THE DEVELOPMENT AND IMPORTANCE OF TRAVEL SERVICE EXPORTS FROM SOUTH AFRICA

JOHAN FOURIE[1]

SUMMARY

Trade-in-services is fast becoming one of the foremost areas of research and policy making in the international trade arena. Although the General Agreement on Trade-in-Services (GATS) was implemented in 1995, it is only recently, with the realisation of the close linkages between goods and service exports and the advent of better data, that researchers have begun to pay more serious attention to questions such as "comparative advantage" and "trade liberalisation" in the service trade. While research on the subject has lagged, negotiations and policy analysis (because of GATS) has had to make do with what little is understood about the service sector. One reason for the lack of clear stylised facts about service exports is the diverse nature of the industries that comprise it. The World Trade Organization (WTO) defines twelve service industries, each with specific characteristics, measurement issues and economic incidence. Furthermore, each service industry consists of four modes of trade. In addition, trade involves both imports and exports.

South Africa has a long history of travel service exports. The first Europeans settled in the Cape to provide services to passing ships on their voyages to the East Indies and back to Europe. Cape Town, known as the "Tavern of the Seas", offered sailors and soldiers accommodation, entertainment and health care before commencing the second leg of their journey. Today, South Africa offers the international traveller a diverse travel experience. Blessed with unique natural landscapes, fauna and flora, history and cultures, together with a built environment offering quality services, travel exports are one of the fastest growing sectors in the South African economy. Given this, South Africa seems to enjoy a comparative advantage: Travel service exports comprise more than 65% of the country's total service trade, significantly higher than the world average of 38%.

This paper defines travel service exports and reflects on its development in South Africa. Using a new United Nations Conference on Trade and Development (UNCTAD) dataset, tests the hypothesis that South Africa has a comparative advantage in exporting travel services. The relative advantage of this sector is also compared against that of other countries. The evidence supports the notion that South Africa has a revealed comparative advantage in exporting travel services.

Keywords: trade-in-services, international trade, tourism, South Africa, GATS

JEL: F14

[1] Department of Economics, Stellenbosch University. E-mail: johanf@sun.ac.za. Research assistance was provided by Dieter von Fintel. The author would also like to thank Colin McCarthy, Rachel Jafta and Trudi Hartzenberg for valuable comments and suggestions on an earlier draft. All remaining errors are those of the author.

1. INTRODUCTION

Trade-in-services is fast becoming one of the foremost areas of research and policy making in the international trade arena. Although the General Agreement on Trade-in-Services (GATS) was enforced in 1995, it is only recently, with the realisation of the close linkages between goods and service exports and the advent of better data, that researchers have begun to pay more serious attention to questions such as "comparative advantage" and "trade liberalisation" in the service trade (Whalley 2004). While research on the subject has lagged, negotiations and policy analysis (because of GATS) has had to make do with what little is understood about the service sector. One reason for the lack of clear stylised facts about service exports is the diverse nature of the industries that comprise it. The World Trade Organization (WTO) defines 12 service industries, each with specific characteristics, measurement issues and economic incidence. Furthermore, each service industry consists of four modes of trade. In addition, trade involves both imports and exports.

Following the international trend, research in Southern Africa on the service trade has been relatively slow and superficial. However, this is no reason to suggest that service exports are not important for the region's future development. Southern African countries, notably landlocked economies such as Botswana, Zambia and Zimbabwe, have a comparative advantage in exporting services because of the high transport costs of goods in their markets. Some service exports, using more cost-competitive telecommunications infrastructure or air transport, may therefore yield a comparative advantage *vis-à-vis* goods exports. Such an emphasis on service is supported by excellent English language proficiency, a relatively well-educated workforce and an overlapping time zone with Europe. Many of these governments are already realising the gains from a policy shift towards a focus on service exports, notably travel services (Rogerson 2007).

South Africa has a unique history of travel service exports. The first Europeans settled in the Cape to provide services to passing ships on their voyages to the East Indies and back to Europe. Cape Town, known as the "Tavern of the Seas", offered sailors and soldiers accommodation, entertainment and health care before commencing the second leg of their journey. Van Duin and Ross (1987), and more recently Boshoff and Fourie (2008a), show that these services were instrumental in driving local demand in the early Cape colony by supporting the struggling agricultural sector, especially during the first few decades of the Cape settlement.

Today, travel services are an important component of the South African service sector. The diverse South African landscape, including its world-renowned fauna and flora, combined with a relatively safe environment and reliable infrastructure, attracts visitors from across the globe. As global income began to rise, first in the industrialised nations and later in the Asian economies, tourism arrivals increased rapidly.

This paper highlights the growing importance of this sector for the South African economy. South African travel service exports comprise more than 65% of the country's total service trade, significantly higher than the world average of 38% (UNCTAD 2008). Furthermore, using new United Nations Conference on Trade and Development (UNCTAD) data, a Balassa index is calculated, suggesting a strong revealed comparative advantage (RCA) for travel service exports. A number of alternative measures support this claim. Given its current industrial policy focus, this paper suggests ways in which South Africa may build on its legacy of travel service exports.

Section 2 defines travel services and discusses different ways of measurement. Section 3 describes the historical development of travel service exports in South Africa, while Section 4 builds the

hypothesis that South Africa has a comparative advantage in exporting travel services. Section 5 describes the methodology and data and calculates the RCA for South African travel exports, comparing it with countries of similar attributes. Section 6 proposes that the current debate in industrial policy shift to an emphasis on service trade, particularly travel services. Section 7 concludes the article.

2. Definition and Measurement issues

Unlike other traded service industries, travel services are defined by the *user* of the service and not the type of good or service sold: The consumer (user or traveller) moves to a different country to obtain goods and services.[2] Travel services entail all goods and services that are acquired by travellers in an economy during visits of less than one year (except patients and students who may exceed the one-year limit) (UN 2002). These services exclude transportation services provided by carriers not resident in the particular economy being visited, as well as international carriage of travellers, both of which are included under passenger services in the transportation service industry (UN 2002). Also excluded are purchases of goods for resale in the traveller's home economy or elsewhere.

Travel services are often disaggregated between business travel and personal travel services. Personal travel services are sometimes further disaggregated into health-related expenditure, personal-related expenditure and other personal travel expenditure (UN 2002). An alternative disaggregation is proposed in the 2002 Manual on Statistics of International Trade in Services (MSITS) (UN 2002), where expenditure on goods, expenditure on accommodation and food and beverage serving services, and all other travel expenditure are distinguished. There is, however, little indication that this alternative measure has been implemented.

The WTO classifies four modes of service trade: Mode 1 is defined as the supply of a service from the territory of one member (country) into the territory of another member (also known as cross-border supply); Mode 2 is the supply of a service in the territory of one member to the service consumer of any other member (consumption abroad); Mode 3 is the supply of a service by a service supplier of one member, through commercial presence in the territory of any other member (commercial presence); and Mode 4 is the supply of a service by a service supplier of one member, through the presence of natural persons of a member in the territory of any other member (presence of natural persons) (UN 2002).

Tourism, often thought to be a synonym, is not equivalent to travel services. Travel services encompass tourism – which only consists of Mode 2 trade – but also includes trade in the other three categories.[3] Mode 1 travel service exports would include South African travel agencies and guides offering their services electronically to foreigners, for example, a South African travel agency offering itinerary planning and booking services to European travellers, though not providing any services once the travellers arrive at their destination. Mode 3 exports include foreign direct investment in the tourism industry, for example, an American citizen buying a game reserve. Mode 4 exports would entail South Africans working abroad in the tourism industry. This would imply that a South African tour guide working in a foreign restaurant would be classified as a Mode 4 export. However, the definition of Mode 4 exports is not clear-cut for travel services. A direct

[2] For a comprehensive definition of travel services, consult the United Nations Manual on Statistics of International Trade in Services (2002:37–39).
[3] Often, because Mode 2 comprises the bulk of travel service exports, tourism is taken as a proxy for travel services.

reading of the definition above suggests that workers employed abroad by a restaurant not owned by South Africans will be excluded from classification as Mode 4 exports.

The measurement of trade-in-services has been a serious constraint in sound research. The only source for accurate service trade statistics are the current account of the balance of payments (BOP), compiled in South Africa by the Reserve Bank and published in the Quarterly Bulletin. The fifth edition of the International Monetary Fund (IMF) Balance of Payments Manual (BPM5) proposes that statistics are published disaggregating trade-in-services between residents and non-residents into 11 sectors: transportation, travel, communications services, construction services, insurance services, financial services, computer and information services, royalties and license fees, other business services, personal, cultural and recreational services, and government services (WTO 2006:10). The South African Reserve Bank currently publishes only two categories, transportation services (5700Y) and travel services (5043Y), with other services (5051Y) the difference of total services (5002Y) and transportation and travel. Transportation services are split into passenger fares (5041Y) and other transportation services (5042Y), while travel services are split into business travel (5701Y) and other travel (5702Y). The Reserve Bank is in the process of expanding the existing selection of service categories.

Yet, even if access was available to the full coverage of service categories as proposed by BPM5, no feasible disaggregation would be possible between the different modes of supply. To do this, MSITS proposes the measurement of services by foreign affiliates within the framework of Foreign Affiliates Trade in Services (FATS) statistics. This framework describes the operations of foreign affiliates (including indicators such as turnover, exports and imports of goods and services, number of enterprises, etc.) with a particular, but not exclusive, focus on services (WTO 2006). Amalgamating FATS with BPM5 will make trade-in-service exports and imports available for all 11 categories over the 4 modes of supply. However, very few countries, including South Africa, currently compile FATS datasets.

Travel services evade most of these data limitations. As mentioned, travel services are available as a separate category in the Reserve Bank Quarterly Bulletin. While not all travel services are classified under Mode 2, Mode 2 exports are a close approximation of total travel service exports. There are, however, some unique issues regarding travel service data. BOP data includes traveller expenditure on goods, which is technically not trade-in-services. Also, even though a distinction is made between business travel and other travel in the Quarterly Bulletin, further distinctions, such as those proposed by MSITS (UN 2002), could be helpful for policy analysis.

3. Travel Service Exports from South Africa

South Africa has a unique history of travel service exports. The first Europeans settled in the Cape to provide basic necessities to passing Dutch ships sailing between Holland and the East Indies. Apart from stocking these ships with provisions, which included fresh water, food and firewood, sailors and soldiers aboard these ships also took time to relax and enjoy themselves, and rebuild their strength in time for the second leg of their journey. Cape Town became known as the "Tavern of the Seas". Schutte (1980) notes that according to seamen, nearly every house in Cape Town was a public house or inn. Injured and sick travellers were also treated by the Dutch East India Company (VOC) hospital. According to Van Duin and Ross (van Duin and Ross 1987), an average of between 9 700 and 11 600 men visited Cape Town every year between 1720 and 1780 on the ships of the VOC. These numbers exclude those travelling on non-Dutch ships.[4] Given that the European male

[4] See Boshoff and Fourie (2008b) for a discussion on the role of ships in the early Cape Colony.

population in 1780 for the entire Cape Colony equalled 2 913 and that the entire population, including children and slaves, equalled 22 257, the number of visitors is staggering (van Duin and Ross 1987). A survey conducted in 1732 shows that close to 60% of people employed in Cape Town were involved in the service sector (Schutte 1980). Not only were travel service exports important for employment creation, but it had significant spin-offs in related industries (such as agriculture and viticulture) during the period of Dutch rule in the Cape (Boshoff and Fourie 2008a).

A lack of sufficient statistical evidence undermines any attempt to discuss the role of travel service exports during much of the nineteenth century.[5] The economy of South Africa changed rapidly after the discovery of diamonds (1867) and gold (1886). The diamond and gold mines brought with it a wave of travellers and immigrants, resulting in fast-growing cities in the interior, most notably Kimberley (diamonds) and Johannesburg (gold). The size and significance of travel exports during the early period of the twentieth century is unclear, although it is expected to be comparatively small in comparison with the rich mineral exports.[6]

The first data is available from 1946 (SARB 2008). The South African Reserve Bank publishes two series of service exports: the value of service receipts (KBP5002J) and exports of services (KBP6609J), both in current prices. It is not clear what the difference is between them. From 1960 the two sets of data are similar. Between 1946 and 1959, exports of services (KBP6609J) are significantly above the value of service receipts (KBP5002J), and implausibly so. If the KBP6609J data is to be believed, service exports had seen a drop of more than 80% between 1959 and 1960. Figure 1 shows the two sets of data in logarithmic form, reported on the secondary vertical axis.

Figure 1 reports service exports as a share of total exports (goods and services). During the first few years for which data is available, service exports was an important component of total service exports (more than 15% in 1946). This share soon declined to stabilise for most of the 1960s at around 11%. The 1970s, especially during the early years, saw rapid gains in service exports *vis-à-vis* goods exports. According to Van Staden (1988), between 1968 and 1975, tourists to South Africa grew at an average of 13.2% per annum as opposed to 5.4% in international tourist expenditure. The 1976 Soweto uprisings caused a significant slowdown with overseas visitors dropping by 12% (Van Staden 1988). However, the trend reversed again in the 1980s, with sporadic periods of growth but higher volatility. Since the 1990s, especially after the political transition to a full democracy in 1994, service exports have again showed higher growth than goods exports. Figure 1 also reports the service exports share of the gross domestic product (GDP). In 1946, 3.86% of the GDP consisted of service exports. Yet, this share steadily declined until 1993 (reaching 2.51%), with some growth exceptions during the late 1970s. Since 1994, the trend has been reversed, with service exports reaching 4.78% of the GDP in 2007.

[5] Ironically, even though the mercantilist VOC policies constrained economic growth during the eighteenth century, the Company's meticulous records were preserved and now allow detailed analysis. When the British took control – and consequently a freer market system arrived – the annual *opgaafrolle* (comprehensive tax records) were discontinued.

[6] There is some evidence to suggest that travel service exports were not completely insignificant. The Kruger National Park, South Africa's largest national park, was founded in 1924 as a means to protect the fauna and flora, especially the larger mammals. This may indicate some recognition among policy makers of the benefits of environmental protection to sustain South Africa's natural advantages.

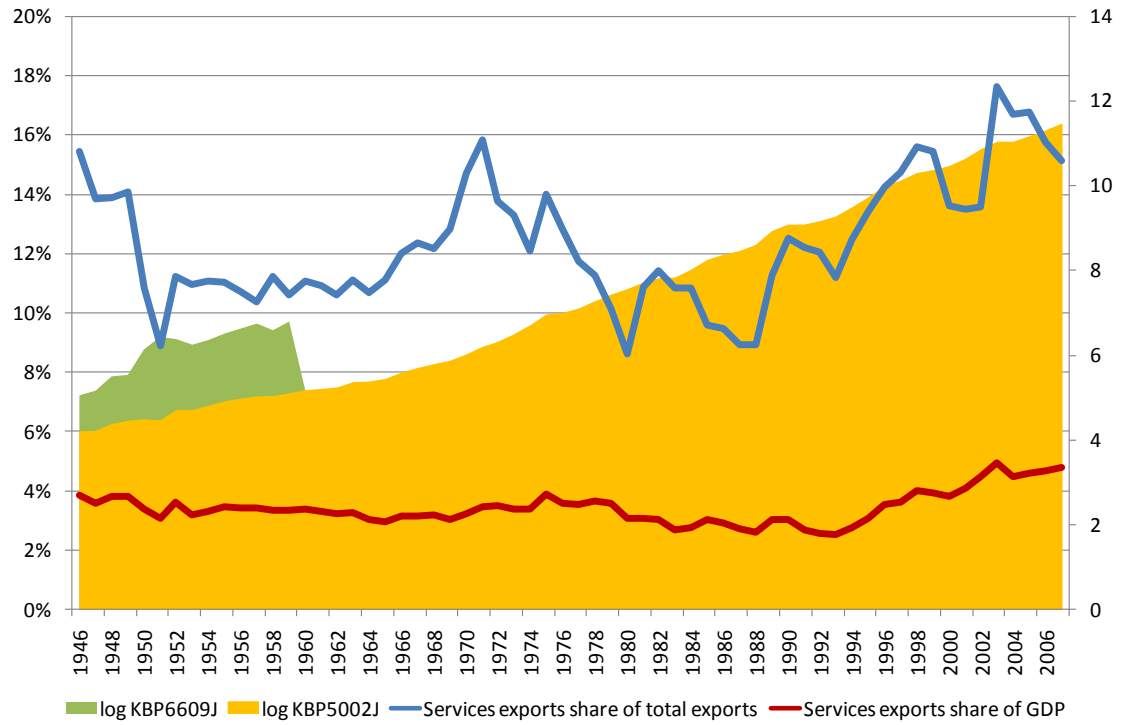

FIGURE 1: Service exports, South Africa, 1946–2007

SOURCE: South African Reserve Bank (2008), own calculations

The South African Reserve Bank does not publish travel service exports as a separate category on the BOP or in the national accounts. To disaggregate service exports, data is obtained from the UNCTAD Handbook of Statistics 2007, available electronically (UNCTAD 2008). The dataset provides exports of 11 service categories: transportation, travel, communications, construction, insurance, financial services, computer and information, royalties and license fees, other business services, personal, cultural and recreational services, and government services. The dataset covers 188 countries between 1980 and 2006. A number of countries are missing data entries, although this is mostly towards the beginning of the period under investigation.

Because the data is reported in US dollars, a comparison between travel exports and service exports is not possible. The share of travel service exports over all service exports are therefore calculated in the UNCTAD dataset. This share is then multiplied by the Reserve Bank data to obtain the Rand value of travel service exports from 1980 to 2006. Figure 2 reports travel service exports as a percentage of the GDP.

Apart from travel service exports as percentage of the GDP, Figure 2 also reports the share of agriculture, forestry and fishing in the GDP. Whereas in 1980, agriculture, forestry and fishing's share of the GDP (5.82%) was more than three times that of travel service exports (1.75%), by 2006 travel service exports (3.06%) had exceeded the former (2.47%).

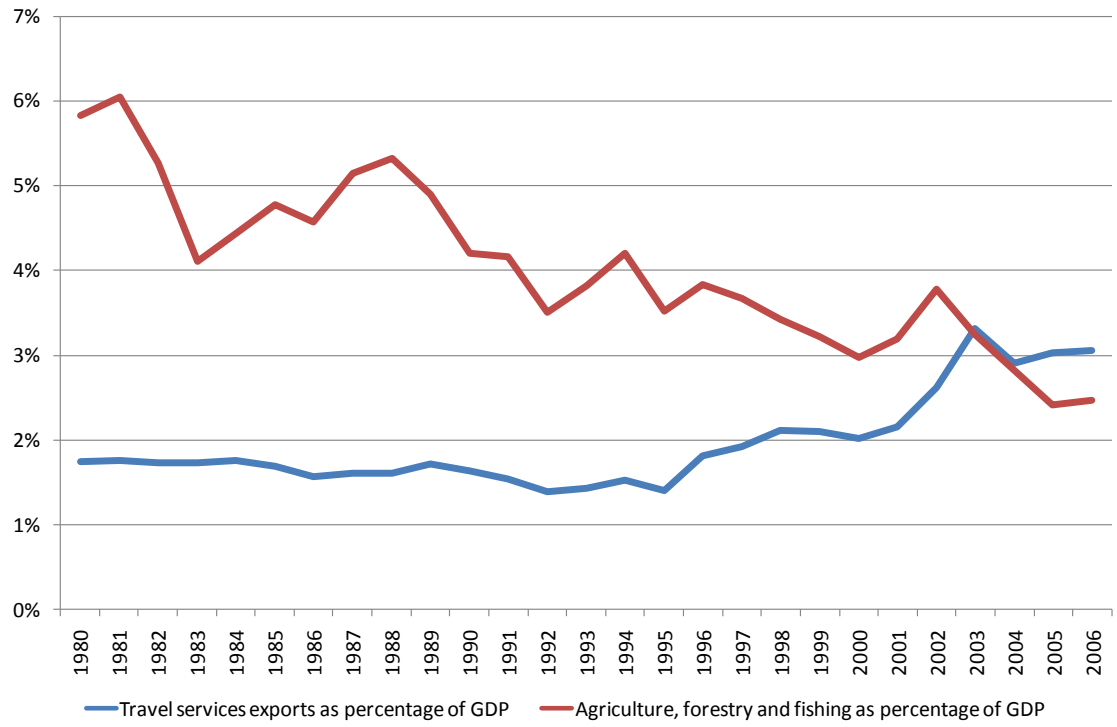

FIGURE 2: Travel service exports and agriculture, forestry and fishing as percentage of GDP, South Africa, 1980–2006
SOURCE: South African Reserve Bank (2008) and UNCTAD Handbook of Statistics 2007 (2008), own calculations

The same UNCTAD electronic dataset publishes the number of tourist arrivals and tourist expenditure by country from 1990 to 2006. Although tourist expenditure does not account for all travel service receipts, it constitutes a dominant part of travel service exports and is therefore a reliable proxy. Unfortunately, the UNCTAD data is not always consistent over time, as not all the countries report data for all the years. This has the implication that for 2006 (the most recent year in the dataset), tourist numbers show a decline. While the UNCTAD data suffice for South African tourist numbers, the United Nations World Tourism Organisation (UNWTO) database is used to measure the increase in global tourism. Statistics South Africa also report tourist arrivals and tourist expenditure. Figure 3 shows monthly tourist arrivals between 1983 and 2003, distinguishing between holiday and business travellers, with business travellers reported on the secondary axis (StatsSA 2008). A 12-month moving average for each of the series is shown. The pronounced increase in tourist arrivals since the early 1990s, and especially after the political transition in 1994, is clear. The number of business travellers has declined since 2000, although business travel constitutes less than 10% of all tourists.

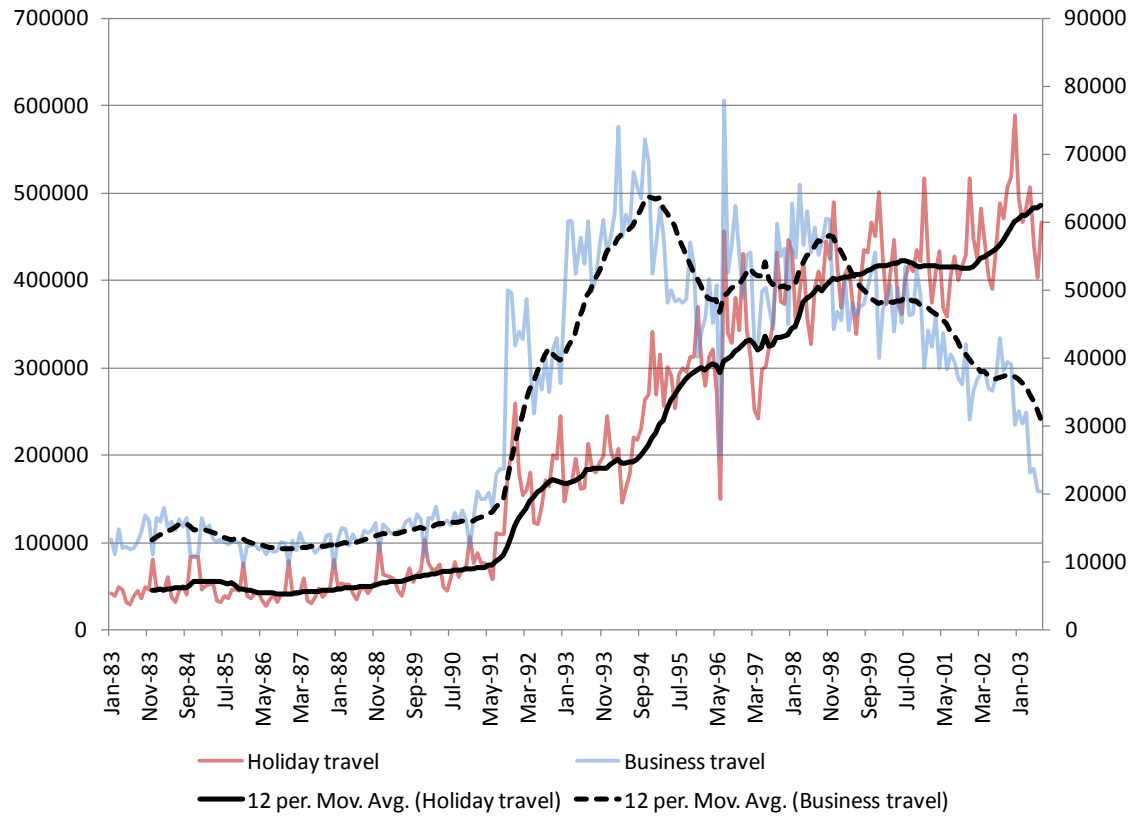

FIGURE 3: Tourist arrivals, 1983–2003
SOURCE: Statistics South Africa, adjusted[7]

Travel service exports now (2006) account for more than 65% of the country's total service trade, significantly higher than the world average of 38% (calculated using the UNCTAD dataset). Edwards and Lawrence (2006) describe service exports as the "bright part" of South Africa's post-apartheid trade performance, with average growth between 2000 and 2005 of 8.6 per cent.

4. HYPOTHESIS

Given the growth of travel service exports over the last two decades, can we identify any evidence that would suggest South Africa has a comparative advantage in exporting travel services?

Already in 1982 and before the exponential growth in post-apartheid tourist arrivals, Anton Rupert wrote in his *Priorities for Coexistence* (Rupert 1982): "What is this diversity which makes South Africa such a sought-after trading partner and an increasingly popular tourist attraction?" He attempts an answer by noting the "varying climatic conditions which are clearly reflected in a striking variety of flora … [The] lovely scenery, a glorious sunny climate, unparalleled mineral wealth and an exciting variety of animals … Table Mountain alone boasts a greater number of botanical species than are to be found in the entire British Isles!" Furthermore, "the population … is made up of people with completely different backgrounds and origins. Among this heterogeneous

[7] No data is available for February 1989 – an average of January and March 1989 has been used. The data for July 1997 seems implausible – an average of June and August has been used. The number of holiday travelers in March 2001 is an obvious outlier. The original data seems to include an extra digit, which has been removed.

mixture of peoples there is a unique diversity of life-styles, cultures, languages, faiths and social systems." He summarises: "We have a diversity of peoples and of natural resources which invite the construction of an economic model appropriate for the world as a whole. In its ethnic, cultural, sociological and economic complexity, South Africa is a microcosm of the world. Diversity … affords wonderful opportunities." Rupert's sentiments were supported by empirical evidence. Of the 5 053 questionnaires completed in a tourism survey in 1978, 77% noted "Scenery and Landscape" as the most important reason for their visit (Ferrario 1978). "Wild life" and "Natural vegetation" were the second and third most important reasons listed (Ferrario 1978). South Africa's unique natural and cultural attributes are also shared by contemporary travel research (van Staden 1988; Hugo 1992; Saayman and Saayman 2003; Rogerson 2007).

It is not only the natural environment that attracts foreign visitors, but on the supply side, South Africa's built environment is larger and of better quality than many developing countries. South Africa has relatively well-developed infrastructure (Fourie 2006), can accommodate, due to its relative size, more foreign visitors than any other African country, and offers visitors a wide selection of direct international flights to the country. In 2004, South Africa also won the rights to host the 2010 Soccer World Cup, arguably the largest sporting event worldwide. This follows the successful 1995 Rugby World Cup, 1996 African Cup of Nations and 2003 Cricket World Cup events, which provides further proof that the country can supply quantity and quality accommodation, food and beverage, and entertainment services for higher tourism demand.

In addition to the physical supply attributes, there are relatively few trade barriers to travel service exports. Netshitomboni and Stern (2002) note that, of all the service categories, travel service exports do not appear to face significant barriers to entry in the four largest service importing countries.

More recently, Saayman and Saayman (2008) empirically identify the determinants of South African Mode 2 travel exports. In agreement with the international literature, they found that income in the importing country is a main determinant of tourist arrivals (Saayman and Saayman 2008). Using a VECM methodology, price competitiveness (as measured by the real exchange rate) and transport costs are also found to be significant determinants of tourism. Interestingly, climate (measured as the number of sunny days in Cape Town) is found to be positive and significant, except for visitors from Australia and Latin America. This lends some credence to the hypothesis that the natural environment contributes to South Africa's comparative advantage. It may further suggest that the South African tourism experience is substitutable with countries sharing similar natural attributes. Stern (2002), however, finds that education and infrastructure are key determinants in travel service exports, while population, gross domestic product, per capita income, technology and land per worker have a negative impact on tourism. This supports his earlier finding that "wealthy countries are less likely to specialise in travel, sea transport, construction and communication services" (Stern 2002: 8).

Is there any theoretical support for the hypothesis that South Africa has a comparative advantage in travel service exports? The Ricardian model of comparative advantage is based on the idea that the opportunity costs of production determine the good that a country should specialise in. Therefore, in a two-country, two-sector model, even though a country might have an absolute advantage at producing both products, i.e. produce it at the lowest cost, Ricardo argues that trade will still benefit both countries as long as the opportunity costs of production are different. A country should therefore specialise in the good with the lowest opportunity cost. The Hecksher-Ohlin theory of comparative advantage, given a number of limiting assumptions (such as zero transport costs),

propose that a country will reveal a comparative advantage in those products where it has higher relative factor endowments, usually capital and labour. While the Hecksher-Ohlin theorem finds little empirical support, an extension of the Hecksher-Ohlin theorem to 1) include three factor inputs, namely natural resources, capital and labour (where natural resources are broadly defined to include scenery, landscapes and the fauna and flora), and 2) do away with the assumption of zero transport costs, could suggest that South Africa may have a comparative advantage in service exports and, specifically, travel service exports. Intuitively, while South Africa is a capital scarce country, labour-intensive exports should be exported. Unfortunately, given South Africa's high transport costs for products to international markets (Chasomeris 2005; Fourie 2008), Asian countries seem to have a comparative advantage in the export of labour-intensive goods. Given that the service industry reduces transport costs (transactions are done electronically and people use airports whereas most goods use seaports[8]), it follows that South Africa would have a comparative advantage in exporting labour-intensive services, rather than goods. Provided that travel services are the only service sector to benefit from broadly defined natural resources factor endowment, and given the natural resource-intensive factor allocation, travel services are the likely sector to have a comparative advantage *vis-à-vis* the other service sectors.

5. Methodology, Data and Results

Theory and the qualitative evidence suggest the existence of a comparative advantage in travel service exports. To test this hypothesis quantitatively, the RCA of South African travel exports since 1980 is calculated. Building on the concept of Ricardian comparative advantage, RCA reflects a country's production specialisation given differing opportunity costs in production of two trading countries (Peterson 1988). The greater the difference between the opportunity costs in production of the two countries, the greater the comparative advantage for that product or service where the relative cost is the lowest. It is expected that a country's ex post trade structure will therefore *reveal* its comparative advantage.

RCA, first defined by (Balassa 1965), is measured as

$$RCA_{ij} = \frac{X_{ij} / \sum_i X_{ij}}{\sum_j X_{ij} / \sum_i \sum_j X_{ij}},$$

where X_{ij} is exports of sector i from country j. In the current analysis, the numerator therefore represents the percentage share of a given service sector in national service exports. The denominator represents the percentage share of a given service sector in world service exports. Where the RCA is above 1, the country is said to show specialisation in that sector, i.e. its comparative advantage is revealed. Where the RCA falls below 1, the opposite is true.

The results of the RCA measure are tested against alternative measures of comparative advantage. Note however that most alternatives require the availability of service imports, data which is not readily available down to the required level of disaggregation.[9] Using simply exports of travel services, (Laursen 1998) proposes a modified RCA measure. The Revealed Symmetric Comparative Advantage (RSCA) measure adjusts the traditional RCA symmetrically around zero, obtained as *(RCA – 1)/(RCA + 1)*. In this analysis, RSCA shows little difference with the traditional RCA.

[8] Ying and Chang (2008) suggests that air transport may be vitally important for African economic growth.
[9] See, for instance, the Michaely index (Michaely 1962/67), Vollrath's relative trade advantage and his revealed competitiveness (Vollrath 1991).

The χ^2 measures how strongly each country is specialised in a certain product. The χ^2 is calculated as

$$\chi^2 = \frac{[(X_{ij}/\sum_i X_{ij}) - (\sum_j X_{ij}/\sum_i \sum_j X_{ij})]^2}{\sum_i X_{ij}/\sum_i \sum_j X_{ij}},$$

where the letters denote the same as before. One serious constraint of the χ^2 is that it yields only positive results; the quantitative measure is the same if a country is seen to be much more *or* much less specialised than the average. It is therefore important to use this measure in conjunction with the RCA.

Data for the analysis is obtained from the UNCTAD Handbook of Statistics 2007, available electronically (UNCTAD 2008). The data covers 206 separate territories or countries for which GDP data is available. Travel service data is available for 147 of these countries.

Figure 4 reports South Africa's RSCA in service exports for the period 1980–2006.

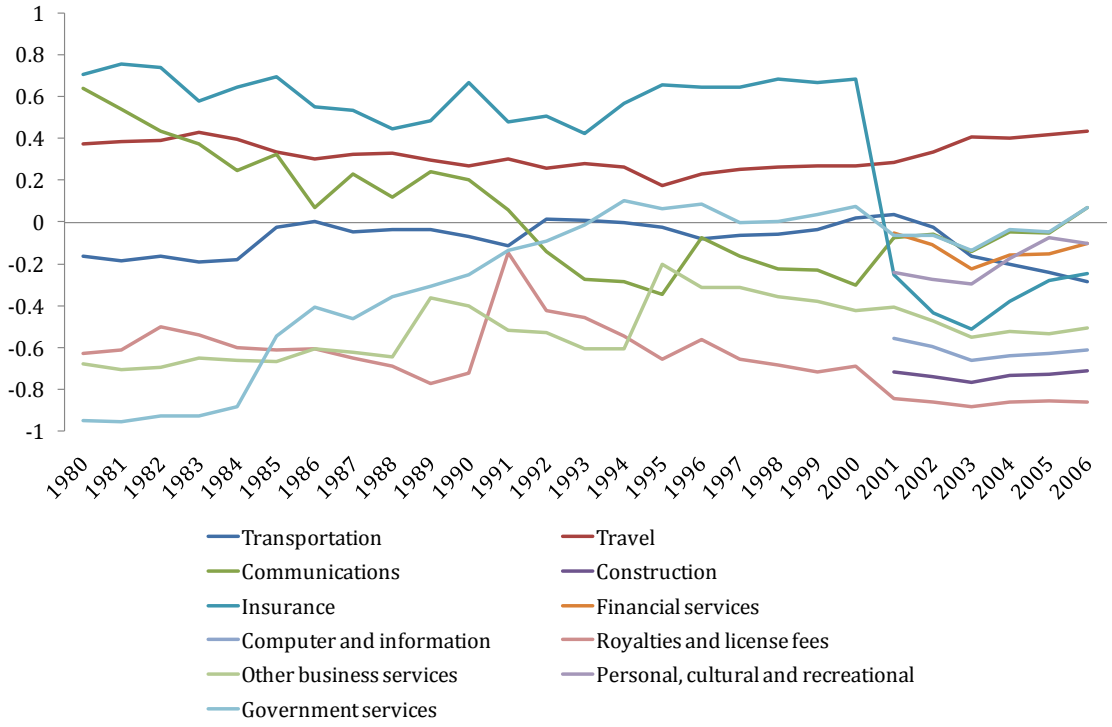

FIGURE 4: Revealed Symmetric Comparative Advantage of service exports, South Africa, 1980–2006
SOURCE: UNCTAD Handbook of Statistics 2007 (2008), own calculations

A sector is said to reveal a comparative advantage if the RSCA is above zero. In 2006, the last year for which data is available, only three sectors measured a positive RSCA, namely travel services, communication services and government services. Given that government services are non-tradable, they are excluded from the analysis. Communication services measured a negative RSCA in 2005, which suggests that the significance of this RCA is small. Only travel services yields a positive and sustained RSCA throughout the period under investigation.[10]

[10] The sudden change in the seemingly strong comparative advantage of insurance requires an explanation.

Figure 5 shows the trend of the RSCA and χ^2 of travel service exports from 1980 to 2006. Given that not all countries reported data during the early years of the analysis, one can expect that the measures are biased upwards for most of the 1980s. Yet, even without considering this bias, the RSCA and χ^2 evidence supports the earlier notion that since 1994, South African travel service exports has become more competitive, with the comparative advantage measures strengthening rapidly.

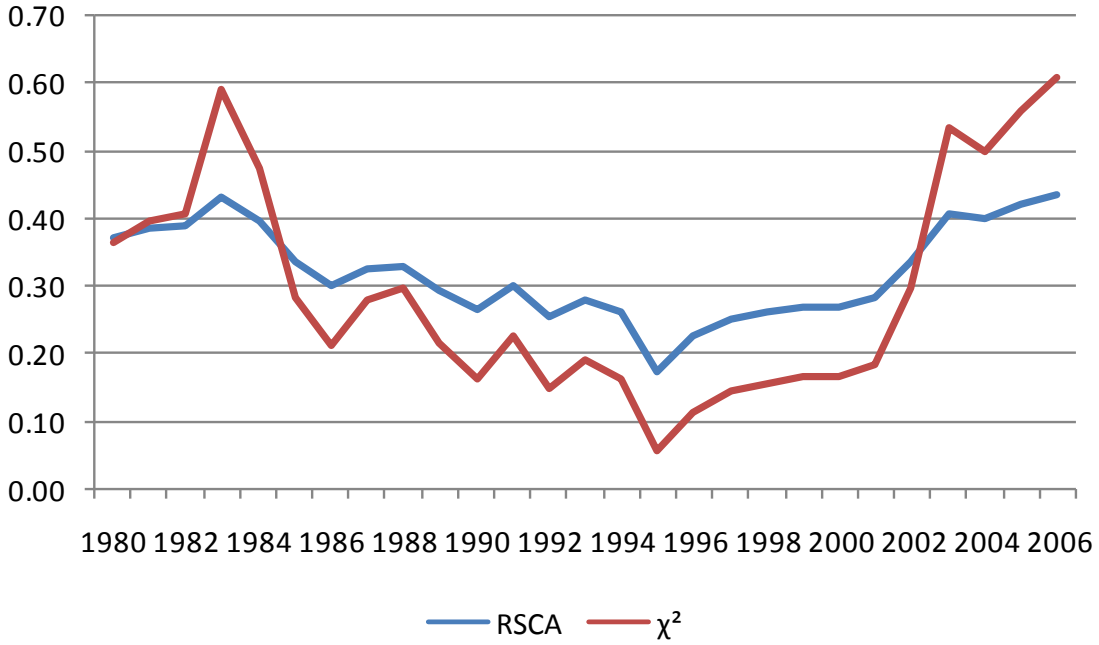

FIGURE 5: RSCA and χ^2 of travel service exports, South Africa, 1980–2006

SOURCE: UNCTAD Handbook of Statistics 2007 (2008), own calculations

Are these results supported in the literature? Unfortunately, little empirical work has been done on travel service exports in South Africa.[11] A number of studies have investigated other service sectors, including the financial sector (Butterworth and Malherbe 1999), construction (Teljeur and Stern 2002), transportation (Naude 1999), distribution services (Achterberg and Hartzenberg 2002) and communications (Hodge 1999).[12] Hodge (1997), using 1994 data, finds that travel service exports are the only service sector where South Africa has a comparative advantage. He identifies migrant labour as an important contributor to this service export, especially in the period of international sanctions against South Africa's apartheid regime and predicts that this will be an important service export category for the future (Hodge 1997).

More recently, Seyoum (2007) investigates the RCA of four service industries – business, financial, transport and travel services – for all developing economies. For the years 1998 to 2003, South

[11] The notion that travel services was not considered an important industry during much of the twentieth century is supported by the fact that reference to the travel service industry (or tourism) is completely absent in a number of overview articles and books of the twentieth century South African economy. See, for example, Franzsen and Reynders (1963) and Jones (1991).

[12] Hodge (1998) provides an overview of South Africa's trade in services during the 1990s.

Africa has a comparative advantage on all three RCA measures of travel service exports, while none of the other sectors do. Thirty other developing countries also reveal a comparative advantage in service exports throughout the period. They are Argentina, Barbados, Botswana, Bulgaria, Costa Rica, Croatia, the Czech Republic, the Dominican Republic, Ecuador, Egypt, El Salvador, Estonia, Ghana, Guatemala, Guyana, Haiti, Honduras, Hungary, Indonesia, Jamaica, Kenya, Mauritius, Morocco, Nicaragua, Peru, Poland, Slovenia, Thailand, Tunisia, Turkey and Uruguay (Seyoum 2007). This analysis is repeated by Fourie and Von Fintel (2008) for a broader range of countries and a longer time frame, with largely similar results.

The UNCTAD dataset allows for a comparative analysis of 147 countries for which travel service exports for 2005 is available. The standard RCA measure is used. To account for the diverse nature of a country's export basket as well as the size of exports in the whole economy, three different RCAs are calculated. The first measure (Services RCA) is similar to the calculations before where the numerator represents the percentage share of travel service exports in national service exports and the denominator represents the percentage share of world travel service exports in world service exports. The second measure (Total trade RCA) calculates the percentage share of travel service exports in national goods and service trade, over the share of world travel service exports in world goods and service trade. Thirdly, the GDP RCA calculates the share of travel service exports in national GDP, over the share of world travel service exports in world GDP. Where the RCA is above one, the country is said to reveal comparative advantage. Table 1 shows the results, with South Africa's performance highlighted in bold. The table only includes countries with a real GDP above $100 million in 2005. This is done to exclude the numerous small island economies that predictably reveal extremely high comparative advantages in travel service exports. The full list of top 100 countries is provided in the appendix (Table 3).

TABLE 1: Three measures of RCA for top 25 countries (with real GDP > $100 million), 2005

	Services RCA		Total Trade RCA		GDP RCA	
1	Mexico	2.72	Egypt	5.05	Malaysia	4.62
2	Turkey	2.53	Greece	4.86	Egypt	4.62
3	**South Africa**	**2.44**	Turkey	3.44	Hong Kong, China	3.96
4	New Zealand	2.18	Spain	3.10	Thailand	3.71
5	Australia	2.02	New Zealand	3.03	Austria	3.49
6	Portugal	1.88	Portugal	2.68	Turkey	3.42
7	Spain	1.88	Australia	2.30	Singapore	3.36
8	Venezuela	1.78	**South Africa**	**2.18**	Greece	3.21
9	Thailand	1.77	Austria	1.62	New Zealand	3.03
10	Egypt	1.74	USA	1.48	Spain	2.90
11	Colombia	1.70	Italy	1.42	Portugal	2.85
12	Malaysia	1.68	France	1.41	Hungary	2.65
13	Argentina	1.59	Thailand	1.37	Czech Republic	2.57
14	Czech Republic	1.47	Switzerland	1.19	**South Africa**	**2.07**
15	Italy	1.47	Poland	1.11	Switzerland	2.05
16	China	1.46	Argentina	1.09	Belgium	1.81
17	Greece	1.46	Hungary	1.06	Ireland	1.63
18	Poland	1.44	Malaysia	1.03	Australia	1.56

19	France	1.38	Czech Republic	0.97	Israel	1.50
20	Indonesia	1.30	United Kingdom	0.96	Poland	1.42
21	Hungary	1.24	Mexico	0.96	Sweden	1.41
22	Austria	1.08	Colombia	0.95	France	1.41
23	USA	0.99	India	0.90	Denmark	1.40
24	Canada	0.93	Israel	0.88	Italy	1.37
25	Brazil	0.89	Indonesia	0.85	Netherlands	1.13

South Africa performs relatively well compared to most other developing economies. On the Services RCA, South Africa is ranked third of all countries with a GDP higher than $100 million. This suggests that, within the service exports sector, travel services is undoubtedly the most important export. This is supported by the earlier evidence, which shows that travel services are South Africa's only service sector that reveals a comparative advantage. When travel services are considered as percentage of total trade, South Africa ranks eighth. The volume and wealth of South African mineral exports probably reduces the comparative advantage of this measure. Similarly, South Africa ranks fourteenth on the travel services as percentage of GDP measure. The fact that South Africa has a strong RCA of more than 2 on all three measures suggests that travel service exports in South Africa are comparatively important within the service sector, total trade and the economy as a whole.

Rival countries include Egypt, Turkey, New Zealand, Australia, Greece, Thailand and Portugal. These countries perform well across all three measures, suggesting that travel services are an important component of not only their service exports, but also total trade and GDP. While Mexico could also be considered within this group of rival countries, its results across the three measures warrants closer attention. Whereas it ranks first within the service exports category, it falls off the pace when total trade is concerned and does not even reach the top 25 when travel service exports is measured as share of GDP. This can be explained by the proximity of the US tourism market and dominated service exports. Travel service exports in Mexico are, however, dwarfed by the high volume of trade in goods within the North-American Free Trade Agreement (NAFTA), and consequently, the size of the Mexican economy.

7. CONCLUSIONS

Travel service exports entail all goods and services that are acquired by travellers in an economy during visits of less than one year. While four modes of travel services are distinguished, Mode 2 travel service exports, or tourism, dominate the sector.

South Africa has a long history of travel service exports, beginning with European settlement at the Cape in the seventeenth century. Travel service exports seem to have been an important component of trade and the GDP for most of the twentieth century, even though it was for long neglected in research and policy making. Growth in travellers to South Africa grew at rapid rates during the 1960s and early 1970s, slowing down due to the political instability. Since 1994, South African travel service exports have seen growth above the world average.

There are a number of reasons why South Africa may have an advantage at exporting travel services. On the supply side, the natural environment (landscapes, fauna and flora), climate, history and diverse cultures make South Africa a unique tourist destination. In addition to the natural features of the country, a relatively well-developed built environment provides quality services,

such as transport, accommodation and entertainment, which are vital prerequisites for attracting international visitors.

This paper tests the hypothesis that South Africa has a comparative advantage in travel service exports empirically. Using a variety of measures based on the Balassa index, the evidence suggests a relatively high RCA. Travel service exports are therefore an economically significant sector not only within the service industry, but also within total trade and the economy as a whole.

8. APPENDIX

TABLE 2

Year	RCA > 1	RSCA > 0	χ^2 >0
1980	2.18	0.37	0.37
1981	2.25	0.38	0.40
1982	2.27	0.39	0.41
1983	2.52	0.43	0.59
1984	2.31	0.40	0.47
1985	2.01	0.33	0.28
1986	1.85	0.30	0.21
1987	1.97	0.33	0.28
1988	1.98	0.33	0.30
1989	1.84	0.29	0.22
1990	1.73	0.27	0.16
1991	1.85	0.30	0.23
1992	1.69	0.26	0.15
1993	1.77	0.28	0.19
1994	1.71	0.26	0.16
1995	1.42	0.17	0.06
1996	1.59	0.23	0.11
1997	1.68	0.25	0.14
1998	1.71	0.26	0.16
1999	1.73	0.27	0.17
2000	1.74	0.27	0.17
2001	1.79	0.28	0.18
2002	2.01	0.34	0.30
2003	2.38	0.41	0.54
2004	2.34	0.40	0.50
2005	2.44	0.42	0.56
2006	2.54	0.43	0.61

TABLE 3

	Services RCA		Total Trade RCA		GDP RCA	
1	China, Macao SAR	3.44	Anguilla	14.55	China, Macao SAR	46.99
2	Anguilla	3.36	Saint Lucia	14.19	Anguilla	34.97
3	Dominican Republic	3.34	China, Macao SAR	13.43	Aruba	33.16
4	Maldives	3.30	Bahamas	12.69	Saint Lucia	26.75
5	Saint Lucia	3.29	Gambia	11.99	Maldives	26.07
6	Namibia	3.14	Antigua and Barbuda	11.77	Antigua and Barbuda	25.70
7	Aruba	3.13	Samoa	11.56	Bahamas	24.12
8	Bahamas	3.10	Maldives	11.03	Netherlands Antilles	20.39
9	Sierra Leone	3.05	Montserrat	10.70	Barbados	20.01

10	Haiti	3.05	Saint Vincent and the Grenadines	9.94	Seychelles	18.15
11	Sudan	2.91	Saint Kitts and Nevis	9.94	Lebanon	17.33
12	Uganda	2.79	Barbados	9.21	Saint Kitts and Nevis	17.09
13	Cambodia	2.79	Albania	8.74	Saint Vincent and the Grenadines	16.57
14	Saint Kitts and Nevis	2.78	Grenada	8.55	Vanuatu	14.96
15	Ghana	2.78	Vanuatu	8.42	Montserrat	13.97
16	Croatia	2.76	Dominica	8.23	Croatia	13.08
17	Albania	2.73	Lebanon	7.82	Dominica	12.73
18	Mexico	2.72	Cape Verde	7.70	Belize	12.56
19	Antigua and Barbuda	2.64	Belize	7.61	Samoa	12.53
20	Gambia	2.63	Jamaica	7.53	Grenada	12.07
21	Belize	2.59	Croatia	7.36	Jamaica	10.87
22	Guatemala	2.56	Dominican Republic	6.53	Mauritius	9.46
23	Samoa	2.55	Tonga	5.88	Cyprus	9.35
24	Turkey	2.53	Cyprus	5.56	Cambodia	9.26
25	Syrian Arab Republic	2.51	Tanzania	5.22	Malta	9.18
26	Nicaragua	2.49	Uganda	5.19	Cape Verde	8.46
27	Saint Vincent and the Grenadines	2.49	Netherlands Antilles	5.11	Gambia	8.34
28	Dominica	2.48	Sierra Leone	5.06	Dominican Republic	8.26
29	Jamaica	2.47	Seychelles	5.06	Jordan	7.74
30	**South Africa**	**2.44**	Egypt	5.05	Albania	6.87
31	Botswana	2.44	Greece	4.86	Luxembourg	6.75
32	Tanzania	2.41	Morocco	4.61	Bulgaria	6.18
33	Costa Rica	2.37	Mauritius	4.33	Mongolia	5.85
34	Honduras	2.32	Aruba	4.27	Costa Rica	5.71
35	Jordan	2.30	Syrian Arab Republic	4.19	Morocco	5.34
36	Barbados	2.29	Jordan	4.05	Syrian Arab Republic	5.33
37	Montserrat	2.28	Cambodia	3.89	Ghana	5.08
38	Vanuatu	2.18	Ghana	3.84	Tunisia	5.05
39	New Zealand	2.18	Rwanda	3.58	Tonga	4.73
40	Oman	2.18	Honduras	3.57	Estonia	4.71
41	Peru	2.13	Malta	3.50	Bahrain	4.70
42	Morocco	2.12	Panama	3.50	Malaysia	4.62
43	Grenada	2.08	Turkey	3.44	Egypt	4.62
44	Bahrain	2.06	Haiti	3.39	Tanzania	4.35
45	Bulgaria	2.04	Guatemala	3.35	Botswana	4.30
46	Lesotho	2.03	Nicaragua	3.30	Hong Kong, China	3.96
47	Australia	2.02	Costa Rica	3.23	Namibia	3.89
48	Mali	2.01	Spain	3.10	Honduras	3.78
49	Bosnia and Herzegovina	2.00	New Zealand	3.03	Thailand	3.71
50	Mauritius	2.00	Georgia	2.88	Slovenia	3.57

51	Benin	1.98	Bosnia and Herzegovina	2.85	Austria	3.49
52	Tunisia	1.97	Bulgaria	2.79	Bosnia and Herzegovina	3.49
53	Seychelles	1.94	Tunisia	2.73	Panama	3.44
54	Netherlands Antilles	1.92	Namibia	2.71	Turkey	3.42
55	Lebanon	1.89	Portugal	2.68	Singapore	3.36
56	Portugal	1.88	Benin	2.50	Greece	3.21
57	Spain	1.88	Uruguay	2.35	New Zealand	3.03
58	Philippines	1.86	Australia	2.30	Guyana	2.90
59	Angola	1.86	Mongolia	2.23	Spain	2.90
60	Bolivia	1.82	El Salvador	2.22	Sierra Leone	2.87
61	Yemen	1.81	**South Africa**	**2.18**	Nicaragua	2.87
62	Ecuador	1.78	Kenya	2.09	Portugal	2.85
63	Venezuela	1.78	Armenia	2.05	Uganda	2.83
64	El Salvador	1.77	Nepal	2.02	Hungary	2.65
65	Thailand	1.77	Botswana	2.00	Georgia	2.57
66	Libyan Arab Jamahiriya	1.74	Mali	1.96	Czech Republic	2.57
67	Egypt	1.74	Suriname	1.77	Ukraine	2.48
68	Malta	1.71	Madagascar	1.76	Lithuania	2.45
69	Colombia	1.70	Ethiopia	1.64	Uruguay	2.44
70	Occupied Palestinian territory	1.69	Estonia	1.63	Moldova	2.44
71	Uruguay	1.69	Austria	1.62	Madagascar	2.37
72	Malaysia	1.68	Slovenia	1.53	El Salvador	2.19
73	Slovenia	1.68	Iceland	1.53	Guatemala	2.12
74	Cape Verde	1.64	USA	1.48	Kenya	2.11
75	Argentina	1.59	Kyrgyzstan	1.47	**South Africa**	**2.07**
76	Mongolia	1.59	Bahrain	1.45	Switzerland	2.05
77	Armenia	1.58	Italy	1.42	Kyrgyzstan	2.03
78	Tonga	1.49	France	1.41	Suriname	1.97
79	Czech Republic	1.47	Thailand	1.37	Occupied Palestinian territory	1.97
80	Italy	1.47	Bolivia	1.36	Armenia	1.96
81	China	1.46	Ukraine	1.34	Haiti	1.88
82	Greece	1.46	Moldova	1.33	Mali	1.85
83	Poland	1.44	Peru	1.29	Belgium	1.81
84	Mozambique	1.41	Switzerland	1.19	Swaziland	1.74
85	Rwanda	1.40	Mozambique	1.16	Iceland	1.74
86	France	1.38	Lithuania	1.15	Bolivia	1.73
87	Madagascar	1.37	Luxembourg	1.13	Ireland	1.63
88	Cyprus	1.33	Poland	1.11	Benin	1.62
89	Indonesia	1.30	Argentina	1.09	Rwanda	1.60
90	Georgia	1.29	Hungary	1.06	Philippines	1.57
91	Nepal	1.28	Malaysia	1.03	Australia	1.56
92	Ukraine	1.24	Sri Lanka	1.02	Israel	1.50

93	Hungary	1.24	Czech Republic	0.97	Latvia	1.45
94	Kazakhstan	1.17	United Kingdom	0.96	Lesotho	1.42
95	Kenya	1.14	Mexico	0.96	Poland	1.42
96	Estonia	1.12	Colombia	0.95	Sweden	1.41
97	Lithuania	1.10	Philippines	0.95	France	1.41
98	Austria	1.08	Guyana	0.94	Denmark	1.40
99	Kyrgyzstan	1.06	India	0.90	Italy	1.37
100	Sri Lanka	1.04	Israel	0.88	Mozambique	1.33

9. REFERENCES

Achterberg, R. and T. Hartzenberg (2002). Trade in Distribution Services in South Africa. 2002 Annual TIPS Forum. Muldersdrift.

Balassa, B. (1965). "Trade Liberalization and 'Revealed' Comparative Advantage." The Manchester School of Economic and Social Studies 32: 99-123.

Bogetic, Z. and J. Fedderke (2006). International benchmarking of South Africa's infrastructure performance. Policy Research Working Paper Series 3989, The World Bank.

Boshoff, W. H. and J. Fourie (2008a). Ship traffic and the economy of the Cape Colony, 1652-1793. ERSA Working Paper. Cape Town.

Boshoff, W. H. and J. Fourie (2008b). "Explaining the Ship Traffic Fluctuations at the early Cape Settlement: 1652-1793." South African Journal of Economic History 23(1 & 2): 1 - 27.

Butterworth, B. and S. Malherbe (1999). The South African Financial Sector: Background Research for the Seattle Round. TIPS Working Paper.

Chasomeris, M. (2005). "Assessing South Africa's Shipping Costs." Journal of Development Perspectives 1(1): 125-141.

Edwards, L. and R. Z. Lawrence (2006). South African trade policy matters: Trade performance and trade policy. Working Paper 12760. Cambridge, MA, National Bureau of Economic Research.

Ferrario, F. F. (1978). An Evaluation of the Tourist Resources of South Africa. Cape Town, University of Cape Town. Publication No. 1.

Fourie, J. (2006). "Economic Infrastructure in South Africa: Definitions, Theory and Empirics." South African Journal of Economics 74(3): 422-441.

Fourie, J. (2008). "A note on infrastructure quality in South Africa." Development Southern Africa 25(4).

Fourie, J. and Von Fintel, D. (2008). Ranking Revealed Comparative Advantage for Services Exports: A Global Perspective. Mimeo, Stellenbosch.

Franzsen, D. G. and H. J. J. Reynders, Eds. (1963). Die ekonomiese lewe van Suid-Afrika. Pretoria, J.L. Van Schaik.

Hodge, J. (1997). Towards an Understanding of World and South African Trade in Services. Cape Town, Development Research Policy Unit (DPRU).

Hodge, J. (1998). Developing a Trade and Industry Policy Agenda for Service Sectors in South Africa. TIPS Working Paper.

Hodge, J. (1999). The State of the Telecommunications Industry in South Africa and the Potential Costs/Benefits of Further Liberalisation. TIPS Working Paper.

Hugo, M. (1992). Die rol van buitelandse toerisme in die Suid-Afrikaanse ekonomie. Department of Economics. Stellenbosch, Stellenbosch University. Masters in Economics.

Jones, S. (1991). "Real growth in the South African economy since 1961 - Part II: The tertiary sector." South African Journal of Economic History 6(1): 34-60.

Laursen, K. (1998). Revealed Comparative Advantage and the Alternatives as Measures of International Specialisation. DRUID Working Paper No. 98-30. Copenhagen, Danish Research Unit for Industrial Dynamics.

Michaely, M. (1962/67). Concentration in International Trade, Contributions to Economic Growth. Amsterdam, North-Holland Publishing Company.

Naude, W. (1999). Trade in Transport Services: South Africa and the General Agreement on Trade in Services. TIPS Working Paper.

Netshitomboni, N. and M. Stern (2002). Identifying South Africa's Interests in WTO Services Negotiations. 2002 Annual TIPS Forum. Muldersdrift, Trade and Industrial Policy Strategies.

Peterson, J. (1988). "Export shares and revealed comparative advantage. A study of international travel." Applied Economics 20: 351-365.

Rogerson, C. (2007). "Reviewing Africa in the global tourism economy." Development Southern Africa 24(3): 361-379.

Rupert, A. (1982). Priorities for coexistence. Cape Town, Tafelberg.

Saayman, A. and M. Saayman (2008). "The determinants of inbound tourism in South Africa." Tourism Economics 14(1): 81-96.

Saayman, M. and A. Saayman (2003). "An economic analysis of international and African tourism markets of South Africa." African Insight 33(1): 93-98.

SARB (2008). Quarterly Bulletin, South African Reserve Bank.
Schutte (1980). Company and colonists at the Cape. The Shaping of South African Society, 1652-1820. R. Elphick and H. Giliomee. Cape Town, Longman Penguin Southern Africa.
Seyoum, B. (2007). "Revealed comparative advantage and competitiveness in services." Journal of Economic Studies 34(5): 376-388.
StatsSA (2008).
Stern, M. (2002). Predicting South African Trade in Services. 2002 Annual TIPS Forum. Muldersdrift, Trade and Industrial Policy Strategies.
Teljeur, E. and M. Stern (2002). Understanding the South African Construction Services Industry: Towards a GATS Negotiating Strategy. 2002 Annual TIPS Forum. Muldersdrift, Trade and Industrial Policy Strategies.
UN (2002). Manual on statistics of international trade in services. Series M No. 86. Geneva.
UNCTAD (2008). Handbook of Statistics 2007. Geneva, United Nations.
van Duin, P. and R. Ross (1987). The Economy of the Cape Colony in the 18th Century. Leiden, The Centre for the Study of European Expansion.
van Staden, A. M. (1988). Past Patterns - Possible future developments of tourism in South Africa. Graduate School of Business. Stellenbosch, Stellenbosch University. Master of Business Administration.
Volltrath, T. (1991). "A Theoretical Evaluation of Alternative Trade Intensity Measures of Revealed Comparative Advantage." Weltwirtschafliches Archiv 127: 265-280.
Whalley, J. (2004). "Assessing the Benefits to Developing Countries of Liberalisation in Services Trade." The World Economy 27(8): 1223-1253.
WTO (2006). Measuring Trade in Services. Geneva.
Ying, Y.-H. and C.-P. Chang (2008). "The Generative Power of Air Freight in the Trade Openness-Economic Growth Nexus in African Countries." South African Journal of Economics 76(3).