Industries Without Smokestacks: Implications for Africa’s Industrialization

Understanding and Characterising the Services Sector in South Africa: An Overview

Haroon Bhorat, François Steenkamp, Christopher Rooney, Nomsa Kachingwe, and Adrienne Lees

July, 2016

1 Introduction

After the lost decades of the 1980s and 1990s in Africa, the post-2000 period has been characterised by rapid economic expansion. However, the sustainability of this growth has come under increasing empirical and analytical scrutiny. Sustained economic growth and development inevitably involves the process of structural transformation – the shift from low productivity agricultural activities toward high productivity industrial activities. As such, the extent to which the continent, and the countries that comprise it, is undergoing or indeed may have undergone structural transformation, has been investigated in the literature. Rodrik (2014) argues that the traditional engine of economic development - the process of structural transformation driven by industrialisation within which the manufacturing sector is at the core - has not thus far been a key component of the African economic growth recovery. McMillan & Harttgen (2014) find evidence of structural transformation but note that the expansion of manufacturing has not been significant, whereas the growth in services has been sizeable.

Essentially, the post-2000 growth period in Africa has witnessed the declining importance of agriculture, a significant increase in the importance of services, and a somewhat stagnant performance in manufacturing (Bhorat et al., 2016). The question then arises as to whether structural change, less dependent on a manufacturing-driven growth but more biased towards the services sectors, can provide an alternative avenue for sustained economic growth and development in Africa. The notion that the continent, and South Africa in particular for our case study here, may indeed be able to grow and structurally transform through a variety of services industries – is an intriguing and crucial research question.

As part of a multi-country project exploring the above-mentioned question, this paper aims to examine the impact and potential of generating a ‘growth path without smokestacks’ in South Africa. South Africa offers a unique case study in that whilst it is formally classified as a semi-industrialised upper-middle income country, it has recently exhibited signs of deindustrialisation. In conjunction with the decline of industry, there has been a rapid and significant growth across a range of services sectors. Furthermore, from a policy standpoint, the targeting of the business and tourism services sectors in the South Africa’s National Development Plan and the New Growth Path point to a recognition of the economic potential offered by these sectors by policy-makers in South Africa.

The paper proceeds as follows: In Section 2, we examine the literature which links economic development and service-led growth. Section 3 briefly describes the manner in which we conceptualise the service sector, and the data employed to analyse this sector. In Section 4 we document the development of industries without smokestacks and provide an estimate of their significance in the South African economy. Section 5 provides a description of public policies that have had an impact on the broad sector performance. In Section 6 we focus on one service industry that offers the most potential to generate growth without smokestacks. Section 7 concludes the analysis.

1 Development Policy Research Unit, School of Economics, University of Cape Town. All comments can be directed to haroon.bhorat@uct.ac.za
2 Literature Review: Services-led Growth and Economic Development

2.1 Introduction

The East Asian growth miracles, including China, were driven by industrialisation and manufacturing exports. Consequently, manufacturing is often seen as the key route to increasing national per capita income levels. However, recent evidence suggests that global demand for manufactured goods is declining, and economic conditions are less conducive to building a development path based on fast-growing manufacturing exports (Rodrik, 2014). Thus, there is a distinct possibility, if these global demand trends in manufacturing continue, that manufacturing and manufacturing exports in particular may play a distinctly less central role in shaping the economic growth trajectories of developing countries in the future. In this vein then, as the scope for manufacturing-led growth possible wanes, the services sector needs closer examination as an engine of growth. The South Asian experience is instructive here, and gives evidence that services can drive development.

2.2 The South Asian Experience

South Asia’s recent growth performance has almost matched that of East Asia. However, growth in this region has been driven by services as opposed to manufacturing. In the 1980s, the services sector in South Asia accounted for less than 40 percent of GDP. This grew to over 50 percent in India, Pakistan, Bangladesh and Sri Lanka, and 49 percent in Nepal, in 2005 (Noland et al., 2012). These figures are akin to what industry contributes to East Asian growth. Not only are services now the largest sector in these economies, but they also account for the greatest percent of GDP growth. In India, the Maldives, and Sri Lanka, approximately 60 percent of overall growth from 2000-2010 was attributed to services (Noland et al., 2012). This represents a higher share of services in GDP and faster services sector growth than East Asia, despite East Asia being richer and experiencing moderately faster growth over the period.

Further analysis of service sector growth in South Asia reveals a dichotomy within the sector between modern impersonal services and traditional personal services. A decomposition of the services sector within this region shows that modern impersonal services are growing faster than traditional personal services. For instance, in Bangladesh, India and Sri Lanka, modern services grew at an average growth rate in excess of 12 percent per annum between 2000 and 2006. The corresponding growth rates in traditional services for these countries was under 10, 8 and 4 percent, respectively (Ghani, 2009). Furthermore, India, Pakistan, and Sri Lanka are significant positive outliers when comparing the share of IT and IT-enabled services exports in total exports of goods and services with the rest of the world (Ghani, 2009). In contrast, the share of traditional services, such as tourism and transportation, in total exports are not significantly different from the global norm (Ghani, 2009).

This services-led growth has challenged the traditional notion that the process of industrialisation, and hence the development of a manufacturing sector, is a necessary element of structural transformation and economic development. Previously, services were believed to be restricted to the domestic market and therefore unable to contribute significantly to growth. A haircut, restaurant meal, or legal consultation, had to be conducted in person, and there was little potential for scaling up these activities and exporting them. Thus, the development literature has typically thought of the services industry as comprising of low-productivity firms that offer low-paying, menial jobs and provide non-tradable services (Mishra et al., 2011).

However, it can be argued that technological change has fundamentally altered the nature of structural transformation and the manner in which economies develop. Technology has removed the need to

---

2 Traditional services include services such as trade, hotel and restaurants, education, transport and health, often require face-to-face interaction and ICT use is limited. Modern services include computer and information services, financial and business services, and communication.
supply services in person. This had enabled the tradability of certain services across borders as the two parties involved in the transaction do not have to be in the same space (Mishra et al., 2011). For instance, loan applications and approvals can be conducted online by someone working in another country, and hospital records can be stored and updated on a remote server. Transportability means that services are no longer restricted by time or proximity, and can be delivered over great distances with little to no deterioration in quality (Ghani & O’Connell, 2014). In fact, advances in telecommunications have brought the cost of trading services down faster than that of trading goods. Finally, most modern services are delivered electronically, and thus do not face the same trade barriers, such as tariffs or customs, that are placed on goods (Ghani, 2009). A more liberal global trade regime for services has contributed to rapid market expansion.

Interestingly, developing countries seem to be focusing on the production of tradable services more than developed nations. The most obvious example is that of India, which has of course emerged as a leading producer of IT and IT-enabled services, despite having a relatively small domestic market. Researchers argue that the Indian example is indicative of a much larger, future global trend. More and more personal services will be able to be delivered impersonally as information technology expands, thus increasing global trade (Blinder, 2006).

However, these technological changes are common globally, and cannot alone explain South Asia’s exceptional growth path. The emergence of South Asia, and India in particular, as a leading services exporter has been ascribed to a combination of effective market integration, the availability of skilled labour, and supportive institutions and infrastructure (Ghani, 2009). Firstly, South Asian countries liberalized services trade faster than East Asia, which attracted both domestic and foreign investment in the sector. Secondly, India’s spending on tertiary education is comparatively high. The large number of skilled graduates, with a good reputation for their English language abilities, made India suitable for investment in the fast-growing information and communication technology industries. Furthermore, India’s institutions affecting services were more conducive to business than those that affected goods (Ghani, 2009). For instance, states in India with stronger property rights also demonstrated stronger services-led growth. Finally, while manufacturing relies on good infrastructure for the transportation of goods, services rely on electronic delivery. India’s policies towards telecommunications in the 1990s facilitated private sector investment and the growth of competitive broadband telecommunications markets (Ghani, 2009).

2.3 Evidence of Economic Transformation

A key question from a developing country perspective, especially in the case of African countries, is whether service sector growth can contribute to positive economic transformation. Historically, the developmental literature has argued that this is not the case. Firstly, many of the fast-growing services industries require medium- to high-skilled labour. Thus, depending on the skill-intensity of the sector and the availability of suitable workers, the ability for the services sector to generate jobs for the majority of the unemployed may be constrained. Secondly, services sector activities were typically thought of as less productive than manufacturing, largely due to the informal and personal nature of many services (Khanna et al., 2016). Finally, services growth tends to be geographically concentrated in wealthier, urban regions and thus the benefits of growth are not extended to the poorest regions.

In contrast, recent literature has argued that services can contribute to positive economic transformation, and the South Asian case somewhat attests to this. Bosworth & Maertens (2009) found that labour productivity, in absolute terms, is higher in the service sector than in the industrial sector for India, Nepal, Pakistan and Sri Lanka. In contrast, labour productivity in manufacturing is substantially higher in East Asia. This supports the idea that South Asian growth is characterised by moving labour from low-productivity agricultural activities to high-productivity services. Similarly, labour productivity growth in the service sector has been higher than in manufacturing for India, Pakistan and Sri Lanka (Bosworth & Maertens, 2009).
Jobless growth is a primary concern for late developers, particularly given the youth bulge experienced by many of these nations. In a study of over 100 countries, Ghani & O’Connell (2014) found that the capacity for the industrial sector to create jobs has been declining over time. In contrast, the service sector is absorbing more labour and at earlier stages of development. Evidence suggests that the service sector has generated jobs at a faster pace than other sectors in India and Pakistan, while services job creation in Bangladesh and Sri Lanka narrowly lagged behind manufacturing (Ghani, 2009). Furthermore, there is evidence that the services industry in South Asia has experienced higher growth rates in wages than agriculture and manufacturing.

With respect to the poverty reducing effects of service-led growth, Ghani (2009) found that growth in the service sector displays a stronger correlation with poverty reduction that growth in manufacturing or agriculture for a sample of 50 developing nations. At the state level in India, the same pattern was displayed, with better rates of poverty reduction coming from states that attracted more IT-related investment (Ghani, 2009). Growth in the service sector supports poverty reduction through two avenues. Firstly, the sector creates new jobs. Secondly, the income from services jobs, when spent, increases demand for goods and services. This contributes to further increases in employment.

2.4 Potential for Other Low-Income Countries

Although India is the poster child for modern services growth, several other low-income countries have experienced similar if not stronger growth in services. For instance, between 2006 and 2010, Rwanda, Ethiopia and Nigeria all topped India’s average annual services growth rate (World Bank, 2016). A report by Khanna et al. (2016) for the Overseas Development Institute found that Kenya has rapidly asserted itself as a regional services hub. Kenyan services exports more than tripled from $1.9 billion in 2005 to $4.9 billion in 2012, and thus experienced more dynamic growth than goods exports. In addition, Kenya is ahead of similarly wealthy countries in terms of the share of services in trade, with a 44 percent share in 2012 compared to the average of 33 percent (Khanna et al., 2016). These exports are dominated by transport and communications (including ICT), followed by travel, insurance, and financial services. The performance of tourism services is relatively weak compared to countries with similar income levels.

Egypt has emerged as a leading supplier of IT services for the region and European markets. To succeed, they have leveraged their proximity, geographically, linguistically and culturally, to wealthy Persian Gulf countries, as well as their geographic proximity to Europe (Engman, 2010). Several leading IT companies, such as HP and Microsoft, have built software application development centres in Egypt, while some telecommunications companies have opened support centres. This success is attributed to a high number of multilingual, technologically-skilled graduates, cheaper labour and input costs, and a political will to improve the business environment (Engman, 2010).

Another example of an emerging export niche for developing countries is health services. This includes the cross-border movement of patients, temporary movement of health professionals to deliver services internationally, the opening of branches or clinics abroad, and the technological provision of services across borders, such as a radiologist based in Asia servicing American hospitals (Cattaneo, 2010). Historically, the North has serviced the South as patients sought higher-quality treatment. However, this is shifting as medical services improve in developing countries that can leverage a comparative cost advantage due to lower labour costs and favourable exchange rates, and offer attractive convalescence resorts (Connell, 2006). This, of course, is conditional on an assumption of comparable levels of quality. Many developing countries suffer from low hospital and clinic density and high mortality rates. It has been argued that the income from trade in health services could contribute to the alleviation of these shortages.

Countries such as Thailand and Malaysia have emerged as significant global health exporters, largely catering to their neighbouring countries. Thailand in particular has experienced rapid growth in medical
tourists, from almost none in 2000 to over 450,000 in 2009 (NaRanong & NaRanong, 2011). South Africa has been hailed as a leading destination for cosmetic surgery, as costs can be less than half of those in America, from where most patients originate. India is also known to be a major centre for medical tourism, and emphasizes their lower costs and shorter waiting lists (Connell, 2006).

The essential problem with services as a route to development is that the most productive, growth-stimulating service sectors appear to require highly-skilled labour. For a farm worker to be productive in an industry like information technology would require many years of education and training. Whereas the same farm worker can become a more productive manufacturing worker fairly easily (Rodrik, 2014). Ultimately, skills portability gaps are on average more easily closed in moving from agriculture to manufacturing, than from agriculture to high-end services. Therefore, it has been argued that African countries will struggle to create an environment that will exploit the growth potential of the services sector. Given that many high productivity services jobs rely on highly skilled labour, poor levels of human capital accumulation in many low income countries is likely to constrain growth through the services sector.

However, certain services sectors do present the potential to be major employers of low- to medium-skilled labour. One such sector is transport, termed the “ultimate facilitator” by the World Bank (Khanna et al., 2016). Transport services facilitate international trade, stimulate economic growth and regional integration, and extend economic opportunities to rural areas. Moreover, good transportation networks extend access to health and education facilities. Employment opportunities at the lower-skilled end of the spectrum include service operators, such as truck or taxi drivers, road maintenance, traffic management, and road and infrastructure construction (Khanna et al., 2016). At a broader level, the transport sector has numerous linkages to other spheres of the economy and its services are crucial to ensuring the productivity and competitiveness of manufacturing industries.

Furthermore, the development of transportation networks can contribute to positive social outcomes such as improved enrolment of girls, as access to education expands. An example from Kenyan flower exports highlights the structurally transformative nature of this sector. Kenya has emerged as one of the world’s largest exporters of cut flowers, many bound for Europe. This industry is a key earner of foreign currency, and a large employer of women from poor rural backgrounds who received basic training (Khanna et al., 2016). The success of this industry can partially be attributed to improvements in the Kenyan national airline following privatisation, as well as the development of efficient transportation networks from farms, with refrigerated facilities, as well as upgraded airports.

Another industry with strong pro-poor growth potential is tourism. Employment can be generated across a wide range of skills, from cleaning and catering staff to professional management staff and guides. Furthermore, there are multiple backward-linked industries that could benefit from a strong tourism sector, for instance transportation, handicrafts and agricultural supplies. The potential of these indirect effects depends on the tendency for the tourism sector to source goods and services locally (Khanna et al., 2016). For example, in Kenya, tourism accounted for approximately 12 percent of GDP in 2014 and had significant spill-over effects. One of these is the upgrading of international airports in Nairobi and Mombasa, as well as the construction of new domestic airports. This has meaningfully enabled the growth of other sectors, such as the highly-profitable flower exports (Khanna et al., 2016).

Another important concern is whether services-led growth can be sustained. Blinder (2006) argues that services display enormous potential and the current degree of globalisation is only the beginning. As the number of services produced and traded globally expand, the opportunities for developing countries to find alternative niches and specialise their production also expand. Thus increasing globalisation offers new possibilities for developing comparative advantages in services, rather than solely in manufacturing or agriculture.

3 Methodology and Data
In the analysis below we present a descriptive overview of the service sector and the various service sub-industries, within the South African economy. We focus predominantly on the post-2000 period, although where necessary and feasible we employ a longer time period. It is important to note that we examine the service industries in relation to the manufacturing sector as a whole, in order to assess the sector’s viability as an alternative source of structural transformation to manufacturing.

Following the conceptual approach to services presented by Ghani & Kharas (2009) we examine the service industries by grouping them into two groups: Firstly, modern tradable services, and secondly, traditional non-tradable services. Based on available data at a given level of aggregation, the former comprises Finance & Insurance services, Business Services, and Communication services. The latter comprises Government Services, Transport & Storage services, Wholesale & Retail Trade, Accommodation & Catering services, and Other Community, Social & Personal (CSP) services. We do this in order to unpack the varying performance and characteristics of the two since it is argued that the former is more dynamic and able to facilitate structural change in an economy.

In order to examine the service sector in South Africa we employ a variety of datasets. To interrogate labour market aspects of the services sector we analyse the Labour Market Dynamics Survey (LMDS) from Statistics South Africa. The LMDS is an annual dataset that is comprised of data from the Quarterly Labour Force Surveys (QLFS) in a calendar year. It is a household survey that captures detailed labour market information.

Broad industry trends for GDP, employment and productivity are analysed using data from Quantec. Quantec is a private consultancy that collects and compiles macro and regional economic, industry and international trade data from a variety of statistical sources in South Africa (e.g. Statistics South Africa; South African Reserve Bank). The advantage of using Quantec data is that it allows for a slightly more disaggregated measurement of service industries than data available from Statistics South Africa.

Data for service exports is obtained from a three sources. More aggregated service export data available for longer periods is obtained from the South African Reserve Bank (SARB) and World Bank's World Development Indicators. Bilateral and highly disaggregated service export data is obtained from the World Bank’s Trade in Services Database (TSD) developed by Francois & Pindyuk (2013). The advantage of using the TSD is that the highly disaggregated and bilateral nature of the data allows one to investigate service export dynamics in more detail.

4 The Role of Services in the South African Economy

In light of the notion that industries without smokestacks can be engines for growth, this section studies the role of services in the South Africa economy. The analysis starts by detailing the contribution of the service sector (and its sub-sectors) to GDP, employment, and productivity.

4.1 Contribution of the Services Sector to the Economy

4.1.1 Gross Domestic Product
In Figure 1 we look at the contribution of the services sector relative to the other major sectors of the economy for the period 2000 to 2014. It is clear that the services sector, as an aggregate, is the major sectoral contributor to South Africa’s GDP. Furthermore, the sector’s share of GDP in the economy has increased over the period.

**Figure 1: Relative Contribution of Sectors to GDP, 2000-2015**

![Relative Contribution of Sectors to GDP, 2000-2015](image)

Source: Quantec (2016). Own calculations.

Indeed, the services sector has grown from comprising approximately 61 percent of GDP in 2000 to 65 percent of GDP in 2014. In contrast, manufacturing and mining have both experienced steady declines in their share of GDP, while agriculture’s contribution to GDP has remained low and stable. The data would thus suggest, fairly strongly, that in level terms alone, South Africa can be characterised as a services-oriented economy.

Disaggregating the service sector into sub-sectors provides further insight into service industry contributions to GDP. Figure 2 breaks the services sector down into its various sub-sectors, or industries, and compares their GDP shares to that of manufacturing over time. Two of the main service sector contributors to GDP are traditional service industries, namely, Government Services, and Wholesale & Retail Trade. Government Services comprises the highest share of GDP across all industries and was only surpassed by manufacturing briefly in the period 2006 to 2007. Wholesale & Retail Trade has surpassed manufacturing as the second largest contributor to GDP over the period.

---

3 The service sector aggregate is comprised of the following sub-sectors or industries: Trade, catering and accommodation services, Wholesale and retail trade, Transport and storage, Communication, Finance and insurance, Business services, General government services, and Other Community, social and personal services (CSP).
The share of GDP comprised by more modern service industries, such as Business Services, Financial & Insurance Services, and Communication, has in turn increased across all three industries, with growth most rapid in the Financial & Insurance services industry. Financial & Insurance services comprised a smaller share of GDP than Other CSP Services and Transport and Storage services in 2000, but superseded these traditional service industries by 2014. As an aggregate, modern service industries have increased their share of GDP from approximately 19 percent in 2000 to 25 percent in 2010.

Ultimately then, the steady decline in the share of GDP accounted for by Manufacturing, Mining and Agriculture, together with the steady rise in the share of the services sector, re-asserts the notion that the South African economy is not only services-based, but has become increasingly so over the last 15 years.

4.1.2 Employment

The services sector’s substantial contribution to GDP is matched by its contribution to employment. It is evident in Table 1 that in 2000, the tertiary sector accounted for 65 percent of total employment. This rose to 74 percent in 2014. The sector as a whole is responsible for 119 percent of employment growth over the period, thus counteracting employment losses in manufacturing and agriculture. The services sector has accounted for almost all of South Africa’s employment growth since 2000. Hence, while the primary sector experienced a decline in total employment and secondary sector employment grew by 126,734 jobs, employment in the tertiary sector rose by over 3 million jobs.

The performance of the services sub-sectors with respect to absolute and relative growth in employment, as well as changes in employment shares, provides further insight into the sectors substantial contribution to employment growth in South Africa over the period 2000 to 2014. For instance, Wholesale & Retail Trade, Business Services, Government Services, and Other CSP Services are the largest sources of employment in 2014 (see column 5). These four sub-sectors were the largest
contributors to changes in employment over the period (see column 6). Employment shares for service industries have risen or remained constant in all cases other than in Catering & Accommodation (see columns 4 and 5). Business Services displayed the strongest growth relative to other sub-sectors in the economy, followed by Transport & Storage, and Government Services (see column 3 of Table 1). In level terms, the major job generator across all the industries in the South African economy, has been Wholesale & Retail Trade (943 619 jobs), followed by the public sector (Government Services grew by 632 811 jobs).

Table 1: Total Employment by Industry

<table>
<thead>
<tr>
<th>Industry</th>
<th>Growth (2000-2014)</th>
<th>Employment Shares</th>
<th>Share of Change (ΔE/ΔE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>-625 986</td>
<td>-1,57</td>
<td>0,15</td>
</tr>
<tr>
<td>Agriculture</td>
<td>-704 991</td>
<td>-2,25</td>
<td>0,12</td>
</tr>
<tr>
<td>Mining</td>
<td>79 005</td>
<td>0,92</td>
<td>0,03</td>
</tr>
<tr>
<td>Secondary</td>
<td>126 734</td>
<td>0,25</td>
<td>0,20</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>-206 168</td>
<td>-0,64</td>
<td>0,12</td>
</tr>
<tr>
<td>Utilities</td>
<td>14 944</td>
<td>1,48</td>
<td>0,04</td>
</tr>
<tr>
<td>Construction</td>
<td>317 959</td>
<td>1,79</td>
<td>0,07</td>
</tr>
<tr>
<td>Tertiary</td>
<td>3 082 466</td>
<td>1,84</td>
<td>0,65</td>
</tr>
<tr>
<td>Catering &amp; Accommodation</td>
<td>-34 630</td>
<td>-0,47</td>
<td>0,03</td>
</tr>
<tr>
<td>Wholesale &amp; Retail Trade</td>
<td>943 619</td>
<td>1,92</td>
<td>0,19</td>
</tr>
<tr>
<td>Transport &amp; Storage</td>
<td>231 051</td>
<td>2,63</td>
<td>0,03</td>
</tr>
<tr>
<td>Communications</td>
<td>13 598</td>
<td>0,46</td>
<td>0,01</td>
</tr>
<tr>
<td>Finance &amp; Insurance</td>
<td>31 359</td>
<td>0,41</td>
<td>0,03</td>
</tr>
<tr>
<td>Business Services</td>
<td>729 272</td>
<td>3,08</td>
<td>0,09</td>
</tr>
<tr>
<td>Other CSP</td>
<td>535 386</td>
<td>1,39</td>
<td>0,15</td>
</tr>
<tr>
<td>Government Services</td>
<td>632 811</td>
<td>2,14</td>
<td>0,11</td>
</tr>
<tr>
<td>Total</td>
<td>2 583 214</td>
<td>1,00</td>
<td>1,00</td>
</tr>
</tbody>
</table>

Source: Quantec (2016). Own calculations.

The strong employment growth in the Business Services sector needs to be tempered by the fact that a large share of employment in this sector is in temporary employment services (TES). TES employment refers to the practice of third party companies providing workers to perform occupations such as cleaning, accounting, or security services to formal sector firms (Bhorat et al, 2015). Thus, formal sector firms are outsourcing certain occupations and do not directly hire these workers. Bhorat et al. (2015) found that TES employment as a percentage of Business Services employment has risen dramatically in the post-apartheid period. They estimate that approximately 61 percent of Business Services employees are in TES employment in 2014. The rise in labour brokering agencies in South Africa is usually attributed to the burdensome regulatory environment governing labour relations, in particular around the cost of hiring and firing workers. TES employment effectively allows firms to pass off these potential regulatory costs to specialised employment services firms.

---

4 Bhorat et al. (2014) argue that the “Business Not Elsewhere Classified” sub-industry is dominated by TES companies and therefore can be used as an approximation of the TES industry as a whole. To support this claim, they show that the three main occupational categories in the Business N.E.C subsector were “Protective Service Workers Not Elsewhere Classified”, “Helper and Cleaners” and “Farmand and Labourers”. All three occupations would be regarded as in the TES category. Evidently, not all Business N.E.C workers fall into the TES category, which suggests our approximation might be an over-estimate. However, it must also be noted that not all TES workers would classify themselves under this category. For example, workers employed by a labour broker to work in mining or construction are likely to respond that they work in mining or construction, rather than in the businesses sector. As a result, this might lead to an actual underestimate of the total number of TES workers.
The sizeable expansion of the Wholesale and Retail Trade industry needs to be considered in relation to the high levels of informality associated with the industry (Cassim et al., 2016). The forced segregation policies of apartheid resulted in the development of large informal settlements, where vibrant retail markets developed. Estimates suggest that in 2003 informal retail outlets in townships accounted for 10 percent of total retail trade in South Africa (Ligthelm, 2008). In Figure 3 we look at the ratio of informal sector employment in manufacturing relative to informal sector employment in four services sub-sectors.\(^5\) It is evident that the share of informality, relative to Manufacturing is highest in the Trade subsector (Wholesale & Retail Trade and Accommodation & Catering services).\(^6\)

**Figure 3: Informal Sector Employment Relative to Manufacturing**

Source: LMDS (2014) own calculations

Note: Informality defined using registration of enterprise definition. CSP = Government Services and Other CSP Services; FIN = Business Services and Financial and Insurance; TRADE = Catering and Accommodation and Wholesale and Retail Trade Services; TRANS = Communications and Transport and Storage

Government Services accounts for the third largest absolute contribution to employment growth over the period 2000 to 2014. This largely reflects growth in employment in national, provincial, and local government structures. Bhorat et al. (2015) suggest that this job creation may be concentrated in unskilled and medium-skilled occupations, in part although not exclusively relating to infrastructure building and public safety. It is questionable whether this is sustainable, as it puts significant strain on the government’s wage bill, thus having both an adverse effect on the fiscal budget as well as diverting resources away from other projects.

In contrast to the services sector as a whole, manufacturing and agriculture account for a relatively small and declining share of employment. Over the 14-year period, close to a quarter of a million manufacturing jobs were shed. This is consistent with the lack of dynamism and competitiveness in the manufacturing sector (Bhorat et al, 2015). Manufacturing has thus been ineffective as a large-scale generator of jobs and it would thus appear that the services sector has replaced this uncompetitive secondary sector as the economy’s key source of net new jobs.

Agriculture experienced the largest decline in employment, with a loss of over 700,000 jobs. One possible explanation for these job losses is the introduction of an agriculture sector minimum wage in

\(^5\) We define the informal sector using the registration of enterprise definition.

\(^6\) Estimates using the LMDS (2014) show that approximately 41 percent of employment in Wholesale and Retail Trade services is informal sector employment.
2003. Bhorat, Kanbur, et al. (2014) analyse the impact of this legislation and find evidence of a significant disemployment effects.

Small gains in employment were made in mining, utilities and construction. The commodities boom in the early 2000s due to rising demand from emerging markets such as China, led to gains in mining employment (Bhorat et al, 2015). However, the sharp down-turn of prices in 2008 and 2009 due to the credit crunch may have dampened this effect. Furthermore, the weak performance of the Rand in the mid-2000s, energy and infrastructural constraints (e.g. rail transportation), the introduction of new mining laws, and strike action in 2010 and 2011, is likely to have exacerbated slow employment growth in the sector (Bhorat et al, 2015).

The above then ultimately suggests that the historical importance of the primary sectors (namely Agriculture and Mining) has significantly waned in the post-apartheid South African economy. In addition, the poor output and employment performance of the manufacturing sector is manifest in the steady decline, bordering on deindustrialisation for the domestic economy. The upshot of the latter two trends has been a rapid growth in the job generating capacity of the services economy. This services employment growth in turn can be understood within the context of several underlying trends: Firstly, in the pursuit of regulatory avoidance, formal firms have increased the use of temporary employment services – thus increasing the share of workers categorised as ‘business service’ employees. Secondly, South Africa’s consumption-driven economic growth model has resulted in a rapid rise in the growth of retail employment. Thirdly, the poor employment generating capacity of the formal sector as a whole has witnessed a rapid rise in the number of individuals working in various informal services sectors. Finally, in constituting close to a quarter of all new jobs generated in South Africa since 2000, the public sector has become possibly the key generator of jobs in the economy – ensuring that much of the country’s first-order services employment is shaped by national and provincial government hiring practices.

### 4.1.3 Productivity

Structural transformation involves the shift of resources from low productivity activities toward high productivity activities. Using a method of analysis in line with that applied by McMillan et al. (2014), we examine the extent to which services has played a role in structural transformation in South Africa over a much longer period, 1970 to 2014. Figure 4 shows the correlation between the natural log of relative labour productivity and the change in employment by industry. The marker size for each industry represents the industry’s share of employment in 2014. The linear regression line indicates whether the structural transformation has been growth inducing (positively sloped) or not (negatively sloped). Given that structural transformation is the shift of resources from low productivity activities toward high productivity activities, one would ideally want to see declining employment shares in low productivity industries (bottom left quadrant) and rising employment in high productivity industries (top right quadrant).

The positively sloped linear regression line suggests growth-inducing structural transformation. There is a shift in employment away from relatively low productivity industries, such as Agriculture, Construction, Catering & Accommodation and Other CSP Services, and a shift toward higher productivity activities in Financial & Insurance services, Business Services and Government Services. However, the growth-inducing effect of the structural transformation is tempered by the fact that the estimated coefficient for the slope of the line graph is not statistically significant.

Based on Figure 4, one could argue that the process of structural transformation over the past four decades in South Africa has been service-led rather than manufacturing-led. It is evident that there has been a decline in employment share of low productivity industries, such as Agriculture, Construction, Catering & Accommodation, and Other CSP Services (bottom left quadrant). Structural transformation following the East Asian model would depict manufacturing in the top right quadrant – i.e. growing employment in a high productivity industry. In South Africa’s case, manufacturing appears
in the top left quadrant, suggesting a shift of resources (labour) away from this high productivity industry. Nevertheless, the manufacturing industry is still a major employer (see Table 1). One does observe that there has been a shift of resources toward relatively high productivity industries in the services sector, in particular, Financial & Insurance services, Business Services, and Government Services. This does point to service-led structural transformation over the period 1970 to 2014.

**Figure 4: Correlation between Sectoral Productivity and Change in Employment Shares in South Africa (1970-2014)**

In addition to a shift of labour resources away from manufacturing, there is also a shift of these resources away from relatively high productivity Mining, Transport & Storage, and Communications industries. Mining job destruction is consistent with the long-term trend of a declining mining sector, falling commodity prices, and increased capital-intensity in mining production.

We also see a shift of labour resources toward the relatively low productivity Wholesale & Retail Trade industry, which now comprises a substantial share of employment in South Africa. As mentioned above, the concern with growth in the Wholesale & Retail Trade industry, as expressed by McMillan et al. (2014) regarding structural transformation in Africa and Latin America, is that a large share of it may be in low productivity informal sector activities.

There are also some cautionary tales regarding this services-led structural transformation. Firstly, it is evident that Government Services is a large and growing employer in South Africa. The economic sustainability of an expanding public sector is cause for concern. It is questionable whether sustained long-term economic growth and development can be achieved via a growing public sector. Secondly and as discussed in more detail above, the positive aspects of growth in the relatively high productivity Business Services industry needs to be tempered by the fact that a large share of the employment in this sector is in temporary employment services (TES). Finally, growth in the high productivity Finance
& Insurance services industry, which is a modern technology-intensive industry, is constrained by the supply of skilled labour in South African labour market. Therefore, one does need to question whether growth in the South Africa economy is being driven by a high productivity services sector. The above mentioned points suggest not.

4.2 Labour Market Characteristics of the Services Sector

In the following section, we examine the services sector in greater detail. We look at the demographic characteristics, skill level, and wages.

4.2.1 Employment Profile

In Table 2 below, we focus on some of the key characteristics of workers who are employed in the manufacturing and service industries. The sample is restricted to employees only.

The gender profile of the various industries, suggests that Manufacturing, Transport & Storage, Government Services, Communication, and Business Services are male-dominated sectors. In contrast, the Accommodation & Catering, Other CSP Services, and Financial Services industries are female-dominated. In Wholesale & Retail Trade, males are marginally more prominent than females.

By racial composition, the large majority of workers are African. Africans comprise over 60 percent of each sector, with the exception of the Financial Services industry, where they make up 49 percent of the industry, reflecting to some extent the existence of high skilled jobs in financial services where white employees are more dominant. In four industries – Accommodation & Catering, Transport & Storage, Government Services, and Other CSP Services – Africans constitute over 70 percent of the workers. Coloured workers are evenly spread across all industries. They are most prominent in the Manufacturing (16.5 percent) and Communication (14.2 percent) industries. Indian employees are most common in the Communications (8.1 percent) and Financial Services (8.1 percent) and least prominent in the Government Services (2.0 percent) and Other CSP Services (2.7 percent). As with Indians, the biggest industries for Whites are Communications (20.9 percent) and Financial Services (29.3 percent). They are also the second biggest racial group in Business Services (19.7 percent) after Africans. These three sectors, as we show below, also yield a high proportion of highly-skilled individuals.

In terms of age, there is a higher-than-average youth cohort (15-24) in the Wholesale & Retail Trade (15.6 percent) and Accommodation & Catering (18.7 percent) industries. The 25 – 34 age cohort is fairly even spread, although they have lower-than-average representation in the Government Services and Other CSP Services industries. In contrast, the 35 – 44 cohort has the highest proportion of workers in Government Services (37.0 percent), followed by Business Services (33.2 percent) and Communication (32.3 percent).
Table 2: Characteristics of the Employed by Industry, 2014

<table>
<thead>
<tr>
<th></th>
<th>Manufacturing</th>
<th>Wholesale &amp; Retail Trade</th>
<th>Catering &amp; Accommodation Services</th>
<th>Transport &amp; Storage</th>
<th>Government Services</th>
<th>Other CSP Services</th>
<th>Communication</th>
<th>Financial Services</th>
<th>Business Services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>70.0</td>
<td>55.8</td>
<td>38.2</td>
<td>82.9</td>
<td>59.3</td>
<td>31.9</td>
<td>67.3</td>
<td>39.5</td>
<td>61.1</td>
</tr>
<tr>
<td>Female</td>
<td>30.0</td>
<td>44.2</td>
<td>61.8</td>
<td>17.1</td>
<td>40.7</td>
<td>68.1</td>
<td>32.7</td>
<td>60.5</td>
<td>38.9</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African</td>
<td>63.8</td>
<td>67.0</td>
<td>79.4</td>
<td>77.1</td>
<td>78.0</td>
<td>74.3</td>
<td>56.8</td>
<td>49.9</td>
<td>66.2</td>
</tr>
<tr>
<td>Coloured</td>
<td>16.5</td>
<td>12.9</td>
<td>9.9</td>
<td>9.2</td>
<td>10.7</td>
<td>10.0</td>
<td>14.2</td>
<td>12.8</td>
<td>10.1</td>
</tr>
<tr>
<td>Indian</td>
<td>5.2</td>
<td>5.4</td>
<td>2.4</td>
<td>3.4</td>
<td>2.0</td>
<td>2.7</td>
<td>8.1</td>
<td>8.1</td>
<td>4.0</td>
</tr>
<tr>
<td>White</td>
<td>14.5</td>
<td>14.7</td>
<td>8.3</td>
<td>10.2</td>
<td>9.4</td>
<td>13.0</td>
<td>20.9</td>
<td>29.3</td>
<td>19.7</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 - 24</td>
<td>8.8</td>
<td>15.6</td>
<td>18.7</td>
<td>8.4</td>
<td>3.1</td>
<td>6.0</td>
<td>7.7</td>
<td>10.9</td>
<td>8.5</td>
</tr>
<tr>
<td>25 - 34</td>
<td>32.2</td>
<td>38.4</td>
<td>38.6</td>
<td>35.9</td>
<td>28.5</td>
<td>25.1</td>
<td>32.6</td>
<td>37.9</td>
<td>37.8</td>
</tr>
<tr>
<td>35 - 44</td>
<td>32.1</td>
<td>25.8</td>
<td>27.9</td>
<td>30.6</td>
<td>37.0</td>
<td>31.7</td>
<td>32.3</td>
<td>27.3</td>
<td>33.2</td>
</tr>
<tr>
<td>45 - 54</td>
<td>19.1</td>
<td>13.6</td>
<td>11.0</td>
<td>15.5</td>
<td>22.4</td>
<td>24.8</td>
<td>19.4</td>
<td>16.3</td>
<td>14.5</td>
</tr>
<tr>
<td>55 - 64</td>
<td>7.4</td>
<td>6.0</td>
<td>3.6</td>
<td>9.4</td>
<td>8.8</td>
<td>11.4</td>
<td>7.7</td>
<td>6.7</td>
<td>5.1</td>
</tr>
<tr>
<td>65+</td>
<td>0.5</td>
<td>0.6</td>
<td>0.2</td>
<td>0.3</td>
<td>0.2</td>
<td>1.0</td>
<td>0.3</td>
<td>0.8</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Education Level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No education</td>
<td>0.9</td>
<td>1.0</td>
<td>1.1</td>
<td>1.0</td>
<td>0.8</td>
<td>1.5</td>
<td>0.0</td>
<td>0.0</td>
<td>0.7</td>
</tr>
<tr>
<td>Primary</td>
<td>7.7</td>
<td>6.0</td>
<td>6.4</td>
<td>8.6</td>
<td>4.5</td>
<td>6.3</td>
<td>2.9</td>
<td>1.8</td>
<td>3.8</td>
</tr>
<tr>
<td>Incomplete Secondary</td>
<td>37.9</td>
<td>35.0</td>
<td>37.0</td>
<td>38.4</td>
<td>14.9</td>
<td>23.1</td>
<td>19.4</td>
<td>7.5</td>
<td>32.4</td>
</tr>
<tr>
<td>Secondary</td>
<td>45.1</td>
<td>52.6</td>
<td>52.2</td>
<td>44.6</td>
<td>63.9</td>
<td>45.5</td>
<td>63.0</td>
<td>67.9</td>
<td>48.7</td>
</tr>
<tr>
<td>Tertiary</td>
<td>7.6</td>
<td>4.1</td>
<td>2.0</td>
<td>6.2</td>
<td>15.4</td>
<td>22.8</td>
<td>14.4</td>
<td>22.5</td>
<td>13.5</td>
</tr>
<tr>
<td>Unspecified</td>
<td>0.9</td>
<td>1.3</td>
<td>1.4</td>
<td>1.2</td>
<td>0.5</td>
<td>0.7</td>
<td>0.3</td>
<td>0.3</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Source: LMDS (2014)
In terms of educational attainment, the vast majority of workers have either an incomplete secondary or secondary (i.e. passed Grade 12) education. In all sectors, the proportion of workers who have completed secondary school outnumber those who attended secondary school but did not complete it. The proportion of workers who have a tertiary education is highest in Other CSP Services (22.8 percent) and Financial Services (22.5 percent). As we shall see in the next section, these two sectors also have the highest proportion of highly-skilled workers, indicating a close relationship between educational attainment and skill level.

We now turn our attention to examining key demographics in relation to the manufacturing sector. This is important as it allows us to compare easily the differences between the manufacturing sector and the various services sectors.

In Figure 5 below, we compare the proportion of females and youth (15 – 24 years old) in the different services sectors, to the proportion of females and youths in the manufacturing sector, in order to obtain a ratio. A ratio of less than unity indicates there is a greater proportion of females/youths in manufacturing relative to the other industry. A ratio of greater than unity indicates there is a greater proportion of females/youths in a services industry as compared to the manufacturing industry.

**Figure 5: Services Industry Female and Youth Ratio Relative to Manufacturing**

Of the services industries considered, only Transport & Storage (0.57) has a lower proportion of females than Manufacturing. Business Services, Government Services, and Wholesale & Retail Trade have a moderately higher proportion of females than Manufacturing. Finance & Insurance, Catering & Accommodation and Other CSP Services have more than double the proportion of females relative to Manufacturing. Therefore, and consistent with much of the global literature, the various service industries in our sample for South Africa, are more intensive in the use of female relative to male workers – when compared with the Manufacturing sector.

In addition, the services industries remain largely biased toward older workers, relative to Manufacturing. Of the eight services industries considered, five have a ratio of less than one. Notably, Government Services has a ratio of 0.35, which is far below that of the next lowest sector – Other CSP Services (0.68). This low ratio could possibly be explained by either young people not being
interested in obtaining a job in government or that a job in government usually requiring some sort of post-secondary qualification.

Interestingly, Finance & Insurance has a higher youth ratio than Manufacturing, despite jobs in this sector usually requiring a tertiary qualification. It is not surprising to see a higher-than-average youth ratio in Wholesale & Retail Trade and Catering & Accommodation services, as these industries have lower entry barriers in terms of educational qualifications. Furthermore, many young people who are studying for a post-secondary qualification work in these industries to finance their studies.

4.2.2 Skill Profile

In addition to understanding the demographic characteristics of manufacturing and services sector workers, it is equally important to understand the skill profile of these industries, as it will allow us to gain a greater insight into which services sector(s) can be identified as future growth drivers for the South African economy.

Figure 6 shows the proportion of unskilled, semi-skilled and highly skilled workers relative to Manufacturing. Focusing on unskilled workers only, we observe all ratios are below one, with the exception of Other CSP Services. In other words, the large majority of service industries have a lower proportion of unskilled workers than Manufacturing. However, the differences are not that significant in Wholesale & Retail Trade, Transport & Storage, Business Services, and Catering & Accommodation services. All these sectors have a ratio of between 0.86 and 0.93. On the other hand, Finance & Insurance, and Communication services have very low ratios of 0.13 and 0.35, respectively.

Figure 6: Unskilled, Semi-skilled and Highly Skilled Ratio Relative to Manufacturing

In terms of semi-skilled workers, it is evident that there is a greater proportion of semi-skilled workers than low-skilled workers in service-based industries in relation to Manufacturing. Other CSP Services and Finance & Insurance are the two industries which have the lowest ratios (0.52 and 0.64,
respectively). Wholesale & Retail Trade, Transport & Storage, and Catering & Accommodation services have a marginally higher proportion of semi-skilled workers than Manufacturing.

The high ratio for skilled workers demonstrates the ‘skills bias’ in many service-based industries. Particularly prevalent is the Communication, Government Services, Business Services, and Finance & Insurance industries, which all have a ratio above or equal to 1.36. This demonstrates the great demand for highly-skilled workers in these industries. Furthermore, it is remarkable that Catering & Accommodation and Wholesale & Retail Trade services have a moderately higher proportion of skilled workers than Manufacturing considering that these two sectors have a far higher proportion of youth than Manufacturing does.

The large majority of jobs created in South Africa over the post-2000 period were in Business Services, Government Services, and Wholesale & Retail Trade (refer to Table 1). As the government cannot be a sector that can be relied on to produce sustainable economic growth, we restrict our attention to Business Services and Wholesale & Retail Trade. Overall, we see that Business Services uses skilled labour more intensely than in manufacturing (certainly for the non-ITES component). In addition, the other two modern services industries, Communication and Finance & Insurance, are also skill-intensive. Consequently, for these modern service industries to continue to grow, the proportion of skilled labour must also grow. However, South Africa faces a skills shortage (Rasool & Botha, 2011), which suggests growth in these industries is likely to be constrained in the future. The challenge in producing “good” jobs in the Wholesale & Retail Trade industry is different to the one encountered in the modern services industries. Many of the jobs created in Wholesale & Retail Trade are in the informal sector where skill requirements are low and thus barriers to entry into this industry are low. However, jobs in this sector are also typically low productivity jobs. Ultimately then, the burden of job generation, which is growth enhancing, falls on the relatively high-skilled and high productivity segment of the services sector. In the South Africa context, this can be broadly located within the financial & business services sectors together with communication and the large, formal component of the retail services sector.

4.2.3 Determinants of Wages: An Econometric Approach

We now shift our focus on wage formation in the manufacturing and services sectors. The purpose of estimating an earnings function in our context here is to estimate the conditional returns associated with being employed in a particular service sub-sector relative to workers in the manufacturing sector. More importantly however, the econometric approach enables one to determine and understand the typology of segmentation in the services sector. The analysis in Section 4.1.2 provides initial evidence of segmentation of the service sector as being composed of a modern high productivity service industries, a traditional low productivity service industries, and the public sector. To examine the wage differentials between the manufacturing sector and the various services sub-sectors, we use a standard semi-logarithmic earnings function. Typically, the earnings function is estimated as a Mincerian function for the following specification:

\[
\log(\text{Monthly Wages}_i) = \beta_1 + \beta_2 X_i + \beta_3 (\text{Wholesale and Retail}) + \beta_4 (\text{Catering and Accomodation}) + \beta_5 (\text{Transport and Storage}) + \beta_6 (\text{Government Services}) + \beta_7 (\text{Other CSP Services}) + \beta_8 (\text{Communications}) + \beta_9 (\text{Finance and Insurance}) + \beta_{10} (\text{Business Services}) + \beta_{11} (\text{ITES}) + \beta_{12} (\text{Informal Services}) + u_i
\]

The dependent variable measuring earnings is the natural log of an individual’s self-reported monthly wage. The explanatory variables of interest include dummies for the ten services sub-sectors, with the reference variable being a dummy for the manufacturing sector. We introduce two new sub-sectors: Firstly, the TES sub-sector, which was previously a subset of Business Services. Secondly, the Informal Services sub-sector, which comprises all those employed in any of the other nine services sub-sectors.
but whom are employed in the informal sector. Consequently, all employees who are in services but not in that group are in the formal sector. The vector $X_i$ consists of controls for observable characteristics, such as gender, race, education, age, location, occupation, firm size, experience, union membership and hours of work. The sample consists of employees who work in either the manufacturing sector or in one of the ten services sub-sectors and earn a positive monthly wage. We estimate the above equation using the Ordinary Least Squares (OLS) estimator. Table 3 provides OLS regression results for the earnings estimates.

### Table 3: OLS Earning Function Estimates

<table>
<thead>
<tr>
<th>Sector</th>
<th>OLS Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesale &amp; Retail Trade</td>
<td>-4.11***</td>
</tr>
<tr>
<td>Catering &amp; Accommodation Services</td>
<td>-8.88***</td>
</tr>
<tr>
<td>Transport &amp; Storage</td>
<td>0.30</td>
</tr>
<tr>
<td>Government Services</td>
<td>17.23***</td>
</tr>
<tr>
<td>Other CSP Services</td>
<td>-2.96***</td>
</tr>
<tr>
<td>Communications</td>
<td>1.51***</td>
</tr>
<tr>
<td>Finance &amp; Insurance</td>
<td>2.33***</td>
</tr>
<tr>
<td>Business Services</td>
<td>0.00</td>
</tr>
<tr>
<td>TES</td>
<td>-7.50***</td>
</tr>
<tr>
<td>Informal Services</td>
<td>-21.65***</td>
</tr>
<tr>
<td>F-Stat</td>
<td>69.598</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.270</td>
</tr>
</tbody>
</table>

Source: LMDS (2014)

Notes: 1. Manufacturing is the reference group. 2. The dependent variable is the log of monthly wages. 3. Excludes the top 1 percent of earners and those who reported earning R0 per month. 4. Controls were included for gender, race, education, age, location, occupation, firm size, experience, union membership and hours of work. 5. *** p<0.01, ** p<0.05, * p<0.1. 6. The reported estimates in column 2 are the coefficient estimates converted to percentage changes in earnings using the following formula: $100(e^{\beta} - 1)$.

The results suggest that formal sector employees in Wholesale & Retail Trade and Catering & Accommodation services earn, on average, 4.1 percent and 8.88 percent less than Manufacturing workers, respectively. Other sectors, which also, on average, earn less than Manufacturing, are Other CSP Services (2.96 percent), TES (7.5 percent) and Informal Services (21.65 percent). There are three features to highlight from these latter results.

Firstly, the negative earnings premia for the services industries mentioned above point to a segment of the services sector that is characterised by low productivity, low skills and thus low wages. These results are corroborated by the evidence on productivity levels associated with these industries in Section 4.1.3., and evidence on relative skill levels associated with these industries in Section 4.2.2.

Secondly, TES is significantly different from other Business Services. While formal TES workers earn 7.5 percent less than Manufacturing workers, the coefficient on Business Services is zero and not statistically significant, suggesting there is no wage differential between Business Services and Manufacturing. The negative wage differential also illustrates why this sector has grown so significantly over the past decade: employers can contract out non-core activities (e.g. cleaning or catering) to outsourcing companies, who do not give their employees benefits typically afforded to permanent employees (e.g. pension or medical aid). As a result, wages paid to outsourcing employees are low and allow companies to spend less on non-core activities than if the same employees were insourced.

---

7 We use the registration of enterprise definition to define informality.
Thirdly, the high negative coefficient on ‘Informal Services’ is particularly illuminating, as it suggests informality is highly correlated with low productivity, low-wage jobs, and is thus of course unlikely to serve as a potential source of long-run sustainable growth in South Africa.

Government Services has a substantial wage premium (17.23 percent) over Manufacturing. Although Government Services has a favourable skills profile (see Figure 6) compared to Manufacturing, its profile is less favourable when compared to either Communications or Finance & Insurance. Despite this, the wage premium for Government Services is far above that of Communications (1.51 percent) and Finance & Insurance (2.33 percent). Bhorat et al. (2015) find that the public sector wage premium in South Africa is a result of strong public unions, which regularly secure above inflation wage increases for their members.

Whilst the above results are useful and insightful, these earnings estimates represent coefficients at the mean of the wage distribution. Whilst critical, often these mean results, can mask the returns to services sector employment across the entire wage distribution, ranging from low-wage to high-wage workers. In the section that follows, we use a quantile regression to examine wage differentials across the income distribution.

**4.2.4 Wages: A Quantile Regression Approach**

A quantile regression approach allows for a more detailed assessment of the returns to individual level earnings at different points along the wage distribution. This approach can be used to determine if the impact of the explanatory variable of interest (in our case here, the sector of employment) is stronger at any particular point of the distribution whilst controlling for other additional individual level factors that influence earnings. While through OLS estimation, as estimated in the above regression models, we derive a sample mean by minimising the sum of squared residuals – the sample median can be derived through minimising the sum of absolute residuals (Koenker & Basset, 1978; Koenker & Hallock, 2001). If we take a general statement of this approach across all points, or quantiles, in the distribution, we have the estimation for the regression quantile as minimising the equation:

$$
\min_{\beta \in \mathbb{R}^k} \left[ \sum_{i \in \{i: Y_i \geq X_i \beta\}} \theta |Y_i - X_i \beta| + \sum_{i \in \{i: Y_i < X_i \beta\}} (1 - \theta |Y_i - X_i \beta|) \right]
$$

This then provides the solution for the 10th, 50th and 90th quantiles, where \( \theta < .10, .5, \) and 90<1, allowing for the estimation at any given point in the distribution of the outcome variable. In the above, \( Y_i \) is the dependent variable, \( X_i \) is the \( k \times 1 \) vector of independent variables and log of monthly wages is the coefficient vector (Koenker & Basset, 1978).

In a vein similar to the standard OLS estimates above, we consider the difference in returns to wages across the wage distribution for the different services sectors in relation to the manufacturing sector. The variable of interest here provides an estimate of the returns to each category across the 10th, 50th and 90th percentile of the income distribution. All coefficients are significant at the 1 percent level. Overall, the results reveal some interesting relationships that are not apparent in the OLS results.

As one might expect, services sub-sectors positioned within the low productivity and low skilled segment of the services sector, such as Wholesale & Retail Trade, Catering & Accommodation, and TES, yield lower wages at the median and higher end of the earnings distribution (50th and 90th percentiles). However, it is also evident that these industries yield higher wages than Manufacturing at the 10th percentile. This is indicative of an industry which has relatively high starting salaries (at least compared to Manufacturing), but in which there is limited scope to progress in salary terms. These results also support the notion that these industries do not attract many semi- or highly-skilled individuals. However, the high 10th percentile relative wage gap, is indicative of relatively strong trade
unions in the services industries when compared with the manufacturing where there has been in contrast a fairly rapid decline in trade union membership (Bhorat, Caetano, et al., 2016).

With regard to Informal Services, the coefficients are large and negative across the entire earnings distribution. In other words, Informal Services sector workers earn less than Manufacturing workers do regardless of where they are on the earnings distribution. At the 10th percentile, Informal Services sector workers earn 11.92 percent less than workers in Manufacturing. This increases to 28.18 percent at the 50th percentile and 27.82 percent at the 90th percentile. These results confirm our characterisation of the service sector jobs in the informal sector as being dominated by low productivity, low-skilled and low wage jobs.

**Table 4: Quantile Earning Function Estimates**

<table>
<thead>
<tr>
<th>Sector</th>
<th>10th Percentile Coefficient</th>
<th>50th Percentile Coefficient</th>
<th>90th Percentile Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesale &amp; Retail Trade</td>
<td>15.49***</td>
<td>-7.78***</td>
<td>-15.13***</td>
</tr>
<tr>
<td>Catering &amp; Accommodation</td>
<td>7.14***</td>
<td>-9.61***</td>
<td>-20.07***</td>
</tr>
<tr>
<td>Transport &amp; Storage</td>
<td>-14.79***</td>
<td>8.22***</td>
<td>12.75***</td>
</tr>
<tr>
<td>Government Services</td>
<td>-0.90***</td>
<td>36.07***</td>
<td>15.49***</td>
</tr>
<tr>
<td>Other CSP Services</td>
<td>-3.44***</td>
<td>-2.76***</td>
<td>-5.07***</td>
</tr>
<tr>
<td>Communications</td>
<td>-6.76***</td>
<td>5.76***</td>
<td>-5.26***</td>
</tr>
<tr>
<td>Finance &amp; Insurance</td>
<td>-1.09***</td>
<td>10.41***</td>
<td>0.90***</td>
</tr>
<tr>
<td>Business Services</td>
<td>-14.27***</td>
<td>9.64***</td>
<td>-1.39***</td>
</tr>
<tr>
<td>TES</td>
<td>25.36***</td>
<td>-9.97***</td>
<td>-23.89***</td>
</tr>
<tr>
<td>Informal Services</td>
<td>-11.93***</td>
<td>-28.18***</td>
<td>-27.82***</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>0.09</td>
<td>0.22</td>
<td>0.21</td>
</tr>
</tbody>
</table>

Source: LMDS (2014)

Notes: 1. Manufacturing is the reference group. 2. The dependent variable is the log of monthly wages. 3. Excludes the top 1 percent of earners and those who reported earning R0 per month. 4. Controls were included for gender, race, education, age, location, occupation, firm size, experience, union membership and hours of work. 5. *** Significant at the 1% level, ** Significant at the 5% level, * Significant at the 10% level.

The estimates for Government Services suggest two tiers of public sector employees segmented according to skill levels. Firstly, we note a negative estimate at the 10th percentile indicating that government workers at this end of the distribution earn 0.89 percent less than manufacturing workers. It is possible that these are the lower skilled workers involved in infrastructure programmes such as the Expanded Public Works Programme (EPWP). Secondly, there are government employees at the 50th and 90th percentiles, who earn 36.07 percent and 15.49 percent more than manufacturing workers, respectively. Although these are typically more skilled employees, the wage premium also points to the power of the public sector unions.

The Transport & Storage coefficients are fascinating, given the skills profile of the industry in relation to Manufacturing (see Figure 6). There are a lower proportion of low and highly skilled individuals in Transport & Storage, relative to Manufacturing, and a higher proportion of semi-skilled workers. As such, we would perhaps expect that Transport & Storage would have higher wages at the 10th and 50th percentiles, and lower at the 90th percentile. However, the result reveals a slightly different story. At the 10th percentile, the Transport & Storage workers earn 14.78 percent less than Manufacturing workers do. At this percentile, we would expect to find individuals working as taxi drivers, delivery van drivers and so on, who may not be highly unionised. At the 50th percentile, the wage premium in Transport & Storage is 8.22 percent, increasing to 12.75 percent at the 90th percentile. At the 50th percentile, a typical semi-skilled worker such as a truck driver would be represented here. Since semi-skilled workers also dominate Manufacturing, we would also expect to see them at the 50th percentile. The wage premium, therefore, is unlikely to be explained by the pure differences in skill sets. Despite having a substantially lower proportion of highly skilled workers than Manufacturing, there is a wage premium for Transport & Storage at the 90th percentile. This might indicate that there is a shortage...
of highly skilled individuals in the Transport & Storage sector and as a result, highly skilled workers in this sector are able to exact higher marginal returns.

The estimates for the Finance & Insurance dummy provide evidence of earnings premia within this industry. Workers in Finance & Insurance at the 50th and 90th percentiles earn 10.4 percent and 0.9 percent more relative to their manufacturing counterparts. The substantially lower earnings premia relative to Government Services, at the 50th and 90th percentiles, is indicative of lower levels of union density within this industry. The marginally lower relative wage at the 10th percentile for Finance & Insurance workers is possibly due to the proliferation of low-skilled service workers classified within this sector, but employed through TES firms. Nevertheless, Finance & Insurance fits within the segment of the services sector characterised by high skills levels and thus high productivity levels.

The remaining two modern services sub-sectors – Communications and Business Services – exhibit a slightly different earnings pattern. Communications and Business Services have a lower wage relative to Manufacturing at the 10th percentile and the 90th percentile of the earnings distribution, but a wage premium at the 50th percentile. A possible explanation for these results is that at the low-end of the earnings distribution, there are many more low-skilled workers in Communications and Business Services, hence the lower wages earned relative to Manufacturing. However, at the 50th percentile, there are more semi- or highly skilled individuals in these two industries compared to Manufacturing, hence the wage premium. The wage premium reverses again at the 90th percentile, perhaps suggesting that highly skilled individuals in Communications and Business Services are not remunerated as highly as in Manufacturing.

The results presented in this section indicate that understanding income differentials requires a far more detailed analysis than simply estimating the raw wage gap, based on average wage levels. In sectors that are characterised by low wages, wages at the 10th percentile are higher than Manufacturing, but lower when we shift to other parts of the earnings distribution. This is particularly prevalent in the TES sector, which has large coefficients throughout the earnings distribution. The Informal Services sector has large, negative coefficients regardless of the point on the earnings distribution, suggesting that out of all the services sectors considered, it is the one with the lowest pay. Government Services has the highest wage premium as a result of the strong public sector trade unions, while in the three modern services sectors, the story is mixed. Finance & Insurance has a smaller premium than Government Services, while Communications and Business Services has a wage premium at the 50th percentile but not at the 90th percentile.

The earnings equation estimates above, coupled with the patterns of employment growth across the industries (see Section 4.1.2), suggest an interesting segmentation in the services sectors of the South African economy. We observe individuals with relatively higher skills levels and better access to the labour market opportunities located in the modern Business, Finance & Insurance, and Communications services industries, as well as in Government Services. These industries are typically associated with higher levels of productivity and higher returns. In addition, we observe a clustering of employment in industries characterised by relatively lower skill requirements. These include the Wholesale & Retail Trade industry, which is characterised by high levels of informality, and the TES component of Business Services. The lower skill requirements associated with these industries allow for easier entry into employment but they are associated with lower levels of productivity and lower returns.

It is possibly in these segments that are provided with some analytical lens with which to understand and characterise the services sector in South Africa. Firstly, the high wage premium sectors of modern Business, Finance & Insurance, and Communications services serve as the potential platform for a growth and development strategy. Secondly, whilst the public sector is skills-intensive, the wage premium offered to these workers suggests the formation of a new labour elite (Bhorat et al., 2015), which is both fiscally unsustainable and certainly not an optimal route to long-run economic growth. Finally, as perhaps the source for large numbers of jobs within the cohort of semi-skilled workers, the
formal retail and communication services sectors – under specific conditions such as appropriate export opportunities and competitive wages – do serve as a key opportunity for positive growth and employment opportunities for the South African economy.

4.3 The Export of Services

Services have traditionally been considered inputs into the production and trade of goods, or as outputs produced mainly for domestic consumption. Over the last two decades, however, globalisation, coupled with advances in technology, has facilitated a rapid rise in the trade of services – driven largely by trade in modern services, such as business, finance, and telecommunications services, as opposed to traditional services such as transport and travel (tourism) services (Mishra et al., 2011) (See Box 1 for explanation on typology of service trade). Services exports have thus become increasingly important not only as a source of export diversification and global competitiveness (Saez et al., 2014), but also as a key driver of economic growth (Mishra et al., 2011).

Given the large and growing role of domestic services in the South African economy, South Africa appears relatively well-positioned to reap the growth benefits from the export of services. For the purposes of this section, trade in services data has been obtained from three datasets: World Bank World Developing Indicators, World Bank Trade in Services Database, and the South African Reserve Bank, covering modes 1, 2, and 4 for the World Development Indicators and South African Reserve Bank, and only modes 1 and 2 for the Trade in Services database, which we discuss in greater details in Box 1 below.

Box 1: Trade in Services

The tradability of services is influenced by a number of features unique to services, and which also have implications for the measurement of services trade. These features include: (i) intangibility – imports and exports of services are difficult to monitor and measure; (ii) non-storability – production and consumption of services often occurs at the same place and time; (iii) differentiation – services are in most cases tailored to specific needs; and (iv) joint production – customers participate in the production of services (Hoekman & Mattoo, 2008). To capture these features, the World Trade Organisation (WTO) defines trade in services along four modes of supply:

- **Mode 1**: Cross-border trade – services supplied from the territory of one country into the territory of another.
- **Mode 2**: Consumption abroad – services supplied in the territory of a country to the consumer of another.
- **Mode 3**: Commercial presence – services supplied in the territory of a country to the consumers of another (i.e. FDI).
- **Mode 4**: Presence of natural persons – services supplied by nationals of a country in the territory of another.

Balance of payments (BoP) statistics typically report services trade falling with Modes 1, 2 and 4 – although a large proportion of FDI is considered to be in the services sector (Saez et al., 2014).

4.3.1 Trends in Services Exports

In line with global trends, South Africa’s exports of services have been modest when compared to goods exports (see Figure 7). In particular, real services exports increased from R33,192 million in 1960, to R117,493 million in 2010; while real goods exports rose from R169,360 million in 1960 to R668,856 million over the same period. As illustrated in Figure 8, growth in real services exports was on par with growth in real goods exports between 1960 and 1975 – with real goods exports and real services exports growing at an average rate of 3 percent, and 2 percent, respectively. However, the 1980s saw a considerable divergence in the growth of goods and services exports. Between 1975 and 1995, real services exports grew at an average rate of 0.3 percent, while average growth in real goods exports continued at 3 percent. The dip in services exports growth was likely a result of economic sanctions, and the reversal of foreign capital flows, during the final years of apartheid – which appears
to have had a disproportionately negative impact on services exports vis-à-vis goods exports (Levy, 1999). Nevertheless, by 2010, growth in services exports had matched that of goods exports growth.

**Figure 7: Trend in value of goods and services exports in South Africa, 1960 – 2010**

![Graph showing trend in value of goods and services exports in South Africa, 1960 – 2010](image)

Source: SARB (2016)

**Figure 8: Trend in growth of goods and services exports in South Africa, 1960 - 2010**

![Graph showing trend in growth of goods and services exports in South Africa, 1960 - 2010](image)

Source: SARB (2016) and authors’ calculations
The “recovery” in services exports in the late 1990s has largely been as a result of significant growth in exports of traditional services – and in particular, travel services – although business services exports are gaining increasing importance in South Africa’s services exports basket (as will be discussed in more detail in Section 4.3.2). It can be argued further that the growth in both goods and service trade in the post-1994 period may be driven by increased liberalisation of the economy (Edwards & Lawrence, 2008). As illustrated in Figure 9, this recovery is also reflected in a growing, albeit low, share of services exports in total exports. In particular, services exports as a share of total exports increased from a low of 9 percent in 1988 to 18 percent in 2003, before declining to 15 percent in 2010.

**Figure 9:** Share of services exports in total exports and services value added, 1970 – 2010

![Graph showing the share of services exports in total exports and services value added, 1970–2010.](image)

Source: World Development Indicators (2016) and authors’ calculations

Note: Services exports are BoP figures in current US$

Figure 9 also shows the share of services exports in services value added – which gives an indication of the tradability and international competitiveness of a country’s domestic services sector (Mishra et al., 2011; Saez et al., 2014). While growth in services exports improved, the tradability of South Africa’s services sector remained low. In particular, between 2000 and 2010, South Africa exported an average of only 8 percent of services value added, despite services making up slightly over 60 percent of GDP. When compared to peer countries on the continent and beyond, South Africa appears to be lagging behind: for instance, with services in Turkey making up a similar share of GDP – on average, 61 percent between 2000 and 2010 – the average share of services exports in services value added was relatively higher, at 11.7 percent. In Ethiopia, where services made up an average of only 42 percent of GDP between 2000 and 2010, the average share of services exports in services value added was 17.9 percent. The limited outward orientation of South Africa’s services exports may be indicative of lower productivity, skills constraints, and trade protection in South Africa’s services industry relative to other markets, which has hampered improvements in the tradability of South Africa’s services sector.

---

8 Authors’ calculation using World Development Indicators (2016)
9 Authors’ calculation using World Development Indicators (2016)
Figure 10 also shows that in terms of services exports growth, South Africa’s is lagging behind some of its middle-income country peers.

**Figure 10: Comparison of services exports growth with selected countries, 1995 - 2010**

![Graph showing services exports growth from 1995 to 2010 for South Africa, Brazil, Philippines, China, India, and Turkey.](image)

Source: World Development Indicators (2016) and authors’ calculations  
Note: Services exports are BoP figures in current US$

A comparison of South Africa’s services and manufacturing exports also reveals that there is considerable scope to expand services exports particularly as labour-intensive manufacturing, such as clothing and textiles, or ICT goods, have performed relatively poorly domestically and in international markets (Edwards & Alves, 2006). As outlined in Table 5, manufacturing exports continue to dwarf services exports, despite manufacturing contributing relatively little to the domestic economy in comparison with services. The ratio of manufacturing exports to services exports declined only marginally from 3.3 to 2.5 between 2000 and 2010, although services exports have grown in line with manufacturing exports over the period.

**Table 5: Comparison of merchandise and commercial service exports, 2000 – 2010**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Merchandise exports (current US$)</td>
<td>29,983</td>
<td>51,625</td>
<td>91,347</td>
<td>13.2</td>
</tr>
<tr>
<td>Of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufactures exports (current US$)</td>
<td>16,145</td>
<td>29,248</td>
<td>44,466</td>
<td>12.3</td>
</tr>
<tr>
<td>Commercial services exports (current US$)</td>
<td>4,888</td>
<td>11,570</td>
<td>15,676</td>
<td>12.5</td>
</tr>
<tr>
<td>Ratio of manufactures to services exports</td>
<td>3.3</td>
<td>2.5</td>
<td>2.8</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Source: World Development Indicators (2016) and authors’ calculations

The overall trend therefore suggests that while recent growth in services exports has caught up to that of goods exports, services comprise a rather small portion of South Africa’s total exports. This is despite the services sector contributing the most value to the domestic economy. This outcome may be a reflection of several bottlenecks including low skill levels in the labour force, trade protection in specific services industries, such as telecommunications, and lower productivity in the services sector.
in comparison to other emerging markets such as India and China. However, the composition of South Africa’s services exports may also be a factor determining the expansion of South Africa’s services exports. As Mishra et al. (2011) argue, the composition of services exports matters. In addition to increasing the volume of services exports, increasing the sophistication and quality of services exports is essential to unlocking sustained and rapid economic growth (Mishra et al., 2011). We assess the composition of South Africa’s services exports in the following sub-section.

### 4.3.2 Composition of Services Exports

Using the World Bank’s Trade in Services Database (TSD), Figure 11 shows the change in composition of South Africa’s services exports between 2005 and 2010. As shown in Figure 11, travel services and commercial services have made up the bulk of services exports between 2005 and 2010 – although the share of commercial service exports relative to travel service exports declined between 2008 and 2010. Specifically, in 2005 commercial services exports were valued at US$8,064 million compared to US$2,004 million for travel service exports; yet by 2010, commercial services exports had declined to US$3,906.4 million, compared to travel services exports which increased to US$9,071 million.

**Figure 11: Composition of services exports, 2005 – 2010**

![Figure 11: Composition of services exports, 2005 – 2010](image)

Source: Trade in Services Database (2016)

Note: Service exports are total exports to the world (“WLD”)

This suggests that rather than shift from traditional to modern services, South Africa’s services exports appear to have shifted in the opposite direction. This shift is further observed in Figure 12, which shows that while growth in commercial services exports increased in 2008, it has since remained significantly lower than growth in travel service exports, and was marginally lower than growth in transport service exports in 2010.

---

10 Commercial services exports, as per the Trade in Services Database comprise: communications services, construction services, insurance services, financial services, computer and information services, royalties and licenses, business services, and personal, cultural and recreational services.
The rapid growth in travel services exports between 2008 and 2010 is likely a reflection of increased tourism in the run up to the 2010 FIFA World Cup – although historically, South Africa has been a popular tourist destination on the continent, given its diverse natural environment and culture, as well as its relatively well-developed infrastructure (Fourie, 2011). The decline in commercial service export growth may be a reflection of several factors, including protection of domestic services industries, such as telecommunications, which stifles innovation and motivation for international competitiveness; and a lack of sufficient skills in the labour force, which creates a constraint on expansion, and also raises the cost of labour, and ultimately the cost of services (Freytag, 2011).

Examining the composition of South Africa’s commercial services exports more closely, Figure 13 shows that since 2005, commercial services exports have been dominated by exports of “other business services”, although the value of these exports declined from US$5,998 million in 2005 to US$3,299 million in 2010.11

---

11 As reported in Trade in Services Database (2016). Other business services includes: i) merchant and other trade-related services; ii) operational leasing services; and iii) miscellaneous business, professional, and technical services, which are made up of (a) legal, accounting, management consulting, and public relations, (b) advertising, market research, (c) research and development (d) architectural, engineering, and other technical services, (e) agricultural, mining, and on-site processing services, (f) other business services, and (e) services between related enterprises.
Communication and construction exports increased marginally between 2005 and 2010, while computer and information services (ICT) declined from 5 percent to 3 percent of commercial services exports over the period. Insurance services exports were negligible in 2005, but increased to 2 percent of commercial services exports in 2010, while the share of financial services remained constant during the period. The share of commercial services exports that can be considered “high quality”—i.e. communications, computer and information, and insurance and financial services, has remained relatively low over the period. This indicates that the current composition of South Africa’s services may not be sufficient to generate the levels of growth seen by its middle-income country peers, like India and China. However, given the sophistication of South Africa’s financial services sector, and its rapid expansion into the rest of the African continent, it is likely that the TSD underestimates the value of South Africa’s insurance and financial services exports. In particular, one of the country’s leading financial institutions – Standard Bank – was noted to have a presence in 17 countries on the African continent in 2010, with several subsidiaries in other countries around the world (Standard Bank Annual Report, 2010).

Nevertheless, given that “other business services” has constituted the largest portion of services cross-border trade and consumption abroad, further insight into what makes up these exports for South Africa may be revealing. In particular, the TSD shows that South Africa’s business services exports have been made up almost exclusively of merchant and trade-related services and miscellaneous business services, suggesting that South Africa’s services exports remain largely geared towards supporting the exports of goods. In 2010, these exports were made up of legal and accounting services, followed by research and development, architectural and engineering services, and services between related parties. Despite limited exports of high-technology services, further specialisation within these businesses services exports – particularly in R&D and engineering services – can still yield considerable gains for economic growth.

The overall composition of services exports therefore suggest that South Africa’s services exports remain largely centred on travel and tourism, and on services that support the exports of goods. Unlike other emerging economies, South Africa has not experienced a distinct shift away from

---

12 In addition, given that much of this expansion has been through the setting up of branches and local subsidiaries in other countries, this will not be captured in the TSD as it covers only services exports in Modes 1 and 2, which do include exports via a commercial presence (Mode 3).

13 As per the Trade in Services database, miscellaneous business, professional and technical services comprise: legal, accounting and management consulting services; advertising and market research services; research and development services; architectural and engineering services; agricultural, mining and on-site processing services; other business services; and services between related parties.
traditional services exports towards modern, “high-technology” exports. In fact, the value of commercial services exports, as per the TSD definition, declined relative to travel exports between 2005 and 2010, while growth in commercial services exports remained marginal when compared to growth in travel services exports over the period. As indicated above, South Africa lags behind its emerging market peers with regard to the sophistication of its commercial services exports, especially as communications and ICT exports have remained below 5 percent of commercial services exports. While travel services exports have been boosted by the 2010 World Cup, and South Africa’s position as a popular tourist destination on the continent, commercial services exports have been hampered largely by domestic factors such as labour market constraints, and inadequate trade policies.

An important data omission, however, is South Africa’s services trade with other African countries, which is largely FDI and therefore not captured in the TSD. South Africa has a large presence of banks and other financial institutions, as well as retail companies – such as clothing and FMCG retailers – on the African continent, suggesting that without these operations accounted for, the value and sophistication of the country’s services exports, particularly in financial services, may be underestimated.

In addition to enhancing the quality and sophistication of services exports, the literature on trade in services suggests that growth into new export markets or service sectors (‘extensive margin’) as well as the intensification of existing export relationships (‘intensive margin’) is essential for export growth, and ultimately for economic growth (Besedes & Prusa, 2011; Brenton & Newfarmer, 2009). Taking into account the limitations in the TSD, there are indications that there has been limited growth into new services markets between 2005 and 2010 – particularly, telecommunication, and other ICT-related markets. The following sub-section provides a simple assessment of South Africa’s entry into new export markets, and the intensification of key export relationships, between 2005 and 2010. Possible implications of revealed comparative advantage for South Africa’s services exports are also discussed.

### 4.3.3 Market Penetration and Revealed Comparative Advantage

Using the TSD, this section provides a profile of South Africa’s top destinations for services exports, as well as the change in revealed comparative advantage over time. Service export destinations between 2005 and 2010. While the TSD allows for both broad and detailed insight into bilateral trade flows in services, a key weakness of the database is that a large proportion of “South-South” trade is under or poorly reported. Based on discussion with officials at the National Treasury, South Africa only records services trade in three categories – travel, transport, and other business – and these flows are not reported at the bilateral level (service-destination). Therefore, the bilateral trade in services data for South Africa captured in the TSD is most likely mirror data (i.e. trade transactions recorded at the importer side). Typically, the measuring, categorisation and reporting of trade in services is performed in greater detail in developed countries. Consequently, the TSD captures mainly trade in services between developed countries, including “North-South” trade, and thus possibly underestimates the volume of services exports for developing countries that may trade primarily with other developing countries. In any case, it is assumed that trade between developing countries is likely captured in the “XWD” region, which holds unallocated imports and exports of services for each country. For this section, we therefore use “XWD” as a proxy for developing countries.

In 2005, South Africa’s services exports reached 57 countries, most of which are developed and emerging market countries in Europe, Asia, and North and South America. By 2010, however, South Africa’s services exports reached only 37 countries – with the contraction in trade stemming mainly from the apparent closing out of services export relationships with other emerging market countries, including China, Brazil, Thailand, Vietnam, and The Philippines.14 Table 6 displays the top ten importers

---

14 These figures do not take into account the unallocated bilateral trade flows in the “XWD” region, although, it is unlikely that the number of partner countries included in the “XWD” would reverse this trend.
of South Africa’s services exports in terms of value in 2005 and 2010, including the “XWD” region as a proxy for trade with other developing countries.

As shown in Table 6, there have been notable shifts in the top ten destinations for South Africa’s services exports. In 2005, services exports to Japan made up 15.1 percent of total services exports, and were comprised almost exclusively of merchant and trade related services, and transport services. By 2010, however, the value of services exports to Japan declined considerably, exports to Japan making up only 1.8 percent of total services exports. South Africa was no longer exporting merchant and trade related services to Japan, and the value of transport services exports to Japan had declined. On the other hand, South Africa’s services exports to France increased somewhat considerably over the period, from US$356 million in 2005 to US$622 million in 2010. Services exports to France in 2005 were made up mainly of transport services, travel services, miscellaneous business services, and royalties and license fees. In 2010, miscellaneous business services, and construction services gained more prominence, although travel services remained the largest component of services exports to France.

Table 6: Top ten destinations for South Africa’s services exports, 2005 and 2010

<table>
<thead>
<tr>
<th>2005</th>
<th>2010</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Country</strong></td>
<td><strong>Value</strong> (US$ millions)</td>
<td><strong>Share of total exports (%)</strong></td>
</tr>
<tr>
<td>1. Japan</td>
<td>1,954.83</td>
<td>15.1</td>
</tr>
<tr>
<td>2. United Kingdom</td>
<td>1,929.08</td>
<td>14.9</td>
</tr>
<tr>
<td>3. USA</td>
<td>1,319.40</td>
<td>10.2</td>
</tr>
<tr>
<td>4. Germany</td>
<td>1,163.00</td>
<td>9.0</td>
</tr>
<tr>
<td>5. Netherlands</td>
<td>770.26</td>
<td>5.9</td>
</tr>
<tr>
<td>6. Italy</td>
<td>710.68</td>
<td>5.5</td>
</tr>
<tr>
<td>7. “XWD”</td>
<td>634.21</td>
<td>4.9</td>
</tr>
<tr>
<td>8. Ireland</td>
<td>487.74</td>
<td>3.8</td>
</tr>
<tr>
<td>9. France</td>
<td>356.37</td>
<td>2.8</td>
</tr>
<tr>
<td>10. India</td>
<td>288.40</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Source: Trade in Services database (2016) and authors’ calculations

Note: Value and share of services exports is for reported total EBOPS services

The value of services exports to the United Kingdom and USA also increased over the period, although their share in South Africa’s total services exports remained relatively constant. In 2010, travel and transport services were the predominant service export to the United Kingdom, unlike in 2005 in which merchant and trade related services were also included in the basket of services exports to the United Kingdom. While travel services exports were also the main service export to the USA in 2010, miscellaneous business services – mainly legal, accounting, and management consulting – made up a sizeable portion of services exports to the USA.

The biggest shift in market penetration for South Africa’s services exports has been in the “XWD” region, suggesting that South Africa may have intensified export relationships with developing countries, most likely in Sub-Saharan Africa over the period. Services exports to this region increased significantly from 4.9 percent of total services exports in 2005 to 46 percent of total services exports in 2010. This could be an indication that South Africa’s services exports are growing into new markets, particularly on the African continent. As discussed in Section 4.3.2 the expansion of South Africa’s financial services and retail sectors into the rest of the continent may likely be fuelling this trend.

Despite some positive expansion into a few new markets, services export relationships in several key markets, particularly in Europe, have not intensified. Although Denmark joined the group of top
destinations for South Africa’s services exports in 2010, the share in total exports for Germany, the Netherlands, and Ireland decreased between 2005 and 2010. Italy and India were also no longer prominent export destinations in 2010. While export growth into new markets and regions is important for economic growth, the ability to sustain and grow existing export relationships over time is considered to have a larger impact on export growth and economic growth (Besedes & Prusa, 2011). The overall picture for South Africa indicates that the intensification of export relationships over time has not been particularly successful. It also appears that while tourism and travel services exports are being driven mostly by trade from the North, South Africa’s commercial services exports may be driven more by trade with developing countries on the African continent and beyond.

Looking ahead, an assessment of the revealed comparative advantage of South Africa’s services exports could give insight into services sectors that could be leveraged to boost growth and specialisation in services exports. The revealed comparative advantage (RCA) ratio for a country compares the share of a sector’s exports in the country’s total exports, with its share of world exports. The higher the RCA ratio, the more competitive the country is in that sector (Saez et al., 2014). Table 7 provides the RCA ratio and share in total services exports for the main components of services exports in 2005 and 2010.

Table 7: Exports share and revealed comparative advantage for services exports, 2005 and 2010

<table>
<thead>
<tr>
<th></th>
<th>2005</th>
<th>RCA</th>
<th>2010</th>
<th>RCA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>16.4</td>
<td>0.9</td>
<td>11.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Travel</td>
<td>18.2</td>
<td>0.9</td>
<td>62.2</td>
<td>2.3</td>
</tr>
<tr>
<td>Communications services</td>
<td>0.3</td>
<td>0.2</td>
<td>0.5</td>
<td>0.2</td>
</tr>
<tr>
<td>Construction services</td>
<td>0.9</td>
<td>0.5</td>
<td>0.9</td>
<td>0.3</td>
</tr>
<tr>
<td>Insurance services</td>
<td>0.3</td>
<td>0.1</td>
<td>0.4</td>
<td>0.1</td>
</tr>
<tr>
<td>Financial services</td>
<td>1.7</td>
<td>0.6</td>
<td>0.7</td>
<td>0.2</td>
</tr>
<tr>
<td>Computer and information services</td>
<td>3.3</td>
<td>1.5</td>
<td>0.8</td>
<td>0.2</td>
</tr>
<tr>
<td>Royalties and license fees</td>
<td>0.5</td>
<td>0.1</td>
<td>0.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Other business services</td>
<td>54.5</td>
<td>1.4</td>
<td>22.6</td>
<td>0.8</td>
</tr>
<tr>
<td>Personal, cultural, and recreational services</td>
<td>3.9</td>
<td>1.0</td>
<td>0.4</td>
<td>0.4</td>
</tr>
</tbody>
</table>

Source: Trade in Services Database (2016) and authors’ calculations

In 2005, the RCA ratio was highest, and greater than one for computer and information services, followed by business services, revealing a comparative advantage in “high quality” services. By 2010, however, this had changed dramatically. The RCA ratio for computer and information services declined to 0.2, and that for other business services declined to 0.8. Conversely, the RCA ratio for travel services exports increased substantially, from 0.9 in 2005 to 2.3 in 2010. This change over time further indicates the shift in South Africa’s services exports towards traditional services, rather than towards modern services that drive rapid economic growth. As indicated in Section 4.3.2, the shift towards a strong comparative advantage in travel services is likely the result of increased international coverage and attention paid to South Africa in the run up to, and during the hosting of, the 2010 World Cup. On the other hand, a drop in comparative advantage for computer and information services may reflect lost competition to more productive suppliers in India and China, as well the other aforementioned constraints, such as trade protection and slow growth in human capital accumulation.

Overall, South Africa’s services exports appear to be driven simultaneously by demand for tourism and travel services from Europe and North America, and demand for relatively more sophisticated services, such as financial and retail services, in other developing countries mainly on the African
continent. This suggests that while South Africa has not been successful in maintaining and growing export relationships with the North, there seems to have been a significant improvement in the intensification of regional trade relationships. However, there has been little growth into the telecommunications and ICT services markets. However, at the bilateral level, there are indications that the sophistication of exports to key markets has improved. For instance, exports to France in 2005 comprised largely travel and transport services, but in 2010 included construction services. Similarly, exports to the USA in 2010 included legal, accounting, and management consulting services.

Interestingly, South Africa’s comparative advantage seems to have shifted towards traditional services, and in particular, travel services, while the country’s advantage in ICT services, financial services, and other business services has declined over time. By 2010, South Africa had a relatively high comparative advantage, as indicated by the RCA, in only three services export markets: travel, transport, and other business services. Focusing efforts solely on where comparative advantage is revealed may limit opportunities to enhance services exports in other more productive sectors, however, as a wide range of factors influence such comparative advantage metrics (Saez et al., 2014). In particular, the quality of trade policies and regulations, technology infrastructure, as well as the level of skills and education in the labour force, can have sizeable impacts on the services sectors that gain strong comparative advantage (van der Marel, 2011). These factors appear to be key constraints to the role of services in the South African economy. Without addressing these constraints, it is likely that South Africa will continue to lag behind its peers in exporting more productive, "high-quality" services, and ultimately lag behind in generating rapid and sustainable economic growth.

In the next section we look at the extent to which South African policy-makers have recognised the potential of growth without smokestacks industries.

5 The Policy Environment: Is the Services Sector a Policy Priority?

The evolution of the services sector as a source of economic growth and structural transformation suggests that the services sector has become an increasingly important element of industrial policy in developing countries (Ghani & O’Connell, 2014). Indeed, researchers such as Ghani & O’Connell, (2014) encourage developing country policy-makers to approach growth with a broader agenda, instead of focussing narrowly on manufacturing-led growth.

South African policy documents have placed greater emphasis on the development of the services sector in recent years. One of the earliest key policy documents is the Industrial Policy Action Plan (IPAP), originally published in 2007 and updated annually. The plans aim to promote long-term industrialisation, as well as diversification away from traditional commodities and non-tradable services by expanding into value-added sectors with high employment opportunities. In this regard, the plan concentrates on promoting labour-absorbing goods and services. In the most recent publication, business process services are identified as an industry with high potential. In this regard, the IPAP detailed an incentive structure created to support growth and increase South Africa’s market share as a global destination for offshored business process services.

However, the development of the industry is constrained by a shortage of suitably-skilled managers and increasing competition from other African offshore locations (Department of Trade and Industry, 2014). Nonetheless, significantly more attention is paid to the manufacturing sector, which is described as critical to sustainable growth. The steady decline in the percentage that mining, agriculture and manufacturing contribute to GDP was labelled problematic. In addition, the services sector growth was said to be “unsustainable” as it is based on credit extension, retail consumption and dramatic growth in the security industry (Department of Trade and Industry, 2014).

The New Growth Path (NGP), released in December 2010, is in line with the IPAP in most respects. It identified job creation as a major priority, focusing on six areas: infrastructure development, agriculture, mining, manufacturing, tourism, and the “green economy” (Department of Economic
Tourism and high-level business services were predicted to create over 250 000 jobs directly, with more being created in cultural industries such as film, music and theatre. In order to achieve this, the NGP proposed to strengthen measures to expand tourism infrastructure, improve training, promote targeted marketing campaigns, and identify employment opportunities for the youth (Department of Economic Development, 2011). The NGP also detailed a New Tourism Sector Strategy that would “benchmark pricing, extend quality assurance and address logistics” (Department of Economic Development, 2011). Nevertheless, the bulk of the five million jobs target was said to rest on reindustrialising the economy with manufacturing contributing most significantly.

The National Development Plan (NDP) was created as a complement to the New Growth Path in 2013 and offers a long-term vision that “aims to ensure that all South Africans attain a decent standard of living through the elimination of poverty and the reduction of inequality” (National Planning Commission, 2013). The report acknowledges that expanding export-orientated industries is critical to creating sustainable job growth, and identified business services and tourism as two areas in which South Africa has a comparative advantage. Where the plan deviates from IPAP and the NGP is that industrial strategy is limited, manufacturing takes a back seat, and services are identified as central for job growth (National Planning Commission, 2013).

However, the strategy for growth relies on low-wage, small, domestically-orientated services firms, providing largely business, retail, and personal services. These are not the same modern, impersonal, IT-enabled services that seem to have driven economic and employment growth in other countries. While the NDP identifies strong growth in the financial sector, this is generally highly sophisticated work that is inaccessible to historically marginalised groups and is a relatively small employer in relation to its economic contribution. The NDP also targets the promotion of domestically-oriented industries where “global competition is less intense” and there is a high labour component, such as housing construction, personal services such as cleaning and hair dressing, and business services such as office cleaning and repair (National Planning Commission, 2013). This remains the focus until phase three of the plan from 2023 to 2029 when South Africa will supposedly have built a “knowledge economy” and can move away from low-paid work. Public policy support for this job creation is left vague, advocating for lower barriers to entry, reductions in regulatory red tape, and enhancements to the entrepreneurial environment.

In terms of trade policy, South Africa’s Trade Policy and Strategic Framework aims to support industrial strategy and identifies the importance of trade in services. The document states that “the expansion of services is critical to efforts to promote growth, employment and equity” (Department of Trade and Industry, 2010:45). During the Uruguay Round of trade negotiations in the 1990s, international trade in services became subject to regulations as set out in the General Agreement on Trade in Services (GATS). South Africa undertook extensive multilateral services commitments and liberalised 92 of 160 services sectors, which is on par with most of the developed world. In subsequent negotiations on telecommunications and financial services, South Africa signed further GATS protocols. As a result, the South African services market is well-developed and fairly open to foreign enterprises.

It is thus evident that South Africa’s various policy documents have largely acknowledged the importance of service sector growth as a complement to industrial growth in the evolving global economy. Where services appear in policy documents, this tends to revolve around financial and business services or tourism. Furthermore, South Africa’s most recent document, the National Development Plan, concentrates on low-wage, domestically-oriented, small services industries. While certainly important, it is not evident that these industries will be able to contribute significantly to growth and development, nor provide decent work for low-skilled people. Manufacturing and industrialisation remains the central focus of South Africa policy, and is certainly given more attention than the services sector.
6 Conclusion

The services sector in South Africa is large and growing. Close to two-thirds of GDP and employment is accounted for by the service economy. Employment growth over the post-2000 period has almost exclusively been driven by growth in service sector jobs. Thus one could argue that South Africa is a de facto service-orientated economy.

It is interesting to consider this growing importance of the services sector in relation to the notion of structural transformation. Since 1970 labour resources have shifted away from low productivity industries such as, Agriculture, Construction, and Other CSP Services. However, rather than labour resources shifting to high productivity Manufacturing activities, as per the East Asian model, we have seen labour resources shift toward services industries. In fact, one could argue that evidence points to the deindustrialisation of the South African economy over the period 1970 to 2014, with both Manufacturing and Mining industries declining in economic prominence.

Employment patterns in services yield to a particular form of segmentation. Firstly, we observe a slight shift toward high productivity service industries, such as Finance & Insurance, and Business Services (non-TES). Secondly, there is a significant shift toward relatively high productivity Government Services. Finally, we observe a shift toward the low productivity Wholesale & Retail Trade industry and temporary employment services within the Business Services industry. The high productivity service industries are skill-intensive and thus associated with higher returns to employment. Conversely, the low productivity service industries are less skill-intensive and thus returns to employment are lower. Given the importance of education and skills in the South African labour market, it seems that labour resources are segmented along these lines and this plays a role in the shaping of the services sector.

The question regarding the sustainability of services-led growth needs to take into account the growth prospects of these three segments. Firstly, the modern high productivity services industries such as Communication, Finance & Insurance, and Business Services comprise, on aggregate, increasing shares of GDP and employment. However, the favourable performance of these modern high productivity services industries is tempered by the fact that employment growth across these three industries has been predominately driven by growth in Business Services, of which a significant share is in low productivity temporary employment services. It has been argued here and elsewhere that growth in TES is a result of firms finding a mechanism to obviate labour regulatory restrictions. However, these high productivity services industries offer great potential to be engines of growth in the South African economy. However, the skill-intensity associated with these industries suggests that their potential is constrained by the South African schooling system’s inability to generate skilled individuals that can be absorbed into these industries. As such, the extent to which there has been a structural shift toward high productivity modern service industries is limited, and is likely to be constrained in the future.

Secondly, there has been significant employment growth in Government Services. Government Services is, on average, characterised by relatively high productivity activities, high skill-intensity, and thus relatively high wage levels. The high wage levels are in part explained by strong public sector unions. However, this industry cannot act as a driver of growth, given that a bloated public sector is not fiscally sustainable and never a positive contributor to long-run economic development.

Thirdly, the growth in employment of an already substantial Wholesale & Retail Trade industry needs to be considered in light of the high levels of informality in the industry. One could argue that this industry helps absorb the excess supply of low-skilled workers in the South African economy. This is certainly the case where survivalist economic activities in townships and informal settlements in South Africa typically involve retail trade. As such, this industry is unlikely to act as a driver of high productivity growth.
For the service sector to be a driver of structural transformation and economic growth, it needs to become increasingly export-orientated in order to reap the increasing economies associated with a large global marketplace. Services exports in South Africa are relatively small in relation to total exports (approx. 15 percent) and total services value-added (approx. 7), with the latter measure suggesting a low tradability of South African services. Given the dominance of the services sector in the domestic economy, there is considerable potential for South Africa to boost the volume of services exports. However, despite its small size, we do observe growth in services exports in the post-1994 period. The question is whether this is a continuing trend, and whether the composition of these service exports is biased toward high quality services exports.

South Africa’s services exports remain largely centred on travel and tourism, and on services that support the exports of goods. Unlike other emerging economies, South Africa has not experienced a distinct shift away from traditional services exports towards modern, “high-technology” exports. South Africa lags behind its emerging market peers with regard to the sophistication of its commercial services exports, especially as communications and ICT exports have remained below 5 percent of commercial services exports. The poor performance of relatively more sophisticated commercial exports may be a result of domestic factors such as labour market constraints, and inadequate trade policies.

The composition of South Africa’s service exports along the destination margin indicates that exports to the developed country markets of Europe and North America are predominantly driven by traditional services, such as tourism and travel services. We also observe a declining relative importance of these developed country markets. Interestingly, the share of service exports to developing countries suggests the growing importance of these markets. Evidence suggests that service exports to these regions is relatively more sophisticated. Therefore, service exports to developing country markets may provide an avenue for export expansion in dynamic high productivity services. Travel service exports will continue to provide South Africa with a competitive edge in global markets, but there is need to address possible bottlenecks to growth and specialisation of high quality services exports. It is here where the potential for a more focused service-orientated industrial policy lies.

It is important to note a data omission relating to services exports to African countries. South Africa’s services trade with other African countries is largely FDI (mode 3) and therefore not captured in the TSD. South Africa has a large presence of banks and other financial institutions, retail firms (such as clothing and FMCG retailers), and communications firms (e.g. MTN) on the African continent. This suggests that without these operations accounted for, the value and sophistication of South African services exports, particularly in financial services, may be significantly underestimated. The inability to pick up Mode 3 service exports means that a series of nodes of services development and export potential that are being slowly built – such as TES through Adcorp going global, the big three listed South African health services firms expanding into Europe – are not being picked up. As such, the analysis of existing service export data does not pick up on the growth potential in the African and global markets for South African services. As such further investigation into this source of export flows is warranted.

In conclusion, the service sector in South Africa is diverse and intertwines with the functioning and transformation of the economy in diverse ways. For instance, low productivity activities in Wholesale & Retail Trade are better able to absorb the abundance of inadequately skilled workers. Industries related to financial service activities align with the notion of high productivity export-orientated growth industries. And although the potential exists within this industry, it is constrained by the supply of an adequately skilled workforce. In both instances, these industries provide an avenue for
employment opportunities and growth but along different dimensions. Furthermore, the services sector constitutes the majority share of GDP and as such is a significant cog in South Africa’s economic engine. The question then is whether South Africa can exploit the large existing share of GDP – ranging from retail, communication, to financial services and tourism across the entire product market, customer, productivity and employment spectrum – in order to build a set of globally competitive services firms which not only continue to create local employment but also serve to provide the impetus for South Africa’s longer run economic development trajectory.

References


Datasets


Appendix

Services Exports: Data definitions and caveats

In general, data on the trade in services is far from comparable to, given the uniqueness of international service transactions, compared to cross-border trade in goods. Services are intangible, cannot be stored, and often require joint production with consumers. The World Trade Organisation has therefore classified trade in services along four modes of supply:

- **Mode 1:** Cross-border trade – services supplied from the territory of one country into the territory of another.
- **Mode 2:** Consumption abroad – services supplied in the territory of a country to the consumer of another.
- **Mode 3:** Commercial presence – services supplied in the territory of a country to the consumers of another (i.e. FDI).
- **Mode 4:** Presence of natural persons – services supplied by nationals of a country in the territory of another.

However, balance of payments and other trade statistics typically only record services trade in Modes 1, 2 and 4. Mode 3 is particularly difficult to measure, although it makes up a large proportion of services trade. For the purposes of this paper, it is assumed that services exports data falls within Modes 1 and 2 only.

Data Definitions

The indicators of services exports used in this paper have been drawn from the following datasets: World Development Indicators, Trade in Services database and the South African Reserve Bank. The definitions of services exports in each of these sources varies slightly. For data from World Development Indicators, the following definitions are assumed:

<table>
<thead>
<tr>
<th>Exports category</th>
<th>Explanation</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service exports (BoP)</td>
<td>Services refer to economic output of intangible commodities that may be produced, transferred, and consumed at the same time</td>
<td>International Monetary Fund, Balance of Payments Statistics Yearbook and data files.</td>
</tr>
<tr>
<td>Commercial service exports</td>
<td>Commercial service exports are total service exports minus exports of government services not included elsewhere. International transactions in services are defined by the IMF’s Balance of Payments Manual (1993) as the economic output of intangible commodities that may be produced, transferred, and consumed at the same time. Definitions may vary among reporting economies.</td>
<td>International Monetary Fund, Balance of Payments Statistics Yearbook and data files.</td>
</tr>
<tr>
<td>Exports category</td>
<td>Explanation</td>
<td>Source</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Goods exports (BoP)</td>
<td>Goods exports refer to all movable goods (including nonmonetary gold and net exports of goods under merchanting) involved in a change of ownership from residents to nonresidents.</td>
<td>International Monetary Fund, Balance of Payments Statistics Yearbook and data files.</td>
</tr>
<tr>
<td>Merchandise exports</td>
<td>Merchandise exports show the f.o.b. value of goods provided to the rest of the world.</td>
<td>World Trade Organisation</td>
</tr>
</tbody>
</table>


For data from the Trade in Services database, the following definitions are assumed:

<table>
<thead>
<tr>
<th>Services category</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport</td>
<td>Transport services consist of passenger, freight and other transport for sea, air, road, rail, inland waterway transport, space transport, pipeline transport and electricity transmission, and other supporting transport services</td>
</tr>
<tr>
<td>Travel</td>
<td>Travel services consists of business and personal travel (but does not include transportation), and included education- and health-related expenditures. Travel services can also be interpreted as international tourism.</td>
</tr>
<tr>
<td>Government services</td>
<td>Government services consist of services relating to embassies and consulates, military units and agencies, and other government services.</td>
</tr>
<tr>
<td>Communication</td>
<td>Communication services comprise postal and courier services, and telecommunications services</td>
</tr>
<tr>
<td>Construction</td>
<td>Construction services comprise construction abroad and construction in the compiling economy</td>
</tr>
<tr>
<td>Insurance</td>
<td>Insurance services include life insurance and pension funding, freight insurance, other direct insurance, reinsurance, and auxiliary services</td>
</tr>
<tr>
<td>Finance</td>
<td>Financial services consist of financial intermediary services, not including insurance services</td>
</tr>
<tr>
<td>Computer and information</td>
<td>Computer and information services consist of computer services, such as data processing and hardware, and information services</td>
</tr>
<tr>
<td>Royalties and license fees</td>
<td>Royalties and license fees include payments for intangible assets or property rights, patents, copyrights, etc.</td>
</tr>
<tr>
<td>Other business</td>
<td>Other business services comprise: (i) Merchanting and other trade--related services; (ii) Operational leasing services; and (iii) Miscellaneous business, professional, and technical services, which are made up of (a) legal, accounting, management consulting, and public relations, (b) advertising, market research, (c) research and development (d) architectural, engineering, and other technical services, (e) agricultural, mining, and on-site processing services, (f) other business services, and (e) services between related enterprises</td>
</tr>
<tr>
<td>Personal, cultural and recreational</td>
<td>Personal and recreational services consist of audiovisual and related services, and other personal, cultural and recreational</td>
</tr>
</tbody>
</table>

Source: Francois & Pindyuk (2013)

Problems with Trade in Services Database

The Trade in Services database provides a consolidated dataset of multiple sources of bilateral trade in services data, including OECD, Eurostat, UN and IMF. However, the database is problematic. Firstly,
the data captures only the first two modes of services trade, and as such, value and volumes of services
trade may be underestimated. Secondly, database does not fully capture South-South trade given that
trade in services in developing and emerging market countries is typically unreported, if not poorly
reported. While the addition of the “XWD” region ensures that the data is internally consistent – and
can therefore be used as a proxy for developing countries with poor data reporting – it should ideally
decrease over time as data quality improves. This was not found to be the case, particularly for South
Africa’s unallocated services exports. Thirdly, while the database provides incredible detail on the type
of services traded between countries, there were considerable gaps and inconsistencies the more
disaggregated the data became, at least for South Africa. In some cases, there are no data entries for
sub-categories– which may indicated no services exports in, or insufficient data to compete the entry.
It is therefore difficult assess growth into new service sectors, as the trend may be influenced largely
by data reporting issues. In other cases, reported totals do not add up to the summation of sub-
category figures, making it difficult to ascertain the accuracy of the data. These are issues that have
been well-noted by the architects of the database– until the quality of reporting services trade
improves, it can be assumed that the Trade in Services database provides a close approximation of
services trade.