallen significantly over the last decade, from a high of 43.7 per cent in 2001 (INEC).¹²

Table 2: Key social indicators in 3 municipalities in Quito

Municipality/ Year	Poor (%)		Extreme Poor (%)		Unemployed	Subemployed
	2001	2010	2001	2010	2013 (December)	
Quito	43,7	29,7	4,04%	29,98%	16,3	7,0
Guayaquil	63,8	48,0	5,72%	41,30%	31,6	19,4
Cuenca	50,1	38,2	3,68%	31,68%	22,7	13,2
Total País	71,4	60,1	4,86%	43,35%	39,9	27,0

Source: Instituto de la Ciudad del DMQ (2012)

The economically active population in Quito has grown to 825,241 people (INEC, December 2013), over 60 per cent of whom are between 18 and 40 years of age. During the period 12/07–12/2013,¹³ the employment rate increased from 53.3 per cent to 65.2 per cent. At the same time, urban unemployment fell from 6.1 per cent to 4.0 per cent. Quito also has an underemployment rate significantly below the national average (in December 2013, 30 per cent compared to 43 per cent nationally).

In 2012, the GDP of Quito stood at \$20.2 billion. The GDP per capita in 2012 was \$6,441 (Barrera, 2013), compared to the national average of \$5,425 (BCE, 2013). The leading economic activities in terms of sales revenue in the Municipal District of Quito are commerce (35.4 per cent) and manufacturing (33.4 per cent; INEC, 2010). Indeed the cities of Quito and Guayaquil differ from the other cities of Ecuador in the variety of productive activities taking place in their territories,¹⁴ in line with the Ecuador's top-heavy development phenomenon, under which the largest populations and the highest proportions of economic activity is concentrated in the two cities.¹⁵

The structure of the Metropolitan District of Quito

The city of Quito is the capital of the MDQ. Currently, the Autonomous Decentralized Government (ADG) of the MDQ is responsible for the following areas of activity: public order; cultural promotion; public service delivery; regulation of public and private transport; use of public goods; approval of the city budget; setting urban, district and parish limits; and the promotion and planning of cantonal economic development.

City administration is exercised through the MDQ Council, which is made up of 15 local councils and is presided over by the Metropolitan Mayor.¹⁶ The Office of the Municipal Mayor includes twelve Metropolitan Secretaries who set policies for the district and supervise their implementation. Finally, administration of the MDQ is spread across eight Administrative Zones, which works to decentralize institutional bodies and improve the system of participatory management.¹⁷

¹¹ INCE: Censo de Población y Vivienda de 2010

¹² Poverty has fallen by 14 percentage points in Quito, and by 11 points in Ecuador where poverty fell from 71.4 per cent to 60.1 per cent over the same period.

¹³ Data is not available prior to 2007.

¹⁴ These cities are characterized by a rich fabric of diverse economic activities, as compared to a highly specialized economic structure (Mancheno y Carrera, 2013).

¹⁵ The populations of Quito (2.2 million or 15 per cent of the national population) and Guayaquil, (2.3 million or 16.2 per cent of the national population), are four times greater than Ecuador's third city, Cuenca, which has 505,585 inhabitants.

¹⁶ The Metropolitan Mayor can take on functions of Regional Governor and Provincial Prefect within the District.

¹⁷ The concept of a Metropolitan Zone was established in the Law on the Metropolitan District and Zonal Administration Regimen (Ley de Régimen del Distrito Metropolitano y las Administraciones Zonal).

Main transformations in the economic structures of Ecuador and Quito

Evolution of Ecuador: 1990 to 2012

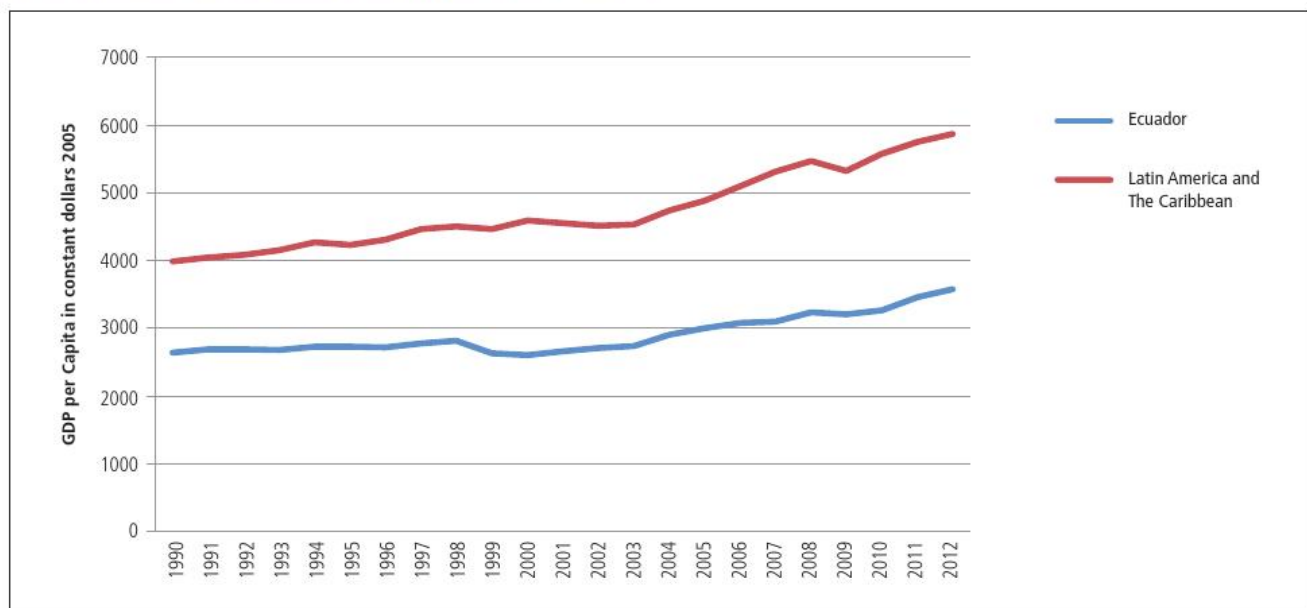
The 1990s in Ecuador, as in the entire Latin American region, were characterized by the implementation of policies derived from the Washington Consensus, namely: opening to external competition, liberalization and substantive reforms to the public sector. These policies succeeded in achieving their objectives of reducing inflation and improving public finances; however, in Ecuador per-capita productivity increases were lower than the regional average and the policies did not contribute to a significant degree of productive diversification.

In 1998, Ecuador suffered negative environmental impact from the meteorological El Niño phenomenon that caused severe damage to infrastructure and the agricultural sector. Added to this, a drop in petrol prices caused a decline in the exchange rate of some 14 per cent (Orellana, 2011). These factors, together with a political crisis, contributed to a deep economic crisis in 1999, and a real GDP contraction of 4.7 per cent.

At the beginning of 2000, Ecuador adopted the US dollar as legal tender alongside stabilization policies designed to respond to severe inflation. The monetary and fiscal systems put in place contributed to a strong decline in inflation which fell from rates as high as 99 per cent per annum in 2000 to under three per cent in 2013 (ECLAC, 2013).¹⁸ Since the dollarization of the economy, inflation has fluctuated but remained under ten per cent, in line with factors such as the expansion of internal demand and international food prices.

While there has been some fluctuation in annual GDP growth rates, the GDP has grown on average over 4.5 per cent per year since 2000. In 2012, Ecuador's GDP stood at \$64 billion (constant 2007 US\$) and grew 5.1 per cent in 2011, well above the Latin American average of 3.2 per cent in the same year (BCE, 2014). The GDP per capita in Ecuador was \$5,639 in 2012 (\$3,581 in constant prices). Yet while Ecuador's GDP per capita has grown at a higher rate than the regional average since 2000, the per capita value in 2012 was still some 39 per cent below the Latin America and Caribbean average (ECLAC, 2013).

Figure 16: Ecuador and Latin America: GDP per person (in constant \$US)



Source: ECLAC (2013).

¹⁸ Inflation continues to fluctuate at below ten per cent, in line with domestic demand and international food prices.

The economically active population in Ecuador stood at nearly 7 million in June 2013, up two per cent from the previous year. In 2012, the unemployment rate was 4.9 per cent; the lowest level in the last 20 years. Analysis from ECLAC (2013) attributes the strong decline in unemployment to improvements in the quality of work (salaries, formalization, changes in inequality).

Despite the performance of the Ecuadorian economy in recent years, exports continue to be dominated by three primary products: petroleum oils, bananas (fresh and dried) and crustaceans and molluscs. These products made up 68 per cent of total exports in 2011.

In summary, the ongoing dollarization system together with favourable international terms of exchange for Ecuador's prime exportation products have enabled GDP growth, and caused employment and productivity to rise. Nonetheless, as highlighted in

analysis by ECLAC (2013, p. 11), strong international price signals and high rates of return on Ecuador's main exportation sectors have hindered productive diversification leaving the macro-economy relatively dependent on petroleum prices.

Overview of changes in the economic structure of Pichincha province and Quito

Table 3 shows the evolution of the Gross Value Added (GVA) of petrol in Pichincha province¹⁹ and at the national level. Between 1993 and 2006, GVA in Pichincha followed a similar path to national levels, though demonstrating stronger fluctuations. During the economic crisis of the 1990s, provincial GVA declined sharply (9.4 per cent) while national GVA fell by only one per cent.

Table 3 : Ecuador and Pichincha: Evolution of gross value added (GVA; excluding oil)

Year	Ecuador		Pichincha		
	GVA	Annual growth rate	GVA	% of total Ecuador	Annual growth rate
1993	11 265 851	-	2 715 443	24.1	-
1996	12 460 309	10.6	2 945 772	23.6	8.5
1999	12 337 967	-1.0	2 669 243	21.6	-9.4
2001	12 996 760	5.3	3 331 701	25.6	24.8
2002	13 499 154	3.9	3 595 821	26.6	7.9
2003	13 976 426	3.5	3 619 548	25.9	0.7
2004	14 504 244	3.8	3 697 419	25.5	2.2
2005	15 510 108	6.9	3 950 573	25.5	6.8
2006	16 266 077	4.9	4 104 344	25.2	3.9
Var 1993–2006	44.4	-	51.2	-	-

Source: *Provincial Accounts, Central Bank of Ecuador (Several years)*.

¹⁹ Mining and quarrying contribute 0.1 per cent to GVA, and refined petroleum products 0 per cent.

Table 4 demonstrates percentage changes in provincial GVA in various industries. The changing composition of the GVA underscores important changes in the provincial economy, where the relative weight of goods-producing sectors is declining (agriculture and

industry) and the weight of the service sector is increasing (notably through an increase in professional activities and the growing real estate sector).

Table 4: Pichincha: GVA per Industry, as per cent of total

Industry	% of total GVA			
	2001	2006	2008	Change, 2001–2008
Agriculture, livestock, forestry and fishing	8.4	8.6	4.7	-3.7
Mining	0.1	0.1	0.3	0.2
Manufacturing (excluding oil refining)	20.9	20.3	19.7	-1.2
Supply of electricity and water	0.6	0.3	0.4	-0.3
Construction	10.8	11.5	7.4	-3.4
Commerce	14.0	13.7	10.6	-3.3
Hotels and restaurants	2.4	2.3	1.8	-0.6
Transport, information and telecommunications	18.6	19.0	10.6	-7.9
Financial activities	4.2	4.8	4.8	0.6
Professional activities and real state	8.8	10.0	21.2	12.5
Public administration	4.8	4.5	6.2	1.4
Education	6.1	4.6	4.3	-1.7
Other services	0.3	0.2	7.8	7.5
Gross Value Added	100.0	100.0	100.0	0.0

Source: Provincial accounts of the Central bank of Ecuador, several years.

In 2001, ten branches of economic activity were responsible for 71.4 per cent of provincial GVA, the most significant of which were: commerce (14.9 per cent); transportation and storage; construction (over ten per cent); and textiles (8.7 per cent). At the provincial level, the economic activities which made the largest contributions to GVA were textiles (66.2 per cent); flower cultivation (65.9 per cent) and financial services (39 per cent).

In 2008, the first ten branches of economic activity represented some 70 per cent of provincial GVA, however important changes in the composition of the GVA had taken place as of 2001. Firstly, the branches linked to the service sector had consolidated their position as prime generators of GVA in line with trends taking place between 2001 and 2006. Secondly, the professional, technical

and administrative activities branch (making up 13.12 per cent) had overtaken commerce (10.8 per cent) in its contribution. The next most significant branches were real estate (8.2 per cent), construction (7.4 per cent) and transport and storage (6.6 per cent).

Finally, goods-producing sectors demonstrated below average performance in Pichincha as none of the economic branches in this activity form part of the ten main activities of 2008. The manufacturing of chemical products and substances recently registered 12th place composing 2.3 per cent of GVA. This is followed by textiles, clothing and leather products (2.2 per cent, down from fourth place and 8.7 per cent in 2001) and flower cultivation (two per cent, down from sixth place and 5.3 per cent in 2001).



City of Quito: Main economic characteristics

The GVA of Quito was some \$12.7 billion in 2008 (2007 constant US\$). Looking at the contribution of different sectors in the canton of Quito shows that the industries which contribute most to GVA in the city and the province are those linked to professional and real estate activities (23.1 per cent of GVA in the canton) both of which are concentrated in the city. Similarly, in second place, manufacturing industries generate 21 per cent of GVA in the canton and are concentrated in the MDQ. Indeed, activities in the canton contribute 95.8 per cent of provincial GVA. In third place, commerce

contributes 11.1 per cent of GVA to the canton,²⁰ followed by transport, information and communications (ten per cent).

Regarding employment contribution, the main sectors in Quito are commerce and manufacturing, which provide 25 per cent and 14 per cent of employment respectively (Table 5). These are followed by accommodation and food services (7.8 per cent), professional, scientific and technical professions (5.7 per cent), and finance and insurance activity (3.5 per cent).

Table 5: Key economic sectors in Quito, 2009 economic census (CENEC)

Sectors	Establishments		Employment	
	No.	(%)	No.	(%)
Wholesale and retail, vehicle repair, cars and motorcycles	49 291	49.3	131 689	24.1
Manufacturing	10 450	10.5	77 171	14.1
Mining	61	0.1	11 549	2.1
Financial activities and insurance	818	0.8	19 096	3.5
Transport and storage	1 015	1.0	16 634	3.0
Professional, scientific and technical activities	3 504	3.5	30 941	5.7
Information and telecommunication	4 570	4.6	16 425	3.0
Construction	568	0.6	17 648	3.2
Hotel and restaurants	10 736	10.7	42 495	7.8
Others	18 939	18.9	183 419	33.5
TOTAL	99 952	100.0	547067	100.0

Source: National Economic Census – CENEC (INEC, 2010).

According to the 2009 National Economic Census, 89.3 per cent of businesses operating in Quito's productive sector are microenterprises that generate just 2.3 per cent of sales revenues. Businesses are concentrated in the Eugenio Espejo, Eloy Alfaro y Manuela Sáenz administrative zones.

The analysis of exports being shipped from the port shows that Quito is the third largest exportation centre in Ecuador (after Esmeraldas and Guayaquil), representing ten per cent of non-petroleum-based exports in the 2008-2012 period.²¹

The MDQ's main exportation products are flowers (62 per cent of exports between January and October 2012), chipboards and similar products, automobiles, plastic bags, plastic plates and films and cotton and synthetic textiles. The main trading partners are the United States, (destination of 19 per cent of exports in 2001), Venezuela (16 per cent) and Colombia (13 per cent).

²⁰ In the case of Pichincha province, commerce occupies fourth place, followed by transport, information and communications.

²¹ Mancheno & Carrera (2013) base their analysis on data from Quito's customs office and the CENEC.

Main economic sectors in Quito

Growth of the service sector

Quito has the largest number of economic specializations of any city in Ecuador, with a higher employment level in each sphere of economic activity than the national average. According to the National Economic Census, the MDQ is specialized in 10 of the 19

economic branches categorized by the 2009 census. The service sector is particularly influential in Quito, as noted by Mancheno and Muñoz (2013) who remark that “five of the ten branches on the [census] list relate to some form of service provision, signalling that Quito, as with other large metropolitan areas, is starting to specialize in service activities.”

Table 6: Specialized sectors, Quito Metropolitan District (CENEC)

Sectors of specialized activities according to the Hoover-Balassa Index ²²	
Sector activity	National employment (%)
Construction	53.7
Professional, scientific and technical	49.7
Organizational and external activities	49.3
Management and support service	44.7
Financial activities and insurance	39.7
Real estate	36.2
Transport and storage	33.8
Information and telecommunications	31.7
Hotel and restaurants	27.7
Manufacturing industries	27.6

Source: Mancheno y Muñoz, 2013

Between 2001 and 2008, the industries that grew the most rapidly in terms of their contribution to the GVA of Pichincha and Quito were professional and real estate activities (21.2 per cent of GVA in 2008, up from 8.8 per cent in 2001), and financial activities. The professional, scientific and technical activities branch (included in the first group of activities) comprises 3,504 enterprises that generate 3.4 per cent of income and 5.7 per cent of employment in Quito (National Institute of Statistics INEC, 2010).

Similar to other capital cities in Latin America, a large part of scientific knowledge and innovation investment base is located in Quito. Some 50 per cent of people working in professional, scientific and technical areas are based in Quito and 39 per cent of investment in Ecuador was channelled to activities in Quito in 2012. Furthermore, an examination of spending by businesses on research and development, and spending on training and development, shows that around 50 per cent of national spending takes place in Quito.

Financial intermediation, insurance and auxiliary activities have grown significantly in Quito since the 1999–2000 crisis. The canton of Quoti has the largest number of financial and insurance establishments in Ecuador, representing 24 per cent of the national total (National Economic Census 2009). The financial services subsector houses the majority of businesses (513) and jobs (72 per cent); followed by the insurance, reinsurance and pension fund subsector (186 businesses and 19 per cent of jobs); and auxiliary activities (199 establishments and nine per cent of jobs). Of the three subsectors, the insurance, reinsurance and pension funds subsector has the best average performance.

The construction sector provides over 50 per cent of employment in Ecuador, underscoring the significance of the real estate boom following economic stabilization and the inflow of migrant remittances and proactive housing policies put forward by the Ministry of Urban Development and Housing (MIDUVI; Sector Inmobiliario Magazine, 2009).

Finally, tourism has featured strongly in local development policies. The publicly-owned tourism management company²³ was created to promote tourism in Quito among national and international audiences. The sector has attracted over \$6 million in investments in property and hotels (Barrera, 2013). Quito was declared a World Heritage Centre, and among other recognitions, was awarded the World Travel Award for best tourist destination of 2013.

²² The Specialization Index, Hoover Balassa (HB) shows the sectors in a city related with the national structure of employment and measures density according to the number of specialized sectors.

²³ La Empresa Pública Metropolitana de Gestión de Destino Turístico

Main characteristics of the manufacturing industry

The manufacturing sector contributed 21 per cent to the GVA of Quito in 2008. It is Quito's second most important economic sector, generating 54 per cent of the sector's national sales revenues (\$21.9 million in 2009); with 10,450 businesses and 77,177 jobs in Quito, it is responsible for 29 per cent of national employment in the sector.

In their 2013 study on manufacturing in Quito, Mancheno & Carrera classified the main branches of activity on the basis of their production and exportation according to technological level. In pharmaceutical manufacturing, synthetic medicinal substances and pharmaceutical botanic products, 30 enterprises are active, of which eight are classified as large and employ 55 per cent of workers in the industry and generate 99.6 per cent of sales; and six are microenterprises employing four per cent of workers and generating merely 0.01 per cent of sales. Some 49 per cent of research and development in the sector takes place in Quito and is carried out by the large enterprises. Still, this investment accounts for just 0.001 per cent of the sales of these businesses.

The manufacture of metal-fabricated products except machinery and equipment accounts for 1,708 business establishments, of which seven are large and 1,592 are microenterprises. The large establishments generate 13 per cent of sectoral employment and 98 per cent of sales, compared to the microenterprises which generate 57 per cent of employment but only one per cent of sales.

Some 80 per cent of businesses are specialized in manufacturing metal products for construction, 10 per cent make cutlery, and the

remaining 10 per cent include businesses specialized in treatment and coating of metals, and manufacturing of tank and metal containers.

The preparation of food products branch is made up of 1,908 businesses, of which 43 are large, employ 44 per cent of workers in the industry and generate 91 per cent of sales revenues; while 1,651 are microenterprises generating 29 per cent of jobs and two per cent of sales. The majority of businesses in this branch are dedicated to production of bakery products (87 per cent), followed by milk processing (four per cent) and fruit and vegetable processing (two per cent).

In the automobile manufacturing branch, businesses based in the MDQ account for 89 per cent of sales and 99 per cent of investment in research & development. There are 77 business establishments which are primarily dedicated to automobile assembly. Finally, the manufacturing of chemical substances and products branch houses 125 businesses and represents 47 per cent of national sales income.

In the Metropolitan District of Quito there are only 29 businesses dedicated to production of high-technology goods. Businesses producing low technology goods predominate in the MDQ. At the same time, microenterprises make up the majority of businesses across the four technological levels. This business structure is reflected in the production of goods: while 14 types of high-technology goods are manufactured, there is a wider variety of Low- (83 types) and Basic resources- (85 types) technology goods.

Table 7: Quito: Establishments according to technological level

Production per technological level in Quito Metropolitan District					
Technological classification	Sales (US\$ million)	Employed	Number of firms	Average workers per firm	Number of products(*)
High technological intensity (AT) ²⁴	25	454	29	10	14
Medium technological intensity (MT) ²⁵	1 281	6 319	263	32	57
Low technological intensity (BT) ²⁶	5 095	25 029	4 265	27	83
Based on basic resources (BR) ²⁷	10 577	26 361	2 880	89	85

Source: Mancheno & Carrera, 2013. (*) According to CPC 2.0 four digits.

National and local economic policies

Local governance policies in the last two decades

In the last two decades local governance has transformed dramatically. Vallejo (2009) and Cordova Montufar (2010) distinguish three periods of institutional and organizational reform in the Municipality of Quito. In the first period, the metropolitan structure was defined and the bureaucratic management system modernized. In the second period, the Metropolitan District proper was formed in line with decentralized and entrepreneurial management, founded on a managerial ²⁸ model.

In the third period, the MDQ was consolidated as a unit of governance, bringing about mechanisms for citizen participation, strategic planning, public–private partnerships and greater economic development of the MDQ (Vallejo, 2009, p. 77). The process of institutional innovation underway in Quito reached a new milestone when public administration powers previously devolved to the private sector were restored, and competencies related to the local economy were strengthened – brought about with the adoption of the Organic Code of Territorial Organization, Autonomy and Decentralization (COOTAD).²⁹

Table 8: Quito's mayors and municipal plans

Mayor		Territorial zoning plan and development plans
Rodrigo Paz	1988–1992	Plan for Metropolitan District
Jamil Mahuad	1992–1998	Local Government Development Program
Roque Sevilla	1998–2000	n.a.
Paco Moncayo	2000–2008	Quito Plan XXI. Year 2000 Equinoccio Plan 21 (Vision2025) XXI-. Year 2004. Plan Bicentennial 2005-2009.
Andres Vallejo	January 2009–July 2009	
Augusto Barrera	July 31st 2009 –May 14th 2014	Metropolitan Development Plan 2012-2014 (Goals to 2022) Metropolitan Territorial Zoning Plan (PMOT) 2012-2014

Source: Prepared by authors

²⁴ Includes medicines; semiconductors, hydraulic and pneumatic, electrical signaling and electrical capacitors.

²⁵ Includes motor vehicles, car bodies; spinning machines; paint colours and plastics in primary colours.

²⁶ Includes: metal fasteners, bridges and iron and steel bridge parts; curtains; clothing; and knitted or crocheted fabrics and silk.

²⁷ Includes: boiler fuels; biscuits and cakes; nonalcoholic drinks; sugar and flour confectionary.

²⁸ The main feature of management in this period was public–private cooperation, which took place through the creation of private non-profit entities to administer public resources efficiently in terms of new competencies, resources and strategic projects. In 2003, the Metropolitan Agency for the Economic Promotion of Quito was formed with a municipal mandate to promote the socioeconomic development of Quito through support to productivity of local businesses.

²⁹ COOTAD, approved in 2010, included among the functions of the Autonomous Decentralized Government (ADG), the promotion of local economic development processes in its jurisdiction (article 54). Furthermore, one of the exclusive competencies of the municipal AGDs is "to plan, together with other public sector institutions and societal actors, cantonal development" (article 55).



Architecture of the historic center of Quito ©Anton Ivanov/ shutterstock

Following the changes introduced by the 2008 constitution (articles 54 and 55) and the adoption of the COOTAD, the Barrera administration (2009-2014) took two significant decisions at the beginning of the term in office. The first brought the responsibility for local development back to the Council, as this area of responsibility had previously been devolved to semi-autonomous corporations and the free play of market supply and demand. The second created a new structure for municipal management based on twelve sectoral Secretariats which operate as municipal ministries (Mancheno y Carrera, 2013: 122).

Within the current administration, the General Secretariat of Planning and the Secretariat for Productive Development are of particular relevance for this analysis. The first is charged with the design, monitoring, evaluation and feedback of development and territorial management plans.

The Institute of the City of Quito was created to support the work of the Secretariat, with the objective of carrying out "solution-oriented, scientific, conceptual and applied analysis of Quito's development in support of the main public policy decisions of the Metropolitan District of Quito" (Statute, Article 4a). Finally, the structure of the Productive Development Secretariat was established by two departments: the Promotion of investment and exportations department and the Special projects and public enterprises department.

National and local policies of productive transformation

Current economic policy outlines were established in the 2008 constitution, Plan for Well-being, the Organic Code on Production and in the Sectoral Policies. The National Plan for Well-being (2013-2017) is the third such plan put in place by the administration of President Correa.

The two previous plans were the National Plan for Well-being (2009-2013) and the National Development Plan (2007-2010). The National Plan for Well-being (2013-2017) is highly complex and is based on two broad national strategies: the National Strategy for Poverty Eradication and the National Strategy for the Transformation of the Productive Matrix.

The National Secretariat for Planning and Development (SENPLADES) has defined four pillars for the transformation of the productive matrix. The first pillar is productive diversification, based on development of strategic industries including: oil refinery, ship yards, petrochemicals, metallurgy and steel; and in the establishment of new productive industries including: seafood products, biofuels and wood-based forest products.

The goal of the first pillar is to increase economic diversity and reduce dependency on oil. The second pillar is defined as "adding value to the existing productive sector" through the incorporation of technology and knowledge concerning biotechnology (biochemistry and biomedicine), environmental services and renewable energy.

The third pillar is defined as "selective import substitution" of goods and services currently produced in the country which could be substituted in the short term, including: pharmaceuticals, technology (software, hardware and information services) and metalwork. The fourth pillar is defined as the "support of new products for export" coming from new actors, particularly in the popular and solidarity economy, or which have a high added value such as fresh and processed foods, clothing and footwear, and tourism. Support to the export industry also serves to aid economic diversification and expand international export destinations of Ecuadorian products (SENPLADES, 2013).

Local policies

The government of Pichincha province has formulated the Productive Transformation Agenda (2010-2013) which aims to enable endogenous development (development tailored to the territorial environment) to construct a more competitive area with better opportunities in both internal and external markets (MCPEC, 2011: 7). The agenda prioritizes six current and potential business sectors for the region: tourism, manufacturing, agro-exports, healthy food, specialized services and manufacturing.

At the level of the MDQ, the government has formulated the Quito Development Plan (2012-2014) and the Metropolitan Territorial Zoning Plan (2012-2022). These normative instruments lay out



the main activities related to the local economy. In particular, the Development Plan identifies ten productive focus areas and one priority sector, namely: construction; tourism; textiles; software; transport and logistics; flowers, fruits, vegetables and livestock; pharmaceuticals and chemicals; metal works; food and beverages; wood; and the commerce sector prioritized at the national level (MDQ Council, 2011). These sectors are considered to have the greatest potential for generating value added, for exportation and for including small and medium producers in their respective productive chains.

Consequently, the administration of Mayor Barrera has brought forward a series of important initiatives for Quito such as the construction of a Special Development Zone (SDZ);³⁰ industrial parks; and the Convention Centre for Quito and the metropolitan area.

The SDZ will be set up on publicly-owned land of the Metropolitan Airport Services Company and on free trade zones; it will have three areas: industrial, logistical and technological, and external trade services. The government established an industrial park,³¹ with

services and equipment aligned to industrial needs, and 16 large businesses are expected to start operations in the park. At the same time, the city has formulated a Digital Agenda called “Quito digital city of social innovation 2022” which includes 70 projects designed to project Quito as a digital city.³²

Spatial and urban transformation of Quito

The MDQ has an area of 4,218 km² including the city of Quito proper and is made up of 32 urban³³ and 33 rural and suburban parishes. Some 72 per cent of the population is urban. Various phases in population growth have occurred over the last 60 years, during which time the population has increased by a factor of seven. Between 1950 and 1982, there was rapid population growth of over four per cent among existing inhabitants and resulting from migration to the area. Since 1982, population growth gradually slowed, to 2.5 per cent between 2001 and 2010 (Municipio de Quito, 2011).

Table 9: Population growth in MDQ: 1950–2010

Year	Total population	Annual growth rate (%)	Population in urban areas	Average growth rate (%)
1950	319 221	-	209 932	-
1962	510 288	4.4	354 476	4.9
1974	782 671	4.0	599 828	4.9
1982	1 116 035	5.2	922 556	6.3
1990	1 387 887	3.2	1 094 382	2.5
2001	1 842 201	2.9	1 411 595	2.6
2010	2 239 191	2.5	1 619 146	1.7

Source: INEC, *Housing and Population Census, Several years*.

³⁰ Zona Especial de Desarrollo (ZEDE)

³¹ Some \$18 million in investments were earmarked for its creation (2012).

³² Notably, the Quito Tech Project supported the generation of business ideas in five areas: robotics, social networks, development of mobile applications, development of video games, and software development.

³³ Urban parishes are divided into barrios.

The Metropolitan Territorial Zoning Plan (2012-2022) has set strategies and objectives for zoning. The plan establishes the need for a multi-centred city structure, with distinct metropolitan, zonal and sectoral centres.³⁴

The plan aims to counteract the importance of a hyper-centre which concentrates economic activity and services and generates heavy congestion due to the influx of people these goods attract. At the same time, the intention is that with the creation of new centres, living conditions will also improve in all the surrounding areas (MDQ, 2012).

Finally, one of the major challenges taken on by Mayor Barrera's administration is the construction of a new mobility model to correct a pre-existing high level of dependency on private vehicles.

This includes use of alternative modes of transport which are more socially inclusive, have lower impact on the environment and are more economically efficient. Among the proposed initiatives is the construction of an integrated system of public transport,³⁵ with the main artery being Quito's metro. It is hoped that this new system will be launched in 2016, at which point it will serve 400,000 passengers a day.

The system will be powered by electric energy from renewable sources and will contribute to reductions in pollution. In coordination with the national government, and with the support of CAF-Development Bank for Latin America and the Inter-American Development Bank, a financing system has been established, totalling \$1.5 billion and making this the largest public investment in the history of Quito (Barrera, 2013).

³⁴ Metropolitan centres (or macro-centres) are areas of interest to all citizens (the historic centre, the new airport, the bicentennial park and Quitumbe). The zonal centres are concentrate services and products attracting other members of the same zone (La Delicia, Eloy Alfaro and Calderón). Sectoral and local centres are located in peripheral areas of the city with high population density and some level of specialization in an activity, such as the Real Audiencia and Rumipamba parishes (AZ Eugenio Espejo).

³⁵ In addition to the metro, the system will include the Bus Rapid Transit, trams and other services.



METROPOLITAN LIMA: ECONOMIC TRANSFORMATION AND GOVERNANCE CHALLENGES

Marco Kamiya and Patricia Polo

Overview

This report looks at the main transformations that have taken place in the economic structure of Lima in the last two decades and enquires into the contribution of national and local public policy to those changes. Lessons learned in the case study concern the governance challenges in metropolitan cities, which, like Lima, deal with unplanned and expansive growth.

The case study is divided into three sections. The first section carries out a general description of the metropolitan city of Lima, and the principle characteristics, process of urban development and management competencies of the city government. Currently, Metropolitan Lima concentrates some 30 per cent of the population of Peru, 45 per cent of the National gross Value Added (GVA) and 36.3 per cent of the country's export industry.

The second section presents the major areas of economic evolution that have taken place in Peru in the last two decades. Subsequently, an analysis of the productive structure of the city of Lima is carried out. Finally, a deeper examination is made of the transformations in the spatial-economic structure of the city. Since the 1990s, Peru and Lima have performed well in terms of GDP growth, both at the national and per-capita levels. The rise of the export industry has had a strong role to play in this overall growth.³⁶ The main changes to the productive structure are associated with greater dynamism in some sectors associated with the internal market (commerce and construction) as well as with important inflows of foreign direct investment, leading to growth in those sectors outperforming average GDP growth. The sectors concerned include

telecommunications, finance, and external market-oriented activities. The historical development process of Metropolitan Lima has created different dynamics between the city centre and peripheries. Notably, in peripheral areas incentives to engage in self-employment have interplayed with the growth of certain conglomerates and economic subsectors, mostly the garment manufacturer Gamarra and the local food industry of metropolitan Lima.

In the third section, a description is made of current public policies concerning promotion of productive activities at the national and local levels. Regarding lessons learned relating to the impact of policies on the economic transformation outlined here, current policy tools exist at the national level (Multisectoral Annual Strategic Plan PESEM 2012-2016 of the Ministry of Productivity) and the local level (Regional Plan 2012-2025 and Lima programmes MYPE). These are focused on the fostering of micro and small enterprises. The challenge for public policy is to reduce the significant productivity gap between different sized businesses.³⁷

Lima in focus

Lima overview

Lima is the capital city of Peru; situated in the central coastal area of the country, it overlooks the Pacific Ocean and is part of an extensive, heavily populated urban area known as Metropolitan Lima. It is the most populated city of Peru and one of the largest cities in Latin America. In 2007, Lima had over 7.6 million inhabitants and the urban agglomeration reached over 8.5 million inhabitants.

³⁶ Its value has gone up from \$3.2 million in 1990 to \$7 million in 2001, reaching \$41.8 million in 2013.

³⁷ Microenterprises employ more than 10 million people. Employment productivity is \$3,150 per worker in microenterprises; \$8,000 in small businesses; \$27,000 in medium enterprises and \$48,000 in large enterprises (Foro de Microempresa – FOROMIC, 2009).

Map 2: Metropolitan Lima



Source: http://enperu.about.com/od/Fotos_de_peru/ig/mapas-del-Per---turismo/Mapa-provincias-de-Lima.htm, accessed 24 January 2015

The incidence of poverty and extreme poverty is low in Metropolitan Lima and in Peru as a whole. Between 2001 and 2011, poverty rates in Lima fell by over 16 percentage points, from 31.9 per cent in 2001 to 15.6 per cent in 2011. Spatially, urban poverty in Lima expands from the centre to the peripheries: from the central districts

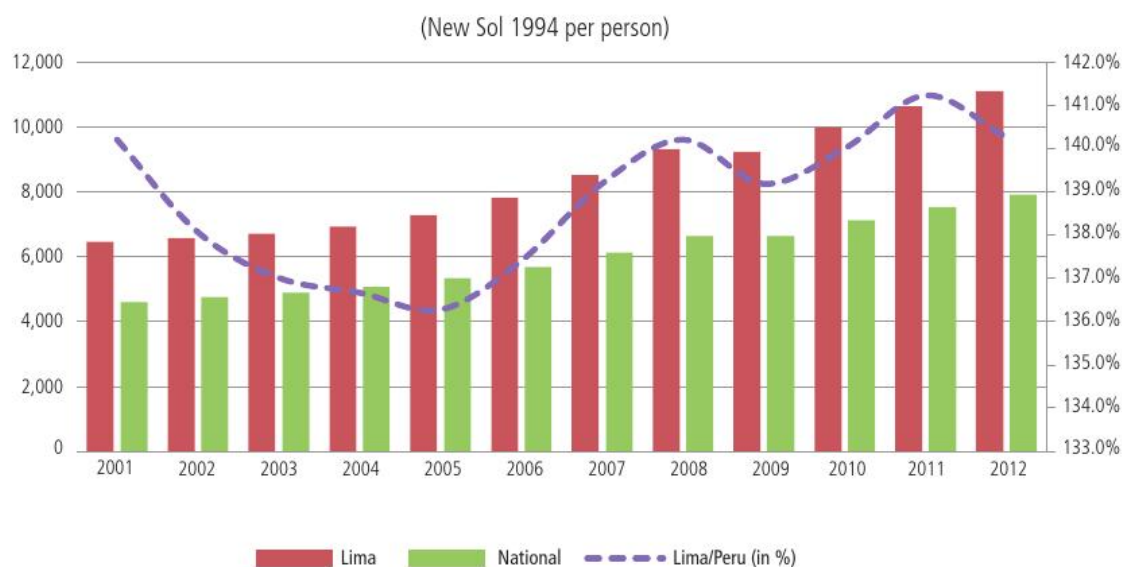
to peripheral areas known as Poles, where the poverty level is higher. According to data from the Urban Observatory (2010), the difference in poverty levels is most stark between Central Lima where 7 per cent of the population live in poverty, and North Lima with poverty rates of 21 per cent.

Between 2004 and 2012, the Gini Coefficient fell slightly (0.05 points) in both Metropolitan Lima and Peru, to reach 0.33 in Lima. Thus, the income gap between the richest 20 per cent and the rest of the population has not changed substantially, despite sustained economic growth over the period and a significant increase in Metropolitan Lima's GDP per capita.

Finally, Metropolitan Lima accounts for 32 per cent of the population and 45 per cent of the GDP of Peru. In total, GDP for metropolitan Lima stands at some \$8.96 billion. This level of economic spatial

concentration is a common feature in Latin America. The relationship between the percentages of GDP generated by cities to the proportion of the population demonstrates the capacity of cities to generate wealth compared to the rest of the country. In Lima, this ratio is 1.5, showing a far higher level of per-capita productivity in the city than the rest of Peru;³⁸ a similar phenomenon can be observed in almost all urban centres of all sizes across Latin America (ONU-HABITAT, 2010:24). The primacy of Lima, known as Limeño Centralism, is underscored by analysis of GDP per capita which is significantly higher in Lima than the national average.

Figure 17: GDP per capita (constant US\$)



Source: Department of National Accounts (INEI).

The Metropolitan Municipality of Lima

Metropolitan Lima is made up of 43 districts which are grouped into zones or subregions, the peripheral areas of which are known locally as Poles. The zones are:

1. The inner city of Lima (Cercado de Lima), made up of the following districts: Breña, La Victoria, Lima, Lince and Rímac.
2. The Residential and Commercial Zone, made up of the following districts: Barranco, JesúsMaría, La Molina, Magdalena del Mar, Miraflores, Pueblo Libre, San Borja, San Isidro, San Luis, San Miguel, Santiago de Surco and Surquillo.
3. The Eastern Pole, made up of the following districts: Ate, Chaclacayo, Cieneguilla, El Agustino, Lurigancho-Chosica, San Juan de Lurigancho (the most populated district) and Santa Anita.

³⁸ When the GDP-to-population ratio is greater than one, this indicates higher economic productivity of cities, resulting from economies of scale. The agglomeration becomes an accumulative process which is self-reinforcing.

4. The Northern Pole, made up of the following districts: Ancón, Carabaylo, Comas, Independencia, Los Olivos, Puente Piedra, San Martín de Porres and Santa Rosa.
5. The Southern Pole, made up of the following districts: Chorrillos, Lurín, Pachacámac, Pucusana, Punta Hermosa, Punta Negra, San Bartolo, San Juan de Miraflores, Santa María del Mar, Villa el Salvador and Villa María del Triunfo.
6. The Callao, made up of the following districts: Callao, Bellavista, Carmen de La Legua-Reynoso, La Perla, La Punta and Ventanilla.

The Metropolitan Municipality of Lima was endowed with a Special Regime which granted it the means and competencies of regional government in the jurisdiction of the Province of Lima, and determined that: the Metropolitan Council of Lima exercises attributes of the Regional Council as a normative and monitoring organ; the mayor of Metropolitan Lima exercises attributes of the Regional President as the executive organ; and the Metropolitan Assembly of Lima exercises competencies and functions of the Regional Coordination Council, as a consultative and coordinating organ.

Under this regime, the Metropolitan Municipality of Lima assumes functions corresponding to regional governments, without itself being a region, resulting in an integration of municipal (at the

metropolitan and local government levels) and regional functions in one territorial entity.³⁹

To strengthen the decentralization process, the Regional Government of Metropolitan Lima Programme (RGMLP)⁴⁰ was established as a decentralized organ of the Metropolitan Municipality of Lima. However, the process of transferring regional governance powers has yet to be completed.

Main transformations in the economic structure of Peru and Lima

Overview of the economic evolution of Peru

Since the 1990s, Peru's economy has exhibited a strong and constant improvement as seen in all macroeconomic indicators, with the possible exception that import growth has outpaced export growth in real terms over the past ten years (see Table 10). Most recently, between 2009 and 2013, growth in GDP (total and per capita) has continued, along with gross domestic investment, although inflation rose slightly in 2011 and 2012 and the export sector was less dynamic in real terms. It is also important to observe that since the 1990s, Peru's GDP growth (total and per capita) has outperformed the Latin American average. Average annual per capita GDP growth in Peru is more than double the Latin American average since the 1990s.

Table 10: Peru and Latin America: Economic indicators, 1980–2013 (annual average growth rates %)

	1980–1990	1991–2000	2001–2013	2009–2013
Peru: GDP	-1.0	4.0	5.8	6.7
Latin America: GDP	1.4	3.1	3.3	4.0
Peru: GDP per capita	-3.4	2.2	4.5	5.6
Latin America: GDP per capita	-0.9	1.4	2.0	2.9
Inflation rate	1058.7	21.3	2.6	2.9
Gross investment	-4.1	5.4	9.3	14.9
Exports	-1.4	8.0	6.1	4.2
Imports	-2.8	8.0	8.3	12.1

Source: Central Bank of Peru (BCRP), Economic Commission for Latin America and Caribbean (ECLAC)

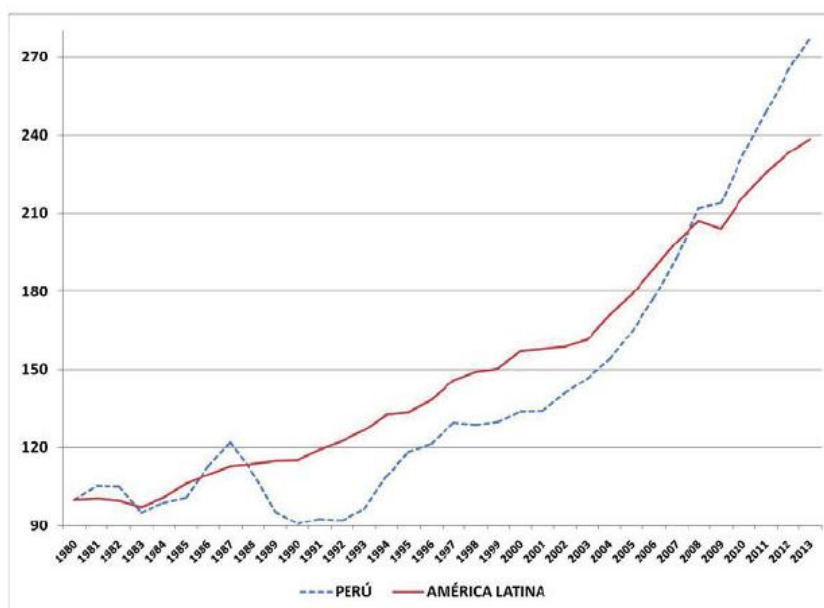
³⁹ The process of transferring competencies is based on the following regulations: article 33 of Law No. 27783, Law on Decentralization; articles No. 65 to 69 of the Organic Law on Regional Governments No. 27867, modified by Law No. 27902; article 151 of Law No. 27972, Organic Law on Local Governments.

⁴⁰ Regional Governance Programme of Metropolitan Lima (PGRML) Edict No. 254, published 7 May 2003.

As of 1992, a downward trend in GDP per capita was reversed, starting a growth period that exceeded the regional average, increasing still further from 2001. In 2007, the accumulated growth since 1980 was greater in Peru than in Latin America as a whole. Hence Peru continues to close the gap between its per capita GDP and that of the region: in 1992 the per capita GDP in Peru was

equivalent to 48 per cent of the regional average (constant 2005 US\$) while in 2013 this had increased to 74 per cent.⁴¹ The national GDP has displayed similar trends; growth which started at the beginning of the 1990s was accentuated in the 2000s and again, exceeded the Latin American average.

Figure 18: Peru and Latin America, constant GDP (1980=100)



Source: Central Bank of Peru (BCRP), Economic Commission for Latin America and Caribbean (ECLAC)

Export has a continuing relevance to Peru's growth. The value of exports has risen from \$3.3 billion in 1990, to \$7 billion in 2001, reaching \$41.8 billion in 2013.⁴² However, the structure or composition of exports did not change over this period; indeed the predominance of natural resources among exports had increased as a result of external demand and the evolution of primary commodity prices.⁴³ In South America, this increase has been termed the "reprimarization" of exportation (ECLAC, 2012).

Table 11 shows indicators related to Peru's external sector, notably the openness ratio which sums export and import ratios. In 2013, the openness ratio had risen to almost double its 1990 value. This results from an increase in exports in the 1990s that took off between 2002 and 2003 when the policy of international integration was fully consolidated. Similarly, the export ratio (percentage of total exports to GDP) more than doubled over the same period.

⁴¹ In line with findings by ECLAC's CEPALSTAT.

⁴² Regarding export composition, the top ten 2012 exports were gold (21.1%); copper minerals and concentrates (18.3%); petroleum derived products (7.2%); lead and lead-based products (4.3%), refined copper including amalgamate (4.3%); fish and meat, inappropriate for human consumption (3.9%); natural gas (3.1%); zinc and its concentrates (2.3%); green and toasted coffee and coffee substitutes containing coffee (2.2%), and iron and iron concentrates (1.9%).

⁴³ In 1990, the export structure of Peru (\$3.3 billion) was as follows: 53% mining and hydrocarbons; 13.8% fish; 11.1% textiles; 6.7% metallurgy and jewelry; 5.7% agriculture and wood; and 7% others. In 2011, the exports (\$46.3 billion) broke down as follows: mining and hydrocarbons 69.3%; fishing 6.8%; agriculture and wood 4.5%; textiles 4.3%; metalworks and jewelry 2.4%; and others 9.1%.



Table 11 : External sector indicators

Year	Total exports (% GDP)	Total imports (% GDP)	Coefficient of opening	Current account (% GDP)	Commercial account (% GDP)
1990	11.0	9.8	20.7	-4.9	1.2
1991	10.0	10.6	20.5	-4.5	-0.6
1992	9.8	11.0	20.9	-5.3	-1.2
1993	9.7	12.0	21.7	-7.1	-2.2
1994	10.0	12.4	22.3	-6.1	-2.4
1995	10.2	14.4	24.6	-8.6	-4.2
1996	10.5	14.0	24.5	-6.5	-3.5
1997	11.5	14.4	25.9	-5.7	-2.9
1998	10.1	14.4	24.6	-5.9	-4.3
1999	11.8	13.0	24.8	-2.7	-1.2
2000	13.0	13.8	26.8	-2.9	-0.8
2001	13.0	13.4	26.4	-2.2	-0.3
2002	13.6	13.0	26.6	-1.9	0.6
2003	14.8	13.4	28.2	-1.5	1.4
2004	18.4	14.1	32.4	0.1	4.3
2005	21.9	15.2	37.1	1.5	6.7
2006	25.8	16.1	41.8	3.2	9.7
2007	26.1	18.2	44.4	1.4	7.9
2008	24.4	22.4	46.8	-4.2	2.0
2009	21.2	16.5	37.7	-0.6	4.7
2010	23.1	18.7	41.8	-1.7	4.4
2011	26.2	20.9	47.1	-1.9	5.3
2012	23.1	20.6	43.7	-3.3	2.6
2013	20.2	20.4	40.7	-4.9	-0.2

Source: Central Bank of Peru

In contrast, the current account deficit started to rise in 2009 from 0.6 per cent of GDP, reaching 4.9 per cent of GDP in 2013, partly due to the level of Foreign Direct Investment (FDI) into Peru. In effect FDI has strongly influenced Peru's integration into the international economy as well as its economic growth over more than the last decade. The levels of FDI grew from \$810 million in 2000 to \$12.2 billion in 2012. In the first half of 2013, Peru had received \$6.9 billion in FDI, representing an increase of 27 per cent on the same period of 2012.

At the same time, it is important to consider that alongside the FDI influxes, the benefits received by transnational corporations resulting from their operations (FDI rents) had also increased.

Due to the manner in which FDI is oriented to export sectors (such as metal mining in the case of Peru ⁴⁴), the growth in exports generated by the new foreign investments, can more than compensate for the current account deficit; however in an international context which no longer seems to be characterized by strong growth in primary commodities, it will be necessary to verify to what point exports can continue to increase. At the same time, it is necessary to take into account the fact that imports can grow more than exports, as long as population consumption continues to rise; however it may not be so easy to maintain significant surpluses in the trade balance in the current international context.

⁴⁴A significant proportion of FDI into Peru in recent years has been directed at the mining sector; however it is not possible to determine the exact quantity of these sums as the Central Bank of Peru does not publish this information. Other data sources (such as ProInversión) do not have full information on FDI flows.

Main characteristics of Lima's productive structure

Between 2000 and 2012 the main changes in Peru's productive structure were associated with the greater dynamism of a number of internal sectors (commerce and construction), the growth of which was greater than average GDP growth and was associated with a sustained increase in internal demand (see Table 12). Other sectors benefitted from a strong rise in foreign direct investment, which enabled growth higher than the GDP average and an increase in their contribution to production.

This is the case of telecommunications and finance sectors. On the other hand, goods-producing sectors (agriculture, fishing, mining and industry) fell in terms of relative contribution to production, at least during the period 2002-2012. These sectors continued to grow over the period, but at rates below average GDP growth. In particular, industry exhibited a stronger downward trend in its relative importance to the economy already established in the 1980s and 1990s.

Table 12: Structure of National Value Added

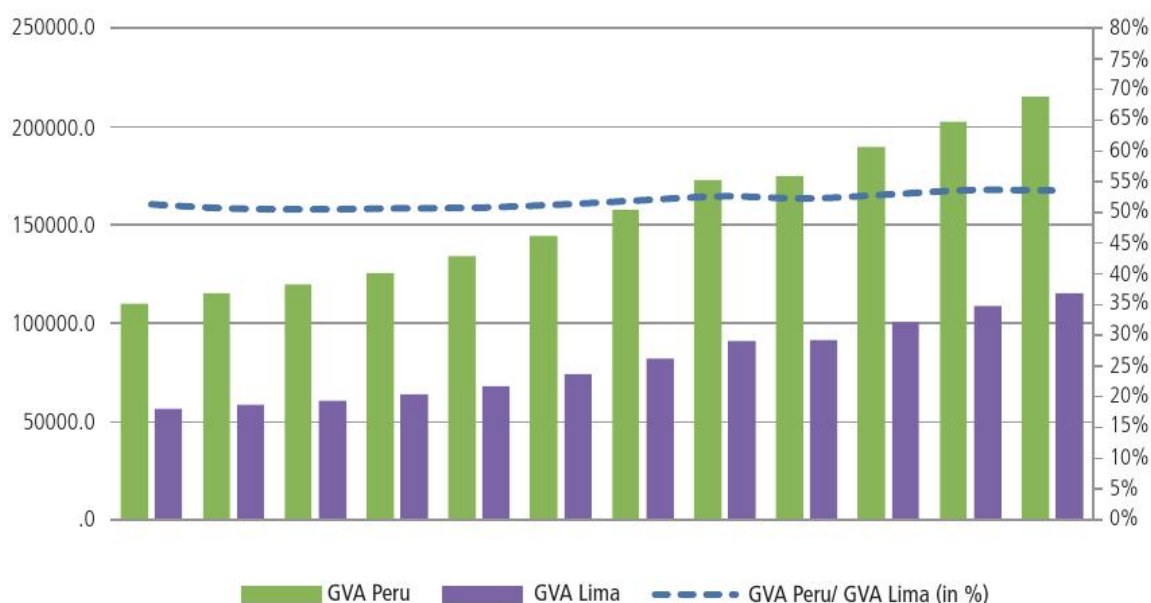
	1990	1995	2000	2005	2010	2011	2012	2013
Agriculture	8.6	8.5	9.8	9.2	8.3	8.1	8.1	7.8
Fishing	0.8	0.6	0.6	0.6	0.4	0.5	0.4	0.4
Mining	4.8	5.0	6.0	7.3	5.8	5.4	5.2	5.1
Metal mining	3.7	3.9	5.1	6.2	4.5	4.1	3.9	3.8
Oil	1.2	0.8	0.6	0.6	0.7	0.8	0.8	0.8
Manufacturing	17.2	17.3	16.5	17.1	16.6	16.4	15.7	15.2
Electricity and water	2.0	1.9	2.3	2.3	2.2	2.2	2.2	2.2
Construction	4.5	6.7	5.6	5.4	7.4	7.2	7.8	8.0
Commerce	15.8	16.6	15.8	15.5	16.5	16.8	16.9	17.0
Other services	46.3	43.3	43.4	42.6	42.7	43.4	43.8	44.2
Restaurants and hotels	n.a.	4.5	4.4	4.2	4.2	4.3	4.6	n.a.
Transport and communications	n.a.	8.6	8.7	8.9	9.8	10.1	10.3	n.a.
Transport and complementary activities	n.a.	6.5	6.6	6.6	6.3	6.4	6.4	n.a.
Post and telecommunications	n.a.	2.1	2.1	2.3	3.5	3.8	3.9	n.a.
Financial intermediation, real estate activities, business and rents	n.a.	13.2	13.5	13.2	13.6	13.9	14.2	n.a.
Financial intermediation	n.a.	2.7	3.0	2.9	3.7	3.9	4.1	n.a.
Real estate activities, business and rents	n.a.	10.5	10.6	10.3	9.9	10.0	10.1	n.a.
Public administration, defense, social security, education, social services and other complementary services, community, personal and social	n.a.	17.1	16.7	16.2	15.0	15.0	14.7	n.a.
Public administration, defense and social security	n.a.	6.9	6.8	7.0	6.5	6.4	6.3	n.a.
Education	n.a.	3.7	3.6	3.4	2.8	2.8	2.7	n.a.
Social services and health	n.a.	1.6	1.8	1.7	1.4	1.4	1.4	n.a.
Other activities of services, community, social and personal	n.a.	4.9	4.5	4.2	4.2	4.3	4.3	n.a.
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Central Bank of Peru, and National Institute of Statistics

In the city of Lima there was a constant increase in Gross Production Value (GPV) between 2001 and 2012, following the same trend at the national level (see figure 19 and Table 13). In 2012, Lima's GPV reached \$89.6 billion (current prices). Again, following the same pattern of the national level, the main changes in terms of

productive structure in Lima were caused by strong dynamism in the internal market, particularly in commerce and construction, as well as by important growth in FDI, particularly into the transport and telecommunications sectors.

Figure 19: Lima and Peru, Gross Value Added (GVA) constant (thousands, new sol S/ 1994)



Source: National Institute of Statistics (INEI)

Furthermore, analysis confirms the overriding dominance of the service sector which accounts for between 73 and 75 per cent of provincial GVA. In 2012, the main economic activities of the city in terms of contribution to GVA were commerce (20.3 per cent in 2012); manufacturing (17.5 per cent); and transport and communications

(11.8 per cent). The "other services" classification contributed 28.4 per cent and includes the following economic activities: financial, insurance, housing rental, services provided to businesses, services provided to households, services not provided to households, private health and education.

Table 13: Structure of Lima, Gross Value Added

Gross Value Added, constant value 1994 (% of total)						
Industry	2001	2003	2005	2007	2009	2012
Agriculture, livestock and forestry	3.9	3.8	3.7	3.4	3.6	3.2
Fishing	0.2	0.1	0.2	0.2	0.2	0.2
Mining	1.2	1.2	1.3	1.0	0.7	0.7
Manufacturing	17.9	18.0	18.6	18.8	17.3	17.5
Electricity and water	1.5	1.5	1.6	1.8	1.8	2.0
Construction	5.4	5.4	5.1	5.2	5.4	5.5
Commerce	17.9	17.6	18.2	19.3	19.8	20.3
Transport and communications	9.7	9.8	10.2	11.4	11.5	11.8
Restaurants and hotels	5.4	5.4	5.3	5.0	5.1	5.2
Governmental services	6.8	6.6	6.4	5.8	5.9	5.2
Others services	30.2	30.5	29.4	28.1	28.8	28.4
Gross Value Added	100.0	100.0	100.0	100.0	100.0	100.0

Source: National Institute of Statistics (INEI).

The economically active population in Lima numbers some 4,282,000 people (INEC; 2012). While between 2004 and 2012, there was an improvement in labour force indicators (see Table 14), the underemployment rate stood at 37.9 per cent of the

economically active, a higher proportion than in the other regions of Peru. The economic sectors with the largest number of jobs are: commerce (912,500 jobs, 2009); other services (841,200 jobs); and manufacturing (740,500 jobs).

Table 14: Lima labour market indicators

	2004	2008	2012
Economically active population (Thousands)	3 469	3 841	4 282
Employment (%)	41.0	49.8	62.1
Subemployment (%)	59.0	50.2	37.9
Unemployment (%)	8.5	6.7	5.0

Source: Permanent Employment Survey (INEI)

In 2007, economic activities in Lima were conducted by 684,845 business establishments (National Economic Census IV, INEI; 2008). The businesses operating in Lima's productive fabric were primarily microenterprises (93.4 per cent of establishments), dedicated to retail (33 per cent), wholesale trade (11.6 per cent), and manufacturing (10.9 per cent). Medium and large businesses (6,288 establishments) on the other hand, are more active in wholesale (26.2 per cent), manufacturing (16.9 per cent) and other business activities (12.2 per cent).

Finally, exports from Lima and Callao represent 36.3 per cent of all exports from Peru. Between 2007 and 2012, the export value increased by 82 per cent, from \$7.4 billion to \$16.9 billion (FOB). The main export goods are linked to traditional mining activities (oil, copper, zinc, lead, silver and tin). These are followed in importance by other extractive activities in petroleum and natural gas, which make up 17.1 per cent of exports from Lima. Clothing accounted for 8.6 per cent of exports in 2012, and textiles 2.6 per cent, reflecting the importance of these industries for metropolitan Lima.

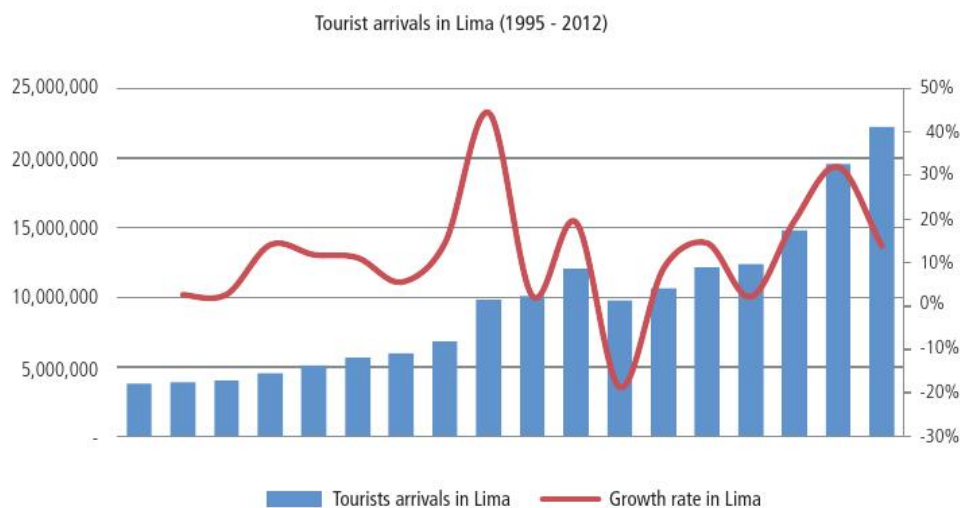
Main economic clusters in Lima

Tourism and gastronomy

Political changes (the end of social violence and political stability) as well as economic changes (GDP and domestic consumption growth) have contributed to a spatial reconfiguration of cultural and entertainment activities, as well as a greater impulse for tourism as a newly developing sector in the city. Emphasis on cultural activities is seen in the rehabilitation of the historical centre of Lima, which is now a space strongly identified with Lima's urban identity for the local population, as well as a tourist attraction for national and local visitors, meaning the area has been converted to a potential niche for investors.

The hotel industry underwent a broad phase of expansion between 1996 and 2003 with the establishment of 28 five-star hotels in metropolitan Lima. Since then, tourist arrivals have steadily increased (figure 20), reaching some 22 million arrivals in 2012, of which 3.5 million were foreign. Indeed, international tourist arrivals have experienced a 10 per cent annual growth rate in recent years (MINCETUR). A 2013 study by the United States Tour Operators Association (USTOA) found that Peru is considered one of the top "out of the ordinary" tourist destinations, a finding supported by the rising numbers of international tourists in Peru and Lima.

Figure 20: Tourist arrivals in Lima (1995–2012)



Source: Monthly Survey on Hotels and Related Services (MINCETUR)

Currently the hotel and restaurant sector consists of 42,619 establishments (Manufacturing Census 2007) – most of which are microenterprises; the sector employs over 88 per cent of the economically active population (2009) and contributes 5.3 per cent to Lima's GVA (2012). In recent years, within the hotel and restaurant sector, gastronomy has grown sharply.

Capital of Latin America,⁴⁵ simultaneously recognizing the growth of the sector and further incentivizing its development.

The Peruvian Gastronomy Society reports that 'fine dining' establishments in Lima increased by 71 per cent between 2001 and 2009, rising from 18,144 restaurants (45 per cent of the total in Peru) to 31,450 (47 per cent; Apega, 2009). In 2006, Lima was internationally recognized with the award of the title Gastronomic

The rise of gastronomy has made a strong contribution to Lima's economy and society. Economically, the gastronomy of Peru and Lima has moved from being a cultural depository of culinary tradition, to a vibrant economic sector with over 77,000 restaurants across the country (APEGA, 2009). Socially, the growth of gastronomic activity has emerged among microenterprises, notably small restaurants and small agricultural producers who have been incorporated into the sector's supply chain.

⁴⁵At the Fourth International Summit on Gastronomy: Madrid Fusion 2006.

Within restaurant activity, there has also been a rise in the number of franchises. In 2009, there were 35 national gastronomic franchises, which facilitated the growth and expansion of the gastronomy business at the national and international levels.⁴⁶ In 2007, gastronomic enterprises made up 90 per cent of Peruvian franchises, with a total of ten Peruvian brands operating outside the country, in 47 locations across 15 countries (Edery, 2008).

The most important external markets were Chile, Mexico, Panama and the United States which housed some 50 per cent of businesses. The types of food supplied by the franchised restaurants were: fast food (20 per cent), restaurants (20 per cent), grill houses (17 per cent) and specialized fish restaurants serving ceviche (13 per cent).⁴⁷

The private sector has had a strong role to play in the evolution of the gastronomy sector in Peru, through the Peruvian Gastronomy Association (APEGA in Spanish). The Mistura trade show is one example of shared initiatives by the public and private sectors; it is organized by the Commission for the Promotion of Exports and Tourism and APEGA, and is of wide interest to all Latin America.⁴⁸

The public sector has facilitated the participation of national cooks in gastronomic trade shows to present Peruvian cuisine in the international sphere. It has also supported the incorporation of small agricultural businesses into the supply chain, through various initiatives. Finally, the Municipality of Lima and APEGA are implementing the project: Lima Gastronomic Capital.

Traditional mining

Peru is endowed with a wealth of geological resources and has a strong mining tradition. In recent years this tradition has been strengthened through legislation favouring investment and the establishment of appropriate institutions. At present, the Fraser Institute ranks Peru 14th of 93 mining locations in terms of geological potential (2011-2012), moving from 4th of 71 locations (2008-2009).

Peru has proven attractive to junior mining companies⁴⁹ as a result of its geological wealth and the financing possibilities through the Lima Stock Exchange which has a market segment dedicated to junior mining companies (Kuramoto, 2013). Furthermore, the growth of mining activity in the country has been accompanied by the generation of new dedicated service businesses.

Finally, traditional mining has led the export sector in Lima, generating \$6.2 billion in 2012 – 36.8 per cent of total exports. However the sector's contribution to employment and GVA in the city has been significantly lower. In 2009, just 0.49 per cent of the economically active population worked in the sector, and in 2012 it contributed a mere 0.76 per cent to GVA in Lima and 6.8 per cent of Peru's sectoral GVA. This results from the characteristics of the extractive industry and due to the fact that the bulk of activities take place outside Lima (mainly in the Arequipa, Cajamarca, Cusco and Junín regions).

Garments

Gamarra is the largest textile conglomerate in Peru's informal economy. It is located south-east of Lima's historic centre, in La Victoria district and occupies an area of some 75 street blocks.⁵⁰ The conglomerate's name is taken from the street in which it first started operations, which now houses 20,396 establishments (2007). Gamarra's cluster of garment manufacturers is considered a paradigm of productive-commercial development and a social phenomenon, having transformed one of the most marginalized barrios of Lima into a bustling center of textile industry and commerce.⁵¹

The textile and garment industry, a traditional industry in Peru, was among those most affected by liberalization policies of the 1990s. The Gamarra cluster formed spontaneously and was successful in reuniting a large number of textile workshops and specialty suppliers related to the sector. Its development has enabled a traditional Peruvian sector to continue activities and employ skilled workers who lost their jobs at that time.⁵²

⁴⁶ Kuramoto Huamán, 2013.

⁴⁷ The main brands are: China Wok with 24 operations abroad, La Mar Cebichería with five, Astrid y Gastón with four, Pardo's Chicken and Segundo Muelle with three each, Bembo's and Rocky's with two each; and Heladería 4D and Pollos La Caravana with one each.

⁴⁸ Mistura is the gastronomy festival organized by Peru, and is considered the most important gastronomy festival of Latin America; it takes place over ten days every year in Lima and started in 2008 (see <http://mistura.pe>).

⁴⁹ These businesses mainly work in exploration, development (fact-finding and development) and project construction.

⁵⁰ A local unit of measurement considered the size of a city block

⁵¹ Sulmont Haak, 1999.

⁵² According to the *Diario El Comercio* (August 1996), in the late 1990s, Gamarra was responsible for almost half the textile trade and manufacturing of Metropolitan Lima.

The Gamarra phenomenon resulted from vibrant application of popular survival strategies relying on a complementary development of informal and formal commercial activity; it constructed an economic base emerging from a self-sustaining model of economic development and as its ultimate success has integrated with the international market (Romero et al, 1996).

Between 1993 and 2007, the number of businesses in the Gamarra cluster has risen from 6,800 to 20,007 highlighting the increased presence of trade related businesses. The cluster has continuously evolved, businesses have shifted focus from productive to trade related activities⁵³ and have succeeded in positioning themselves as a highly dynamic focal point of trade. Indeed, some 250,000 people visit Gamarra each day (Gutiérrez, Amador y López; 2011).

The development of Gamarra is linked to Lima's population growth as well as the development of commercial and industrial activities in La Victoria district. As a low-income district, products fabricated in the cluster are simple and low quality. The products are mainly destined for the domestic market and, recently, to other markets in the Andean region. In general, the growth of Gamarra has taken place without state support.

Although the private sphere has led initiatives to create associations channelling assistance from international and national organizations offering technical assistance and facilitating access to markets. Nonetheless, these initiatives were isolated and did not form part of an integrated plan to boost the quality of outputs and productivity of the sector. Recently, the national government launched a multisectoral initiative called I Wear Gamarra to construct a multisectoral public-private intervention as a platform to formulate and implement policies on conglomerates in Peru, in the spheres of productive development, business capacity building, improvement of business environment, and sectoral visibility in national and international markets.

Contemporary policies to support national and local production

National policies

The export sector has had a strong role in the economic growth of Peru. International trade has been promoted in national trade policy, through the signature of numerous bilateral trade agreements. Currently, Peru is a member of the Andean Development Corporation (CAF) and has signed free trade agreements (FTAs) with Asia-Pacific Economic Cooperation, Canada, China, the European Free Trade Association, the European Union, Mercosur, the Pacific Alliance, Singapore and the United States.

Policy direction in Peru was broadly set up in 2002, in a National Accord "United to Grow". State policy areas listed within the National Accord linked to productive growth are: Affirmation of a social market economy; Search for competitiveness, productivity and formalization of economic activity; Sustainable development and environmental management; Science and technology development; External trade policy to expand reciprocal market access; and agricultural and rural development.

At the national level, the Ministry of Production is responsible for policy and regulation of the productive sector. The current policy framework set out in the Multiannual Strategic Sectoral Plan for 2012-2016⁵⁴ (MSSP) as well as the current government's Bicentenary Plan.⁵⁵ The MSSP (2012-2016) has three pillars: 1) promotion of productivity and value added; 2) regulation of sectoral economic activities; and 3) institutional strengthening. The current policy replaces the 2011-2015 MSSP, with a new focus which according to the Minister "was born from the recognized need to ensure productive development policies relating to industry, Small and Medium Enterprises, fishing cooperatives as well as the other productive and service activities".

⁵³ This change is explained by migration of businesses towards commercial activity due to high real estate prices, which reached \$5,000 per square metre on the ground floor of shopping malls. (Visser, Távora and Villarán, 2012).

⁵⁴ Ministerio de Agricultura: Plan Estratégico Sectorial Multianual 2012-2016 (PESEM)

⁵⁵ Plan Bicentenario: El Perú Hacia el 2021 (Lima, 2011)

Municipal policies to support production

Currently, the Metropolitan Municipality of Lima (MML) is composed of the Metropolitan Council of Lima and the Metropolitan Mayor of Lima. The Metropolitan Council of Lima is a normative and monitoring body which is composed of the Metropolitan Mayor and the elected councillors, in line with the electoral law. The Metropolitan Mayor and Mayor's Office of Lima play the role of Regional Presidency and executive organ, and have functions and competencies in line with the Organic Municipalities Law.

The Metropolitan Mayor's office has 11 managers, including: the business development manager; the urban development manager; the social development manager; and the promotion of private investment manager. There are also 11 municipal businesses, including: the Municipal Popular Credit Bank; the Metropolitan Investment Fund (INVERMET) and the Metropolitan Planning Institute (MPI).

The municipality of Lima has historically prioritized support to micro- and small-enterprises. Highlights include the early initiative to create the Business Development Centre "Munimype Club" in 2004,⁵⁶ and current programmes on productive support to the business sector. The current municipal administration has established inter-district development as another important area of activity, with the objective of increasing work opportunities in different areas of the city (Lima North, Lima East, Lima South), improving connections between the different districts and growing the city's economic base.

This activity is outlined in the current Regional Development Plan for Lima (2012-2025), "We are all Lima". In this context, reform of the transport sector has been boosted (including the Northern

Highway Ring road Megaproject, the Lima Bus project and the Ring road Parque Rímac project), all of which aim to ease congestion between the centre and periphery of Lima.⁵⁷

Finally, through a process of strategic planning, the municipality of Lima defined the Regional Development Plan of Lima (2012-2015) with four strategic pillars: 1) Lima as an intercultural, inclusive, healthy and educated city where citizens develop their capacity and potential, and live in democratic harmony; 2) Lima as a polycentric, connected and sustainable city, redefining land use in harmony with surrounding ecosystems and providing adequate basic services; 3) Lima as a competitive knowledge centre promoting national industrialization; capital of cultural tourism and centre of specialized services, whose entrepreneurial population can access diverse markets; and 4) Lima as a city-region with a participatory and efficient metropolitan government.

In the productive realm, the goals and targets are the following:

1. Promote cooperation and better articulation between training, research and innovation and productive inter-district and local economies. Target: 30 per cent increase in innovation patents.
2. Strategic positioning of metropolitan Lima as a tourist destination, business centre and productive city. Targets: City branding elaborated and developed; increase international tourists arrivals by 100 per cent.
3. Guarantee employment and/or business initiatives, through better education, training and qualifications. Target: 50 per cent increase in youth employment and equal conditions for men and women.

⁵⁶ Opened by Luis Castañeda Lossio, Lima mayor in 2006.

⁵⁷ A total investment of some US\$ 2.5 billion.

Spatial and urban transformation of Lima

Urban evolution of Lima

Lima has a population of some 8.4 million (2014, National census data) with urban population representing 98 per cent of the total; growth in the various districts (Northern Lima, Eastern Lima and Southern Lima) has propelled total population growth.

Integration into global markets in recent decades has resulted in spatial relocation of various economic activities in the city. Historically, Lima developed around economic poles of activity. The dominant politico-economic pole in the centre of Lima housed public institutions, commerce and finance; the industrial pole in Callao was where industrial activities were centred, including the main transport arteries to the port (production in Callao was primarily textile-oriented and easily transported to the port by train).

During the 1990s, this urbanization model was transformed as the city expanded. The politico-institutional pole remained in Lima's centre. The industrial pole began to expand to other districts such as La Victoria (where the textile centre Gamarra is located) and to other peripheral areas or poles of Lima, marking a trend towards the reformation of Lima's districts to small, independent cities making up the overarching city of Lima.

Finally, financial and commercial activities moved to San Isidro-Miraflores, barrios which are further from the city and considered more modern. Following these changes, the concentric structure of the city radiating out from the historic centre has gradually been eroded, and an east–west axis has emerged as a new feature of the city (figure 21). This axis was developed through investments in road infrastructure, and is bordered by the international airport at the extreme west and by the high-income suburban residential zone in the extreme east, with the financial district as a mid-point.

At the same time, a variety of commercial and entertainment activities gravitated to different parts of the east-west transport axis. Within the suburban zone, mostly made up of low-income residential areas with limited services and infrastructure, multiple barrios have experimented with a consolidation process, including development of a variety of businesses and services, as well as the establishment of local governments. Thus, in what was a segregated periphery of the city, market niches and areas of investment have emerged, consolidating new, specialized centres and a second ring of poles districts for the city as a whole.

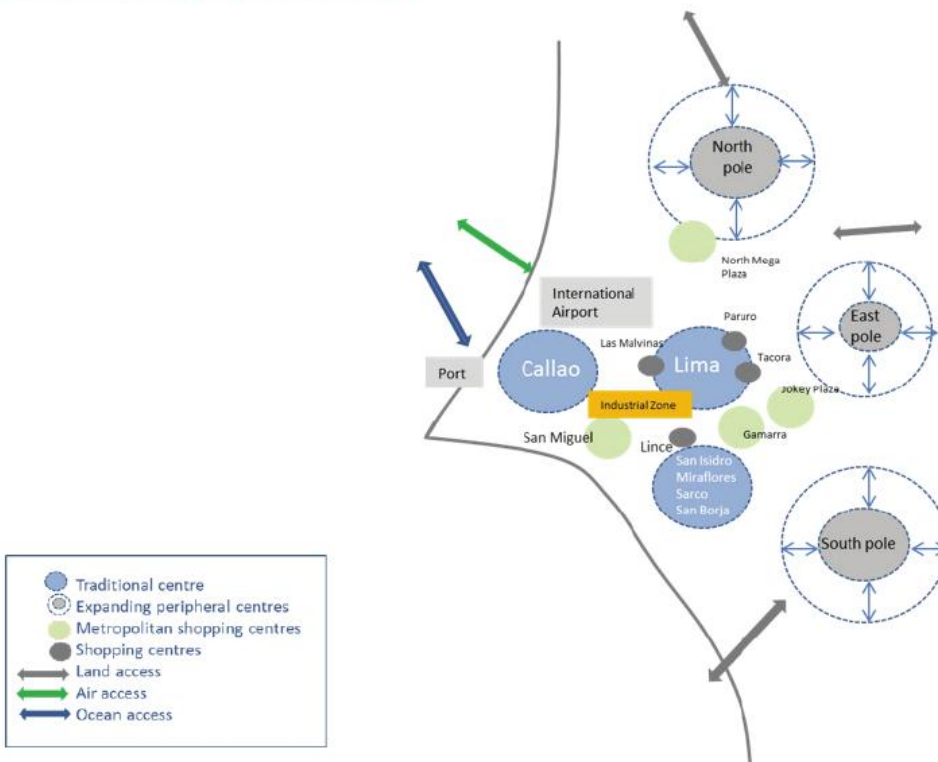
Table 15: Total population and growth rates in Lima and Callao

Year	Total population		Average growth from last census (%)		Urban population		Average growth from last census (%)	
	Lima	Callao ⁵⁸	Lima	Callao 1/	Lima	Callao 1/	Lima	Callao 1/
1940	828 298	82 287			630 173	81 268		
1961	2 031 051	213 540	1.45	1.60	1 752 277	204 990	1.78	1.52
1972	3 472 564	321 231	0.71	0.50	3 241 051	313 316	0.85	0.53
1981	4 745 877	443 413	0.37	0.38	4 542 911	440 446	0.40	0.41
1993	6 386 308	639 729	0.35	0.44	6 178 820	639 232	0.36	0.45
2007	8 445 211	876 877	0.32	0.37	8 275 823	876 877	0.34	0.37

Source: National Institute of Statistics (INEI)

⁵⁸ Callao is a constitutional province where the main Peruvian port is located.

Figure 21: Lima and new main poles of economic activity



Source: www.protransporte.gob.pe/biblio06.html

Urban mobility and logistics

Some 83 per cent of motorized journeys in Lima, or 10 million journeys, take place using public transport. Of these, 37 per cent of the journeys are in vans; 30 per cent in minibuses; 16 per cent in buses; 9 per cent in taxis; 6 per cent on motorbike taxis; and two per cent in collective buses. The city of Lima is the only city of its size in Latin America which has not yet developed an integrated urban transport system. Municipal norms regulating transport services are numerous and not always in line with national policy.

The bad condition of public transport – and transport in general – results in a high number of transport-related accidents as well

as pollution. While Lima and Callao form one metropolitan area, they have distinct management systems, without coordination mechanisms between their respective authorities.

Analysis by the Urban Observatory of CAF (see omu.caf.com) finds that the main problems affecting management of transport in the area can be summarized by the following: conflict in granting concessions on interconnecting public transport routes; difficulty in jointly managing investment projects in metropolitan Lima and Callao; lack of integrated planning on transport and transit in the metropolitan area; and lack of coordination between involved public organizations to enable the creation of a well-connected network of national and urban roads and transport.

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THE PRODUCTIVE TRANSFORMATION OF CITIES ASIA-PACIFIC CASE STUDIES



DILI, TIMOR-LESTE

By Gabriela Spaizmann,⁵⁹ Maël Balac,⁶⁰ and Clovis Freire⁶¹

Introduction

Timor-Leste has experienced fast economic growth, at an annual rate of 10 per cent in the period from 2005 to 2011; but the economy is very reliant on the petroleum industry, and other sectors have not generated sufficient productive employment for the large and growing youth population. This case study analyses the economic changes in the past decade in Dili, the capital and main urban centre of the country; and in particular the impact of the influx of aid workers in the early 2000s, and the petroleum revenues that boosted the economy since 2004. The case study also discusses some of the factors that have hindered the city's economic diversification and productive transformation despite the above-mentioned factors and the improvements in infrastructure, provision of health and education services and good governance observed in the past decade.

Timor-Leste

Timor-Leste is located at the eastern end of the Lesser Sunda Islands, and occupies approximately half of the Island of Timor, sharing a border with the Indonesian province of West Timor, which occupies the other half. The country is organized in 13 districts with a population of 1,148,958 inhabitants in 2012,^{62,63} distributed within an area of approximately 15,000 km². Timor-Leste comprises the nearby islands of Atauro and Jaco, as well as a small exclave on the Indonesian side of the island named Oecusse.

After a long history of Portuguese colonialism and a more recent Indonesian domination, in 2002 Timor-Leste became an independent country and the United Nations' 191st member. In only a decade, the nation has risen from the ashes of conflict, and laid the basic foundations for peace and security. The country recently discovered off-shore reserves of natural gas, and since then has been experiencing fast growth, fuelled by the exploration of its oil and gas reserves. However, many development challenges remain.

Timor-Leste is one of the world's least developed countries and South East Asia's poorest nation. The Human Development Index (HDI) ranks the country 134th among 187 in terms of health, education and living standards;⁶⁴ a reflection of the country's pressing problems of persistent poverty, high unemployment, low agricultural productivity and high food insecurity. Timor-Leste is also unlikely to reach the Millennium Development Goals (MDGs) by 2015, particularly the targets concerned with poverty and hunger reduction, primary education completion rate, maternal mortality and sanitation.⁶⁵

In spite of rapid growth in the non-oil sector, the economy is mostly driven by government spending, particularly with cash transfers and major infrastructure projects; modest contributions come from agriculture and manufacturing sectors. This reality hampers employment opportunities outside of the public sector and constrains widespread growth in living standards.

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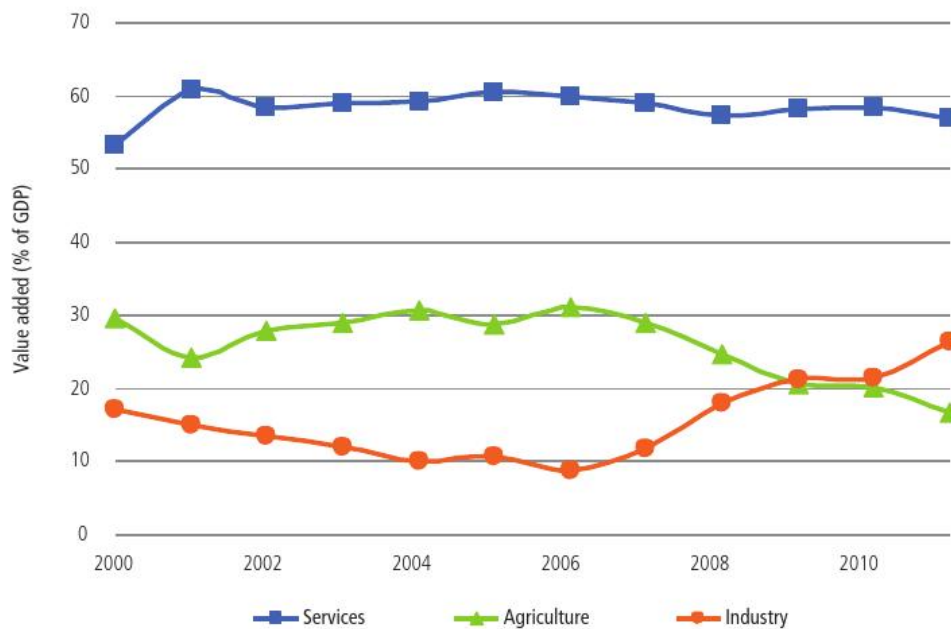
⁶² National Statistics Directorate: Timor-Leste in figures 2012.

⁶³ The estimated total population for 2014 is 1,212,107, according to the General Directorate of Statistics.

⁶⁴ United Nations Development Programme: Human Development Report 2013.

⁶⁵ Timor-Leste national report: The Millennium Development Goals, Timor-Leste, 2009.

Figure 22: Structure of the Timor-Leste economy by sector, 2000–2011



Source: Authors, based on data from the World Bank's World Development Indicators

The employment in the non-oil sector and outside of agriculture is still limited. About 40 per cent of the population has to survive on US\$30 or less per month and large disparities between rural and urban households remain.

The economic structure of Timor-Leste has recently started to move away from agriculture towards industry (figure 22). In 2006, the agricultural sector reached the highest share in GDP, accounting for 31 per cent of value added, while industry and services accounted for nine and 60 per cent respectively. Since then, agriculture has declined as a share of GDP to reach 16.7 per cent in 2011. The share of services has remained very high over the period; whereas industry, driven by the construction sector, has increased rapidly since 2006 to reach 26.3 per cent of GDP in 2006.

Historical context

The half-island nation was a Portuguese colony for almost five centuries and gained independency in 1975. Shortly later, it was occupied by Indonesia from 1976 to 1999, which turned the territory into its 27th province, and named it Timor Timur. In 1999 the Timorese

people voted for independency in a referendum, and after two years of transitional administration by the United Nations, Timor-Leste re-established its status of an independent nation in 2002.

External presence is a common element in Timor-Leste's history, and a strong determinant of the development and current stage of the country's economy.

After 200 years of uninterested presence in Timor-Leste, in 1769, the Portuguese settled in Dili and established it as the capital city. Over a century and a half passed before the whole country started to be divided into 11 circumscriptions and municipalities, for the decentralization of civil administration; Dili being the first municipality to be created in 1940.

The contribution of the Portuguese to its easternmost colony was minimal, and very little investment was made in terms of infrastructure, education and healthcare. The colonial Dili was very poor apart from the public administration buildings. When the Portuguese rule ended in 1974, the country was still underdeveloped, with limited water, roads, or administration resources in Dili.

Soon after becoming independent from Portugal in 1974, Timor-Leste was occupied and annexed by Indonesia in 1975. For 25 years Dili remained an Indonesian city and the capital of the Timor Timur province. Indonesia invested significantly into the new province, building infrastructure, schools, and tertiary education institutions including the University Timor Timur (UNTIM), roads and bridges.

However, the same infrastructures were destroyed by the Indonesian troops and anti-independency militia years later when Timorese people voted for their independence in the 1999 referendum. The violent Indonesian withdrawal caused the destruction of 70 per cent of the national economic and social infrastructure,⁶⁶ including communications, banking, electricity generation capacities and health systems, as well as severe losses in skilled personnel in public and private sectors, housing and livestock.⁶⁷ Estimates suggest that well over 50 per cent of Dili town buildings were damaged or burned. The economy experienced a complete disruption, with public and private sectors down to zero, and unable to pay for salaries and services with the destruction and closing of banks.

Following the 1999 referendum, the United Nations established a transitional administration in Dili. The first mission aimed at conducting a referendum to ascertain the Timorese independency and its separation from Indonesia. A peace-keeping operation⁶⁸ exercised administrative authority over the country during the transition to independency until the first elections were held in 2002.

Dili

Dili is situated approximately 60 kilometres from the East of the border with West Timor, and extends about 170 square kilometres, corresponding to two per cent of the country's land area. It is centred along a large harbour, with a landscape disputed by a few Portuguese colonial buildings, some burned and damaged structures, and several new Timorese constructions. Dili District is geographically diverse, with a landscape varying from coastal roads and beaches to rugged mountain terrains.

Dili is the largest city and capital of Timor-Leste, with a population of over 266,236 inhabitants, accounting for 23 per cent of the country's population. The administrative structure is composed of districts, sub-districts, sucos (villages) and aldeias (sub-villages). The city comprises four out of the six sub-districts of Dili District, which themselves comprise 31 sucos and 241 aldeias.⁶⁹

The State Government is in charge of the appointment of district and sub-district administrators. There is no city administration apart from the district administration, but there is an ongoing process of establishing municipalities. At the local level, each suco and aldeia is administered by a community-elected chief and council. The Suco Chief is the leader responsible for dealing with the community activities and solving local problems.

The Suco Council is a consultative body composed of all aldeia chiefs, two adult women, one female and one male young adult, one elderly and one council-appointed member. The chiefs and councils do not carry any legislative role and do not participate in the official government.⁷⁰

The main transport infrastructures of the country are located in Dili, including ports, the airport, and the highest share of paved roads. It is the main economic centre of Timor-Leste. In 2011, the industries operating in Dili generated about 93 per cent of the country's non-petroleum Industry Value Added (IVA).

In addition, according to the 2011 Business Activity Survey,⁷¹ the city generated over 90 per cent of Timor-Leste's total income, and was employing over 80 per cent of all persons employed in the country. Monthly wages are more than twice higher in Dili than in the other districts, with an average wage per employee at \$191 (vs. \$92).⁷²

According to the 2010 Census, the construction industry in Dili accounted for 61.3 per cent of the secondary sector. While in the country overall the share of agriculture was 65.6 per cent, in Dili it was 14.6 per cent with the tertiary sector accounting for 74.3 per cent of the city's employment.

⁶⁶ National Statistics Directorate: Timor-Leste Demographic and Health Survey 2009-10.

⁶⁷ Ministry of Health et al.: Timor-Leste 2003 Demographic and Health Survey.

⁶⁸ The United Nations Transition Administration in East Timor (UNTAET) from October 2000 to May 2002 administered a full transition to independency until the conduction of the first presidential election in April 2002. It was followed by the United Nations Mission of Support in East Timor (UNMISSET) from May 2002 to May 2005, established to support the newly independent nation. A complete timeline and further details on all the UN missions in the country can be found at www.momentum.tl

⁶⁹ National Statistics Directorate: Timor-Leste in figures 2012.

⁷⁰ "Lei do Parlamento 3/2009", in *Jornal da Republica*, 2009..

⁷¹ National Statistics Directorate: Business Activity Survey of Timor-Leste 2011

⁷² Ibid.

Main activities in Dili's tertiary sector were wholesale and retail trade, accounting for 16.1 per cent of the city's employment; and public administration accounting for 19.4 per cent. Overall, there was almost as much government employment (30.7 per cent) as there was private employment in the city (32.4 per cent).⁷³

Main transformations in the economic structure

During the 2000s, following Indonesian withdrawal, Timor-Leste experienced several events that impacted its development significantly. First, was the United Nations establishment in Dili and the massive international programme that brought aid to the country and permitted reconstruction and strong capacity building, while also causing distortions in the economy. Secondly, the surge in oil and gas revenues from 2004 allowed the government to invest massively in the country.

The landscape of the country's capital and biggest city Dili has drastically changed over the past 12 years. Burned and destroyed facilities have been replaced by newly constructed government buildings, schools, roads and other infrastructures. Unfortunately the changes in the productive base of the capital have been much smaller.

From ashes to aid

The turmoil and violence that followed the referendum and the Indonesian withdrawal left the newly independent nation as one of the poorest in the world, with a per capita income of less than \$50 in 1999, and a real GDP estimated to have fallen by a third from the previous year.⁷⁴

In the early 2000s Dili had a population of over 137,000 people, approximately 18 per cent of the country's total population. The lack of income-generating activities in other parts of the country brought an influx of migrants, placing an extra burden on services and infrastructure in the city. In addition, the acute shortage of goods in the capital led to unprecedented price increases, reaching an estimated 140 per cent in 1999 (in Indonesian Rupiah).

Prior to its independence, the country had no industrial sector, and a modern sector was in fact inexistent, apart from the government bureaucracy. People with business experience were mostly from Indonesia and had left the country during the 1999 events.

During the time of the occupation the civil service was composed of 28,000 Timorese and Indonesians officials.⁷⁵ However all top posts, around 7,000 of them, were occupied by Indonesians that also left during the transition to independence. Many Timorese workers who were formerly employed in the large Indonesian public sector saw their jobs disappearing and switched to informal employment.⁷⁶

A massive international programme and substantial aid, mainly from Japan, the European Commission member states, the United States and Australia, as well as from Canada, Singapore, South Korea and international development agencies (such as the World Bank, Asian Development Bank and others), led to the reconstruction of the country. Efforts were focused on rehabilitation of basic infrastructure, roads, schools, health and public buildings, transport network, re-opening of the international airport and re-establishment of public service, with the rehabilitation of institutions such as several national ministries, courts, and central payments office. This allowed the creation of a Timorese civil service centred in Dili.

Aid has allowed substantial economic recovery in Timor-Leste. The World Bank GDP growth estimates for 2000 and 2001 were 15 per cent and 18 per cent respectively, driven by an increase in consumption and donor-financed project spending; high inflation rates were brought under control with the dollarization of the economy in January 2000. Imports increased quickly in those years due to reconstruction projects and expatriate consumption. The aid inflows from international donors and investors were mostly directed into Dili's economy, allowing a service sector of retail, bar, restaurant, hotel, car rental and communication to start flourishing, as well as foreign investments controlled by foreign skilled workers. These directly served the United Nations Transitional Administration in East Timor (UNTAET) construction programme and international aid personnel.

⁷³ National Statistics Directorate: Timor-Leste Social and Economic Census 2010

⁷⁴ World Bank: East Timor: Policy challenges for a new nation, 2002.

⁷⁵ Lundahl, M. and Sjöholm, F.: Economic Development in Timor-Leste 2000-2005 (Stockholm, Sida, 2006).

⁷⁶ World Bank: Timor-Leste poverty assessment, 2003.

Besides reconstruction and economic recovery, aid also caused distortions. The large expatriate community from the UNTAET and other development agencies of around 15,000 people was concentrated in Dili, and their high salaries and purchasing power created a dual economy in the country and capital, of mostly traditional and subsistence livelihoods. The people in Dili mostly depended on micro and small business, private and public employment for their livelihood.

Although Dili was the urban centre of the country, in 2001 agriculture was still a critical feature of local livelihood, being the prime source of income and subsistence living for the population. Diverse agricultural production, including rice, fruit trees, kitchen gardens and animal husbandry were present in the outlying areas of the city and in rural areas of Dili District.

The high influx of international workforce combined with the national shortage of high skilled staff resulted in salaries four times higher

than those in neighbouring countries and prices well higher. The higher salaries in the capital constrained the development of small enterprises, reduced employment in other productivity activities and significantly raised the city's population that prior to the referendum accounted for 120,000 inhabitants.

For example, in the coffee processing industry in Dili, unskilled labour earned USD 3.50 per day in 2001-2002, against the equivalent of USD 0.90 a day in mid-1999. Coffee producers in Viet Nam and Brazil were earning respectively USD 1 and USD 2 at the same time, and the new salary levels contributed to turning Timor-Leste into the most expensive coffee producer in the world. The new civil service would be less than half of its size in Indonesian times, counting 10,900 filled positions in 2001-2002.⁷⁷ However their starting salaries of about USD 85 a month were three times higher than the average in Indonesia.

Table 16. Timor-Leste key economic indicators 1998–2001

	1998	1999	2000	2001
Nominal GDP (non-oil; US\$)	390	263	312	380
Real GDP growth (non-oil)	-2%	-34%	15%	18%
Inflation (end of period)	80%	140%	20%	0
Consumption (as % of non-oil GDP)	74	95	107	117
Non-government	60	86	100	88
Government	15	9	7	29
Investment (as % of non-oil GDP)	47	27	27	44
Non-government	10	8	15	15
Government	37	19	12	29
Trade Balance (US\$ millions)	-88	-66	-232	-271
Merchandise exports (US\$ millions)	54	52	9	8
Oil	0	1	3	4
Non-oil	54	52	6	4
Merchandise imports (US\$ millions)	-142	-119	-241	-279
Public	-	-58	-150	-144
Private	-	-61	-90	-134

Source: World Bank (2002) *Challenges for a new nation*.

⁷⁷Lundahl, M. & Sjöholm, F: Economic Development in Timor-Leste 2000-2005 (Stockholm, Sida, 2006).

Table 17: GDP by industrial origin, 2000

	2000		1993–1998	
	Value Added US\$ million	Share in GDP (%)	Share in non-oil GDP (%)	Average non-oil GDP (%)
Agriculture, forestry and fishery	83.3	21.2	25.9	32.2
Mining and quarrying	74.5	19	1	0.9
Manufacturing	8.7	2.2	2.7	3
Electricity, gas and water	2.6	0.7	0.8	0.7
Construction	45.9	11.7	14.3	18.5
Trade, hotels and restaurants	25.1	6.4	7.8	9.3
Transport and communications	23.2	5.9	7.2	9.7
Finance and business services	21.1	5.4	6.6	3.9
Services	108.2	27.6	33.7	21.7
Government	106.3	27.1	26.0	20.7
UNTAET	83.4	21.3	26	-
Other*	22.9	5.8	7.1	-
Private	1.9	0.5	0.6	1.1
Total	392.6	100	100	100

*Includes East Timor Transitional Administration, Trust Fund for East Timor, and bilateral and international NGOs.

Source: World Bank (2002) *Challenges for a new nation*.

The oil economy

Timor-Leste's petroleum sector consists of two different jurisdictions with relevant legal and fiscal regimes: the Joint Petroleum Development Area (JPDA), which is jointly managed by Australia and Timor-Leste; and Timor-Leste Exclusive Area (TLEA) and onshore prospects. Timor-Leste benefits from the commercial exploitation of petroleum resources in the JPDA in the Timor Sea, which are shared with Australia.

Oil and gas revenues have surged since 2005, as major projects in the JPDA have come online, especially the start of production at the off-shore Bayu-Undan field in 2004. The Timor-Leste Government set up a special Petroleum Fund in 2005 to facilitate the sustainable use of its revenues over the long term.⁷⁸ On behalf of the Government, the Ministry of Finance has entered into an agreement with the Banco Central de Timor-Leste, delegating responsibility for the operational management of the Petroleum Fund. The Petroleum Fund's assets reached \$15 billion in 2013.

An Estimated Sustainable Income (ESI) was established, to determine the maximum amount that can be appropriated from the Petroleum Fund in a fiscal year, while still leaving sufficient resources for an amount of equal real value to be appropriated in all later years. The ESI for 2014 is calculated at \$632.3 million, which is \$165.6 million lower than the 2014 ESI estimate in 2013 budget.⁷⁹

The downward revision is due a lower expected production in Bayu-Undan, the largest petroleum project in operation in the Timor Sea. The petroleum production peaked in 2012 and petroleum revenues are forecasted to decline quite sharply in 2014, from \$2,693.3 million in 2013 to \$1,443.1 million, before temporarily leveling off until 2016. The Petroleum Fund balance is estimated to reach \$15.4 billion by the end of 2014, assuming \$270.6 million of withdrawals in excess of the ESI.⁸⁰

⁷⁸ Petroleum Fund Law No.9/2005, promulgated on 3 August 2005.

⁷⁹ Ministry of Finance: State Budget 2014, Budget Overview – Book 1.

⁸⁰ Ibid.

After the completion in 2007 of the Emergency Infrastructure Rehabilitation Project, financed by the Trust Fund for East Timor and managed by the Asian Development Bank, most Timor-Leste's electrical infrastructures were renovated. In 2011 the Timor-Leste government set up an Infrastructure Fund to finance the implementation of infrastructures that required significant investments (over \$1 million) in multi-year.

The Infrastructure Fund was established by Law No. 1/2011, which was promulgated on 14 February 2011. The Fund has been active since then, and the government allocated more than half of its 2011 and 2012 state budgets to it. In the first year a budget of \$599 million was allocated to 12 programs: agriculture, water and sanitation, urban and rural development, electricity, transport (roads, bridges, airport, and ports), public buildings, education, health, MDGs, security and defense, social solidarity and Tasi Mane. The 2011 Infrastructure Fund plan contained 71 projects with a total contracts value of \$1,056 million.

As a consequence, the construction sector grew by 40.5 per cent and contributed for more than 6 per cent out of the 12 per cent

non-oil GDP growth in 2011. Its share in the non-oil GDP increased from 6.1 per cent in 2007 to 20.8 per cent in 2011. As for the public spending, its contribution accounted for almost 5 per cent out of the 12 per cent non-oil GDP growth in 2011.⁸¹

A total of \$752.9 million has been allocated for further development of infrastructures in 2013. Among the main programs, \$174 million (23.1 per cent) was allocated to the electrical power program, \$139 million (18.5 per cent) for the Tasi Mane Programme (to develop oil-related industries), \$116 million (15.4 per cent) for the roads programme, and \$88 million (11.7 per cent) for MDGs.

As a consequence, the public sector accounted for 82.9 per cent of the gross fixed capital formation and for 60.3 per cent of the final consumption expenditures in the country. The strong economic growth in the non-oil GDP in recent years has been dependent on increased government expenditure financed by petroleum revenues, leading to strong growth in the construction sector. Overall, 41.7 per cent of the non-oil economy was generated by public expenditures and infrastructures construction, mostly through oil-revenues (Table 18).⁸²

Table 18: GDP by sector, 2011

	Main aggregates (US\$ constant, millions)			% of total			Compound average growth rate (%)	
	2000	2005	2011	2000	2005	2011	2000–05	2005–11
GDP	755	2 568	4 525	100	100	100	28	10
Oil sector	217	1 957	3 478	29	76	77	55	10
Non-oil sector	538	611	1 047	71	24	23	3	9

Source: Ministry of Finance of Timor-Leste (2013)

The domestic economy relies mostly on public expenditures. According to the 2014 budget projections, petroleum revenues are estimated to bring around 93 per cent of the state income. Furthermore, the public spending is financed to 89.8 per cent by withdrawals from the Petroleum Fund.⁸³

Currently the major financing items in the 2014 State Budget are the ESI, excess withdrawals from the Petroleum Fund, loans and use

of the cash balance. But Timor-Leste's government is now trying to increase domestic revenues in order to move to a less petroleum-dependent economy. In terms of domestic revenue, 2014 is set to continue its recent upward trend in terms of taxes and other charges, increasing to \$166.1 million, or 13.6 per cent more than the forecast in 2013 budget. This projected increase is mostly driven by increases in indirect taxes such as excise and import tax.⁸⁴

⁸¹ National Directorate of Economic Policy & National Statistics Directorate, Ministry of Finance.

⁸² Ibid.

⁸³ Ministry of Finance: State Budget 2014, Budget Overview – Book 1.

⁸⁴ Ibid.

In terms of government employment, the 2010 Census⁸⁵ suggests that 14.8 per cent of the population is now employed by the government as opposed to 5.5 per cent in 2004, which also

highlights the increasing importance of the public sector in the economy (Table 19).

Table 19: Employed persons by sector, 2004 and 2010

Sector	2004		2010	
	No.	%	No.	%
Agriculture, fishing, forestry	247 733	78.8	203 283	65.3
Wholesale and retail trade	13 206	4.2	18 259	5.87
Public administration	17 385	5.5	46 149	14.82
Self employed non-farmer	31 531	10.0	18 920	6.1
Private owned enterprises	9 459	3.0	35 844	11.5
Total Timor-Leste	314 422		311 316	

Source: National Statistics Directorate: 2004 and 2010 Social and Economic Censuses

The 2010 Census also estimates an increase in the proportion of the population employed by privately owned firms at 11.5 per cent (compared with 3 per cent in 2004) and a decrease in the proportion of self-employed in the non-agriculture sector at 6.1 per cent (compared with 10 per cent in 2004). Finally, the 2010 Labour Force Survey⁸⁶ suggests that 5.2 per cent and 17.7 per cent of the labour force are employed in the Construction and Wholesale and Retail Trade sectors, respectively (table 20). These studies suggest two important trends.

First, the public sector has become more prominent in terms of employment since 2004. Secondly, and as the private sector seems to be increasing in importance as its share of employment (as percentage of the labour force) is estimated to have almost quadrupled in six years. Therefore, these studies also appear to corroborate the fact that Timor-Leste has witnessed changes in the composition of its employment between 2004 and 2010, and that the private sector is becoming an increasingly important sector of employment in Timor-Leste.

Table 20: Employed persons in non-petroleum producing businesses by sector, 2010 and 2011

Sector	2010		2011	
	No.	%	No.	%
Construction	8 600	17.8	18 000	30.9
Wholesale and retail trade	11 800	24.4	13 600	23.4
Total Timor-Leste	48 400	100.0	58 200	100.0

Source: Business Activity Survey of Timor-Leste 2011

⁸⁵ National Statistics Directorate: Timor-Leste Social and Economic Census 2010.

⁸⁶ Timor-Leste Labour Force Survey 2010.

Within the private sector, studies suggest the creation of almost 10,000 jobs in non-petroleum businesses between 2010 and 2011.⁸⁷ However, employment in the private sector is still much skewed towards the Construction and Wholesale and Retail sectors which, in 2010, employed together 42.1 per cent of the population working in businesses.

This was further reinforced in 2011 due to a marked increase in employment in construction. The construction sector, which in that year employed 30.9 per cent of all the people employed in non-petroleum-producing businesses; at the same time, the percentage employed in the Retail and Wholesale Trade sector remained fairly constant (at approximately 23 per cent).

Therefore, while the number of jobs created is encouraging, employment in the private sector seems to be driven by two sectors and fuelled by government spending. Moreover, while data seems to suggest that employment in Timor-Leste has improved both in terms of size and structure, an estimated 175,000 people remain in vulnerable employment.⁸⁸ This was largely driven by individuals employed in agriculture.

One way for Government to stimulate the country's economy is through subsidies to enterprises and cash transfers to the population. The allocation of rent resources to the economy has also been done by the establishment of highly subsidized autonomous and public-owned enterprises, such as the Timor-Leste Airport and Air Navigation Authority (ANATL), the Port Authority of Timor-Leste (APORTIL), the Equipment Management Institute (IGE) and the Autonomous Medical Stores (SAMES).

Most of the distribution of the oil rent to the population is done through payments to veterans and the elderly, and subsidies to villages and local businesses. Between 2010 and 2012 the public transfers increased by 83.6 per cent, and are estimated to reach \$335.5 million in 2014. This represents 22.4 per cent of the state expenditures, and 18.9 per cent of the estimated non-oil GDP. According to the 2011 Survey on Household Income,⁸⁹ the share of the public sector in household wage incomes was 52.3 per cent in urban areas and 66.1 per cent in rural areas.

But Timor-Leste's current active oil and gas fields are estimated to be dry by the 2020s; and even though the Petroleum Fund was supposed to generate enough earnings to sustain public spending in the future, it is in fact estimated to last for only five additional years.

Furthermore, even though the economy is dollarized, Timor-Leste still experiences inflation, especially since the launch of large public expenditures such as the 2011 Infrastructure Programme. This is mainly due to the lack of supply capacity and the high reliance on imports. For example, the year-on-year inflation in Timor-Leste was 15.4 per cent in December 2011, and 10.9 per cent in December 2012. These high inflation rates have a negative impact on the population's purchasing power.

Timor-Leste's income depends excessively on a single, non-renewable commodity: petroleum. This puts the country into a vulnerable position, especially since petroleum's price in the international market is unpredictable. Additionally, the non-oil economy is not diversifying fast enough; the productive sector is not developed and most of the consumption consists of imported goods and services.

In 2012 the country imported \$1.524 billion of goods and services, an increase of 61.9 per cent since 2008 (Figure 23). In contrary, Timor-Leste's export base has not significantly changed during the last decade. In 2011 the country's exports accounted for only \$95.6 million, of which \$18.8 million coffee export and \$70.6 million services. The share of the goods exports in the non-oil GDP decreased from 3.25 per cent in 2002 to 2.38 per cent in 2011.⁹⁰

The transformation of the export-mix can be assessed by analysing their complexity over the years, in terms of the capabilities required to produce them. To measure such product complexity, this case study analyses the diversification levels of the countries that export each product and the commonness of the products they export. Products that are exported by diversified countries that export exclusive product-mix are considered to be more complex than products that are exported by less diversified countries that export rather common products.⁹¹

⁸⁷ National Statistics Directorate: Business Activity Survey of Timor-Leste 2010 and 2011

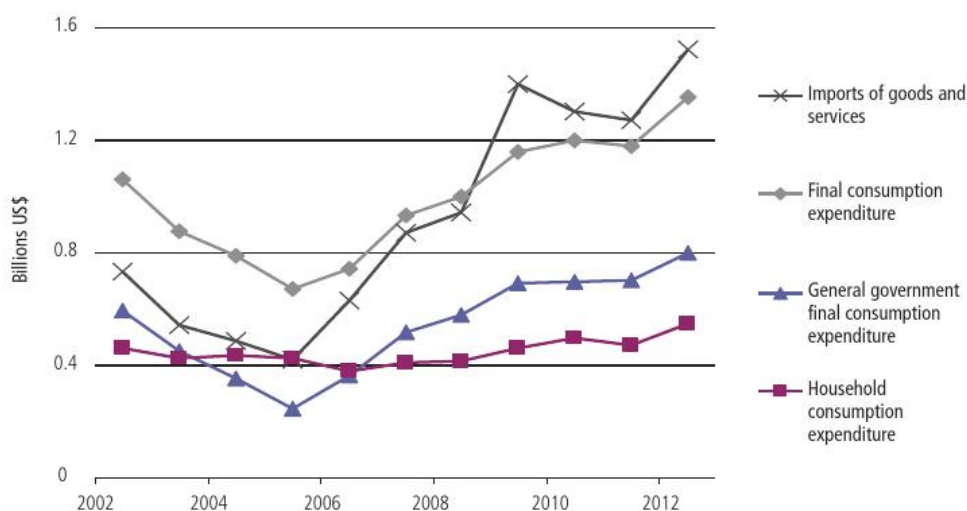
⁸⁸ National Statistics Directorate: Timor-Leste Labour Force Survey 2011.

⁸⁹ National Statistics Directorate: Timor-Leste Household Income and Expenditure Survey 2011.

⁹⁰ Ministry of Finance: Timor-Leste National Accounts 2000-2011.

⁹¹ For details on the methodology, see Freire, C: "Strategies for Structural Transformation in South Asian Countries", in *Seoul Journal of Economics* 26 (2013), No. 3 pp. 311-336.

Figure 23: Gross Domestic Product by expenditures, 2002-2012

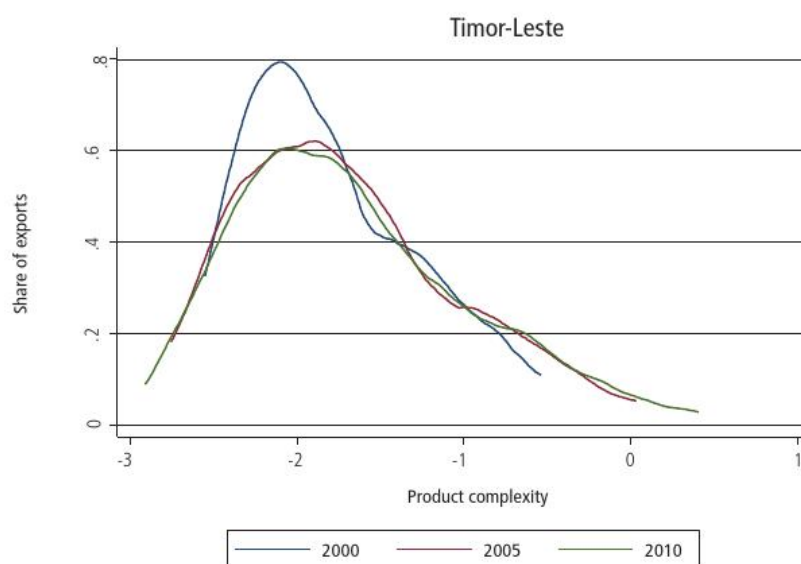


Source: National accounts, Ministry of Finance 2013

Figure 24 presents the change over time in the complexity of Timor-Leste’s export product-mix. The graph is normalized to have products with global average complexity in the middle (measured as zero complexity); standard deviations from the average measure as one. The Figure shows that, from 2000 to 2005, the average complexity

of the product-mix shifted slightly to the right towards more complex products, but from 2005 to 2010, the period that coincides with the influx of oil-wealth into the economy, the complexity remains effectively unchanged.

Figure 24: Complexity of Timor-Leste’s product mix, 2000–2010



Source: ESCAP, based on trade data from the United Nations Commodity Trade Statistics Database (COMTRADE)

Note: Graph is normalized so that products with global average complexity are measured as zero complexity and the standard deviation from the average of the distribution of all products is one. For details on the calculation see Freire, C. (2013), Strategies for Structural Transformation in South Asian Countries, Seoul Journal of Economics 26, No. 3 2013: 311-336.

The role of national and local policies

In the past decade, the funding for capital and development projects has increased: from \$8.4 million in 2004⁹² and \$196.1 million in 2009⁹³ to \$455.3 million in 2014.⁹⁴ The majority of this budget has been targeted at projects and programmes involving major capital expenditure such as schools, road maintenance and upgrades, water and sanitation, and irrigation projects. State budgets also suggest that public transfers averaged around \$200 million every year between 2004 and 2010.

The Public Transfers budget is estimated to increase to \$335 million in 2014 from \$239 million in 2013, an increase of 40.4 per cent. One of the main recipients is the Ministry of Social Services and Solidarity, which is allocated \$139.4 million for programmes such as Bolsa de Mãe and for financial support to veterans. Under public transfers, the education and health sectors also benefit from essential investments and will be allocated respectively \$25 million for rehabilitating schools in the 13 districts and \$9 million for subsidizing health posts throughout the country.

In addition, \$10 million are allocated for developing rural roads, which will enable the government to improve infrastructure for rural populations and to generate employment throughout the country. In order to promote rural development, public transfers also include \$11 million for the Ita Nia Rai programme related to land compensation, as well as \$13.7 million for the National Suco Development Program, a multi-year programme targeting balanced development in the sucos through subsidies, according to the specific needs of each suco.

These investments were made following the Timor-Leste Strategic Development Plan (SDP), the document setting out the vision for the country's development between 2011 and 2030. The SDP aims to "transition Timor-Leste from a low income to upper middle income country, with a healthy, well educated and safe population by 2030."⁹⁵ The plan aims to develop core infrastructure and human

resources, and to strengthen society; as well as to encourage the creation of private sector jobs in strategic industry sectors: a broad based agriculture sector, a thriving tourism industry and downstream industries in the oil and gas sector.

The SDP is framed around four pillars: social capital, infrastructure development, economic development, and the institutional framework. The SDP sets out a long-term policy framework to develop a diversified economy (Figure 25). This includes front loading fiscal policy to build the core productive infrastructure necessary to support a strong economy and develop a sustainable private sector.

A programme of economic reforms, including establishing Special Economic Zones, telecommunications liberalization, setting up a development bank and simplifying business regulation will also provide impetus for further progress and, most importantly, create investment opportunities and employment.

Budget expenditures in the past decade have been focused on major infrastructure projects. The government has also spent a significant share on social security and pensions to veterans.

The Programme of the Fifth Constitutional Government 2012-2017⁹⁶ was passed by the National Parliament in August 2012. This government programme is based on Timor-Leste's SDP and on policies announced during the 2012 election campaign, and provides the strategy for the country's development over the next five years. The programme lists what needs to be done in the short term, incorporates medium-term strategies and ensures alignment with the long-term goals. It aims to create jobs and deliver better living conditions for the entire Timorese population as soon as possible, and offers structure to the government's ideas and ideals.

⁹² Ministry of Planning and Finance: Combined Sources Budget 2004-05.

⁹³ Ministry of Finance: General Budget of the State and State Plan for 2009.

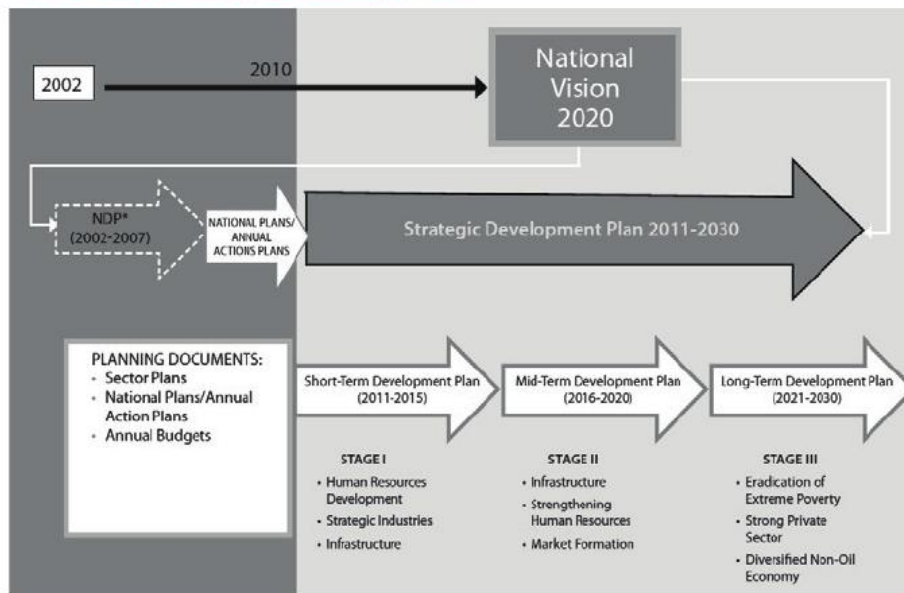
⁹⁴ Ministry of Finance: State Budget 2014, Budget Overview, Book 1

⁹⁵ Timor-Leste Strategic Development Plan 2011-2030, Ministry of Finance, 2011, <http://timor-leste.gov.tl/wp-content/uploads/2011/07/Timor-Leste-Strategic-Plan-2011-20301.pdf>

⁹⁶ Program of the Fifth Constitutional government 2012-2017, Government of Timor-Leste, <http://timor-leste.gov.tl/wp-content/uploads/2012/09/Program-of-the-5th-Constitutional-Government.pdf>



Figure 25: Staging of the Strategic Development Plan



Source: Timor-Leste Strategic Development Plan 2011–2030.

Policy implications and lessons learned

In terms of economic growth, the outlook of the Timorese economy is fairly positive; however the country faces several challenges for long-term development.

According to the Human Development Report 2011,⁹⁷ high youth unemployment, falling per-capita incomes and increasing poverty rates in rural areas are major issues. A fundamental issue for the country is how to best utilize the revenue from its Petroleum Fund – its single largest source of revenue – to promote human development. This would have to include the development of the non-oil economy, and in particular the rural sector, where the majority of the poor lives.

An assessment of sustainable development in Timor-Leste produced by the Ministry of Economy and Development on the run-up to Rio +20 notes additional major obstacles to development including a weak public sector and customer service focus, and a dormant indigenous private sector, with dependency on public sector contracts.

A fragility assessment of the country's development situation conducted in 2012 by the Ministry of Finance⁹⁸ with support from development partners identified as main challenges: the unequal distribution of economic growth across the territory; an increasing inflation posing a great threat to low-income populations; lack of employment opportunities while the government remains the country's biggest employer; and the lack of availability of local food – despite large investments – keeping the country import-dependent in one more sector.

The World Bank's Country Partnership Strategy for Timor-Leste for the period of 2013-2017⁹⁹ identifies education, health and productive employment of the young population as the biggest development challenges faced by Timor-Leste in the next decade. The document notes the challenges created by the changing demographics, with a majority of the population under 25 years of age. It also notes that although Timor-Leste had achieved lower middle-income status in 2011 thanks to high global oil prices, poverty remains persistently high, particularly in the rural areas where the majority of the population lives.

⁹⁷ Human Development Report 2011, United Nations Development Programme, http://www.undp.org/content/undp/en/home/librarypage/hdr/human_developmentreport2011.html

⁹⁸ Ministry of Finance, Summary Report: Fragility Assessment in Timor-Leste, 2013.

⁹⁹ Country Partnership Strategy for Timor-Leste for the period 2013-2017. World Bank, <http://documents.worldbank.org/curated/en/2013/02/17493182/timor-leste-country-partnership-strategy-period-fy2013-2017>

Oil revenues have funded expansion of social services to improve human development performance, but with limited capacity in the public and private sector service providers. The job market struggles to provide for a young and fast-growing population. The report also notes that over 70 per cent of total employment is vulnerable. Most of the rural poor rely upon low-productivity subsistence agriculture for livelihoods, and experience periods of food insecurity.

Timor-Leste's reality of high GDP growth with persistent high poverty suggests the symptoms of natural resources curse: the infamous short-term windfall created by resource bonanza but with meager long-term development prospects. In the short term, the extraction of natural assets increases incomes and growth rates; some estimates suggest that during a boom, a doubling in the world price of a single exported commodity can increase output in a country's entire economy over the next three years by around five per cent.

Even if total output is not raised, the total income increases since the same level of exports can now buy more imports. The problem is that the prospects for the long term are not bright at all. A boom in commodity prices is estimated to decrease the output of the overall economy decades ahead. In the case of oil, some estimates suggest that doubling oil prices could halve the total economic output of the country in the long-run.¹⁰⁰

Being blessed by natural richness should not be a curse. Historically, primary resources have been important components of the trade basket, even for the current manufacturing powerhouses of the world. Back in 1975, when considering how to pay for the much needed imports to modernize the Chinese economy, the reformist Chinese leader Deng Xiaoping decided to turn to petroleum export-led growth.¹⁰¹ By 1978, the largest source of foreign exchange for China was the export of crude petroleum to Japan.¹⁰²

The problem is that resource-abundant countries rely on primary product exports for longer than they should; and this can lead to many adverse consequences. Economic diversification into other primary products is delayed, slower industrialization retards transformation, and surplus rural labour supply raises both income inequality and social tensions.

Diversifying an economy away from the resource sector becomes challenging due to the appreciation of the real exchange rate which makes non-resource activities (including agriculture) internationally uncompetitive, often referred to as the Dutch Disease. Being a dollarized economy, Timor-Leste does not have the possibility of nominal depreciation of its own currency to offset this trend. The only option would be internal devaluation through cutting real wages; however, this is not viable in a country with a high incidence of poverty. It would swell the ranks of working poor, aggravate income inequality and depress domestic demand.

¹⁰⁰ Collier, Paul (2011). *The plundered planet: how to reconcile prosperity with nature*. Penguin Books. ISBN: 978-0-1410-4214-5.

¹⁰¹ Yergin, Daniel. 2011. *The quest: energy, security, and the remaking of the modern world* (The Penguin Press).

¹⁰² Feenstra, R. C., Robert E. Lipsey and Harry P. Bowen. 1997. *World Trade Flows, 1970-1992, with Production and Tariff Data*. NBER Working Paper 5910.

Conclusions

During the last decade, Dili has benefited from a very favourable environment. First, the city received massive aid from the international community in the early 2000s. Second, the establishment of the United Nations Transitional Administration until the first elections in 2002 brought stability and good governance in the country. Third, Timor-Leste's GDP soared with the surge in oil and gas revenues, allowing the government to invest in infrastructures and human capital, and to increase the purchasing power of the population through transfers.

Despite these assets, Dili didn't experience any significant productive transformation, and has become a heavily import-dependent city relying on oil revenues. The development of productive capacities

through industrial policies seems necessary today, as the non-petroleum sector will have to take over the economy by 2020. The transition from an economy driven by oil revenues to an export-led economy is possible, but the national government will have to play an active role in promoting diversification towards structural transformation in Timor-Leste.

Indeed, the SDP recognizes that achieving strong rates of economic growth over the medium and long terms will require a diversification of the economy away from petroleum production and government spending. The agriculture, tourism and downstream petroleum sectors are rightly highlighted as key sectors in the SDP, drivers of economic diversification and growth.

HO CHI MINH CITY, VIET NAM

By Mael Balac¹⁰³ and Clovis Freire¹⁰⁴

Introduction

Building productive capacities is a top priority for developing countries to reduce economic vulnerability, achieve structural transformation, and generate full and productive employment and decent work. Viet Nam is one of the few countries that was able to rapidly increase its productive capacities in the past two decades, having started from levels similar to the average of the least developed countries in the Asia-Pacific region. As the main economic hub of the country, Ho Chi Minh City has been at the centre of that productive transformation. This case study describes the process and the national and local policies that have contributed to the city's economic diversification and increase in productive capacities.

Viet Nam

In December 1986, Viet Nam initiated a reform programme called Doi Moi ("Renovation") to adopt market-based socialism, allowing the private sector to set up industries. Since the implementation of these reforms and the end of the United States' embargo in 1994, Viet Nam's economic growth rate has been among the highest in the world. GDP has grown at an average rate of seven per cent per year from 1990 to 2012, and merchandise exports have expanded at a rate of around 19.5 per cent per year since 2000.¹⁰⁵

In 2013, Viet Nam had an estimated population of over 89 million people, of which 67 per cent lived in rural areas. The number of people of working age (15 to 64 years old) has recently reached 60 per cent and the country is currently in a period of golden population structure: for every two or more working people, there is only one dependent person.¹⁰⁶

Main exports in 2012 were crude oil (7.2 per cent), manufactured products such as footwear (6.8 per cent) and textiles and garment (13.2 per cent). Electronic products such as computers and mobile phones also represent a sizeable share of exports since 2008, and in 2012 accounted for 17.9 per cent. Main export destinations in 2012 were the United States (17.2 per cent), Japan (11.4 per cent) and China (10.8 per cent).¹⁰⁷ The major source of non-oil exports is the foreign invested sector, with a share of 61 per cent of the total export turnover (\$58.7 billion out of \$96.3 billion) in the first nine months of 2013. According to the UNCTAD World Investment Prospects Survey 2013-2015, Viet Nam ranks seventh among the most attractive developing countries for FDIs. In 2012, the share of FDI enterprises in Viet Nam exports accounted for 56 per cent.¹⁰⁸

The country is classified as a lower-middle income country with GDP per capita in 2012 at \$1,716. The proportion of the population living in poverty has been considerably reduced between 1993 and 2008, from 63.7 per cent to 16.8 per cent.

Ho Chi Minh City

Ho Chi Minh City is located in the southeastern region of Viet Nam and is both the largest city (2,095 square kilometres) and the main economic centre of the country. The city is organized in 24 districts: 13 of which are old urban inner districts; six are expanded urban districts and five are suburb districts.

In 2012 the population of Ho Chi Minh City was estimated to be over 7.6 million people, about 8.6 per cent of the country's population. The urban population, which accounts for 82 per cent of the city population, has increased by 37 per cent since 2001.¹⁰⁹

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¹⁰⁵ ESCAP calculations, based on data from ESCAP Online Statistical Database.

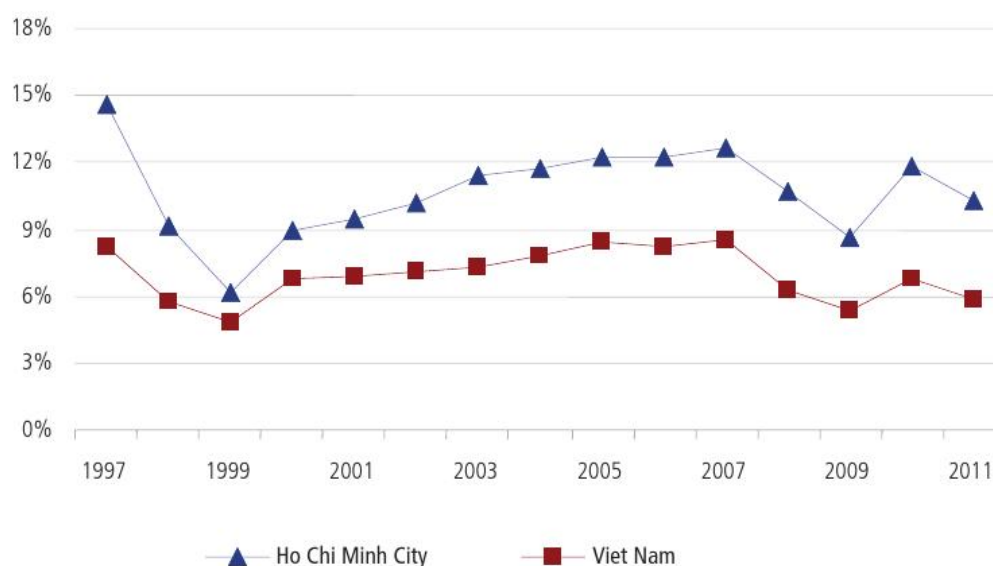
¹⁰⁶ United Nations Population Fund, Viet Nam country profile.

¹⁰⁷ Customs Handbook on International Merchandise Trade Statistics of Viet Nam in 2012, from Viet Nam Customs.

¹⁰⁸ Ibid.

¹⁰⁹ ESCAP calculations, based on data from "Ho Chi Minh City Statistical Yearbook 2011", Ho Chi Minh City Statistical Office.

Figure 26. GDP growth at constant 1994 prices, 1997–2011



Source: General Statistics Office of Viet Nam; Ho Chi Minh City Statistical Office.

Ho Chi Minh City’s GDP growth has always outpaced the national level growth, with an average of over 10 per cent per year since 2000 (see figure 1).

In 2012 Ho Chi Minh City accounted for 20.2 per cent of the national GDP, 28 per cent of the industrial output, 35 per cent of the FDI projects and 26.6 per cent of the exports (in value). Concerning the city’s economic structure, the service sector represents 51.1 per cent of the city’s output, industry and construction account for 47.7 per cent, and forestry, agriculture and others make up just 1.2 per cent.¹¹⁰

Overview of the national policies

After reunification in 1975, Viet Nam focused on reconstruction and development. But because of the damages caused by many years of war and a difficult international environment, its economy experienced a long period of crisis during the next decade. To overcome these difficulties, Viet Nam initiated the Doi Moi policy in 1986 with three main goals: (1) to shift from a centrally planned to a market-oriented economy regulated by

the government; (2) to develop a multi-sector economy in which the private sector would play an increasingly important role; and (3) to actively integrate into regional and global economy in accordance with Viet Nam’s situation.

The 1986 and 1991 Five-Year Socio-Economic Development Plans focused on the promotion of consumer goods and export-oriented industries such as heavy equipment, food-processing, and agricultural products. At the same time, in 1992, Viet Nam signed a textile trade agreement with the European Union – one of its first with a Western country – which led to a broader cooperation agreement in 1995.¹¹¹

During the 1986-1990 Development Plan, the government implemented three programmes supporting the development of agriculture and the production of consumer goods, and promoting trade and foreign investment relations. The Resolution 10 (1988) on renovating agricultural management officially abolished collective farming and increased farmers’ autonomy in the management of their production.¹¹² State-owned enterprises were granted more autonomy in doing business by the Decision 217 HDBT (1987), and were no longer continuously subsidized by the government.

¹¹⁰ Ibid

¹¹¹ European Parliament, Directorate-General for external policies. EU–Viet Nam economic and trade relations (2012).

¹¹² International Food Policy Research Institute, Decollectivization and the Doi Moi System in Viet Nam (2009)

By the end of 1988, the state-owned enterprises stopped receiving capital from the government budget and were required to obtain bank loans and pay interest.¹¹³ Exports were promoted through administrative flexibility: by reducing some quotas and delegating the responsibility of issuing licenses for export activity to the local governments.

In addition to these reforms, the authorities carried out a number of measures to stabilize the inflation rate. The first consisted of improving the management of the state budget to reduce the deficit. The State Bank was granted further capacity to control the circulation of money, and the management of foreign exchange was improved. A monitoring of supply and demand harmonization was also created for goods prone to have a major impact on the general price index, such as food during the lean months and paper in the back-to-school season.¹¹⁴

Along with the control of inflation, the government worked to create a propitious finance and banking sector. In order to raise domestic savings and to attract foreign capital, interest and exchange rates were adjusted, periodic treasury bill auctions were launched, and a two-tier banking system was developed. As a result, Viet Nam's GDP increased by 21.2 per cent over this period. Rice production increased sharply: from an imported good it grew to become one of the country's main exports, and Viet Nam became the third largest rice exporter in the world. Crude oil exports also increased, from 40,000 tons in 1986 to 2.7 million tons in 1990. Overall, exports grew at an average annual rate of 28 per cent over this period.¹¹⁵

In the 1991–1995 Development Plan, factories received full autonomy in decision making for business and production. The government selected strategic sectors to support. These sectors were mostly heavy industries such as cement, steel, oil and mining activities. Labour-intensive products such as textiles and food products were also selected.¹¹⁶

To support these sectors the government resorted to protectionism through import duties and export subsidies. The main policy in the early 1990s was the establishment of Export Processing Zones (EPZ) and the renewal of the Law on Foreign Investment.

This policy aimed to create a favourable business environment for FDI enterprises and to expand the rights of foreign investors. The promotion of foreign investments was expected to bring in investment capital, foreign exchange, and modern technology. As an effect, the EPZs became leading places in the process of industrialization and modernization in the country. In addition, in 1991 China and Viet Nam normalized their relations, enhancing trade between them. Exports increased rapidly from a share in GDP of 3.9 per cent in 1988 to a third of GDP in the mid-1990s.

The share in GDP of the industrial sector, including manufacturing, mining, and construction, increased from 22.7 per cent in 1990 to 29.6 per cent of GDP by 1994.¹¹⁷ In October 1993 most relations between Viet Nam and the international financial community resumed. Four conferences on development aid to Viet Nam were held during the next two years, and led to the providing of \$8.4 billion of ODA to Viet Nam. The State used this amount for the renovation and construction of economic and social infrastructure projects, in areas including energy, transport (roads and ports), agricultural irrigation and water supply. Overall, Viet Nam's GDP increased by 48.3 per cent over this period, and exports reached \$5.2 billion in 1995.¹¹⁸

The 1996 Five-Year Socio-Economic Development Plan aimed to further develop the key industries in which Viet Nam had comparative advantages. Viet Nam's industrialization strategy again consisted of export promotion and import substitution through selective trade restrictions. It supported export-oriented and cheap-labour-intensive industries such as garments, footwear and leather products. New industries in which Viet Nam was expected to develop new comparative advantages in the future were also emphasized, such as the electronic and chemical industries.

¹¹³ Vu AuocNgu: *The State-Owned Enterprise Reform in Vietnam: Process and Achievements*, (Institute of Southeast Asian Studies, Visiting Researchers Series No. 4, 2002).

¹¹⁴ Đỗ Đ. Đ.: *The Medium-term Macroeconomic Trends and Outlook in Vietnam* (APEC Study Center, 1998).

¹¹⁵ Son & Van Than.: *Analysis of the sources of economic growth of Viet Nam* (Centre for ASEAN studies, 1998).

¹¹⁶ Anh, Duc&Chieu.: *The evolution of Vietnamese industry* (WIDER Working Paper, 2014).

¹¹⁷ ESCAP calculations, based on data from the General Statistics Office of Viet Nam.

¹¹⁸ *Ibid.*

As a result of ASEAN accession in 1995 and the implementation of AFTA commitments, conditions for export activities were once again eased. Viet Namese exports benefited greatly from this improved market access, and started to play a leading role in the country's economic growth. In order to attract investments in physical infrastructure development, the government set up in 1996 a five-year public investment programme.

One of the earliest government measures was the equitization of SOEs in order to enhance their competitiveness, as they were still the main beneficiaries of the protectionism policy. New forms of projects involving big volumes of capital accompanied the development of infrastructure facilities, such as the Hanoi Urban Infrastructure Development Project and the City Hope project in Ho Chi Minh. The government also allowed the construction of 10 industrial zones with a total area of 2,000 hectares.

The 2001–2005 Development Plan was also export-oriented and focused on the expansion of new industries. In parallel to labour-intensive sectors, the Plan aimed at developing manufacturing industries in high-technology sectors such as electronics. In 2001 Viet Nam signed a bilateral trade agreement with the United States, which strengthened trade liberalization and exports growth in the country. The 2006–2010 Plan set a priority of boosting the economic structural change for industrialization and modernization. Trade liberalization increased with the 2007 WTO accession, as well as investment liberalization following the 2005 Law on Investment reform and Law on Enterprise. As part as the focus on high technology, the Law on Technology Transfer was implemented in 2006 to promote technology transfer via foreign investment.

High technology zones and open economic zones building projects were created in order to attract foreign capital in this specific sector. With the Law on High Technology in 2008, the development of high technology enterprises was prioritized as a strategic sector for future growth. Industries were provided tax incentives and investment allowances for technology renovation and development.

Main transformations in the economic structure

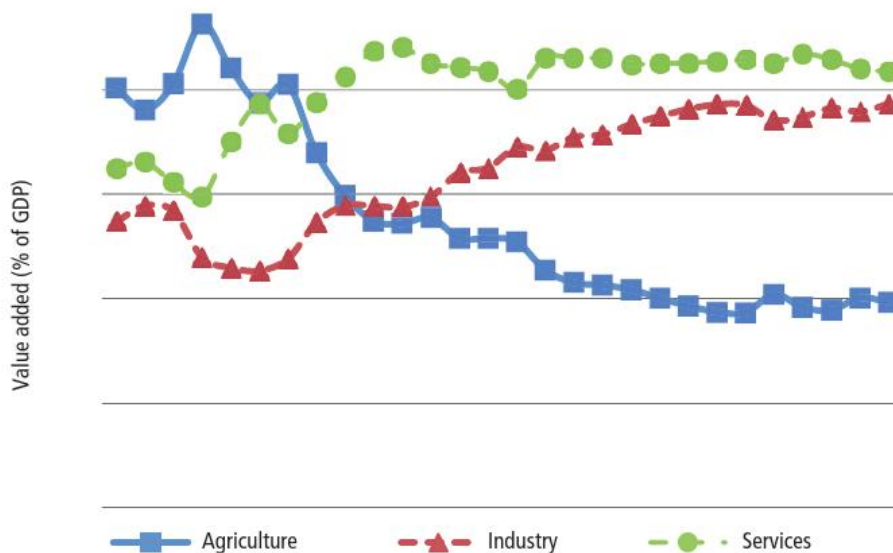
Main changes in Viet Nam

After more than 20 years of reform, the economic structure of Viet Nam has followed the path of structural transformation as observed elsewhere, moving away from agriculture and towards industry and services (figure 27). In 1988, the agricultural sector reached the highest share in total GDP, accounting for 46.8 per cent of value added, while industry and services accounted for 23.9 per cent and 29.7 per cent, respectively. Since then, agriculture has declined as a share of GDP to reach 19.6 per cent in 2012.

The share of services in GDP increased sharply in the first half of the 1990s and reached 44 per cent by 1995, remaining close to that level ever since. The share of the industry sector in GDP increased rapidly between 1990 (22.6 per cent) and 1993 (28.9 per cent), then remained at steady levels up to 1996; in the next decade it increased consistently to reach 28.6 per cent of GDP in 2006.



Figure 27: Viet Nam's goods exports by Standard International Trade Classification, 1990–2011



Source: ESCAP based on data from World Bank's World Development Indicators.

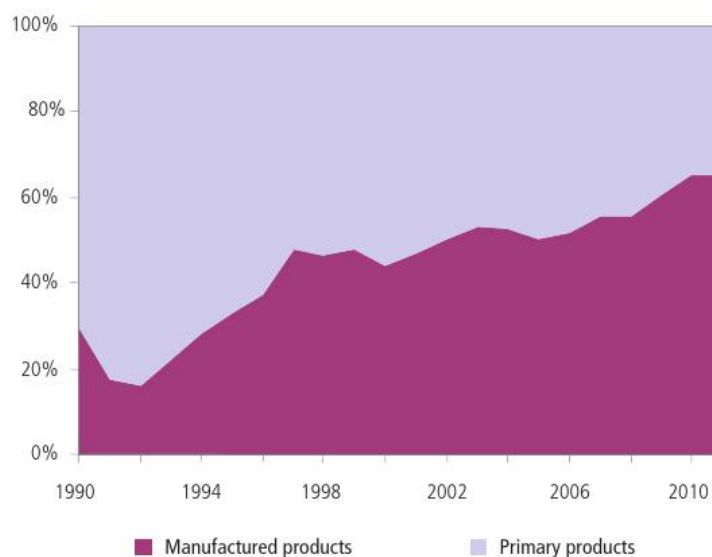
The structure of Viet Nam's exports has also shifted from primary to manufactured products. In 1990 the manufacturing sector only made up 29 per cent of the exports, while in 2010 it accounted for 65 per cent (figure 28).¹¹⁹ The manufacturing sector is mainly composed of low technology manufactures for global buyers such as mechanical and electronic assembly, footwear, garments and textiles with a

low value added. The producers import close to 80 per cent of their material.¹²⁰ The growing ITC industry is still mostly characterized by an assembly process of high technology parts. These industries are usually in the final process of small-scale, low value added assembly, with a focus on packaging and plastic details.

¹¹⁹ Data from Viet Nam Statistical Yearbooks and International Merchandise Trade Yearbooks available on the General Statistics Office of Viet Nam's website.

¹²⁰ Truong, C. B.: "Factors of Agglomeration in Viet Nam and Recommendations" in Analysis of Industrial Agglomeration, Production Networks and FDI Promotion (ERIA Research Project Report, 2008).

Figure 28: Viet Nam's exports of goods by Standard International Trade Classification, 1990–2011



Source: General Statistics Office of Viet Nam

Even though the Viet Nameese share of the world market for merchandises is still far behind other major Asian exporters (below 0.8 per cent), it has had the fastest growth since 1990 with an increase of over 10-fold.¹²¹ From 36 per cent in 1990, the importance of exports as part of the GDP increased up to 80 per cent in 2012 (figure 29).

This is one of the main consequences of the Doi Moi policy, which stimulated exports by promoting inward FDIs and by reducing tariff and non-tariff barriers to international trade. Most export bans and quotas were eased gradually until WTO admission in 2007.

During the past three decades, Viet Nam has greatly diversified its production base. The country exported only 207 different categories of products at the beginning of the Doi Moi policy, and it now exports

over 4,000 categories of products.¹²² Most of the growth happened before 2000: between 1986 and 2000 the number of products Viet Nam exported increased by an average annual rate of 20.5 per cent, while during the period 2000–2012 it only grew by 3.16 per cent annually (figure 30).

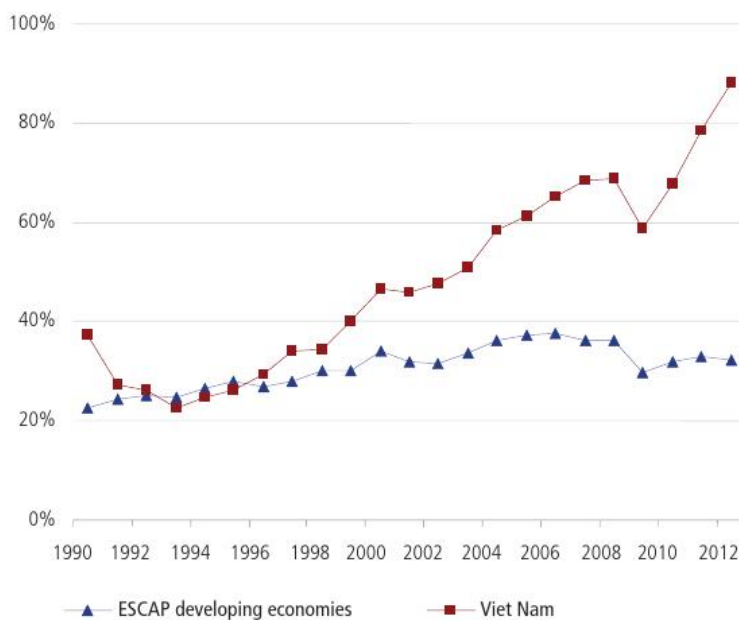
As the Viet Nameese economy diversified into exporting products that few other countries export, it faced less competition over the years. Taking as the yardstick the global average number of countries in competition for the import markets of similar product-mix, the index of competition faced by firms in Viet Nam reduced by about 28 per cent in that same period, from 107 in 1984 to 77 in 2012.¹²³

¹²¹ ESCAP calculations, based on data from United Nations Conference on Trade and Development Statistics.

¹²² Using 5-digit level SITC rev-2 classification further disaggregated by differences in unit price.

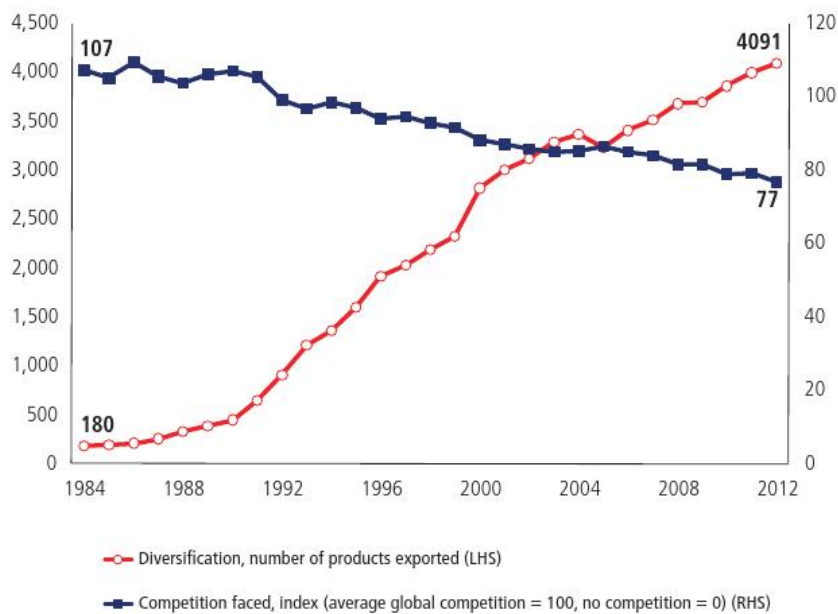
¹²³ ESCAP calculations, based on trade data from the UNITED Nations Commodity Trade Statistics Database (COMTRADE).

Figure 29. Share of merchandise exports in GDP, 1990-2012



Source: ESCAP Online Statistical Database

Figure 30. Evolution of Viet Nam's product diversification and competition faced, 1984-2012



Source: ESCAP, based on trade data from the United Nations Commodity Trade Statistics Database (COMTRADE)



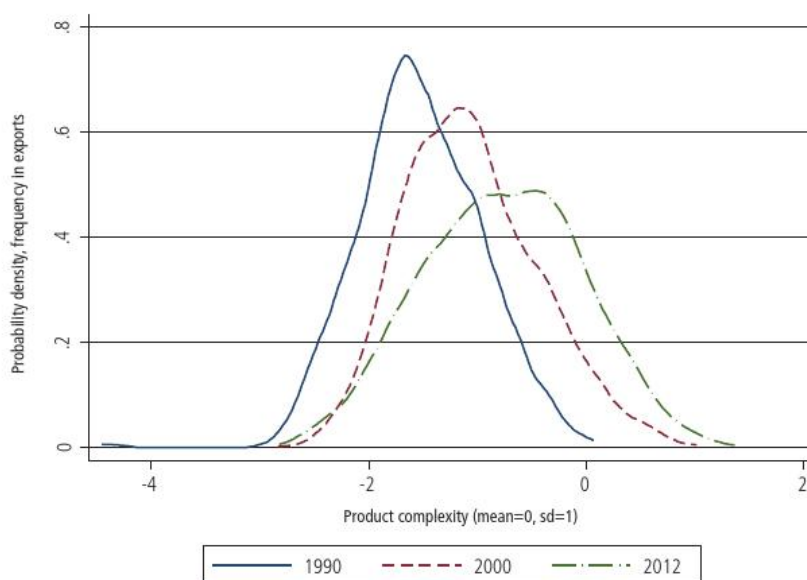
The transformation of product-mix can be assessed by analysing the product-mix exported by Viet Nam at different years, and assessing how complex they were in terms of the capabilities required to produce them. To measure such product complexity, this case study analyses the diversification of the countries that export each product, and the commonality of the other products that they export. Products that are exported by diversified countries that export exclusive product-mix are considered to be more complex than products that are exported by less diversified countries that export rather common products.¹²⁴

Figure 31 presents how the complexity of the product-mix exported by Viet Nam has changed over time. The graph is normalized to have the products with global average complexity in the middle

(measured as zero complexity) and standard deviations from the average measured as one. The Figure shows that, from 1990 to 2012, the average complexity of the product-mix shifted to the right – towards more complex products.

The analysis of the change in distribution over the years shows that the upper limit of the distribution of Viet Nam’s product complexity has expanded gradually. The new products of higher complexity that were added to the product-mix were not far apart from the most complex products of the previous product-mix, suggesting that the transformation of product-mix complexity has not occurred through leapfrogging but through incremental increases.

Figure 31. Complexity of Viet Nam’s product mix, 1990-2012



Source: ESCAP, based on trade data from the United Nations Commodity Trade Statistics Database (COMTRADE).

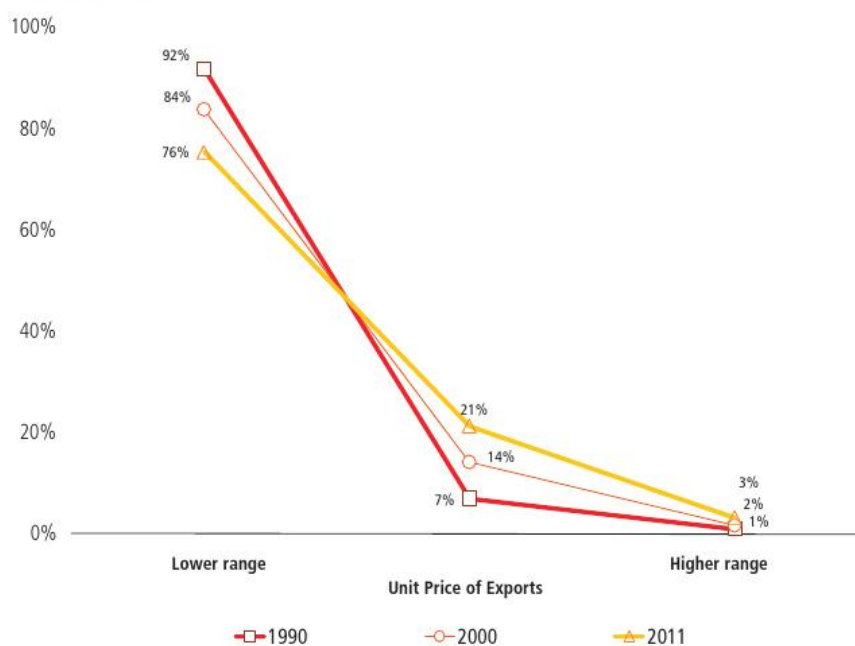
Note: Graph is normalized so that products with global average complexity are measured as zero complexity and the standard deviation from the average of the distribution of all products is one. For details in the calculation see Freire, C. (2013), *Strategies for Structural Transformation in South Asian Countries*, *Seoul Journal of Economics* 26, No. 3 2013: 311-336.

¹²⁴ For details on the methodology, see Freire, C.: "Strategies for Structural Transformation in South Asian Countries", in *Seoul Journal of Economics* 26 (2013), No. 3 pp. 311-336.

As exports from Viet Nam diversified, they also became more expensive. In 1990, only eight per cent of the products exported could be classified in the medium and high areas the of the price

range when compared with all other products of the same category. In 2012 the situation had changed leading to more than 24 per cent of products in the medium and high price ranges (figure 32).

Figure 32: Distribution of unit price of exports



Source: ESCAP, based on trade data from the United Nations Commodity Trade Statistics Database (COMTRADE).

Main changes in Ho Chi Minh City

From a city consumed with unemployment and most technical infrastructure centred for war in 1985, Ho Chi Minh City has become the main economic center of Viet Nam. In the 1990s the manufacturing sector became the leading sector for Ho Chi Minh City's economic growth.

As the city offered advantageous conditions for foreign investors in terms of (1) industrial infrastructures such as roads, ports, airports facilities and electric supply, (2) early establishment of industrial estates, (3) market friendliness and (4) a wealth of urban services, more than two-thirds of FDI to Viet Nam were concentrated in Ho Chi

Minh City and the surrounding provinces. The share of the foreign invested sector in Ho Chi Minh City's exports increased over the past decade and accounted for 24.2 per cent in 2011, representing an increase of six percentage points since 2000.

The transformation of Ho Chi Minh City's economy has occurred through industrialization led by massive FDI in the 1990s and overall modernization of industry with the emergence of the private sector after 2000. The Ho Chi Minh City government promoted in 1991 the development of export processing zones (EPZ) and industrial zones (IZ). Starting with the establishment of Tan Thuan EPZ in 1993, three EPZs and 12 IZs were developed, on a total area of 3,677 hectares.

During this period, Ho Chi Minh City became one of the most favoured destinations for domestic and foreign investors. These enterprises invested in labour-intensive industries (such as footwear, textiles and garments, wood and wooden products) as well as in capital-intensive industries (including chemicals, electronics, and machinery).¹²⁵ The city has now nearly 20 industrial and export-processing zones, in addition to the Ho Chi Minh City Hi-tech Park and the Quang Trung Software Park. Recently Hewlett-Packard announced plans to set up a \$18 million software company, and Intel opened its \$1 billion chip assembly and testing facility in Ho Chi Minh City.¹²⁶

In the early 2000s, the trade and service sector became a driving force for economic growth, in addition to the manufacturing sector. Since 2005, the growth rate in the trade and service industry has been greater than that in manufacturing. As new investment in manufacturing shifted to the surrounding provinces, Ho Chi Minh City increasingly became a centre for business and consumption. Since 2002, the share of the service sector in the city's GDP increased from 52.6 per cent to 54.3 per cent, while the shares of agriculture and industry both fell (respectively from two per cent to 1.2 per cent and from 45.4 per cent to 44.5 per cent).¹²⁷

As a consequence, in 2011 Ho Chi Minh City accounted for 33.5 per cent of the people who work in professional, scientific and technical activities, mostly due to an increase of 38 per cent over the last decade. Ho Chi Minh City has also become a financial centre for the country as the banking sector reached 9.6 per cent of the city's GDP in 2011, with an increase of 150 per cent in employment in the sector since 2005.¹²⁸

With regard to exports, the share of Ho Chi Minh City decreased by more than half between 2000 and 2012, from 56.5 per cent to 26.6 per cent of the country's export revenues. This can be explained by the development of other provinces such as Binh Duong and Dong Nai. Yet in terms of the overall national GDP, Ho Chi Minh City increased its share from 13 per cent in 1985 to 21.1 per cent in 2012.¹²⁹

The development of the textile industry

Among Viet Nam's industries, the textile industry has benefited the most from the Doi Moi policy. Export expansion has been the main driver of output growth in textile, especially in the 1990s. The share of textile in exports increased from 10.8 per cent in 1990 to 23.2 per cent in 2000. Since then it has slowly been declining, reaching 19.5 per cent in 2012 (figure 33). In 2012, it generated over \$25 billion from export revenues, and remains one of the main sectors of income for the country.¹³⁰

Main destinations for textile exports in 2012 were the United States (\$7.3 billion), the European Union (\$2.5 billion) and Japan (\$1.7 billion). Two main products within the textile sector are footwear and garments, which respectively generated \$8.4 billion and \$17.9 billion from exports in 2013.¹³¹ The textile industry's imports share also increased significantly between 1996 and 2000, from 7.3 per cent to 11.9 per cent, due to the demand for textile materials used in the production of footwear and garments exports.

Between 2000 and 2011, the number of enterprises in the textile sector increased by almost seven-fold (figure 34). This is mostly due to the growth of the micro and small enterprises (respectively, less than 10 and less than 50 workers). In fact, with a 28-fold increase, the share of micro enterprises increased from 7.4 per cent to 30.2 per cent during this period, while the share of large enterprises (more than 200 workers) declined from 29.7 per cent to 12.2 per cent.¹³²

Nonetheless, the large textile enterprises accounted for 23.9 per cent of the manufacturing sector's large enterprises, an increase of 4.5 percentage points since 2000. Overall, the manufacturing sector consisted of nearly 13 per cent textiles and garments enterprises in 2011.¹³³

¹²⁵Tan & FUKUSHIMA: "Transformation of Socio-economic Structure of Ho Chi Minh City under the Doi-Moi Policy and the Accompanying Globalization Process", in *Meijo Asian Research Journal* (2009).

¹²⁶Vietnam's provinces, regions and key economic zones, Italian Trade Agency, ICE, Agenzia per la promozione all'estero e l'internazionalizzazione delle imprese delle imprese italiane, 2012.

¹²⁷ESCAP calculations, based on data from Ho Chi Minh City Statistical Office and the General Statistics Office in Viet Nam.

¹²⁸Ibid.

¹²⁹Ibid.

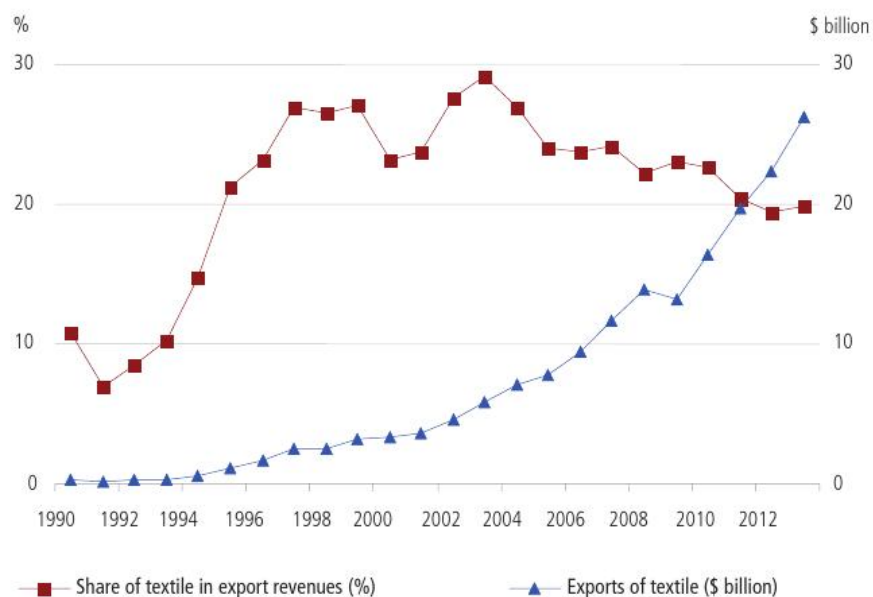
¹³⁰Ibid.

¹³¹Ibid.

¹³²Ibid.

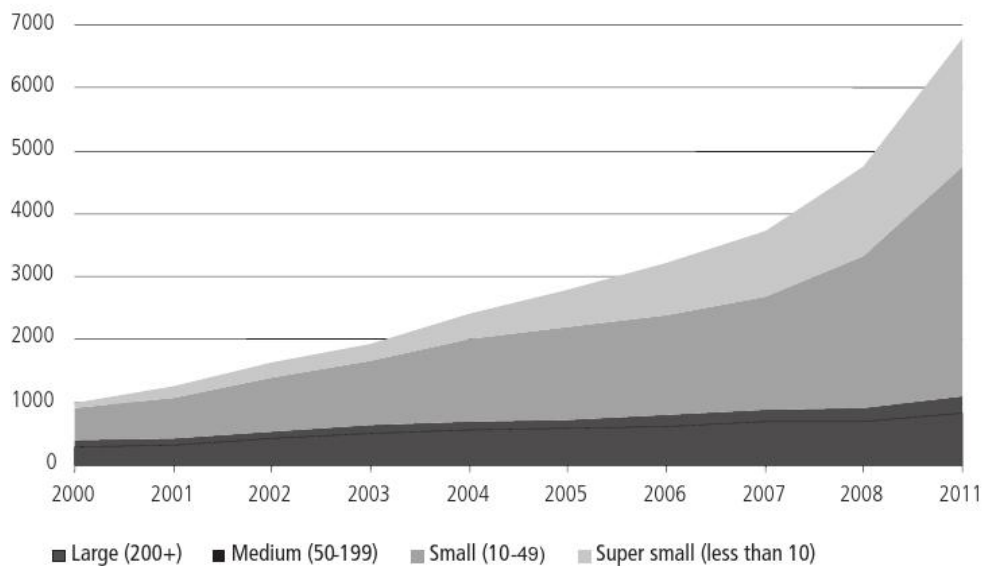
¹³³Ibid.

Figure 33: Exports of textile in Viet Nam, 1990–2013



Source: General Statistics Office of Viet Nam.

Figure 34: Number of enterprises in Viet Nam's textile industry by employee number, 2000–2011



Source: General Statistics Office of Viet Nam.

With the implementation of policies promoting inward FDIs, a large amount of these flows were directed into the textile sector. As a result, in the first nine months of 2013, the foreign invested sector accounted for 76.7 per cent of the revenues from footwear exports and for 60 per cent of garments. A large share of the foreign investments in the textile sector went to Ho Chi Minh City: in 2005, 29.7 per cent of the foreign invested textile production took place in Ho Chi Minh City, up to 22.8 per cent of the city's textile output value.¹³⁴

The textile industry is a major sector in Ho Chi Minh City, accounting for 12.5 per cent of its gross industrial output value and 10.1 per cent of its exports. Its share in Viet Nam's textile exports has remained stable during the last decade, at around 13 per cent.

Between 1990 and 2004, Ho Chi Minh City's volume production of textile has grown at an annual average rate of 19.5 per cent. Its share in Viet Nam's textile production increased from 28.8 per cent to 45.4 per cent (table 21), mostly due to the production of leather footwear that increased by more than 30-fold and of garments that increased 23-fold.

The share of raw textile in the city's textile production fell by 17.7 percentage points over the period, in favor of the garments and leather footwear productions which both increased by around nine percentage points.¹³⁵ The growth of Ho Chi Minh City's share in the production of garments is particularly great: from a share of 16.1 per cent in 1990 the city reached 62.6 per cent of Viet Nam's garments production in 2004.

Table 21: Viet Nam and Ho Chi Minh City's volume production of textiles, 1990 and 2004, in million pieces

	1990		2004	
	Viet Nam	Of which HCMC	Viet Nam	Of which HCMC
Raw textile	125 320	39 359 (31.4%)	922 594	372.991 (40.4%)
Garments	28 634	4 619 (16.1%)	170 444	106.692 (62.6%)
Leather footwear	5 848	2 663 (45.5%)	155 118	84.849 (54.7%)
Textile footwear	7 581	1 619 (21.4%)	36 850	19.306 (52.4%)
Total	167 383	48 260 (28.8%)	1 285 006	583 838 (45.4%)

Source: General Statistics Office of Viet Nam

The labour-intensive textile sector has been creating a large number of jobs through its expansion. 23.7% per cent of Viet Nam's manufacturing workforce was employed in the textile industry in 2011, and between 2005 and 2011 over 450 thousand employees entered the sector, of which 110,000 in Ho Chi Minh City. Ho Chi Minh City's share in the country's textile workforce has decreased since 2005, when it accounted for almost 45. per cent This trend is not specific to the textile industry: the share of the manufacturing sector as a whole has been decreasing in Ho Chi Minh City. The manufacturing sector fell from 56 per cent of the city's employment in 2005 to 42.8 per cent over the next five years. Yet the city still attracts more than one third of the country's textile workforce and

remains one of the textile industry centres in Viet Nam. Indeed, more than 36 per cent of the manufacturing workforce is employed in the textile industry.¹³⁶

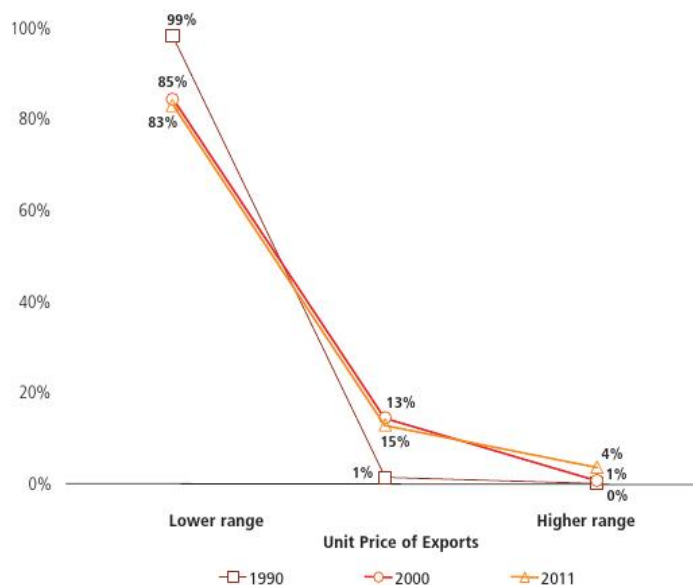
In 1990, only eight per cent of the footwear products exported could be classified in the medium and high parts of the price range when compared with all other products of the same category (figure 35). In 2012 the situation had changed with more than 24 per cent of products in the medium and high price ranges. However, the majority of the change has occurred in the period from 1990 to 2000, which indicates that the footwear sector has not moved up in the unit value of products in the past decade.

¹³⁴ Vietnam's export relies on foreign-invested sector, Viet Nam Net, 25 Oct. 2013, <http://english.VietNamnet.vn/fms/business/87536/Viet-Nam-s-export-relies-on-foreign-invested-sector.html>

¹³⁵ ESCAP calculations, based on data from Ho Chi Minh City Statistical Office and the General Statistics Office in Viet Nam.

¹³⁶ Ibid.

Figure 35: Distribution of unit price of exports - Footwear products



Source: ESCAP, based on trade data from the United Nations Commodity Trade Statistics Database (COMTRADE).

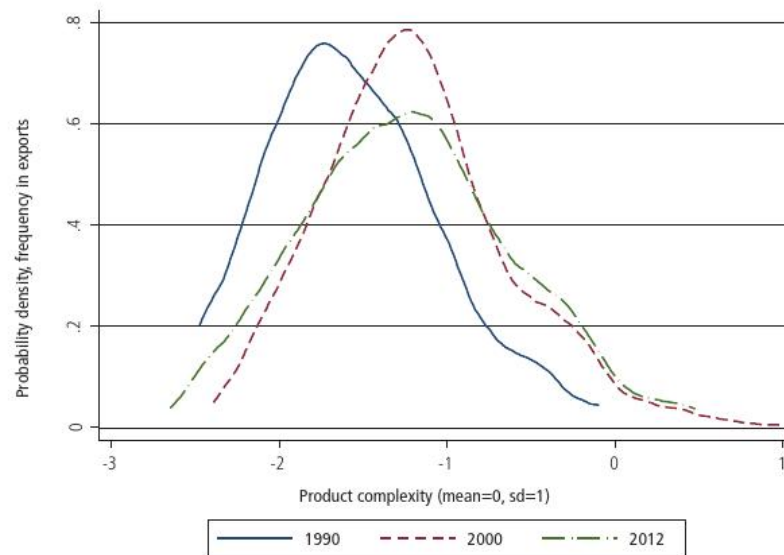
The same pattern is visible in the analysis of the product complexity of footwear and articles of apparel and clothing accessories in the period from 1990 to 2012 (figure 36). From 1990 to 2000 the distribution of product complexity in those sectors moved to more complex products – the average complexity of the product mix increased from -1.6 (meaning 1.6 standard deviations from the global average complexity) to -1.2, while the maximum complexity of the distribution increased from -0.15 in 1990 to 1 in 2000.

However, in the period from 2000 to 2012 the average complexity has remained close to -1.2 and the maximum complexity in fact

reduced to 0.5. That does not mean that the products produced in the country in 2012 were less sophisticated when compared with the products fabricated in 2000, because the measure of complexity is normalized by the average complexity of each year; but it does mean that when compared with all products produced in the world in each year, footwear and apparel produced in Viet Nam have become less complex products.

Considering this analysis, recent policies to diversify the economy towards new sources of comparative advantage, such as in the electronics industry, are very timely.

Figure 36: Complexity of Viet Nam's product mix: footwear and articles of apparel and clothing accessories, 1990–2012



Source: ESCAP, based on trade data from the United Nations Commodity Trade Statistics Database (COMTRADE).
Note: see note in figure 39

The recent growth of the electronics industry

Electronic products such as TVs, computers and mobile phones represent a sizeable share of exports since 2009, accounting for 17.9 per cent in 2012 and more than 24 per cent in 2013 (figure 37). In the first nine months of 2013 the foreign invested sector accounted for 99.2 per cent of the revenues from phones exports, and 100 per cent for computers.¹³⁷ The electronics sector increased from a share of three per cent of Viet Nam's industrial output value in 1994 to 10 per cent in 2012. Main destinations for electronic exports in 2012 were the European Union (\$7.3 billion), ASEAN countries (\$3 billion) and China (\$1.9 billion).¹³⁸

Ho Chi Minh City is more industrialized in the electronics sector than the rest of the country. In 2008, it accounted for 37.3 per cent of

the country's electronics output value. In 2010 the city's electronics sector accounted for 10.5 per cent of its industrial output value while in the country the sector only accounted for 6.9 per cent. Between 1990 and 2004 the volume production of TVs grew by more than 30-fold in Ho Chi Minh City, increasing the city's share in Viet Nam's TV production from 38 per cent to 61.5 per cent.

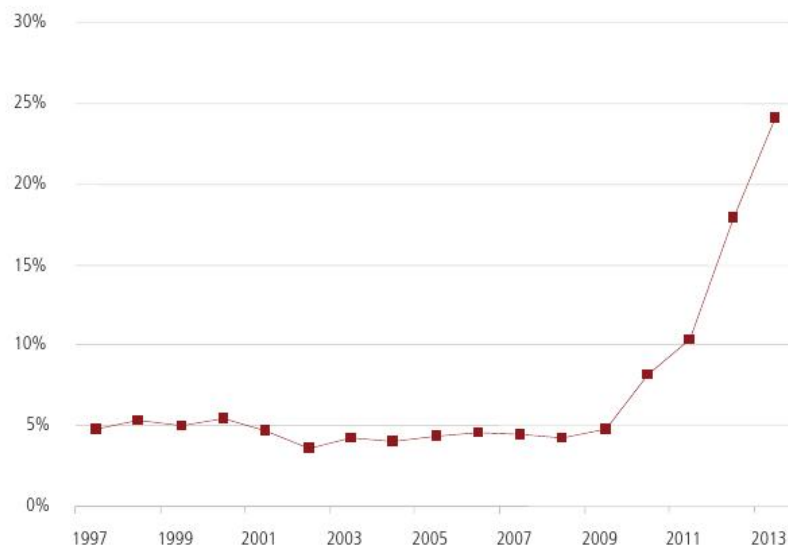
One of the main characteristic of the sector is that it doesn't create high value. The gross production value has been growing faster than value added, with a ratio of 13.81 per cent in 2009. This is because the electronics industry has specialized in simple assembling. For instance, in the first nine months of 2013, while Samsung exported \$20 billion worth of electronic products it also imported \$19 billion worth of input materials.¹³⁹

¹³⁷ Customs Handbook on International Merchandise Trade Statistics of Viet Nam in 2012, from Viet Nam Customs.

¹³⁸ Data from the General Statistics Office in Viet Nam.

¹³⁹ Vietnam's export relies on foreign-invested sector, Viet Nam Net, 25 Oct. 2013, <http://english.VietNamnet.vn/fms/business/87536/Viet-Nam-s-export-relies-on-foreign-invested-sector.html>

Figure 37: Share of electronics, computers and phones in national export revenues, 1997–2013

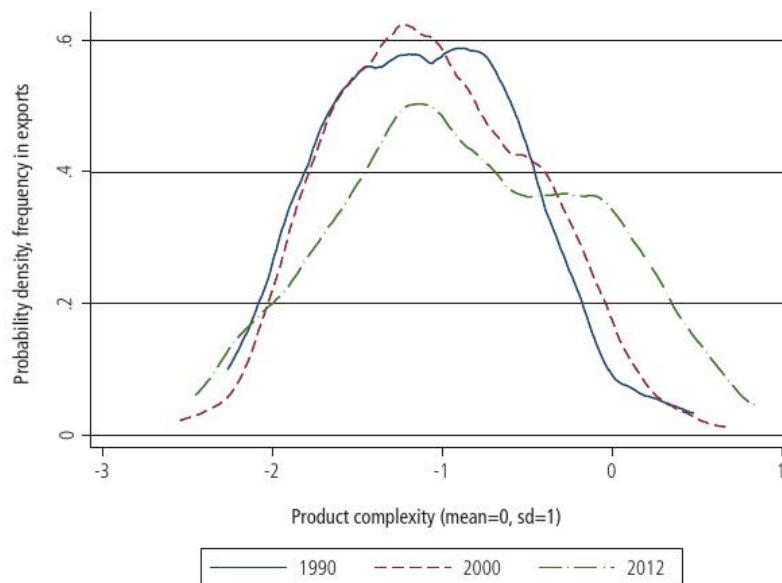


Source: General Statistics Office of Viet Nam

The analysis of the change in the distribution of product complexity in the combined sectors of electric, telecom and office equipment shows the increase in complexity since 2000. The maximum complexity of those products has reached 0.9 of the standard deviation of the global distribution, and has somewhat compensated the decline in complexity of products related to footwear and apparel shown in figure 36. Interestingly, the distribution of product complexity in

2012 shows a double hump with part of the production concentrated around low complexity products (below -1 complexity) and the other part above the global average. The latter may indicate the production driven by FDI while the former the domestic-based manufacturing, which would call for policies to facilitate the dissemination of technology and knowledge to foster the increase of domestic-based capacity in tandem with the increase in complexity of the sector.

Figure 38: Complexity of Viet Nam's product mix: electric, telecom and office products, 1990–2012



Source: ESCAP, based on trade data from the United Nations Commodity Trade Statistics Database (COMTRADE).

Note: See note in figure 39.

The role of national and local policies

National government policies have played a major role in the structural transformation in Ho Chi Minh City (table 22). Main reforms took place in the 1990s. The 1993 Land Law was the first true reform of property rights, which acknowledged the market of land use and defined land-user rights. The Domestic Investment Laws in 1994 and 1998 indicated favoured conditions for new business establishments such as reductions of income tax and land tax, and favoured credit.

The 1987 and 1996 Foreign Investment Laws offered favoured conditions for certain fields to foreign capital, such as reduction or exemption of income tax for some years; and initiated the development of EPZs. The 1994 and 1999 Private Enterprise Laws simplified the procedures for enterprise establishment, and the 1997 and 2005 Laws of Trade promoted the country's openness by reducing tariffs and treating all traders equally.

The textile export growth reflects the positive results of the Viet Namese government's efforts to promote inward FDI flows as well as exports of labour-intensive products in which Viet Nam had comparative advantages. Thanks to FDIs in the electronics sector, the share of these products in Viet Namese exports has greatly increased and they are becoming a new revealed comparative advantage, which are expected to increase once the recent large projects in the electronics sector will come on stream. This evolution generates vertical specialization in which each stage of production is located in a different country in order to minimize the cost of production for this particular stage. Explaining the determining factors of the development of the electronic industry is more complex than for labour-intensive goods such as textile clothing. Although labour costs play a role (Viet Nam specializing in the bottom of the production chain), other factors come into play such as the proximity to China and the education level of labour force.¹⁴⁰

¹⁴⁰ Chaponnière & Cling: "Viet Nam's export-led growth model and competition with China", in *Économie internationale*.

Table 22: Major policies and legal transformations since 1986

Legal changes	1986–1989	1990–1999	2000–2012
1. Property rights reform	The 1987 Land Law established private use of allocated land in agriculture. It created long-term land use rights for agricultural activities.	1991: Agriculture Bank of Viet Nam allowed lending to households. The 1993 Land Law regulated land prices as a basis to collect taxes. Market for land use acknowledged by defining rights of land users. Regime for protection of industrial property rights elaborated in 1996.	2001 Land Law allowed land users to mortgage their land use right at the banks. 2005 Land Law marked the adoption of market-based prices for land.
2. Multi-sectoral economic development			
Domestic investment		The 1994 and 1998 Law on Promotion of Domestic Investment provided favoured conditions for domestic investors. Business registration procedures greatly simplified.	In 2000, FDI law amended to streamline procedures, greater flexibility in corporate structure, foreign exchange controls liberalized. Foreign investors are allowed to recruit staff directly in 2003. The 2005 Common Investment Law regulated both foreign and domestic investors. The State treats all investors equally and facilitates equally good conditions for them.
Foreign investment	The 1987 Foreign Investment Law provided favoured conditions in selected sectors such as exemption of income tax for a maximum of two years, and reduced income tax (50%) for two more years. Import duty Exemptions for FDI projects.	The second Foreign Investment Law in 1996 increased the favoured conditions in selected sectors: further exemptions and reductions of income tax. Approval of foreign investment projects decentralized to provinces.	
Enterprises	Resolution 10 on agricultural management in 1988 provided autonomy in the production process to farmers. The 1990 Private Enterprises law indicated procedures for obtaining an establishment license	Private Enterprise Law in 1994 simplified and shortened the establishment procedures	In Ho Chi Minh City a formal stock market commenced operation in 2000. Labour Code amended in 2002 to provide more labour market flexibility, particularly in terms of wages and recruitment.
3. State sector reform	Decision 217-HDBT in 1987 granted more autonomy to the State-Owned Enterprises. Constant subsidies stopped.	Pilot equitization programme for state enterprises initiated in 1992.	The minister of a big city can decide to establish a new state company.

<p>4. Trade</p>	<p>Producers allowed to sell their products to any licensed foreign trade company. Issuing of export licenses decentralized to the local authorities. Law on Import and Export Duties in 1988 introduced tariffs under a simple form. In 1989, removal of quotas on all but 10 export and 14 import commodities. Foreign exchange rate system unified in 1989</p>	<p>Private companies allowed to engage directly in international trade in 1991, and export shipment licensing requirements lifted for almost all commodities in 1995. All export quotas lifted except on rice. Normalization of relations with China (1991), Textile Trade Agreement with the European Union (1992), end of the US embargo (1994), and major Cooperation Agreement with the European Union (1995). In the same year, ASEAN membership, AFTA tariff with tax rates of 0% and 1% (reduced). The 1997 Law of Trade assured that all traders were treated equally and that consumers' rights were protected.</p>	<p>Bilateral Trade Agreement with the United States in 2001. Decree 44/2001/ND-CP allows enterprises and foreign investors to export and import all permissible goods. VAT significantly improved in 2004, allowing export firms to have the same VAT tax band for imports as firms producing for domestic consumption. The 2005 Law of trade regulated more details and promoted liberalization. WTO accession two years later.</p>
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Source: Based on Tan & Fukushima (2009) "Transformation of Socio-economic Structure of Ho Chi Minh City under the Doi-Moi Policy and the Accompanying Globalization Process and on Van Arkadie (2003) "Viet Nam: a transition tiger?" ANU E Press.

Most countries actively participating to the Asian electronic regional network, in which China plays a central role, have their first revealed comparative advantage in electronic products. Other manufactured products such as textile only come in second place. This regional electronic network is characterized by two main elements: an increasing vertical specialization, and a growing importance of intra-regional flows of trade of intermediate goods (mostly parts and components).

In comparison to textile, these products are more capital intensive. This new kind of trade specialization brings new benefits: electronic products are more dynamic than textile in world trade and the potential for export and production growth is very high. What's more, learning effects are more important in high technology products such as electronics than in footwear and garments.

In 1991, the government started to emphasize strategic growth centres, by stating in the 1991 Five-year Plan its will "to concentrate investment both in width and in depth, to create clear changes in the economic structure, firstly for key branches and regions offering quick returns". It is also mentioned in the plan that policies are to be

defined for urban development and for developing the two biggest centres of the country, Hanoi and Ho Chi Minh City. These centres were expected "to attract domestic and foreign investment with a view to bringing into full play the role of economic, cultural, scientific and technological centres".¹⁴¹

If we look at the recent development plans of key industries, we can see that Viet Nam still focuses on this strategy. In 2005, the ICT industry's objective was an annual growth of over 20 per cent until 2010, through the promotion of e-businesses and e-commerce, and the development of internet infrastructures in the country. By improving legal framework, introducing policies on investment, industrial property protection, tax, and R&D on key products, the objective for the electronics industry was to generate an export turnover of over \$3 billion, and to provide employment to 300,000 workers between 2007 and 2010. A programme on the development of supporting industries has focused on building capacity of key industries such as piercing metal parts, casting, and plating, and aimed at reforming state enterprises to produce products for supporting industries with a high level of specialization.¹⁴²

¹⁴¹ F. Ishizuka: Role of Local Governments in the Framework of National Industrialisation Policy

¹⁴² Anh, Duc & Chieu: The evolution of Viet Namese industry (WIDER Working Paper, 2014).



Ho Chi Minh City started to actively implement policies during the early 2000s, following a state policy of limiting the population which decentralized the city's development to the bordering provinces. From 1998, new plans of territory organization were created to manage the distribution of the population within the city. The local authorities promoted urban development and created five new districts (No.2, No.7, No.9, No.12 and Thu Duc, with a surface of around 1,900 square kilometers), and also established a new network of ports in the province. The main orientations were to increase openness and to develop the private sector of Ho Chi Minh City.

Between 2001 and 2005 the capital structure radically changed when the private sector outpaced the state-owned enterprises investment budget. In parallel to the private sector development, the banking system became the main channel for raising capital. Average deposits in the city increased annually by 37 per cent during the period, and loans by 41 per cent. Banking and finance quickly diversified from the traditional activities such as fund mobilization services and Forex trading to different services, meeting the needs of the private sector. Modern means of payment such as bank cards were developed, and the volume of non-cash payment through banks increased.

Private businesses truly became the main driving force for the economic growth of the city in the early 2000s. In 2005 the economic growth of the private sector reached 15.6 per cent, while state economy accounted for 8.8 per cent and foreign investment for 12.3 per cent. The private sector accounted for 50.8 per cent of the city's GDP, while the state accounted for 33.9 per cent and the foreign invested sector for 21 per cent. The growth of the private sector was mainly due to the new Enterprise Law of 1999, which made it easier to establish several types of companies. During the period 2000–2008, the total number of private establishments increased 7.3-fold in the trade and service sector, while the manufacturing sector showed a 6.6-fold increase of establishments.¹⁴³

Ho Chi Minh City has been promoting technology renewal at the local level since 2006. The city has been giving between 50 and 100 per cent interest rate subsidies for loans used for technology renewal in prioritized industries such as electronics and information technology, mechanical engineering and pharmaceutical chemistry.

From 2006, Ho Chi Minh City opted for an industrial-efficiency orientation and launched the Technology Development Program 2006-2010. The objective was to increase the knowledge-intensive industries and to reduce the share of labour-intensive industries. Favoured conditions were offered for investments in this sector, and the establishment of technology-intensive enterprises was facilitated.¹⁴⁴

In 2008 a fund was established to support technology development and to promote innovation. It included preferential interest rates of 50 per cent below normal rates and reduced collateral requirements. Major industries included were electricity, electronics, chemicals, and biotechnology.¹⁴⁵ An import-substitution programme also supported four strategic sectors of the city (mechanical, electronics, pharmaceutical, and plastics products).¹⁴⁶

Also in 2008, a programme was launched to promote technological innovation in the service industries, technology transfer by sector, and industrial transformation of Ho Chi Minh City. It included technology and conformity assessment consulting for enterprises, training, and the development of a database of over 1,000 technology experts to provide information and connectivity on technology business.¹⁴⁷

At the same time, the share of resource industries and labour-intensive industries gradually decreased. This shift in the industry was made possible through exploitation of neighbouring provinces, which specialized in the labour-intensive sector.

¹⁴³ "Ho Chi Minh City - The drivers of the key southern economy", Ho Chi Minh City Institute for Development Studies. Available at: <http://www.hids.hochiminhcity.gov.vn>.

¹⁴⁴ "Efficient city: Increasing knowledge and reducing labour intensity", Ho Chi Minh City Institute for Development Studies. Available at: <http://www.hids.hochiminhcity.gov.vn>

¹⁴⁵ "The Programme Project of Science and Technology for Development Assistance, Economic-Social City Phase 2006 - 2010", Available at: Ho Chi Minh City Website www.dost.hochiminhcity.gov.vn

¹⁴⁶ See: Ho Chi Minh City Website www.dost.hochiminhcity.gov.vn

¹⁴⁷ Ibid

Concerning Ho Chi Minh City's future development, the city has planned to spend VND10,000 trillion (almost \$500 billion) on a socio-economic development plan over the next decade. The plan for the city has a central area of 15 kilometers and four directions of development. The two main development directions are East and South, and the other two are North-West and South-West. 25 to 35 per cent of the budget will be spent in the 2016-2020 phase, and 65 to 75 per cent during the second phase in 2021-2025.

The plan aims at developing Ho Chi Minh City's road infrastructures including beltway and bridge systems, and should improve key intersections. Main projects include the development of four interconnected overhead routes of four lanes to handle large traffic and the building of an urban railway system. Under this new model the city will be re-organized and have four satellite cities revolving around a central area comprised of 13 current districts.

The East City of a total area of 211 km². will develop financial services and high technology industries, the West City will focus on service industries and new residential areas, the South City will consist of industries and port services, and the North City will center on a service-based economy, new residential areas, and high-technology agriculture. According to the plan, 22 additional export processing and industrial zones will be created in Ho Chi Minh City by 2020, for a total area of almost 6,000 hectares. The economic hub's GDP growth rate between 2013 and 2023 is expected to be 1.5 times higher than the country's, according to the plan.^{148,149}

Since the city wants to strengthen its position as the country's centre of science and technology, it has set an important focus on improving the level of scientific research and innovative capacity. Ho Chi Minh City plans to drive its industrialization and modernization by acquiring and mastering advanced technologies and knowledge, while also improving its international competitiveness and integration into the world economy.

Some general goals for 2020 have been defined. Ho Chi Minh City seeks to develop highly qualified human resources in science and technology, to improve the competitiveness of enterprises through technological innovation, and to increase high-tech, high

value-added industry establishments. The promotion of a rapid development of service industries based on the application of advanced management technology, will be pursued in order to build a successful knowledge economy in the city.¹⁵⁰

Science and technology investments are expected to grow at an annual rate of around 20 per cent, which should bring the revenues from the science and technology sector to VND500 billion by 2015, and VND1,000 billion by 2020.

The promotion of technological innovation will occur through the support of high technology focused projects and by encouraging imports of advanced technology. Collaborative links between universities, research institutes and science and technology enterprises will be stimulated, as well as a support for universities and research institutes in the area of investment infrastructure, equipment for scientific research and technological development.¹⁵¹

Conclusions

Ho Chi Minh City has experienced a remarkable transformation in its productive capacities in the past three decades. Echoing the structural transformation in the economy of Viet Nam, the city has become a production centre and growing exporter of manufactured products. Initially driven by FDI in labour-intensive industries such as apparel and footwear, the city has continued to transform its productive structure and has recently targeted more complex industries such as electronics, telecom and office equipment sectors.

The analysis of the strategies, policies and programmes that have shaped the productive transformation of Ho Chi Minh City shows the fundamental active role of the State in facilitating the economy's development into a higher level. This is observed in the national and local policies to create an enabling environment to attract FDI and to strategically target sectors that could drive a constant increase in productive capacities of the economy. It also stresses the central role of the market in resource allocation and the need for the state to play a facilitating role to assist firms in the process of industrial upgrading by addressing externalities and coordination issues.

¹⁴⁸ "Ho Chi Minh City to have four cities under new master plan", Tuoitrenews, 2013. Available at: <http://tuoitrenews.vn/society/12052/ho-chi-minh-city-to-have-four-cities-under-new-master-plan>

¹⁴⁹ "Master plan on economic development - Ho Chi Minh City development until 2020 with a vision toward 2025" Available at: www.chinhphu.vn

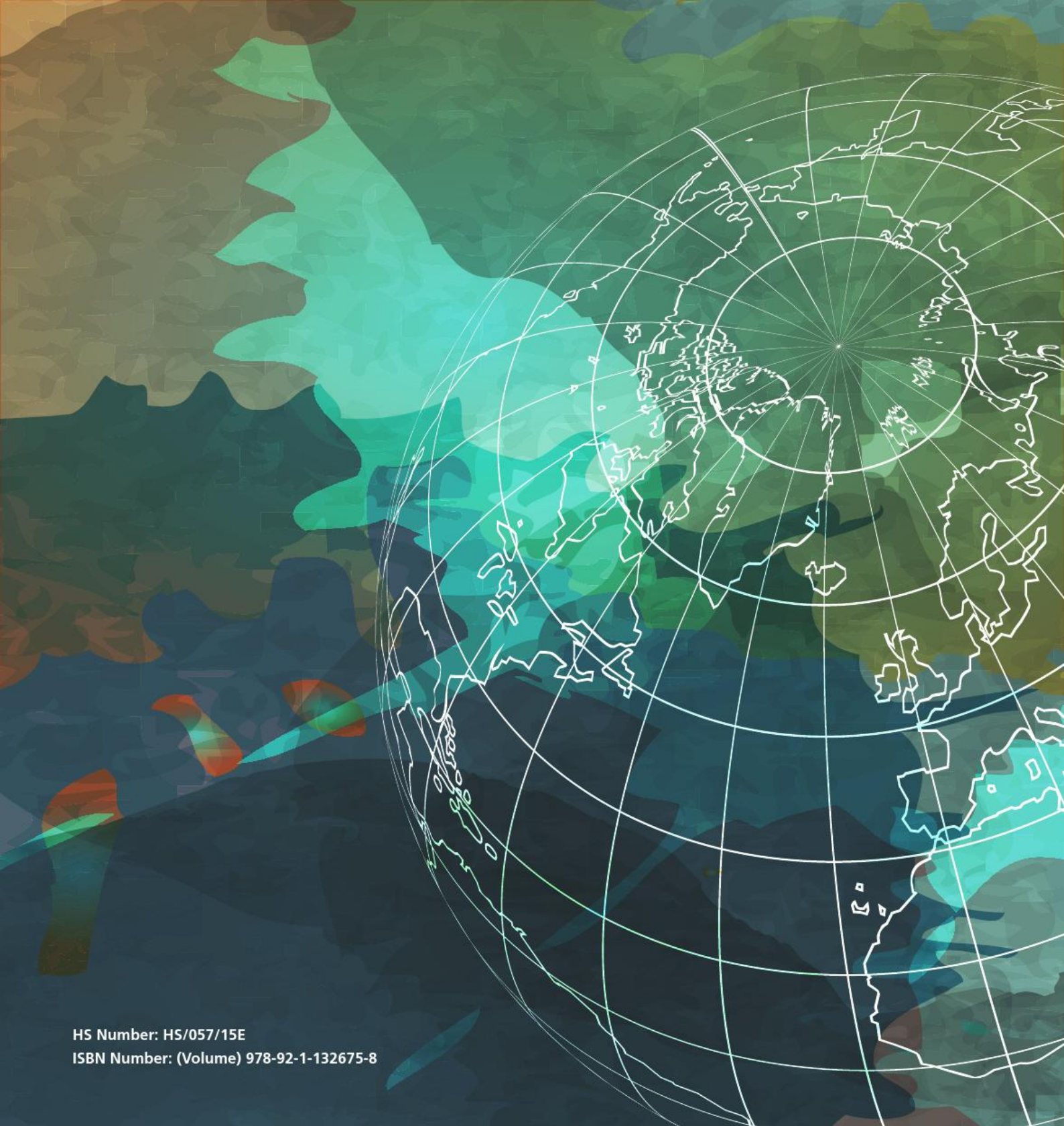
¹⁵⁰ "The development of Science and Technology". Available at: Ho Chi Minh City Website www.dost.hochiminhcity.gov.vn

¹⁵¹ See: Ho Chi Minh City Institute for Development Studies. Available at <http://www.hids.hochiminhcity.gov.vn>.



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