THE RELATIONSHIP BETWEEN TOURISM AND TRADE IN SOUTH AFRICA

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by

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DECLARATION

I declare that the dissertation hereby submitted by me for the Masters degree in Economics at the North-West University is my own independent work and has not previously been submitted by me at another University/ Faculty. I furthermore cede copyright of the thesis in favour of the North-West University

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ABSTRACT

Tourism and trade are growing at an unprecedented rate. The United Nations World Tourism Organisation (UNWTO) barometer (2007) finds that foreign arrivals for January 2007 to August 2007 showed a 5.6 percent increase compared with the previous year. Furthermore, the World Trade Organization (2007) finds that merchandise trade grew by 8 percent worldwide. A number of studies have been conducted internationally on the relationship between tourism and trade and empirical evidence for these studies support that, in many cases, a relationship does indeed exist.

The main objective of this study is to examine the relationship between tourist arrivals and trade in South Africa. In order to do this, the empirical investigation is divided into two analyses. The first analysis involved a panel set data which includes tourism and trade data of 40 countries with South Africa for the period 1992 – 2007. In the second analysis, South Africa's nine main tourism and trade partners namely: Argentina, Australia, Botswana, France, Germany, Japan, Mozambique, the Netherlands, the U.K. and the U.S. were identified and investigated on their own.

Using cointegration tests, Granger causality and Block exogeneity tests, the long-term relationship between tourist arrivals and trade in South Africa was investigated, as well as which series leads the other series, thus assisting in predicting that series.

The results for the first, panel data analysis indicate that, for South Africa as a whole, there is indeed a long-term relationship between tourist arrivals and trade, that trade predicts tourist arrivals and tourist arrivals influence trade. The second analysis involved analysing the relationship between tourist arrivals and trade between South Africa and South Africa's main tourism and trading partners. The results show that certain control variables, namely climate, travel costs, price competitiveness and exchange rates, were added to reveal the effect that it might have on the relationship between tourist arrivals and trade. These results indicate that a causal relationship between tourism and trade still exists for Argentina, Australia, Germany and the Netherlands. For Argentina, Germany and the Netherlands, trade leads to tourism and a two-way causality exists between tourism and trade for Australia. However, when examining France, the United Kingdom, Japan, Mozambique and the United States, no direct relationship can be determined between tourism and trade. In these cases, the link between tourism and trade is explained by one or more of the control variables. The tourist arrivals of Mozambique and the United States were the exception, as these arrivals could not be explained by trade or any of the other control variables.

This study therefore concludes that there is indeed a long-term relationship between tourist arrivals and trade in South Africa, and that trade predicts tourist arrivals, and tourist arrivals influence trade.

OPSOMMING

Toerisme en handel groei teen 'n ongelooflike tempo. Die Verenigde Nasies Wêreld Toerisme Organisasie barometer (2007) het bevind dat buitelandse toeriste besoeke vir Januarie 2007 tot Augustus 2007 'n toename van 5.6 persent getoon het in vergelyking met die vorige jaar. Die Wêreld Handels Organisasie (2007) bevind 'n 8 persent toename in handel wêreldwyd. Internasionale studies is reeds uitgevoer om die verhouding tussen toerisme en handel te toets, en die empiriese bewyse van die studies ondersteun dat, in baie gevalle, daar 'n verhouding tussen handel en toerisme bestaan.

Die hoofdoel van hierdie studie is om die verhouding tussen toerisme en handel in Suid Afrika te ondersoek. Om dié doel te bereik is die empiriese ondersoek verdeel in twee analises. Die eerste analise bestaan uit 'n paneeldatastel wat insluit toerisme en handelsdata van 40 lande met Suid Afrika vir die periode 1992 tot 2007. In die tweede analise, word Suid Afrika se nege hoof toerisme en handelsvennote, naamlik Argentinië, Australië, Botswana, Duitsland, Engeland, Frankryk, Japan, Mosambiek, Nederland en die Verenigde State van Amerika afsonderlik ontleed. Deur ko-integrasie toetse, Granger oorsaaklikheidstoetse en Block eksogene toetse, word die langtermyn verhouding tussen inkomende toeriste en internasionale handel in Suid Afrika ondersoek. Verder word daar ook bepaal watter reeks (toerisme of handel) 'n voorspeller is van die ander reeks.

Die resultate van die paneeldata analise wys dat vir Suid Afrika as 'n geheel, daar wel 'n langtermyn verhouding tussen inkomende toeriste en internasionale handel bestaan, en dat handel bydra om inkomende toeriste te voorspel, en dat inkomende toeriste handel beïnvloed. Die tweede analise sluit sekere kontrole veranderlikes in naamlik: klimaat, reiskoste, prys-mededingendheid en wisselkoerse, om die oorsaaklikheidsverhouding tussen inkomende toeriste en handel te bepaal. Die resultate wys dat 'n oorsaaklikheidsverhouding bestaan tussen toeriste-aankomste en handel vir Argentinië, Australië, Duitsland en Nederland. Vir Argentinië, Duitsland en Nederland lei handel tot toerisme en twee-rigting oorsaaklikheid word bevind vir Australië. Wanneer Frankryk, Engeland, Japan, Mosambiek en die Verenigde State van Amerika ondersoek word, word daar geen direkte verband tussen inkomende toeriste en internasionale handel gevind nie. In hierdie gevalle word die verband tussen toerisme en handel verklaar deur een of meer van die kontrole veranderlikes. Die inkomende toeriste van Mosambiek en die Verenigde State van Amerika was die uitsondering deurdat dit nie verduidelik kon word deur handel of die ander kontrole veranderlikes nie.

Die gevolgtrekking van die studie is dus dat daar wel 'n langtermyn verhouding tussen inkomende toeriste en handel vir Suid Afrika bestaan en dat handel lei tot inkomende toeriste en inkomende toeriste handel beïnvloed.

DEDICATION

This thesis is dedicated to God, through Whom all things are possible. In addition, I dedicate this thesis to my parents, Edwin and Carien Fry.

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Chapter 1 Introduction

1.1 Background

Tourism and trade are growing at an unprecedented rate. According to the United Nations World Tourism Organisation (UNWTO) barometer (2007), international tourist arrivals for January 2007 to August 2007 were estimated at 610 million travels. This is an increase of 5.6 percent compared with the same period the previous year. The UNWTO barometer attributes this growth to emerging destinations such as Asia, the Pacific, Africa and the Middle East. South Africa (a prominent emerging destination) recorded a 4.9 percent increase in foreign arrivals from October 2006 to October 2007 (Statistics South Africa, 2007). When examining the trade statistics, the World Trade Organization (2007) found that merchandise trade also showed an increase. Merchandise trade grew by 8 percent worldwide and world gross domestic product grew by 3.5 percent. Merchandise trade has been growing at twice the rate of output since 2000.

The World Trade Organisation (2007) attributes the vigorous trade expansion to stronger global economic activity. Economic growth in the least-developed countries surpassed 6 percent and China and India reported high economic and trade growth. The stronger global economy attributed to a more favourable investment climate and a rise in foreign direct investment (FDI) flows. According to the United Nations Conference on Trade and Development (2007), FDI inflow in South Africa as a percentage of gross fixed capital formation has risen from 2.3 percent in 2004 to 15.4 percent in 2005.

The reasons for why nations trade have been a subject of study since the earliest days. Today, some of the most common trade theories include the Ricardian model of relative advantages, and the Heckscher-Ohlin trade theory, based on factor endowments. On the other hand, the motivations for tourism differ substantially from the motives for trade. Tourism determinants explain what motivates travel to other destinations. Loannides and Debbage (1998) divide tourism demand determinants into business trends, income and tourism prices and social-psychological determinants, such as travel preferences and cultural aspects.

1.2 Problem statement

The former statistics illustrate an increase in tourist arrivals as well as an increase in merchandise trade. The question that is rendered is whether there is a relationship between tourist arrivals in South Africa and trade and (if there indeed is one) what is the relationship?

Theoretically, the link between tourism and trade could be substantiated by the following arguments: When tourists leave their home country to visit a foreign country, they shift their expenditure patterns from their home country towards the foreign country. Tourists consume goods

and services in the foreign country; many of which have to be imported. In this way, tourism could lead to trade. Travel may also lead to increased international trade through business visitors starting up new ventures or government agents negotiating trade agreements (Khan, 2006). A number of tourists may also travel to foreign countries to buy luxury items or request local producers to export favourable items to their home country, which solicits trade. According to the World Tourism Organisation (2007), international tourism receipts in 2003 were 6 percent of worldwide exports of goods and services. When including service exports, tourism exports reach nearly 30 percent.

It is evident that there are signs of a relationship between tourism and trade, but does the empirical evidence support this relationship? A number of studies have been conducted internationally on the relationship between tourism and trade. Fischer and Gil-Alana (2005) studied the relationship between international trade and tourism by focussing on the effect that German tourism to Spain has on German imports of Spanish wine. The series they analysed displayed different orders of integration and therefore they were not able to use cointegration techniques. Instead, they studied the relationship between wine imports and tourism by using methodology based on fractional integration. They find that the impact of tourism on the host country is direct, short-term and a means for economic development. Santana-Gallego, Ledesma-Rodriguez and Pérez-Rodriguez (2007) studied the relationship between tourism and trade by examining the Organisation for Economic Co-operation and Development (OECD) countries and the UK. Their methodology used cointegration techniques in order to determine the long-term relationship between tourism and trade and Granger causality techniques in order to determine if tourism causes trade or trade causes tourism. They find a long-term relationship between tourism and trade when testing the causality between tourism and trade for the OECD countries and the UK. Additionally, they find that, in most cases, tourism causes trade although the opposite relation is harder to prove.

Khan, Toh and Chua (2005) also study the relationships between trade and tourist arrivals by using data from Singapore. They find cointegration between trade and tourism is not common and [1]Granger causality very rare. They do, however, find a strong link between business visits and imports, because business people who intend to export normally visit the host country.

It is important to note that no study with regards to the relationship between tourism and trade has been conducted for South Africa thus far. A study in terms of this relationship is relevant and important since both tourism and trade can contribute to economic growth and job creation for the country. However, it is important to understand the nature of the relationship between tourism and trade. Is there a long-term relationship between tourism and trade? Should policy-makers promote

[1] Granger causality is a technique for determining whether one time series are useful in forecasting another.

trade in order to enhance trade or vice versa? This study aims to answer these questions and assist policy makers to make the right decisions in terms of the relationship between tourism and trade to ultimately contribute to economic growth and job creation in South Africa.

1.3 Motivation

This study investigates the relationship between trade and tourism by using data from South Africa's trade and tourism with other countries. Studies regarding the relationship between trade and tourism have only been conducted for developed countries. Empirical evidence for these countries supports that, in many cases, a relationship does indeed exist. As indicated above, recent research by Santana-Gallego *et al.* (2007) find a relationship between trade and tourism by using the data from OECD countries and the UK. Khan *et al.* (2005) find support for this relationship by using data from Singapore and Fischer and Gil-Alana (2005) study the relationship by focussing on the effect that German tourism to Spain has on German imports of Spanish wine.

In this study the relationship between trade and tourism will be examined by focusing on South Africa data. South Africa makes a very interesting case study for examining the relationship between tourism and trade, since the country has a unique trade structure in the sense that although South Africa is situated on the African continent, Europe accounts for almost half of South Africa's foreign trade (Anon., 2008b). The trade agreement between the European Union and South Africa removes 90 percent of the trade barriers. Since the implication of the agreement in 2000, South African exports to the EU have risen by 46 percent (Anon., 2008b). By examining tourism data, Statistics South Africa (2007) finds that overseas travellers come mainly from Europe (67 percent). Does this indicate a link between tourism and trade? If so, does tourism cause trade or does trade cause tourism?

Why is it important to test the relationship by using data from South Africa? The UNWTO barometer (2007) attributes the growth trend in international tourism to economic growth in emerging economies such as South Africa. South Africa won the bid to host the Football World Cup in 2010 and an estimated 450 000 international visitors are expected in the space of six weeks (Mbola, 2008). This will have a huge impact on the tourism industry of South Africa and will certainly place South Africa in the spotlight. An understanding of this relationship between trade and tourism, could aid in better determining the impact of such events on trade for the country as well.

In addition, the World Tourism Organisation (2003) to the European Commission stated that they believed tourism – business and leisure – has become one of the most important development sectors of the international economy. It generates higher growth, job opportunities, and investment

and trade activities. The World Tourism Organisation (2003) believes this is especially true for emerging countries where tourism is the principal service sector and generates gender equality, employment, cultural preservation and nature conservation. For these reasons, it is thus also important to investigate if the relationship between tourism and trade holds in South Africa. If it does hold, it could assist policy makers in promoting tourism in order to enhance trade, and vice versa.

1.4 Research aims and objectives

The aim of this study is to investigate the relationship between international trade and inbound tourism by using data pertaining to South Africa's trade and tourism with other countries. To achieve this aim, the objectives of this research are to:

- Investigate the reasons why trade takes place.
- Explore current global trade patterns for the world as well as South Africa.
- Investigate the reasons for tourism and global trends in tourism.
- Evaluate South Africa's unique trade structure and tourism situation.
- Empirically verify the relationship and causality between inbound tourism and trade for South Africa.
- Make recommendations for policy makers.

The methods that are used to reach these objectives are subsequently reviewed.

1.5 Method of investigation

The method of investigation for conducting this research is two-fold. Firstly, a literature study is undertaken where the main theories in tourism and trade are discussed in order to identify a possible link between tourism and trade. Secondly, an empirical investigation is conducted in order to test if a relationship between tourism arrivals in South Africa and international trade exists.

1.5.1 An analysis of the literature or sources

Literature regarding tourism and trade is discussed. The link between trade and tourism is investigated by discussing relevant and recent research. The literature study of this research is divided into three chapters, namely: trade patterns, tourism theories and South Africa's trade and tourism patterns.

Trade theories and patterns are considered. Current global trade patterns are evaluated and analysed to determine South Africa's position in global markets. Tourism theories and global tourism trends are discussed as well as South Africa's unique trade structure and tourism situation.

A great deal of attention is given to the literature of tourism and trade, because it serves as the foundation for the empirical investigation and theme of this study. Papers, articles, other studies and empirical evidence are discussed and evaluated to position this study in the greater framework of the literature.

1.5.2 An empirical investigation

This study intends to model the relationship between tourism arrivals and trade by examining the situation in South Africa. Tourism data is obtained from Statistics South Africa where tourist arrivals into South Africa for the period 1992-2007 are considered. Trade data is obtained for the same period from the Department of Trade and Industry where exports, imports and total trade with South Africa are considered. For both tourism and trade, monthly data is obtained per country.

In order to determine the relationship between two variables, a number of methods can be followed. An approach that is commonly followed (as conducted by Santana-Gallego *et al.* in 2007 and Khan *et al.* in 2005) to determine whether there is any causal link between two variables, y and x, is the Granger causality test. Granger causality tests determine if one series leads another series and assists in predicting that series. In other words, if there are two variables, for instance, x_t and y_t, and it is said that x_t is Granger casual for y_t, it simply means that x_t assists in predicting y_t at some stage in the future (Sorensen, 2005). Yet, one of the problems associated with Granger causality is that the variables may be influenced by some unmodeled factor in the economy (for example trade may be influenced by the exchange rate or tourist arrivals may be influenced by income) and the Granger causality found may differ from the real causality (Sorenson, 2005).

Secondly, to establish whether there is a long-term link between two variables, x_t and y_t, the concept of cointegration can be used. Asteriou and Hall (2007:307) state that if two variables are non-stationary, the error term can be represented as a combination of the two cumulated error procedures. The expectation would arise that the cumulated error processes would produce an additional non-stationary process. However, Asteriou and Hall (2007:307) state that if the two variables (x and y) are truly related, then they will move together and a combination of the two should produce a combination which eliminates the non-stationarity. In other words, if an authentic long-run relationship exists between x_t and y_t then, even though the variables will rise over time (because the variables are trended), there will exist a common trend that links the variables and the variables are then said to be cointegrated (Asteriou and Hall, 2007:307).

Yet, even in a cointegration framework, one should still ascertain which variable, x_t or y_t, is exogenous (the independent variable); since cointegration only indicates the existence of a long-term relationship. The weak exogeneity test is, therefore, important to determine if x_t or y_t can be

treated as an independent variable. If one-way causality exists and x_t Granger causes y_t, but x_t is not Granger-caused by y_t, it is said that strong exogeneity exists (Harris and Sollis, 2003:7). If x_t Granger causes y_t and y_t Granger causes x_t, it is said that weak exogeneity exists.

Two types of analysis are going to be conducted in this study. The first analysis involves the panel set data which includes tourism and trade data of 40 countries with South Africa for the period 1992 – 2007. In this analysis, panel unit root tests will be performed to test if the data is stationary. This is important, because cointegration tests may only be performed on non-stationary data. Cointegration tests regarding the panel data set will test if a long-term relationship exists between tourism and trade for South Africa. Additionally, causality tests on the panel data set will test if tourism assists in forecasting trade, if trade assists in forecasting tourism or if tourism and trade assists in forecasting each other for South Africa as a whole.

In the second analysis, South Africa's nine main tourism and trade partners will be identified by examining the literature chapters regarding South Africa's tourism and trade patterns as time series data. This is done in order to overcome the problem of panel data which indicates only an average of 40 countries. Monthly data for each individual country will be obtained for the period 1992-2007. Similar to the first analysis, stationary and cointegration tests will be performed. However, in the second analysis this is done by examining the models as vector autoregression models. Vector autoregression is an econometric model whereby some variables are not only explanatory variables for a given dependent variable, but they are also explained by the variable that they are used to determine (Asteriou and Hall, 2007:279). This is relevant for this research, since previous research has not clearly shown whether trade is dependent on tourism or whether tourism depends on trade.

Additionally, the Block exogeinity test will be performed to distinguish between endogenous and exogenous variables when considering tourism arrivals and trade data for each individual country. Exogenous variables appear only as explanatory variables and not as dependent variables (Murray, 2006:596). Thus, it is crucial to determine which variables are exogenous, in order to assess the interaction between tourism and trade. This is done in order to determine whether tourism explains (causes) trade or trade explains (causes) tourism or if other variables explain (cause) tourism and trade.

It is important to note that other variables may play a part in explaining tourism and trade, and, given the shortcomings of the Granger causality test, that variables may be influenced by some unmodeled factor in the economy, and that one has to ascertain this relationship by including other variables. For this reason, certain control variables will be introduced to each country's model and

stationarity, and cointegration and block exogeneity tests will be performed on the vector autoregression models including control variables. This is done in order to test the robustness of the previous results.

1.6 Chapter layout

Chapter 1 is the introductory chapter and consists of explaining the background of the study as well as identifying the problem statement and motivation for this research study. Additionally, the aims and objectives of the study are identified and the method of investigation is explained.

In Chapter 2 the theory of international trade is explored. Why nations trade is explained by examining: comparative advantage, economies of scale, imperfect competition, Linder's thesis and the technological gap and product cycle. Furthermore, how nations trade is explained by examining: the Ricardian model, the Rybczynski theorem, the Heckscher-Ohlin model, specific factors, the Stolper-Samuelson theorem, the new trade theory and the Gravity model. In addition to this, advantages and disadvantages of international trade are discussed as well as current global trade patterns.

The theme of Chapter 3 is theories relating to tourism. Why people travel is examined by inspecting Gray's travel motivation theory, Maslow's need theory and travel motivation, push and pull factors as motivation for travel, socio-psychological motivations for travel, personal-interpersonal motives, Cohen's tourist typologies, Plog's psychographic theory, basic travel motivators, expectancy theory and other reasons why people travel. The main theories of tourism development discussed in this chapter include the diffusionist paradigm, dependency theory and the formal and informal sector analysis. Furthermore, the advantages and disadvantages of tourism are examined as well as current global tourism patterns.

Chapter 4 is dedicated to examining South Africa's trade and tourism patterns. South Africa's international trade is explored by examining the country's trading partners, exports and imports by product group, the balance of payments, the contribution of foreign trade to the South African economy and the country's overall competitiveness. On the other hand, South Africa's tourism patterns are explained by discussing tourist arrivals, tourism receipts, main travellers that visit the country, top tourist destinations in South Africa, the contribution of tourism to the South African economy and opportunities and challenges for South African tourism. Additionally, tourism as a percentage of trade is also discussed.

Chapter 5 describes the empirical investigation where two analyses are performed. The first analysis (which comprises the panel data set) is conducted by utilising the panel unit root test,

panel cointegration test and panel causality test. The second analysis (which comprises the time series data) is conducted by utilising unit root tests, cointegration tests and block exogeneity tests. Lastly, control variables are added to the models to test the robustness of the previous results.

This study concludes with Chapter 6 and certain recommendations are made.

1.7 Important definitions

Concepts and terms are very important for this study and there is a need to first define these concepts and terms before proceeding with this study. Firstly, it is important to distinguish between endogenous variables and exogenous variables. Murray (2006:552) identifies endogenous variables as *explanatory variables that are jointly determined with the dependent variable, because they are established within the system of equations.* Conversely, Murray (2006:552) identifies exogenous variables as variables that are uncorrelated with the disturbances of the system and established outside the system of equations.

Why is it important to distinguish between endogenous and exogenous variables? Where there are interdependent equations that jointly determine variables, there is not a *'natural'* choice of a dependent variable (Murray, 2006: 595). In terms of this study, it means that it is unclear if the tourism or trade variables are exogenous variables. Exogenous variables appear only as explanatory variables and not as a dependent variable (Murray, 2006:596). It is thus crucial to determine which variables are exogenous for assessing the interaction between tourism and trade, in order to determine if tourism explains (causes) trade or trade explains (causes) tourism or if other variables explain (cause) tourism and trade.

Other important definitions in this study include:

- **International trade:** First National Bank International Trade Services (2007) defines international trade as the exchange of goods and services between one country and another. This definition is important for this study since this study intends to model the relationship between international trade (which includes exports, imports and total trade) with inbound tourism in South Africa.
- **Intra-regional trade:** Intra-regional trade is trade that exists between countries within the same region. An example is trade within the European Union (World Trade Organisation, 2007). Intra-regional trade is examined in order to determine current global trade patterns for the world as well as to determine South Africa's trade structure.
- **Inter-regional trade:** Inter-regional trade is trade that exists between countries from different regions. An example is trade between North America and the European Union

(World Trade Organisation (2007). South Africa makes a very interesting case study for examining the relationship between tourism and trade, since it has a unique trade structure in the sense that, although South Africa is situated on the African continent, Europe accounts for almost half of South Africa's foreign trade (Anon., 2008b).

- **Tourism:** Tourism is deemed to include any activity concerned with the temporary short-term movement of people to destinations outside the places where they normally live and work, and their activities during their stay at these destinations (British Tourism Society as cited in Vanhove, 2005:2). This definition is one of the key elements of this study.
- **Inbound tourism:** Inbound tourism is defined as visits to a country by a non-resident, thus tourists that enter a specific country (Goeldner and Ritchie, 2006:7). Inbound tourism, or tourist arrivals, is crucial for this study since the relationship between tourist arrivals and international trade in South Africa is explored.
- **Outbound tourism:** Outbound tourism is defined as visits by a resident of a country to another country, thus tourists that leave a specific country to visit another country (Goeldner and Ritchie, 2006:7). Although only inbound tourism is used in the empirical investigation, outbound tourism remains an important concept for this study.
- **Tourist:** "*any person visiting a country, other than that in which the person usually resides, for a period of at least 24 hours*" (Goeldner and McIntosh, 1990:6). It is important to understand what is meant by the term "tourist", since the concept of tourist arrivals is imperative to this study.
- **Panel data set:** A panel data set is data set where a time series for every cross-sectional member in the data set is included (Asteriou and Hall, 2007:9). A panel data set of 40 countries for the period 1992-2007 is used in the first analysis of the empirical investigation to explore the relationship between tourist arrivals and trade in South Africa.
- **Unit root test:** A test which determines if the data is stationary or not (Asteriou and Hall, 2007:230). In this study, this test is important for determining whether the tourist arrival data and international trade data which is used in this study is stationary.
- **Stationary series:** A series that shows evidence of mean reversion in that it fluctuates around a constant long-run average, contains a finite variance that is time-invariant and comprises a hypothetical correlogram that diminishes as the lag length increases (Asteriou and Hall, 2007:230). This term is important since cointegration tests (to determine whether a long-term relationship exists between inbound tourism and trade) can only be performed on non-stationary data.
- **Heterogeneous panel:** A heterogeneous panel refers to a panel where some of the parameters vary across the panel (Asteriou and Hall, 2007:358). This is an important concept for the Im, Pesaran and Shin (IPS) panel unit root test when conducting the empirical investigation.

Chapter 2 Trade Patterns

2.1 Introduction

Archaeological findings suggest that international trade started as early as 2500 before Christ (B.C.) when Sumerians traded textiles and metals by sea (Seyoum, 2000:1). Tremendous technological progress has been made since then and trade now represents an important share of many countries' GDP (Gross Domestic Product) (Seyoum, 2001:1). The World Trade Organisation (2007) finds that merchandise trade is growing at twice the rate of output since 2000. It is thus important to understand why nations trade and with whom nations trade before a link between tourism and trade can be established. This chapter aims to explore the reasons and patterns of world trade. In section 2.2, a discussion of what trade is follows. In section 2.3, the reasons why nations engage in trade are examined. How the nations of the world trade is investigated in section 2.4. The advantages and disadvantages of trade are identified in section 2.5 and current global trade patterns are discussed in Section 2.6.

2.2 What is international trade?

Takayama (1972:43) states that the essence of the international trade problem is the exchange of goods. First National Bank International Trade Services (2007) elaborates on this statement by stating that international trade is the exchange of goods and services between one country and another. International trade can thus be seen as trade that is not limited to within the borders of a country.

International trade has taken place since B.C. and has been growing in importance and size ever since (Seyoum, 2000:1). This increase in international trade can be attributed to globalisation, the internet, improved transport and multinational organisations. The escalation in international trade has led to it becoming an important part of a country's GDP (Seyoum, 2000:1). Why is this so? What differentiates international trade from trade that takes place within a country?

International trade faces problems that trade within a country does not face. Wells (1969:16) states that the most obvious justification for a study regarding international trade can be attributed to trade barriers which prevent free movement of goods and services. Additionally, he identifies differences between currencies and differences in economic policies as problems that international trade must withstand. It is thus evident that international trade not only depends on conditions prevalent within the country, but also conditions that are prevalent outside the country.

Why do nations then choose to trade? Generally a country may export goods and services to other countries to acquire foreign currency. A country may also import goods and services from other countries if it is cheaper to do so or if it does not possess the goods and services in their own

country. This question has been asked since the earliest days and thus leads to the theories of why nations trade.

2.3 Why do nations trade?

International trade is present in all countries. It has gained such importance, that many government agents have made a top priority of boosting global ties with other countries in order to enhance trade. Today, a world without international trade is very hard to imagine. However, international trade faces problems and hardships that trade within a country does not have to face. In order to ensure fair trade practices, the World Trade Organisation (WTO) has been established as a governing body (WTO, 2006). Although the World Trade Organisation assists in reducing international trade problems, such trade problems still exist. Why do nations then choose to engage in trade? For financial gain? Because some countries have a shortage or abundance of goods they want to import or export? One thing is clear, before distinguishing if trade could possibly cause tourism, it is important to determine the causes of trade.

Ethier (1995:1) supplies three reasons why nations might possibly engage in trade: comparative advantage, economies of scale and imperfect competition. Each one of these reasons will be discussed and evaluated in the subsequent sections. In addition to these theories, Linder's thesis will also be explained as well as the technological-gap theory and the product life cycle. Each one of these will assist in better understanding the reasons for international trade.

2.3.1 Comparative advantage

The idea of comparative advantage was developed by David Ricardo (Ethier, 1995:5) and is an extension of Adam Smith's absolute advantage theory. David Ricardo was an English classical economist who developed the idea of comparative advantage in the early nineteenth century. Ricardo illustrated the idea of comparative advantage by using his famous example of trade between Portugal and England (Takayama, 1972:109). This example will now be used to explain the idea of comparative advantage.

Imagine two countries (England and Portugal) that are able to produce only two goods, clothes and wine. Each good can be produced by using only one production factor – labour. Ricardo assumed that labour is immobile between countries and mobile within countries. The number of labour units needed to produce clothes and wine in England and Portugal can be seen in Table 2.1 below.

Table 2.1 Ricardo's example

	Clothes	Wine
England	100	120
Portugal	90	80

Source: Takayama (1972)

According to Ricardo's example, 100 men are needed to produce clothes in England in one year. 120 English men are needed to produce wine in a year. In Portugal, it can be seen that only 90 men are needed to produce clothes and 80 men to produce wine. Thus, Portuguese labour is more efficient at producing both clothes and wine. Portugal has an *absolute advantage* in the production of clothes and wine. The question now is, if these two countries have to trade, which country will export and import what good? What would the trade pattern be?

Ricardo showed it would be better if England could obtain wine in exchange for clothes. The Englishmen could produce clothes which they could exchange for wine. Portugal could then produce enough wine to exchange for clothes. Although Portugal has an absolute advantage in both clothes and wine production, Portugal has a *comparative advantage* in wine production. Since it can be seen from Table 2.1; that 90 is more than 80 and thus more labourers are needed to produce 1 unit of clothing, than are needed to produce 1 unit of wine. Equally, England has a *comparative advantage* in the production of clothes. Since it can be seen from Table 2.1; that 120 is more than 100.

Ricardo believed that after this specialisation (where a country produced the good in which it has a comparative advantage), output would increase and international trade would be improved. However, certain criticism has been launched against the idea of comparative advantage. Ricardo's theory of comparative advantages rests upon the assumption that factors of production are immobile between countries (Wells, 1969:28). This in fact, is not true. Labour and capital might indeed, move freely between countries. Ricardo also made use of labour time costs in his model. A classical writer, Naussau Senior, criticized Ricardo for the idea of labour time costs (Wells, 1969: 30). He believed that labour costs should be expressed in money and not in time. Senior also emphasised the importance of labour productivity rather than labour time, as suggested by Ricardo. Also, zero transport costs was an assumption.

The idea of comparative advantage has been prevalent since the early nineteenth century. It explains possible trade patterns when one country has an absolute advantage in the production of both goods, but a comparative advantage in the production of one of the goods. Ricardo believed that specialisation will lead to increased output and thus improved international trade. Certain criticisms were launched against Ricardo's idea of comparative advantage. It is important to take

notice of the criticisms of comparative advantage, but more important is the recognition that Ricardo was attempting to explain the pattern of international trade. Comparative advantage assists in explaining why nations would possibly participate in international trade even though one nation has an absolute advantage in both produced goods. In the next section, economies of scale will be investigated as another possible reason why nations engage in trade.

2.3.2 Economies of scale

Wells (1969:54) states that a country is usually able to export a sophisticated manufactured good to another country if a large market exists for the product in the home country and that two conditions are essential for trade to take place between countries. Firstly, the condition of economies of scale must be met in such a way that the country can manufacture the product relatively cheaply in order to be competitive in export markets. Secondly, general economic conditions in the export markets and the domestic market must not differ too much. It can thus be seen that economies of scale are an important reason why nations choose to trade, but what does economies of scale entail? Why is it important to achieve economies of scale in order to trade?

Economies of scale can be defined as the property of a cost function whereby the average cost of production falls as output increases (Perloff, 2007:204). This definition might sound complicated, but by examining the example used by Perloff (2007:203), it will be clear that economies of scale is an uncomplicated and relevant concept. The example will focus on economies of scale at the level of the firm (for simplicity's sake), but economies of scale can occur at national and international level as well.

Imagine a firm that uses one unit of labour and one unit of capital to produce one unit of output. The firm has to pay wage and rental costs, which is $6 each. The total cost and average cost to produce one unit of output is $12. This can be seen in Table 2.2 below.

Table 2.2 Returns to scale

Output, Q	Labour, L	Capital, K	Cost, C=wL + rK	Average cost, AC = C/q	Returns to scale
1	1	1	12	12	
3	2	2	24	8	Increasing
6	4	4	48	8	Constant
8	8	8	96	12	Decreasing
Where r = rent = $6 Where w = wage = $6					

Source: Perloff (2007)

From Table 2.2 it is evident that if output increases from 1 unit to 3 units, the average cost falls from $12 to $8. When average cost of production falls as output increases, economies of scale are achieved. Additional key concepts in understanding economies of scale are: increasing returns to scale, constant returns to scale and decreasing returns to scale. These concepts can be defined as follows (Ethier, 1995:48):

- Increasing returns to scale: If an increase in all inputs leads to a greater proportionate increase in output.
- Constant returns to scale: If an increase in all inputs leads to the same proportionate increase in output.
- Decreasing returns to scale: If an increase in all inputs leads to a smaller proportionate increase in output.

The term economies of scale has now been defined and explained with a relative example. Key concepts such as increasing-, constant- and decreasing returns to scale have also been explained. Now, the question remains, how do economies of scale encourage nations to engage in trade? Why are increasing returns to scale so important for international trade?

It was stated earlier that increasing returns to scale exist when an increase in inputs creates a greater proportionate increase in outputs. Table 2.2 showed when the firm doubled its inputs, from 1 to 2 units of capital and labour, output more than doubled from 1 to 3 units. Additionally, average cost decreased from $12 to $8. Thus If an industry in a country can achieve these economies of scale or increasing returns to scale, it could lead to the industry having a competitive cost advantage in export markets. Economies of scale and increasing returns to scale could thus encourage nations to engage in trade.

The Ricardian model assumed constant returns to scale (Wells, 1969:47). However, the idea of increasing returns to scale might give a more substantial answer for why nations trade. Krugman (1980) states that scepticism about the comparative cost theory to explain the actual international trade pattern has been present for some time. He finds that standard international trade theory does not explain trade among industrial countries or trade of differentiated products between countries. Where economies of scale exist in the presence of a large domestic market, it could lead to a competitive cost advantage for a nation in the export market. This could lead to nations exporting goods and engaging in international trade. Economies of scale can thus be seen as an important reason why nations choose to trade.

Krugman (1980) states that a framework is needed that consists of main elements such as: economies of scale, the possibility of product differentiation and imperfect competition. He went on to build a model to prove this and finds that in the presence of increasing returns, countries will

tend to export the goods for which they have a large domestic market. It must be held in consideration though, that the study of Krugman (1980) relied heavily on certain special assumptions.

2.3.3 Imperfect competition

Some of the core international trade theories, such as comparative advantage, rest on the assumption of perfect competition. Ethier (1995:69) defines a perfectly competitive market as a market where there are many sellers and buyers of identical goods. Ethier (1995:69) states that if many buyers and sellers are present, firms cannot influence the price they must pay or the price they charge for their products. These firms are price takers. The truth is however, that not all markets are perfectly competitive. Some firms are able to manipulate the prices they pay or receive for goods. When firms can manipulate prices, it is known as a simulation of imperfect competition. Imperfect competition can occur internationally as well as domestically and can be seen as another reason why nations choose to trade, as will be explained below.

There are many types of imperfect competition. Imperfect competition can be divided into three types: monopoly, oligopoly and monopolistic competition. Perloff (2007:345,419) defines these types of imperfect competition as follows:

- Monopoly: The situation where one company is the sole supplier of a good for which there is no close substitute.
- Oligopoly: Refers to the situation where a small group of firms in a market can each influence the price. Each firm thus affects its rivals. Oligopolistic firms may work together or independently.
- Monopolistic competition: This is a market structure in which the firms have the market power to manipulate prices, but no additional firm can enter and earn positive profits.

Where these different forms of imperfect competition exist, firms are able to manipulate prices to gain advantage. A monopoly is able to generate a profit by limiting supply, thus forcing an increase in price (Ethier, 1995:74). Oligopolistic firms and a market structure of monopolistic competition are also subject to price manipulation. The question remaining now is: how does imperfect competition encourage nations to engage in international trade?

In an imperfectly competitive market, international trade increases competition. Competition reduces the power of a monopoly or oligopoly and this leads to a reduction in the price charged for the product. This is a reason why nations choose to trade. In a case where a domestic monopoly faces world prices that are too low for exporting to be advantageous, a domestic firm will charge higher prices and net national welfare will be lower (Pomfret, 1992). Pomfret (1992) states where international trade is present, prohibitive tariffs (which are prohibitive to imports) will reduce

monopoly power and improve net national welfare. This is because, with a domestic monopoly, the tariff is higher than with a perfectly competitive industry and thus acts as an effective antitrust policy (Pomfret, 1992).

Furthermore, Ethier (1995: 86) states that international trade in monopolistically competitive industries allows more choices for consumers and allows the industry to employ a greater distribution of labour. Taking advantage of greater economies of scale could also lead to lowered costs of a variety of products (Ethier, 1995:86). To summarise, imperfect competition encourages nations to trade. Linder's thesis also explains why nations trade and will be discussed in the next section.

2.3.4 Linder's thesis

The Swedish economist, Staffan Burenstam Linder (1961), developed this theory which is also known as the spillover theory and is closely linked with the theory of economies of scale. Linder's thesis states that exports grow from domestic production, but it applies only to manufactured products (Chacholiades, 1990: 106). A country will produce those manufactured products for which there is a large local market; in the process developing skills to produce the product at a lower cost and will eventually export the product to other countries with similar tastes and income levels (Chacholiades, 1990: 106). Does the empirical evidence support Linder's findings?

Chacholiades (1990:107) states that there is not much empirical evidence to support Linder's hypothesis and highlights exceptions such as artificial Christmas trees and ornaments that are exported by non-Christian countries, such as Japan and Korea, which do not have a domestic market for them. Ghosh (2001:122) believes that Linder's theory lacks precision as the concept of representative demand and the exclusion of some of the trading countries are not accurately formulated. However, a number of economists have found support for Linder's hypothesis, as is explained below.

McPherson, Redfearn and Tieslau (2000) examined Linder's hypothesis by using data from OECD countries for the period 1990-1995. They find empirical evidence in support of Linder's theory regarding demand similarity for 18 of the 19 OECD countries. They state that previous studies regarding Linder's hypothesis excluded data on potential trading partners when a country had a negative or zero desire to export to those potential trading partners. They believe that this casts serious doubts on previous findings regarding Linder's thesis. Additionally, Guo (2004) tested Linder's hypothesis on China and 13 other developing and developed countries for the period 1981-2004. He finds the Linder effect present for the high and lower middle income group, but no significant evidence for the low income group. Guo (2004) elaborates on his findings by stating that, although the income similarity might encourage trade among countries with similar income

levels, there might be other factors present that are more important in promoting trade between these countries. He states that trade treaties that promote trade between China and high income countries could explain this.

All things considered, Chacholiades (1990:107) draws attention to the importance of the implication of Linder's thesis. This implication is that countries will export manufactured products for which there is a strong local demand and the trade in manufactured products is high between countries of similar per capita income. Chacholiades (1990:107) states that this theory however, contradicts the Heckscher-Ohlin model (section 2.4.3). Nevertheless, Linder's theory still assists in explaining why nations would possibly engage in trade. In the next section, the technological gap and product cycle will be discussed as another possible reason as to why nations trade.

2.3.5 Technological gap and product cycle

The technological gap theory was proposed by Posner in 1961 and explains the trade flow of manufactured goods in advanced countries in terms of innovation and replication and how it affects exports (Ghosh, 2001:122). Chacholiades (1990:107) explains the technological gap theory as follows: When a new product is developed and it is profitable in the home country, the innovating firm has a brief monopoly and easy access to foreign markets. This could encourage nations to engage in export. Exports increase, but then other firms replicate the new products and the innovating country loses its absolute advantage. However, the innovating country can then develop yet another new product and enjoy temporary advantage in that product before it is eventually produced more efficiently in foreign markets.

Moore (1985:177) states that the technological gap theory combines innovation, direct investment and trade in a single theory. The innovating firm has a competitive advantage because of its knowledge (not because of lower costs of production) and the advantage disappears when the knowledge is shifted elsewhere by licence, direct investment or imitation (Moore, 1985:177). Chacholiades (1990:107) emphasises however, that the technological gap theory fails to explain the origin and size of the gap. Chacholiades (1990:107) states that Vernon (1966) gave a more general view of the theory by the standardisation of products, known as the product life cycle.

It is argued that in the product life cycle the production process of a manufactured product changes over time (Moore, 1985:178). Three stages are identified and in every stage the input requirements differ. The stages and requirements are as follows:

- **New product:** In this stage production calls for highly skilled labour to develop and improve the product (Chacholiades, 1990:107).
- **Maturing product:** When the product matures, marketing and capital costs are more important (Chacholiades, 1990:107).

- **Standardised product:** In this stage, less skilled labourers are needed and mass-production techniques may be installed (Moore, 1985:179).

How does the product life cycle encourage nations to trade? Westney (2002) states that once the product is standardised, an export market will develop where customers who welcome innovation are willing to pay the price for it. In the long-run, foreign markets will develop the product and this will lead to international trade. Vernon criticized his own model by stating that it is much less general than he had posited more than a decade earlier, but that he believed it could still apply to companies at the start of their international expansion (Westney, 2002). In addition, Moore (1985:179) states that the technological gap theory, modified by the theory of the product cycle, provides an explanation for exports of manufactured goods outside the general equilibrium theory and empirical backing is provided by numerous case studies.

In conclusion, international trade is present in most countries today. Why do these countries choose to engage in trade? Comparative advantage, economies of scale, imperfect competition, Linder's thesis, the technological gap theory and product cycle theory were discussed as possible reasons for trade. Now that it is known *why* nations trade, it is important to know *how* nations trade. This will be the focus of section 2.4.

2.4 How do nations trade?

In section 2.2, international trade was defined as the exchange of goods and services between one country and another. Why do these countries choose to engage in trade? Five possible reasons include: comparative advantage, economies of scale, imperfect competition, Linder's thesis and the technological gap theory and product cycle.

Now that is clear what trade is and why countries trade, an investigation will be launched into *how* nations trade. This will be done by exploring relevant and important trade theories. An old cliché says: you cannot know where you are going, until you know where you have been. It is thus crucial to discuss trade theories and determine their significance when tested empirically. The following trade theories are discussed in this section:

- The Ricardian model.
- The Rybczynski theorem.
- Heckscher-Ohlin model.
- Specific factors.
- The Stolper-Samuelson theorem.
- New trade theory.
- Gravity model.

2.4.1 The Ricardian model

The Ricardian model was developed early in the nineteenth century by the economist David Ricardo and dealt with comparative advantage (Ethier, 1995:5). Comparative advantage was explained earlier in section 2.3.1 by using the example of clothing and wine production in England and Portugal. In that example, Portugal had an absolute advantage in the production of both clothes and wine. England, however, had a comparative advantage in clothes production, while Portugal had a comparative advantage in the production of wine. Ricardo believed that if the countries produced the goods in which they had a comparative advantage, total output would increase and international trade would be better off. The idea of comparative advantage is sensible, but is it practical? When testing the Ricardian model in the world economy, is it viable?

The English economist, G.D.A. MacDougall, tested the Ricardian model empirically by examining 1937 data for twenty-five U.S. and U.K. industries (MacDougall, 1951). He compared the output per worker for each industry in the two countries with the exports for both countries to third world countries. He found that where American output per worker was more than twice the output per worker in the U.K., the United States had the largest piece of the export market. This was the case for twenty of the twenty-five industries. It was assumed that weekly wages in the U.S. were approximately double that of Britain in all industries. MacDougall (1951) finds that his research confirms the theory of comparative advantage even though the theory is based on a labour theory of value. Additionally, he finds that the small volume of trade in manufactured goods between the U.K. and the U.S. may be explained by tariffs that offset comparative advantages.

Kohler and Bruce-Brand (2000) tested the Ricardian model empirically for South African manufactured goods for the period 1970-2000. They find that labour costs per unit of output are a highly significant determinant of trade competitiveness in South African manufactured goods. They also find strong support for the Ricardian Model in its explanation of comparative cost advantage in South Africa.

In contrast, Bhagwati (1967) finds no evidence in favour of comparative advantage. Bhagwati (1967) tested the underlying assumptions of the Ricardian model and the empirical procedure according to which MacDougall (1951) tested the hypothesis. He states the Ricardian Corollary[2] is logically not true. Not only can trade take place, but the pattern of trade will be reversible as well (Bhagwati, 1967). Does the Ricardian theorem hold when factor productivity ratios differ between countries? Again Bhagwati (1967) states no. He reasons that demand conditions may lead to multiple self-sufficiency equilibrium. Thus, even if pre-trade prices are different between countries or factor productivity ratios are different, it is possible that no trade will occur.

[2] The Ricardian Corollary states that when factor productivity ratios are identical between the two countries, no trade will take place.

There is thus evidence for and against the Ricardian model. Comparative advantage is important because it explains why nations would engage in trade. As shown by MacDougall (1951) and Kohler and Bruce-Brand (2000), there is empirical evidence that supports the Ricardian model. On the other hand, Bhagwati (1967) finds flaws in the Ricardian model because of certain assumptions that do not hold. The Ricardian model rests upon two assumptions. The first assumption states that the pre-trade commodity price ratio is equal to the labour productivity ratio. The second assumption states that if pre-trade prices are identical between countries, no trade will occur. Bhagwati (1967) states that the Ricardian Corollary is not true, and that a difference in factor productivity ratios does not necessarily lead to trade between countries. Comparative advantage also rests upon the assumption that factors of production are immobile between countries. The facts are, however, that labour and capital can move freely between countries (Wells, 1969:28). Additionally, the classical writer, Naussau Senior, criticized Ricardo for the idea of labour time costs (as stated in section 2.3.1).

Another important reasoning in comparative advantage states that countries trade in order to exploit differences, but the largest portion of world trade is the exchange of similar goods between similar countries (Ethier, 1995:43). Does this indicate another flaw in the Ricardian model? Ethier (1995:43) does not believe so. He states that trade in similar goods between similar countries are not inconsistent with comparative advantage and can indeed be explained by it. He believes that the Ricardian model holds up quite well and has a useful broader application.

The Ricardian model provides an interesting reason why and how nations might engage in trade. Now that it is clear how the Ricardian model tests empirically, and why comparative advantage is so important, the next trade theory can be evaluated. For further insight into how countries trade, the Rybczysnski theorem will now be discussed.

2.4.2 The Rybczynski theorem

The Rybczynski theorem is of importance because it provides the basis for the Heckscher-Ohlin model (Chacholiades, 1990:71). This theorem is named after the Polish-born English economist Tadeusz Rybczynski and proves that an increase in a country's factor endowment will lead to an increase in output of the good which uses the factor rigorously, and a decrease in the output of the other good (Suranovic, 2004).

The Rybczynski theorem involves a single economy and illustrates the effect of factor endowments on the shape of the production possibilities frontier which is essential in explaining the Heckscher-Ohlin model (see section 2.4.3). Suranovic (2004) states that this theorem is very valuable in analysing the effects of capital investment, immigration and emigration, with the assistance of a

Heckscher-Ohlin model. The Rybczynski theorem will now be explained with the assistance of the example used by Chacholiades (1990:71).

Suppose an economy that produces only steel and cloth. One yard of cloth requires 4 units of labour and one unit of capital while one ton of steel requires 2 units of labour and 3 units of capital. This can be seen in Table 2.3 below.

Table 2.3 Inputs per unit of output

	Labour	**Capital**
Cloth	4	1
Steel	2	3

Source: Chacholiades (1990:71)

As can be seen from Table 2.3, cloth is labour-intensive relative to steel and steel is capital-intensive relative to cloth. If the economy has 900 units of labour and 600 units of capital, the production- possibilities frontier will be as shown in Figure 2.1.

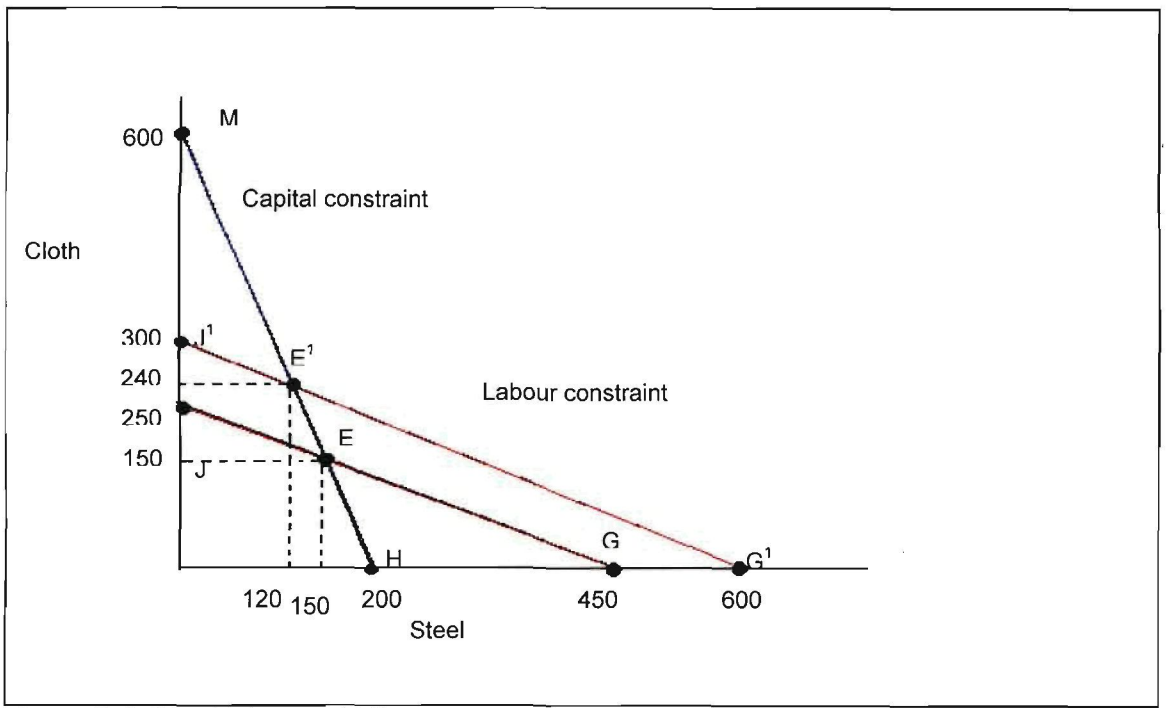


Figure 2.1: The Rybczynski theorem

Source: Chacholiades (1990:73)

If the economy has an unlimited supply of capital it can produce along the labour constraint JG in Figure 2.1, and if the economy has an unlimited supply of labour it can produce along the capital constraint MH. There is however a limited supply of capital and labour (the economy has 900 units of labour and 600 units of capital) and, therefore, the production possibility frontier is JEH in Figure

2.1. Production is at point E in Figure 2.1 where both the factors of labour and capital are fully employed. The Rybczynski theorem envisages the following scenario:

Suppose there is an increase in labour from 900 units to 1 200 units. The labour constraint line JG moves outward to J^1G^1. The new production point is now E^1 where the factors are fully employed. Cloth output (which is labour-intensive) rises from 150 to 240 yards and steel output (which is capital-intensive) falls from 150 to 120 tons. Thus, an increase in labour leads to an increase in cloth production, which is more labour-intensive. The Rybczynski theorem states that an increase in a country's factor endowment will lead to an increase in the output of the good which uses the factor intensively, and a decrease in the output of the other good (Suranovic, 2004). The Heckscher-Ohlin model elaborates on the Rybczynski theorem and brings this theorem into the context of trade in the next section.

2.4.3 Heckscher-Ohlin model

The question now is: what is the Heckscher-Ohlin model? What does it entail? Is there empirical evidence to suggest that this model works? This section seeks the answers to these specific questions.

The Heckscher-Ohlin theory was developed by two economists: Eli F. Heckscher and Bertil Ohlin in the first half of the twentieth century (Ethier, 1995:125). This theory rests upon four assumptions:

- *There are two countries, two goods, and two factors of production (capital and labour).*
- The two factors are mobile between industries within each country, but immobile between countries. There is free and perfect competition in all markets and the two factors in each country is a fixed amount.
- The two countries are similar, except for their factor endowments of the two factors.
- Technology for each of the goods is a given for both countries. This technology possesses constant returns to scale (if capital and labour are varied in the same proportion, output will vary in that proportion).

Now that the assumptions of the Heckscher-Ohlin theory are known, a discussion of what the theory entails will follow. Takayama (1972:71) explains this theorem by using the following example.

Two countries (country 1 and country 2) are able to produce two goods (good X and good Y) using the same two factors of production (labour and capital). International trade will occur if there is a difference in the domestic price of the goods or a difference in the costs of production of the goods. If good X is relatively cheaper than good Y in country 1 as opposed to country 2 before trade, country 1 will export good X and import good Y after trade. Following this, the production of X

increases (decreases) and the production of Y decreases (increases) in country 1 (country 2).This will cause an increase in the cost of production in good X relative to Y in country 1. In contrast, the price of X relative to Y will decrease in country 2. This will continue until the price ratios of the goods are the same in both countries. Takayama (1972:72) then goes on to ask the most important question of all: what are the factors which cause the difference in the pre-trade goods price ratios?

Ohlin (as quoted by Takayama, 1972:72) identified these factors as: consumer tastes, income distribution, the supplies of these factors and the physical conditions of production. He concluded that the difference in the factor endowments of the two countries were the most important in determining the differences in price ratios between countries. The Heckscher-Ohlin theory thus states that a country will export capital-intensive goods if the country is abundant in capital and, similarly, a country which is labour-abundant will export labour-intensive goods (Suranovic, 2006). Thus, a country will export the product which uses the factor intensively (for example capital or labour).

Now that it is clear what the Heckscher-Ohlin theory is and what it entails, the next question can be raised: Is there empirical evidence to suggest that this model is true?

Leamer (1995) tested the Heckscher-Ohlin model empirically by using net exports per worker for ten aggregates[3] in 1958, 1965, 1974 and 1988. His countries of focus were Sweden, West Germany, the United States and Japan. Leamer (1995) finds that the Heckscher-Ohlin model provides surprising insights, that it is useful as a theory and accurately explains many features that are important for the patterns of international trade.

In contrast to Leamer (1995), Wassily Leontief did not find evidence to support the Heckscher-Ohlin theory when he studied U.S. trade patterns in 1953 (Ethier, 1995:153). In this famous study, that is now called the Leontief paradox, Leontief measured the capital-labour ratio used in the production of U.S. exports and imports. Before Leontief's study, it was presumed that the U.S. was more capital-abundant and would export more capital-intensive goods. The results of Leontief's study however, showed something very different. The results can be seen in Table 2.4 below.

[3] These aggregates included petroleum, raw materials, forest products, animal products, tropical agriculture products, cereals, labour-intensive manufactured goods, capital-intensive manufactured goods, machinery and chemicals.

Table 2.4 Leontief's results

	1947		1951	
	Exported	**Imported**	**Exported**	**Imported**
Capital (1947 - $)	2 550 780	3 091 339	2 256 800	2 303 400
Labour (man year)	181.31	170.00	173.91	167.81

Source: Takayama (1972)

Leontief's results in Table 2.4 can now be used to find the capital-labour ratio for the exporting and importing industries. The capital-labour ratios for 1947 and 1951 are as follows:

$$1947: \frac{\text{Capital exports}}{\text{Labour exports}} = \frac{2550780}{181.31} = 14069 \qquad \frac{\text{Capital imports}}{\text{Labour imports}} = \frac{3091339}{170} = 18184$$

$$1951: \frac{\text{Capital exports}}{\text{Labour exports}} = \frac{2256800}{173.91} = 12977 \qquad \frac{\text{Capital imports}}{\text{Labour imports}} = \frac{2303400}{167.81} = 13726$$

These results show that the capital-labour ratios for U.S. imports are higher than the capital-labour ratios for U.S. exports in both 1947 and 1951. According to the Heckscher-Ohlin theory, the U.S. (which is presumed to be capital-abundant) will export more capital-intensive goods. Leontief's results however, show that the U.S. imported more capital-intensive goods. This contradiction of the Heckscher-Ohlin theory is known as the Leontief paradox.

Cherunilam (2005:140) discusses some explanations for the Leontief paradox, including factor-intensity reversal. He says a good can be produced in one country using relatively capital-intensive methods, but produced in another country using relatively labour-intensive methods. He postulates that, although the U.S imported goods that have been labour-intensive overseas, the production of these goods in the U.S. was relatively capital-intensive. Cherunilam (2005:140) goes on to say that Leontief's test is not strong enough to disprove the Heckscher-Ohlin theory and it is perhaps paradoxical to describe Leontief's results as the Leontief paradox.

In summary, the Heckscher-Ohlin theory assists in addressing the question: how do nations trade? The Heckscher-Ohlin theory states that a country will export capital-intensive goods if the country is abundant in capital and similarly, a country which is labour-abundant will export labour-intensive goods (Suranovic, 2006). Evidence was found for and against this theory. The most noteworthy case against the Heckscher-Ohlin theory is known as the Leontief paradox. Ethier (1995:125) sums up the Heckscher-Ohlin theory well when saying that the factor-endowments approach is a powerful and useful one, but that two fundamental limits have to be borne in mind. Ethier

(1995:125) identifies these limits as follows: (i) the theory only deals with trade due to comparative advantage (it doesn't deal with economies of scale or imperfect competition); (ii) a meticulous source of comparative advantage is presumed (international differences in relative factor-endowments are presumed rather than differences in size, tastes, or technology). Now that there is clarity regarding what the Heckscher-Ohlin theory entails, specific factors will be discussed in the next section.

2.4.4 Specific factors

In the Heckscher-Ohlin model the assumption was made that both factors are mobile between industries and not between countries. There are however cases where factors are not mobile between industries. Ethier (1995:176) states, for example, that there is no "*magic wand*" to transform a cotton gin into a grape press, if production should shift from cotton cloth to wine. Thus, specific factors are those that are appropriate for a specific use and cannot be transferred from one industry to another (Ethier, 1995:176).

There are many reasons why factors may be immobile between industries. One reason could be that a number of factors are specifically designed (usually in the case of capital) or some factors are specifically trained (usually in the case of labour); which makes it difficult to move factors between industries (Suranovic, 2004). The specific factors model assumes an economy that produces two goods using the two production factors of capital and labour (Suranovic, 2004). Capital is assumed to be immobile and labour is assumed to be mobile between industries. Capital may differ between two different industries. Suranovic (2004) states that there are thus three factors of production: labour, capital specific to industry one and capital specific to industry two. Gandolfo (1998:101) further states that, in the long-run, capital can become mobile. Thus the specific factor model is more appropriate for the short term. The model is represented graphically in Figure 2.2 below.

Ethier (1995:177) shows the equilibrium of a country in a specific factors model in Figure 2.2. The two industries under consideration are industry x and industry y. HG measures the total labour supply of the country, with labour for industry x measured off to the right from H and labour for industry y measured off to the left from G. Capital is immobile between industries and therefore it is not shown in the figure. Increases or decreases in the specific capital needed to produce good x will shift AA up or down. The AA curve measures the value of the marginal product for a specific level of labour: P_xMPL_x (where P_x indicates the price of x and MPL_x[4] indicates the marginal product of labour in the industry that produces x). The BB curve measures the marginal product of labour for the production of industry y: P_yMPL_y. Equilibrium exists where the two curves cross which determines the wage and labour distribution between the two industries.

[4] MPL_x is the increase in good x that would be the result of the employment of more labour.

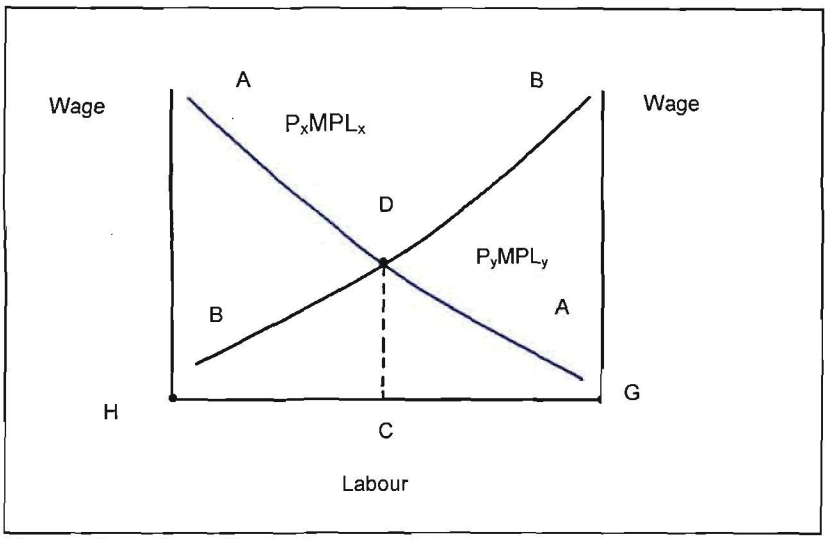


Figure 2.2: Specific factors model
Source: Ethier (1995)

What does the specific factors model in Figure 2.2 imply for trade? This model shows what will happen to labour allocation, output levels and factor returns when economic changes take place (Suranovic, 2004). Suranovic (2004) states that these economic changes could include a movement to free trade, the implementation of a tariff or quota, growth of the labour or capital endowment or technological changes. For instance, a horizontal movement to the right in Figure 2.2, shows an increase in labour from industry y to industry x which causes the marginal product of labour to rise in industry y and fall in industry x (Ethier, 1995:178). An increase in the price of x will increase the value of the marginal product of labour in the production of x as shown in Figure 2.3.

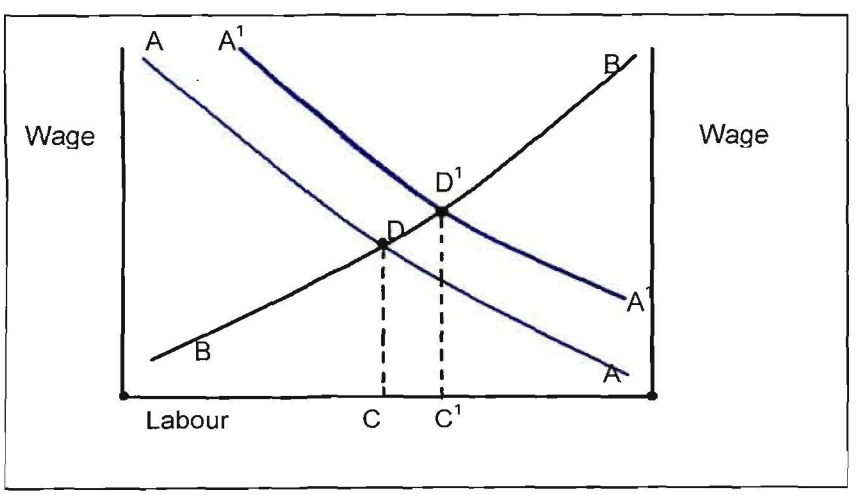


Figure 2.3: Specific factors model when prices increase
Source: Ethier (1995)

How does the specific factors model relate to international trade? In an economy where capital cannot move between industries, a movement to free trade will cause a reallocation of income (Suranovic, 2004). Suranovic (2004) states that a number of owners of capital (in the export

industry) will benefit from free trade; while some owners of capital (in the import industry) will lose because of free trade. He further states that workers may gain or lose from free trade since the real wages of exports rise while the real wages of imports fall. All workers are mobile between industries. A benefit is derived for the factor specific to the export industry and a loss is suffered for the factor specific to the import-competing industry (Suranovic, 2004).

This model tries to explain what will happen to labour allocation, output levels and factor returns when economic changes such as movement to free trade, the implementation of a tariff or quota, growth of the labour or capital endowment or technological changes take place (Suranovic, 2004). However, certain critique has been launched against the model. The model assumes that manufactured goods are produced with only capital and labour. Onyemelukwe (2005:155) states the assumption is incorrect, because material is an indispensable input for manufactured goods. He further states that the model has no relevance in determining a theory of development and growth. He renders the model irrelevant, not scientific and misleading.

Despite the harsh criticism by Onyemelukwe (2005:155), Jones (2003) remains in favour of the specific factor model. He states that the model can serve as a bridge between the views that trade theorists and labour economists harbour regarding trade, technology and wages. He also stresses the usefulness of the specific factor model in evaluating the effect of biased technological progress on wage rates.

In conclusion, the specific factors model assumes an economy that produces two goods using two production factors. Labour is mobile between industries, but capital is immobile and may differ between industries. Capital is thus specific for each industry. It is therefore logical to assume three factors of production: labour, capital specific to industry one and capital specific to industry two. The specific factors model shows what will happen to labour allocation, output levels and factor returns when economic changes take place, including a movement to free trade (Suranovic, 2004). Onyemelukwe (2005:155) has voiced his critique of the specific factor model, but Jones (2003) believes the model is useful in evaluating certain effects. All in all, the specific factor model explains a great deal and gives a better understanding into how nations trade. In the next section the Stolper-Samuelson theorem will be discussed to further expand knowledge into how nations trade.

2.4.5 The Stolper-Samuelson theorem

Neary (2004) states that the Stolper-Samuelson theorem is one of the fundamental results of the Heckscher-Ohlin theory, but in itself is one of the principal theories of international trade. For many years, economists believed that free trade benefits everyone and protection hurts everyone (Neary, 2004). Stolper and Samuelson did not agree with this and presented a different theorem in 1941.

The Stolper-Samuelson theorem suggests that the factor suppliers of the factors used intensively by the import-competing industry can become better off through protection, even though the economy as a whole is worse off (Chacholiades, 1990:77).

Neary (2004) elaborates on this statement by explaining the Stolper-Samuelson theorem as follows: Suppose there are two sectors in an economy; one of the sectors produces exports and the other sector produces goods which compete directly with imports. Assume that the import-competing sector is labour-intensive relative to the export-sector. A tariff is now introduced which raises the price of the import-competing sector's output. This leads to an expansion of the import-competing sector which raises the aggregate demand for labour relative to capital and this puts pressure on wages to increase. A rise in the prices of the import-competing sector will lead to a rise in return of capital. Export prices stay the same and there is thus a fall in return to capital. This means when import-competing goods are relatively labour-intensive, wage earners benefit and capital owners suffer a loss. Protection thus raises real wages.

Deardorff and Stern (1994:7) state that in its most simple form with two factors of production, two goods and two countries, the Stolper-Samuelson theorem shows that protection assists the scarce factor or, equivalently, that free trade hurts the scarce factor. Deardorff and Stern (1994:7) state this is evident when viewing the U.S. as a practical example. They state that in the U.S., where labour is relatively scarce, free trade lowers wages, since the U.S. labour market must now compete with foreign labour. The Stolper- Samuelson is a logical and clear concept, but is there any proof that it holds?

Chacholiades (1990:79) states, importantly, that the theorem does not depend on the legitimacy of the Heckscher-Ohlin theorem, because the Stolper-Samuelson theorem does not involve any comparison between countries. Additionally, he states that the Stolper-Samuelson theorem will continue to be correct even in the presence of factor-intensity reversals and huge differences in production functions and tastes between countries. Deardoff and Stern (1994) believes the theorem is remarkable and Neary (2004) states that the theorem is elegant in its simplest form. However, the theorem has had its fair share of criticism too. Abrego and Edwards (2002) completed an empirical investigation into the relevance of the Stolper-Samuelson theorem in the U.S. and U.K. They found that the Stolper-Samuelson analysis is not consistent with what actually happened in the U.K. or U.S. Additionally, they state that the model is based on very restrictive neoclassical assumptions such as perfect competition between and within countries, complete factor mobility within countries (but none between countries), no transport costs and full tradability of all goods. Abrego and Edwards (2002) believe by relaxing some of these assumptions, the outcome of the theorem will be altered, which leads to speculative results.

Even though scepticism exists regarding the Stolper-Samuelson theorem, it still makes a contribution in explaining how nations trade. McCulloch (2005) states that adjacent to the thousands of scholarly contributions that the Stolper-Samuelson paper motivated, it has become part of the intellectual tool kit of every international economist. McCulloch (2005) believes that the Stolper-Samuelson model filled an essential gap in the general equilibrium model by distinguishing a relationship between output prices and equilibrium factor rewards. In the next section, the new trade theory will be discussed as another intellectual tool in understanding how nations trade.

2.4.6 New trade theory

The international trade theories discussed up until this point have assumed perfect competition. An alternative to pure trade theory saw the light however in the early 1970's with contributions by Paul Krugman. The alternative theory suggested by Krugman became known as the new trade theory. Traditional trade theories assume perfect competition; the new trade theory explains international trade in terms of monopolistic competition (Dingel, 2005). The new trade theory is an approach to international trade that draws attention to increasing returns and imperfect competition (Krugman, 1990).

Krugman (1990) describes what is meant by the new trade theory by asking the most basic question in international trade literature: "why is there international trade?" He postulates that the traditional theory explains that countries trade because they are different. According to Krugman (1990) the new trade theory acknowledges that differences between countries may encourage nations to trade, but it adds another reason. Countries trade because of advantages of specialisation. The largest portion of world trade is the exchange of similar products between similar economies (Ethier, 1995:43). The new trade theory thus states that even if countries were similar, it is likely that one country would specialise in a product in such a way that it would lead to trade between nations.

Krugman (1990) also discusses the differences in the effects of protectionism with regards to traditional trade models and the effect it has on new trade models. Where tariffs and quotas increase the price of a good, reduce imports and are, at times, regarded as something negative, Krugman (1990) states that the result in the new trade theory could be worse or better. Advocating free trade is usually based upon traditional trade theories. New trade models show that export subsidies, temporary tariffs and other protection measures may possibly shift world specialisation in a way that is favourable to the protecting nation (Krugman, 1990). It is evident that the new trade theory differs quite substantially from traditional trade theories, but what is the impact of the new trade theory? What does it or does it not prove?

Fletcher (2005) states the new trade theory does not prove any form of protectionism is better than free trade; it does however prove that it is mathematically possible for protectionism to sometimes be the better option, because free trade is sometimes mathematically not the best option. Fletcher (2005) further discusses how the new trade theory explains why some promises to third world countries (in regard to free trade), have remained unfulfilled. He states that the many benefits of free trade (for example technological progress) cannot be reaped by third world countries, because they do not have the ability to use these benefits purposefully (for example they do not have labourers that can operate the technology). The new trade theory tries to explain certain aspects of trade that traditional trade theories disregarded, but what do the empirical studies find?

Fidrmuc (1999) conducted a study to verify the new trade theory in the European Union's (EU) trade with Central and Eastern European Countries (CEE'S)[5] by using panel data for 1990-1997. Fidrmuc (1999) states that the new trade theory explains key development issues (of the EU's trade with CEE's) better than the Heckscher-Ohlin model. He finds that intra-industry trade is positively associated with wage increases and negatively with interest rates. Bergoeing and Kehoe (2003) completed research to test the new trade theory based on product differentiation, increasing returns and imperfect competition in OECD countries. They tested the model by adjusting it to 1990 data and then backdating it to 1961 to determine what changes in crucial variables in that time period were predicted by theory. Bergoeing and Kehoe's (2003) results find that the model explains much of the increased concentration of trade between industrialised countries. The new trade theory was not, however, capable of explaining the large increase in the share of trade to income.

Konchyn (2006) uses the new trade theory to examine the progress that the Ukraine has made regarding market reforms and European economic integration. Konchyn (2006) believes that the Ukraine, as a country in transition, should follow the model of economic development based on the new trade theory. Additionally, Konchyn (2006) states that gains from international trade can be realised within the new trade theory when firms increase production, reduce average costs and, in this way, achieve optimal positions in foreign markets. Even though Konchyn (2006), Fidrmuc (1999) and Bergoeing and Kehoe (2003) advocate the new trade theory, the new trade theory received its fair share of criticism too.

Jackson (2005) says that if politicians implement industry policies based on the new trade theory, trade wars will follow which will result in ever rising tariffs. He states that this is in line with the economic and political stupidity that assisted in prolonging the 1930's depression. Jackson (2005) further states that new trade supporters that promote tariffs because the law of comparative

[5] These countries included Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia.

advantage does not exist where economies of scale apply, are just preaching another protectionist myth.

The new trade theory has received mixed results. Traditional trade theory suggests that free trade is always the best option. The new trade theory states that it is mathematically possible for protectionism to sometimes be the better option. This opinion has received criticism and has been regarded as a protectionist myth. The new trade theory is an approach to international trade that calls attention to increasing returns, imperfect competition and specialisation. The new trade theory discusses how nations engage in trade. The gravity model is explained in the next section.

2.4.7 Gravity model

The four trade theories that have been evaluated above have a largely theoretical application. The gravity model takes a different approach to international trade and sets out to explain how nations trade in a more practical way. The gravity model states that countries that are close together, rich, large and have things in common (such as currency or language), will have a higher percentage of trade with each other than countries that do not have these things in common (Ciuriak and Kinjo, 2005). The gravity model is similar to Newton's gravity models for gravitational force and was introduced by Walter Isard in 1954. The model can be explained by the following equation (Carrillo and Li, 2002):

$$T_{ij} = A\frac{Y_i Y_j}{D_{ij}} \tag{2.4.7}$$

where T represents the trade flow between two countries i and j, Y represents the economic mass of each country, D represents the distance between two countries and A is a constant. The gravitational force between two countries to engage in trade can thus be calculated by knowing the masses of the objects (Y_iY_j) and the distance between the two countries (D_{ij}).

A number of empirical studies have been performed to verify the accuracy of the gravity model. Carrillo and Li (2002) examined the gravity model by using evidence from Latin American countries for the period 1980-1997. The size of and distance between countries was taken into account. After implementing the gravity model of bilateral trade flows, Carrillo and Li (2002) found that preferential trade agreements had an impact on intra-regional and intra-industrial trade. They also found that size and distance are the main determinants of trade in accordance with their results. They further recommended reducing transaction costs between sub regions to achieve significant economic integration.

Ciuriak and Kinjo (2005) find the gravity model equally appealing and used Canada's trading data for 2004 to analyse the gravity model. They find that the highest volume of under-trading is with the U.K., France and the United States. These three countries have had the closest historical relationship with Canada. Ciuriak and Kinjo (2005) go on to say that the gravity model is one of the most empirically successful models. By incorporating relevant variables such as income, size, distance, language and historical relationship between countries, the gravity model has become very useful in explaining trade patterns. However, the model has received critique for not incorporating comparative advantage. Ciuriak and Kinjo (2005), state that the absence of comparative advantage in the gravity model is especially important when the gravity model is considered for policy applications. This could influence policy makers to shy away from the choice of using the gravity model.

Weintraub, Rugman and Boyd (2004:51) make provision for the deficiency of comparative advantage in the gravity model. They use the gravity model to explain trade flows between the United States and 52 other countries for the period 1982 to 1998, after controlling for comparative advantage. Their gravity model of imports is positively related to GDP and language similarities. Imports are negatively related to distance between countries and exchange rate. Weintraub *et al.* (2004:51) find that the U.S. imports more from Canada, Mexico, Japan and East Asia than is predicted by the gravity model, but imports less from Europe. They do, however, find that U.S. imports from Latin America conform to the predictions of the gravity model. Some trade flows are thus larger or smaller than the gravity model predicts.

Christie (2002) encounters the same problem as Weintraub *et al.* (2004:51) when studying the gravity model in Southeast Europe. Christie (2002) states that the overall performance of the gravity model is good when the model is viewed superficially. However, on close examination Christie (2002) finds that many trade flows are significantly smaller or larger than the model would forecast.

After examining some empirical studies it can thus be seen that the gravity model does indeed assist in explaining trade patterns between countries. In various cases it is true that countries that are closer together or have historical ties and so forth, share a great deal of trade together. Nevertheless, it is important to note that the gravity model is not flawless. Although the model succeeds in explaining empirical trade flows, it has received much criticism for its lack of theoretical foundation. Additional criticism has been launched against the model for the absence of comparative advantage and trade flows being smaller or larger than the model would forecast. Overall, it is a model that can assist in explaining how nations trade.

This section dealt with how nations trade. This was achieved by discussing the main trade theories, and the reasons why nations trade include comparative advantage, economies of scale imperfect competition, Linder's thesis and the technological gap and product cycle. There is no single explanation that describes the world empirically as a whole. However, certain trade patterns can be better explained by certain trade theories. Trade among developed countries (North-North) is better explained by the Hecksher-Ohlin theory (Anon., 2004). The reason for this is that technological differences across these countries are small and they tend to trade in goods that are close substitutes. Conversely, trade between developing countries (South-South) or between developed and developing countries (North-South) are explained quite well by Ricardian models (Anon., 2004). Empirical evidence was found for and against most of these theories and some of these theories relied heavily on certain assumptions. The theories need to be viewed holistically and notice should be taken of the importance as well as the critique of these theories. Most important, is to observe that these theories assist in explaining how nations trade. These explanations will, in turn, assist in identifying the causality between trade and tourism.

It has become evident from the discussion thus far, that international trade is viewed as being advantageous to nations. The next section discusses the advantages and disadvantages of trade.

2.5 Advantages and disadvantages of international trade

Similarly to most things in life, international trade also has its advantages and disadvantages. Nations engage in international trade for a reason. They engage in trade because they hope to reap some kind of benefit from trading with other countries. Samuelson (1939:195) stated that "*free trade or some trade is to be preferred to no trade at all*". Samuelson proved (under certain assumptions) that for a country (small enough to not have an influence on world prices) free trade is more beneficial than no trade at all.

2.5.1 Advantages of international trade

Many advantages of international trade can be observed by simply studying the trade theories. Ricardo showed the advantages of trade by explaining his theory of comparative advantage (section 2.3.1). In his example Ricardo states that if Portugal specialises in wine production (in which it has a comparative advantage) and England specialises in the production of clothes (in which it has a comparative advantage), worldwide output would increase as well as consumption within each country. International trade is thus advantageous, because of the expansion of consumption. This is visualised in Figure 2.4 below.

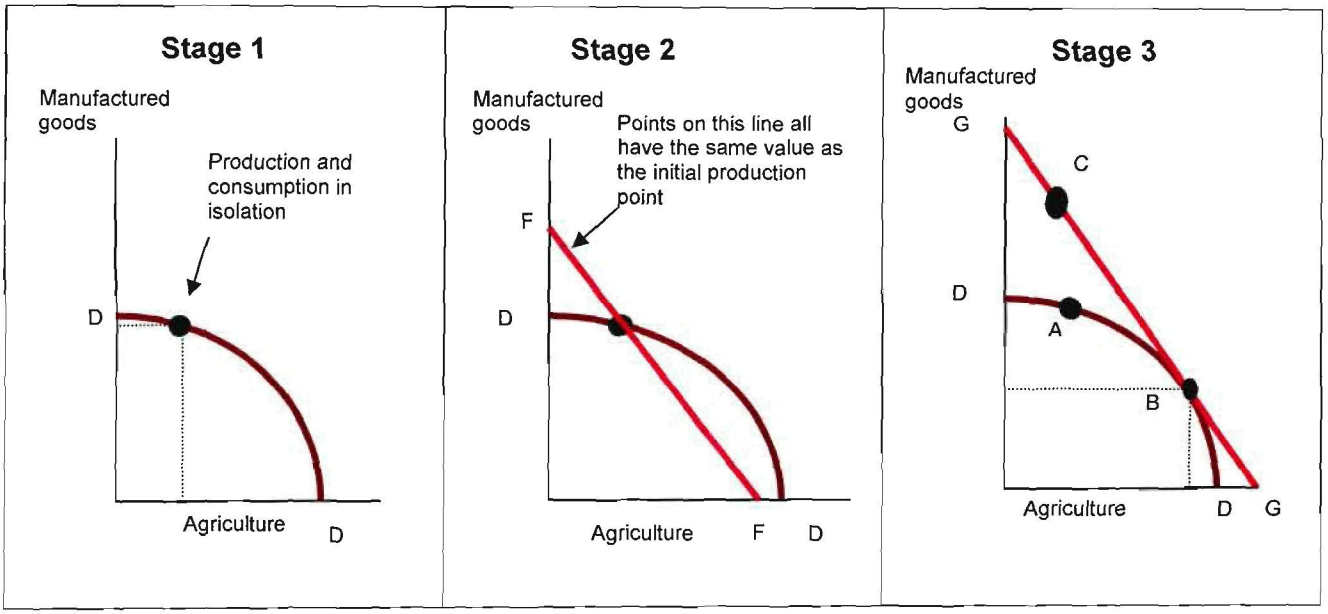


Figure 2.4: Gains from international trade
Source: Anon. (2002)

In Figure 2.4, stage 1, the production and consumption possibilities are shown when no international trade takes place along the production possibility frontier (PPF), DD. International trade is introduced at world prices in stage 2. The consumption possibilities now increase and the country can consume along the line FF. In stage 3, the country may further increase consumption by increasing agricultural production and reducing manufactured production. Point C is then an illustration of a consumption bundle that can be chosen because of international trade. Takayama (1972: 496) states that the gains of trade can be most concisely expressed as the increase of the consumption possibility set and its subset, the production possibility set. This increase in consumption has been shown in Figure 2.4.

What other gains, besides increased consumption, can be realised from international trade? How do these gains from trade encourage nations to trade internationally? These questions will be answered by examining a few advantages of international trade. These advantages are: increased income, learning by doing, research and development spillovers and efficiency due to competition.

a) **Increased income:** Those that advocate trade openness and international trade argue that international trade increases economic growth and income for participating countries. Does the empirical evidence support this argument? Frankel and Romer (1999) conducted an empirical investigation regarding the impact of international trade on standards of living by using data from 1985 that covers trade among 63 countries. This study includes European African countries, Middle Eastern, and Asian countries and small islands such as Mauritius and Fiji. Their results showed that trade raises income by increasing output and stimulating the accumulation of physical and human capital. They find that a one percent increase in the relation of trade to GDP causes an increase of income per person by at

least one-half percent. Gwartney, Skipton and Lawson (2001) also find that international trade improves living standards by offering consumers a wider variety choice of goods. They state that this has been witnessed in countries such as Mexico, Poland and China which have become more open to international trade.

b) **Learning by doing:** As workers spend more time doing their jobs, they gain experience and become more skilled. This could lead to increased production or often a lowering of the marginal cost of production of a firm (Perloff, 2007: 490). Learning by doing could be advantageous for a country or firm, but how is it connected to international trade? Learning by doing may have spillover effects to other countries. Irwin and Klenow (1994) studied the effect of learning by doing by using quarterly, firm level data on seven generations of dynamic random access memory semiconductors. They studied the period 1974-1992 and find that learning spills over between firms in different countries just as much as it spills over between firms in the same country. Additionally, they find that Japanese firms are impossible to differentiate from other firms in other countries in learning speed. International trade could thus lead to learning by means of spillover, which is beneficial to countries.

c) **Research and development spillovers:** A great deal of research and development (R&D) is conducted in the more developed countries of the world. Developed countries have more capital and skilled workers that spend time on research and innovation. Developing countries, on the other hand, do not always have the capital and skilled researchers to engage in research and development. The developing countries can thus engage in trade to import R&D skills or foreign direct investment can lead to research and development spillovers. Coe and Helpman (1995) conducted an empirical study to distinguish the extent to which a country's total factor productivity depends on domestic and international R&D capital. They find that R&D has a positive effect on productivity. Coe and Helpman (1995) state that these positive effects are greater if the economy is more open toward international trade. Furthermore, they discover that the rates of return on R&D are very high, both in regards to domestic output as well as international spillovers.

d) **Efficiency due to competition:** An efficient market is a market with prices that fully reflect all currently available information (Ethier, 1995:389). If a country would choose not to engage in trade or make use of various trade protections, production could become inefficient. Why is this so? With strict trade protections, there is a lack of competition in the home country that could cause production to become less than optimal. If the country becomes more open towards trade, it would lead to increased competition and encourage firms to be more efficient in production. This will, in turn, be optimal for consumers in regard

to lower prices. Ghani and Jayarajah (1995) studied the impact of trade reform on productivity, GDP growth and export growth. Their results show a relationship between trade reform and efficiency gains. They discover that a reduction in the average protection measures on imports are associated with increased output growth for a country. Importantly, they note that countries with better human resources and markets that perform well benefit more from trade reforms and productivity gains.

It can now clearly be seen what benefits are in store for countries that choose to trade internationally. Takayama (1972: 496) states that the gains of trade can be most concisely expressed as the increase in the consumption possibility set and its subset, the production possibility set. This was shown to be true when introducing international trade in Figure 2.4. Frankel and Romer (1999) show that trade increases income, while Gwartney, Skipton and Lawson (2001) find that international trade improves living standards by offering consumers a wider variety choice of goods. Other benefits such as learning by doing, R&D spillovers and efficiency due to competition were also discussed and empirically verified. All these benefits (and more) can be obtained through international trade, but international trade has its disadvantages as well. International trade faces difficulties that trade within a country does not have to deal with. It is thus important to realise that international trade can be both disadvantageous to countries as well as advantageous. In the next section, the disadvantages of international trade will be discussed.

2.5.2 Disadvantages of international trade

In the previous section, the advantages of international trade were discussed. However, the truth of the matter is that these advantages do not always reach the less developed countries or the really poor people of a country (Wells, 1969:305). International trade is not always beneficial, sometimes it is also disadvantageous. More often than not, the rich get richer and the poor get poorer. That is why there are so many objections to free trade and the removing of trade protection measures. How does international trade injure certain economies? The disadvantages of international trade will now be investigated.

In 2008 the World Bank estimated, in its World Development Report (2008), that three out of four poor people in developing countries live in rural areas. The World Bank states that 2.1 billion of these people live on less than $2 a day and most of them depend on agriculture for income and survival. Most of the developing countries are heavily dependent on exports of agricultural products. The income that developing countries receive for exporting primary products is considerably less than the prices developed countries receive for exporting manufactured products. Wells (1969:305) believes that less developed countries are caught in a vicious circle of poverty. He states that because these countries have low incomes, their savings are low and thus their investment is low. They do not have the capital or skills to invest in manufacturing industries

and thus rely on exporting primary products for income. Primary products obtain lower prices than manufactured products in world markets and this leads to a low income for these countries. Thus, international trade does not necessarily increase the wealth of these countries.

Low income from primary products is not the only problem that developing countries have to face. Developing countries also have trouble gaining entry to the agricultural markets of industrialised or developed countries. Wells (1969:307) states that practically all industrialised countries protect their agricultural sector. He goes on to say that less developed countries have difficulty exporting primary products which compete with the primary products produced in industrialised countries. This is still the case today. Whereas some of these less developed countries are very dependent on exporting primary products, problems can arise when the prices of these products fall in world markets. Not only will the less developed countries receive a low income for their products, it could also lead to higher unemployment in that country. In countries that are already poor, higher unemployment could prove disastrous for an economy (Wells, 1969:305).

Another disadvantage of international trade can be found in large countries that enjoy monopoly-monopsony[6] power in international trade. Chacholiades (1981:168) finds that small countries are mostly price takers in world markets, but large countries can sometimes obtain monopoly-monopsony power in international trade. Thus, large countries can influence their terms of trade, because they own a large share of the world market. Chacholiades (1981:169) states that a large country can restrict the output and raise prices to gain profit or restrict purchases from other countries in order to buy the commodity at a lower price. This has a negative effect on countries that are price takers in the international economy. International trade also introduces increased competition in a country's markets. This was listed as an advantage in the previous section, because it leads to better efficiency in industries. Increased competition can also prove fatal to industries/companies that cannot compete with foreign businesses. If an industry cannot compete with other international industries (for example by offering a better price than international companies) it may have to close down or incur job losses as a result (Chacholiades, 1981:169).

In addition to increased competition and unemployment, international trade can also cause increased instability in domestic markets. This was seen in the Asian crisis of 1998 and with the 2001 terror attacks in the United States. During the Asian crisis of 1998, growing short-term foreign debt, rapidly expanding bank credit and insufficient regulation of financial institutions left Asian economies vulnerable (Brainard and Perry, 1998:2). When a dramatic fall in property prices occurred and investors became nervous and withdrew capital from Asian countries, it had a devastating effect on the currencies of these Asian economies. The crisis however did not end in

[6] Monopsony occurs when there is a single buyer of a particular good or service in the market (Chacholiades, 1981:168).

Asia. Global markets also felt the impact of the Asian crisis. Investors lost confidence in all emerging economies and withdrew funds from these countries in a state of panic which caused devastation to the currencies of emerging markets. Countries exporting to or importing from Asian countries could no longer do so and thus the Asian crisis had an effect on their balance of payments. The 2001 terror attacks also had a global impact. The attacks caused instability in U.S. markets and, in some cases, had a negative effect on countries engaging in international trade with America.

It is thus clear that international trade not only holds advantages, but can also hold certain disadvantages for a nation. Developing economies have problems gaining entry to agricultural markets of industrialised countries and receive a low income for the primary products that they are able to export. Additionally, increased foreign competition could lead to unemployment and reduced income in domestic markets. International trade can also cause increased instability in markets as was seen in the Asian crisis and the terror attacks in 2001 in the United States. In the next section, current global trade patterns will be explored.

2.6 Current global trade patterns

In previous sections, important questions were answered with regard to international trade such as: why and how nations trade as well as the advantages and disadvantages of international trade. The question that must now be answered is: what does the global trade economy look like? Who are the leading trading nations? What arrangements and trends are there in trade? These questions and more will be answered in this section to understand current global trade patterns. Firstly, merchandise trade will be discussed. Secondly, merchandise trade by product group will be examined. Following this, the leading trading nations will be identified and thereafter regional and country perspectives will be examined. Lastly, intra- and inter-regional merchandise trade will be explored.

2.6.1 Merchandise trade

According to the World Trade Organisation (2007), the volume of world merchandise trade grew by 8 percent in 2006. Certain economies fared well. European exports increased, U.S. exports grew above the world average and China's trade expanded by 22 percent (World Trade Organisation, 2007). Other economies experienced export growth rates below world average such as South and Central America, the Caribbean and Africa, while Middle East exports stagnated in 2006. Additionally, it was found that exports grew faster than imports for North America and Asia in 2006. Interestingly, Europe and Asia are the only continents that recorded higher export growth than import growth since 2000. It is evident that merchandise trade increased, but what products contributed the most to this increase?

2.6.2 Merchandise trade by product group

As can be seen in Figure 2.5 below, manufactured goods lead the way with an average annual growth rate of 7.5 percent, while mining products and agricultural products lagged behind with 4 percent and 3.5 percent respectively. The World Trade Organisation (2007) finds that manufactured goods grew by 10 percent in 2006 in terms of constant prices while agricultural products show real growth of 6 percent.

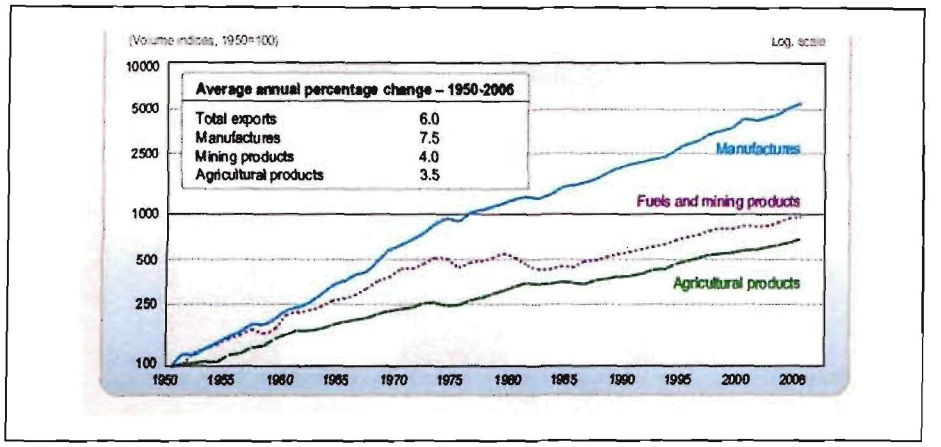


Figure 2.5: World merchandise trade volume by major product group, 1950-2006

Source: World Trade Organisation (2007)

Figure 2.6 elaborates on Figure 2.5 by showing which countries export the different product groups. Asia has the highest share (84 percent) of manufactured goods in their export basket, while Europe and North America follows by 80 percent and 77 percent respectively (World Trade Organisation, 2007). It is therefore not surprising that these continents reported a large growth in their exports, as reported in section 2.6.1. Central and South America, the Middle East and Africa have a smaller share of manufactured product exports. These countries have a higher share in exporting fuels and mining products relative to total exports. Central and South America have the highest share in exporting agricultural products. Who are the leading trading nations?

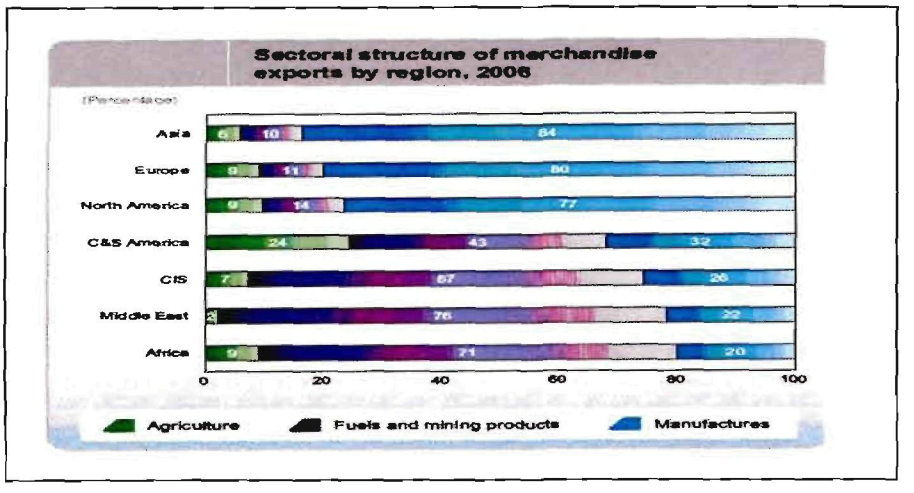


Figure 2.6: Merchandise exports by region 2006

Source: World Trade Organisation (2007)

2.6.3 The leading trading nations

The top exporting and importing countries can be seen in Table 2.5 below. Germany, the United States (U.S.) and China are the top importers and exporters in the world (The World Factbook, 2008). Germany ranks first in 2007 as the leading exporter in the world. Germany is a technologically powerful economy and is renowned for exporting machinery, vehicles, chemicals, metals and manufactures, foodstuffs and textiles which receive high international prices (The World Factbook, 2008). The U.S. ranks first as the top importer of the world. The U.S. is also a technologically powerful country, but imported oil accounts for nearly two-thirds of consumption in the U.S. and the merchandise trade deficit reached $847 billion in 2007 (The World Factbook, 2008). These conditions contributed to the U.S. ranking as the top importer. Following Germany, China is the second largest exporter of goods, but ahead of the U.S. and will, according to Wolf, (2008) become the world's largest exporter within a few years. The leading exporting and importing countries are listed in Table 2.5 below. But how are trading blocks/agreements influencing international trade between countries or regions? Another important aspect to consider is trade between regions such as North-North, South-South or North-South trade. This forms the theme of the following section.

Table 2.5 Top importers and exporters

Top exporters				Top importers		
Rank	Country	Export millions dollars	Date of information	Country	Imports dollars	Date of information
-	World	13,720,000	2006	World	13,810,000,000,000	2006
1	Germany	1,361,000	2007	U.S.	1,987,000,000,000	2007
-	EU	1,330,000	2005	EU	1,466,000,000,000	2005
2	China	1,221,000	2007	Germany	1,121,000,000,000	2007
3	U.S	1,140,000	2007	China	917,400,000,000	2007
4	Japan	799,435	2007	France	601,400,000,000	2007
5	France	558,900	2007	U.K.	595,600,000,000	2007
6	Italy	474,800	2007	Japan	571,100,000,000	2007
7	Netherlands	465,300	2007	Italy	483,600,000,000	2007
8	Canada	440,100	2007	Netherlands	402,400,000,000	2007
9	U.K.	415,600	2007	Singapore	396,000,000,000	2007
10	South Korea	386,600	2007	Canada	394,400,000,000	2007

Source: The World Factbook (2008)

2.6.4 Trade blocs and agreements

Garcia-Rubiales (2003) states that the best definition for a trading bloc is supplied by the United States National Policy Association. According to this definition, a trading bloc has four main characteristics:

- It partakes in a special trade relationship created by a formal agreement. It encourages and facilitates trade within that group of countries in preference to trade outside their special trade relationship.
- The trade bloc has a stated goal in the formal agreement of encouraging trade liberalisation with the purpose of establishing a free trade area, customs union, or common market[7].
- The trade bloc makes an effort to reach universal positions with third countries, other trade blocs, or in multilateral forums.
- The trade bloc strives to coordinate national economic policies in order to keep disruption in intra-bloc economic transactions to a minimum.

The question that must now be asked is: where did trade blocs originate? A more important question is: why do countries participate in trade blocs? What benefits arise from being part of a trade bloc?

Garcia-Rubiales (2003) answers the first question by stating that, contrary to belief, trade blocs are not a new trend. In fact, trade blocs date back to the 16th century when Western European powers made use of trading blocs. Frankel, Stein and Wei (1997:1) are of the opinion that it is unimportant to identify the earliest regional trade bloc in history. They place importance on the knowledge that as long as there have been nation-states with trade policies, discrimination has existed, favouring some trading partners above others. Garcia-Rubiales (2003) and Frankel, Stein and Wei (1997:1) do, however, acknowledge that trade blocs have increased in number and importance since their earlier dating.

To answer the second question (why do countries participate in trade blocs?), Garcia-Rubiales (2003) refers back to comparative advantage (see section 2.3.1). David Ricardo developed the idea of comparative advantage in which he stated that countries should specialise in producing goods in which they have a comparative advantage (goods in which they have a lower opportunity cost of production than other nations). Garcia-Rubiales (2003) states that as nations become more specialised in the production of goods, it becomes crucial to trade with other countries that need their goods or obtain resources that are not prevalent in their country. This leads to dependence on

[7]Chacholiades (1981:223-225) states that a free-trade area exists when a minimum of two countries eliminate import duties on their shared trade in all goods, but maintain tariffs against the rest of the world, whereas a customs union additionally adopts a common external tariff schedule on all imports of goods from the rest of the world. A common market exists when a customs union, in addition, permits the free movement of all factors of production between them.

trading partners. Additionally, Garcia-Rubiales (2003) emphasises that smaller countries have less power than large nations and a need for creating economic alliances develops in order to gain buying and selling power. In this way, trading blocs originate.

What are the benefits of being part of a trade bloc? No country would join a trading bloc if it could not reap benefits from the arrangement. One of the key benefits of a trading bloc is that it creates trade (Motley, 2006). Trade creation is important because this leads to increased income for the exporting country and also leads to the availability of a wider selection of goods and services for the consumers of the country. Furthermore, trading blocs create greater consensus (because of the elimination of trade barriers), political cooperation and employment opportunities (Motley, 2006). Employment opportunities arise because of the free movement of labour from one country to another in a trading bloc. Since it is now evident where trade blocs originated, why countries participate in trade blocs and what benefits arise when being part of a trade bloc, it is important to know which the most well-known trade blocs are. The following trade blocs can be considered as the most important:

a) **European Economic Area (EEA):** The EEA comprises two trading blocs, namely the European Union (EU) and the European Free Trade Association (EFTA). The EU is the largest trade bloc in the world and includes the following 27 members: Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom. (European Commission, 2008). Garcia-Rubiales (2003) states that the EU is "the most significant and influential of international economic integration schemes" as it consists of the most advanced nations of the western world, it is the oldest such agreement and it involves the most demanding intensity of international integration. The EU has a population of 500 million people (third largest after China and India) and has a GDP of $18,493,009 billion. This is an increase from $16,830,100 billion in 2007 (International Monetary Fund, 2008). EFTA members (Iceland, Liechtenstein, Norway and Switzerland) had a GDP of $707 billion in 2006 and also rank among countries with the highest GDP per capita in the world (EFTA, 2008). EFTA's main trading partner is the EU and accounted for 75 percent of EFTA's merchandise imports and 71 percent of its exports in 2006 (EFTA, 2008).

b) **North American Free Trade Agreement (NAFTA):** NAFTA consists of the member countries of Canada, Mexico and the United States. This trading bloc has a population of 445 million people, which is only slightly smaller than the EU's population (NAFTA, 2007). NAFTA recorded a GDP of $15,857 billion in 2007 (International Monetary Fund, 2008). However, there has been a mixture of praise and criticism for this trade bloc. On the one

hand, Griswold (2002) states that NAFTA is a major success, creating trade, assisting Mexico in lowering inflation, encouraging more political competition in Mexico and encouraging investment between members of NAFTA. On the other hand, Henriques and Patel (2004) state that free trade agreements, especially NAFTA, have worsened conditions for the poor in Mexico. Mexico started importing corn from the U.S. due to the U.S. agricultural subsidies that cause low corn prices. Mexican corn producers cannot compete with these prices and thus they are forced into poverty. It is thus evident that not only benefits, but also detriments can arise from trade bloc participation.

c) **Southern Common Market (Mercosur):** Mercosur has a population of 266 million people and is a regional trading agreement among the following members: Argentina, Brazil, Paraguay and Uruguay (Mercosur, 2007). Currently Bolivia, Chile, Colombia, Ecuador and Peru have obtained associate member status, while Venezuela has applied for membership, but is still awaiting approval by Paraguay and Brazil (Mercosur, 2008). Overall, Mercosur is doing well and recorded a GDP of $2,895 trillion in 2007 (International Monetary Fund, 2008).

d) **Association of Southeast Asian Nations (ASEAN):** The ASEAN trading bloc has a population of 575.5 million (this is larger than the EU population) and contains the following members: Brunei, Burma, Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand and Vietnam (ASEAN, 2007). This trading bloc recorded a GDP of $1,281.9 billion in 2007 (International Monetary Fund, 2008). Suryodiningrat (2004) criticises ASEAN for having "a mile-long paper trail" of proclaimed objectives, but no follow-through. He does, however, concede that ASEAN has succeeded in maintaining peace in the region which has been plagued by violence in the past.

e) **African Union (AU):** The African Union is Africa's equivalent to the European Union. The AU consists of all African countries except Morocco, had a population of 897 million people in 2004 and recorded a GDP of $1,131,850 billion in 2004 (International Monetary Fund, 2008). When comparing the AU's statistics with other trading blocs, it is evident that Africa is a region with much poverty. Some members of the AU, which are geographically closer together, formed their own trading bloc known as the Southern African Customs Union (SACU). This trade bloc is the world's oldest Customs Union and was established in 1910 (SACU, 2008). The members of SACU are: Botswana, Lesotho, Namibia, South Africa and Swaziland. SACU aims to encourage trade, facilitate economic development and increase development opportunities between its members (SACU, 2008).

f) **Southern African Development Community (SADC):** SADC was established in 1980 with the aim of organising development projects in order to minimise the economic dependence on South Africa and facilitate trade among member countries (SADC, 2007). The SADC trading bloc had a population of 260 million in 2005 and consists of the following members: Angola, Botswana, the Democratic Republic of Congo, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe (SADC, 2007). The SADC treaty prescribes that member states should work together to ensure economic well-being, peace, economic growth and security for the people of Southern Africa (SADC, 2007).

From this section it is apparent that trade blocs have increased in number and importance since the 16th century. Why is it important to take note of trade blocs? Trade blocs influence the pattern of trade due to the fact that they liberalise trade amongst countries in a trading bloc while maintaining tariffs against non-member nations. Trade blocs are now, very much, an integral part of the international trading community. Garcia-Rubiales (2003) places emphasis on the fact that smaller countries have less power than the larger nations, and for this reason, create economic alliances to gain buying and selling power. Furthermore, Motley (2006) identifies the benefits of trade blocs as follows: trading blocs create greater consensus (because of the elimination of trade barriers), they enhance political cooperation and create employment opportunities. Some of the main trading blocs (EEA, NAFTA, Mercosur, ASEAN, AU and SACU) were briefly discussed in this section. The significance of trading blocs has thus been established in this section. However, when discussing international trade and regional trade perspectives it is imperative to distinguish North-North, South-South and North-South trade.

North-North trade is trade among developed countries, for the reason that most developed countries (such as those in Europe and North America) are situated in the Northern hemisphere. On the contrary, South-South trade is seen as trade among developing countries, since most developing countries (such as those in Africa and South America) are situated in the Southern hemisphere. The question is: how does the geographical location of these countries in the North and South influence international trade?

The Organisation for Economic Co-operation and Development (2006:141) finds that there are quite a number of differences between South-South, North-South and North-North trade. One of these differences is that of trade barriers. After conducting research, the Organisation for Economic Co-operation and Development (2006:141) finds that the barriers facing South-South trade are nearly three times higher than those facing North-North trade. Their reason for this occurrence is there is an inverse relationship between importer income level and standard

protection level. Consequently, trade barriers, complicate South-South trade. Thompson (2008) found evidence that a 10 percent tariff cut in South-South trade will lead to a 1.6 percent increase in exports, which translates to a further $5.7 billion in export revenue. Interestingly, Thompson (2008) found that the same tariff cut in North-North or North-South trade would have a smaller impact on trade flows. He states that this evidence supports his notion of promoting policies that boost trade between low- and lower-middle-income countries, in order to ultimately encourage economic development and reduce poverty.

Furthermore, the International Monetary Fund (2002:123) discovered that if industrialised countries reduced their trade restrictions to the lowest possible level, North-South trade would increase by almost 14 percent. The full liberalisation of trade and balance of payments policies in all countries would increase North-North trade by 40 percent, North-South trade by 63 percent and South-South trade by 94 percent (The International Monetary Fund, 2002:124). What other differences exist between South-South, North-South and North-North trade?

The Organisation for Economic Co-operation and Development (2006:141) state that significant differences also occur in the product composition of these regions. South-South trade is more focused on trading less processed products such as food, live animals, mineral fuels and manufactured goods classified mainly by material (The Organisation for Economic Co-operation and Development, 2006:141). North-North trade (developed countries), on the other hand, focuses more on manufactured goods such as machinery and transport equipment. When comparing South-South, North-South and North-North trade, which trade region dominates trade?

Dervis (2006) finds that South-South trade is still small, compared to North-North trade, with only 6 percent of global trade (measured as exports) between Southern continents. However, he discovered that South-South trade has been growing at more than 12 percent a year between Southern continents since the 1980's, while North-North trade has been growing at 7 percent a year. He attributes this growth to an increase in world exports of goods and services from developing countries, most notably Brazil. Dervis (2006) states that this could contribute to poverty reduction, but recognises the fact that growth across the South is very uneven.

To conclude, does geographical location really play such an important role in international trade? According to the International Monetary Fund, it does. The International Monetary Fund (2002:125) find that distance is the single most important obstacle to North-South trade, and accounts for two-fifths of the loss in South-South trade. Intra- and inter-regional trade are compared in the following section.

2.6.5 Intra- and inter-regional merchandise trade

The World Trade Organisation (2007) states that distance is still a obstacle for international trade. International trade can take place at the intra-regional as well as the inter-regional level. It is important to distinguish between intra- and inter-regional trade. Intra-regional trade is trade that exists between countries within the same region, for example trading within the European Union (World Trade Organisation, 2007). Inter-regional trade is trade that exists between countries from different regions, for example trading between North America and the European Union (World Trade Organisation, 2007). A representation of intra-and inter-regional trade for 2006 can be seen in Figure 2.7 below. The World Trade Organisation (2007) states that, in 2006, inter-regional merchandise trade between North-America, Asia and Europe accounted for merely 23 percent of world trade and Asia's exports to Europe increased by a massive 21 percent. As seen in Figure 2.7, Europe's intra-regional trade has a share of 31.4 percent, Asia's share is 14.1 percent, North America's share is 8 percent, and other countries such as South and Central America, the Middle East and Africa account for only 2.5 percent of total exports (World Trade Organisation, 2007). Figure 2.7 shows that inter-regional trade between Asia and North America has the highest share with 8.8 percent followed by Europe and Asia with a share of 8.3 percent. Asia seems to be the centre of the export boom. Is there a reason for this?

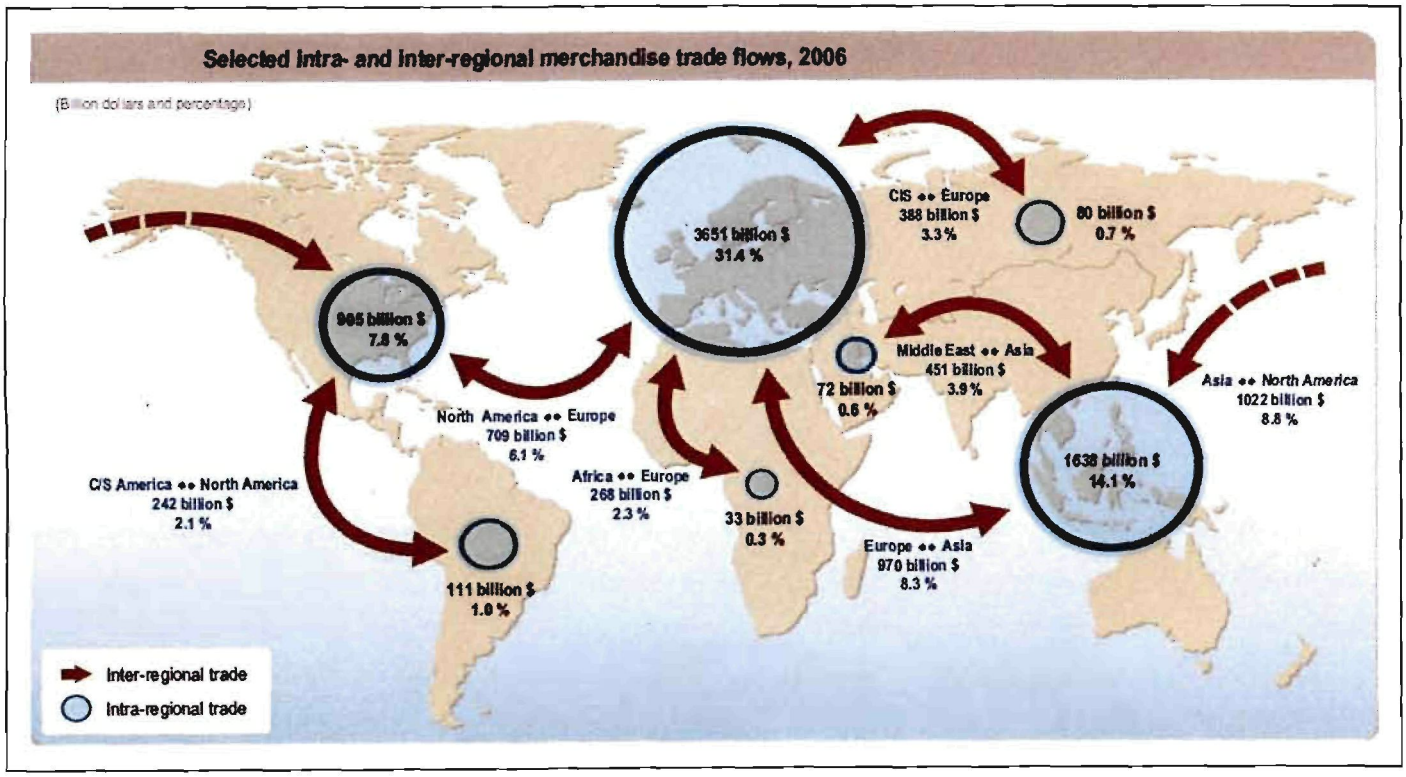


Figure 2.7: Intra-and inter-regional merchandise trade for 2006

Source: World Trade Organisation (2007)

In an International Monetary Fund survey, Gruenwald and Hori (2008) find that Asian exports are exploding due to the intra-regional trade that has China in the centre of it all. Gruenwald and Hori

(2008) find that while trade flows in the rest of the world tripled between 1990 and 2006, intra-regional trade within emerging Asia increased 8½ times. This could give Asia a competitive edge by limiting the impact of exchange rate fluctuations. Additional trade agreements between Asian countries may contribute to export prices being more competitive in international markets (Gruenwald and Hori, 2008). This supports the view propounded by Moo-hyum Roh (as cited in Wolfe, 2003) that "The age of Northeast Asia is fast approaching".

In this section current global trade patterns were discussed. Overall merchandise trade grew in 2007 and China's trade expanded by 22 percent (World Trade Organisation, 2007). When examining trade by product group it is found that manufactured products grew by a higher percentage than agricultural products. Germany, the U.S. and China are the top importers and exporters in the world for 2007. Regional and country perspectives were discussed by examining the U.S, European Union, the Middle East, Asia and Africa. Intra- and inter- regional trade was compared and it was found that intra-regional trade outweighs inter-regional share by far. In terms of inter-regional trade, trade between Asia and North America has the highest share with 8.8 percent, followed by Europe and Asia with a share of 8.3 percent.

2.7 Summary

The aim of this chapter was to discuss and explore trade motives as well as current global trade patterns. This was achieved by discussing the main themes of international trade.

Firstly, the introduction revealed that international trade has been prevalent since 2500 B.C., and has increased in importance and size since then. The World Trade Organisation (2007) finds that merchandise trade is growing at twice the rate of output since 2000.

Secondly, attention was given to what the term "*international trade*" means. It was shown that international trade entails the exchange of goods and services between one country and another. Following this, a more in-depth investigation was needed into international trade.

Thirdly, the reasons why nations trade was discussed as well as the notions of comparative advantage, economies of scale, imperfect competition, Linder's thesis and the technological gap and product cycle. However, the question of "why", is equally as important as the question of "how". The discussion therefore continued by examining the following theories: the Ricardian model, the Rybczynski theorem, the Heckscher-Ohlin model, specific factors, the Stolper-Samuelson theorem, the new trade theory and the Gravity model. The conclusion was reached that these theories should be viewed holistically by taking notice of the importance as well as the critique of these theories. Most important though, is to recognise the contribution these theories make in understanding trade amongst various nations.

Fifthly, the advantages and disadvantages of international trade were identified. It was shown that the advantages include increased income, learning by doing, research and development spillovers and efficiency due to competition. In contrast, disadvantages include: developing countries remain dependent on exporting agricultural products, developing markets have trouble gaining entry to agricultural markets, higher unemployment, monopoly-monopsony power and increased competition from international trade may cause instability in domestic markets. It thus became evident that international trade not only creates advantages, but also disadvantages for trading nations.

Lastly, current global trade patterns were discussed. This was done by examining global merchandise trade, merchandise trade by product group, identifying the leading trading nations, discussing regional blocs and regional trade as well as investigating intra- and inter-regional trade.

To conclude, the magnitude and significance of international trade has now become apparent. How does this chapter fit into this study? This study investigates the relationship between trade and tourism by using data from South Africa's trade and tourism activities with other countries. International trade is thus one of the most important aspects of this study and it is imperative to gain an understanding of the different features of international trade as well as an understanding of international trade on a global level. This is why this chapter is so important for this study. The next chapter is dedicated to addressing the other equally important aspect of this study, namely tourism and is aimed at examining and evaluating the main tourism theories. This is done to achieve the aim of investigating the reasons for tourism and identifying global trends in tourism.

Chapter 3 Tourism Theories

3.1 Introduction

Evidence suggests that tourism can be traced back to the classical civilisations of Greece and Rome. The historian, Heretodus, dates his travels to as far back as 465 before Christ (Ryan, 2003:1). Since then, tourism has grown exceedingly in size. According to the United Nations World Tourism Organisation (UNWTO) barometer (2007), international tourist arrivals for January 2007 to August 2007 were estimated at 610 million travels. Tourism has not only grown in size, but in importance as well. Tourism in the 21st century ranks high on most countries' agenda for stimulating economic growth and employment. The aim of this chapter is to explore the different aspects of tourism and more specifically, the reasons why tourism takes place. The focus of this chapter is to explore the different theories that explain the factors that motivate people to travel. The main theories of tourism development are also discussed, but only broadly, because it is not the aim of this study to explore this aspect exhaustively. The reason for identifying these tourism development theories is to assure a balanced output of tourism as a concept and to address both the supply and demand aspects of tourism. Section 3.2, discusses what tourism is. In section 3.3, the reasons why people travel are examined by discussing relevant tourism theories. Theories of tourism development are broadly analysed in section 3.4. The advantages and disadvantages of tourism are investigated in section 3.5 and current global tourism patterns are identified in section 3.6.

3.2 What is tourism?

One of the first definitions of tourism was given by the Austrian economist, Herman Von Schullard, (as cited in Malhotra, 2002:210) in 1910 who defined tourism as "*a sum of operators, mainly for an economic nature, which directly related to the entry, stay and movement of foreigners inside and outside a certain country, city or a region*". Hunziker and Krapf (as cited in Vanhove, 2005:2) elaborated on this definition in 1942 as "*being a sum of relations and phenomena resulting from travel and stay of non residents, in so far a stay does not lead to permanent residence and is not connected with any permanent or temporary earning activity*". Malhotra (2002: 210) states that these early definitions of tourism give little knowledge as to why people travel and the nature of tourism.

Vanhove (2005:2) believes a clearer definition is given by the British Tourism Society, which in 1979 defined tourism based upon the work of Burkart and Medlik (1974). They defined tourism as follows: "*Tourism is deemed to include any activity concerned with the temporary short-term movement of people to destinations outside the places where they normally live and work, and their activities during the stay at these destinations*". Additionally Goeldner and Ritchie (2006:5) define tourism as "*the processes, activities, and outcomes arising from the relationships and the*

interactions among tourists, tourism suppliers, host governments, host communities, and surrounding environments that are involved in the attracting and hosting of visitors". These definitions all contribute to a deeper knowledge of what tourism is and what tourism entails. However, as stated by Saayman (2001:3), there is still no globally accepted definition of tourism.

It is important to note that tourism can be divided into different categories. Goeldner and Ritchie (2006:7) identify different types of tourism. The first category they identify is international tourism, which encases the movement of people beyond countries' borders. However, international tourism consists of two very important sub-categories, namely inbound tourism and outbound tourism. Inbound tourism means visits to a country by non-residents, thus tourists that enter a specific country. In contrast, outbound tourism means visits by residents of one country to another country, thus, tourists that leave a specific country to visit another country. When considering all the various tourism categories, international tourism is probably the most renowned, however the importance of other tourism categories should not be underestimated. The second tourism category Goeldner and Ritchie (2006:7) identify is internal tourism, which they define as visits by residents and non-residents of the country of reference. Goeldner and Ritchie (2006:7) identify domestic tourism as category three. Domestic tourism takes place when residents of a country travel within that country. The last category, category four, is identified by Goeldner and Ritchie (2006:7) as national tourism. What does national tourism entail? National tourism is internal tourism plus outbound tourism (the resident tourism market for travel agents, airlines, and other suppliers). It is thus evident that tourism consists of various different categories and each category entails different aspects and different considerations of tourism.

For the purposes of this study, international tourism is a very important concept and the focus of international tourism is on inbound tourism. Nevertheless, tourism not only consists of categories. Goeldner and Ritchie (2006:7) state that a visit may have different purposes as well, in particular pleasure, business, family reasons, health, or transit. Goeldner and McIntosh (1990:3) identify the four key role players of tourism as the tourist, the business providing tourist goods and service, the government of the host community or area and the host community.

It is clear that the tourist plays an essential role when discussing tourism. Saayman (2001:4) identifies tourists as the most important role players in tourism, for it is their needs that have to be fulfilled. It is thus very important to understand what is meant by a tourist when addressing issues in tourism. The Committee of Statistical Experts of the League of Nations in 1937 defined a foreign tourist as "*any person visiting a country, other than that in which he usually resides, for a period of at least 24 hours*" (Goeldner and McIntosh, 1990:6). Those who visit a destination for less than 24

hours are classified as excursionists (Malhotra, 2002:210). Goeldner and McIntosh (1990:6) clarify these definitions by stating who are considered tourists and who are not.

According to Goeldner and McIntosh (1990:6), tourists include people that travel for pleasure or for family, health or business reasons. More specifically, business reasons include travel to attend meetings or travel in the capacity of being a representative of any sort. However, people that have residence in one country and work in an adjoining country do not classify as tourists. People arriving (with or without a contract of work) to engage in any business activity in the country also do not classify as tourists. However, cruise visitors are classified as tourists, even if they stay less than 24 hours. Exactly which people are then not classified as tourists?

Goeldner and McIntosh (1990:6) state that people travelling to establish residence in the country may not be classified as tourists. Moreover, students and young persons in boarding establishments or schools as well as people passing through a country without stopping (even if the journey is longer than 24 hours) are not classified as tourists.

Furthermore, travellers can be subdivided into four categories. Vellas and Bécherel (1995:3) identify and explain the four categories:

- **The domestic visitor:** Residents of the country travelling within the country outside their usual environment for a period not exceeding 12 months.
- **The international visitor:** Visits by residents of a country to another country that they do not live in for a period not exceeding 12 months. The main differences between international visitors and international tourists are their country of residence and their motivation for travel. Certain travellers are excluded from the tourist category. These are: People travelling for political reasons, namely refugees as well as people travelling for political/professional reasons such as diplomats and migrants. Additionally, people travelling for professional reasons such as seasonal workers and people sent abroad by their companies or government are also excluded from the tourist category.
- **The international tourist:** Visits by residents of a country to another country that they do not live in for a period that exceeds 24 hours, but does not exceed 12 months.
- **Excursionists:** A foreign visitor whose stay in another country does not exceed 24 hours.

To conclude, what is tourism? Many definitions for tourism exist, but there is no globally accepted definition. Vanhove (2005:2) believes a good definition is given by the British Tourism Society, which in 1979 defined tourism based upon the work of Burkart and Medlik (1974). They defined tourism as follows: "*Tourism is deemed to include any activity concerned with the temporary short-term movement of people to destinations outside the places where they normally live and work,*

and their activities during the stay at these destinations". A key role-player in tourism is the tourist. The Committee of Statistical Experts of the League of Nations in 1937 defined a foreign tourist as "*any person visiting a country, other than that in which he usually resides, for a period of at least 24 hours*" (Goeldner and McIntosh, 1990:6). Furthermore, tourism and tourist can be divided into certain categories. Tourism can be subdivided into international, internal, domestic and national tourism. Tourists can be subdivided into domestic visitors, international visitors, international tourists and excursionists. Now, that it is clear what tourism is, it is important to know why people travel. What are the reasons that cause people to move to destinations outside the places where they normally work and live? This is the theme of the next section.

3.3 Why do people travel?

People may travel outside their normal place of residence for a number of reasons. They may want to experience a different culture, do some sightseeing or taste foreign cuisine (Saayman, 2001:10). People could travel to visit family in a foreign country or for business purposes or perhaps they have to represent their country on some level. Today, travel is far more accessible than it was when the historian, Heretodus, travelled in 465 before Christ (Ryan, 2003:1). Since then, with the information revolution, it has become easier for tourists to access information about the country or place they plan to visit. This means today's tourist is well informed and knows what he/she wants. Transportation has also become more efficient, making it easier for tourists to reach their destinations. Cruise ships, planes, busses and trains assist tourists in moving from point A to point B. However, the question still remains, why do people travel? Why do people leave that which they know behind to experience something new? Many researchers have conducted research to find an answer to this specific question. The answer usually demonstrates that there are specific factors that motivate people to travel. The tourism theories that are discussed in this section are Gray's travel motivation theory, Maslow's need theory and travel motivation, push and pull factors as motivation for travel, socio-psychological motivations for travel, personal-interpersonal motives, Cohen's tourist typologies, Plog's psychographic theory, basic travel motivators, expectancy theory and other reasons why people travel.

3.3.1 Gray's travel motivation theory

Gray classified the motives for pleasure travel in 1970 as sunlust or *wanderlust* (Gray, 1970 as cited in Ritchie, 2003:30). Gray defines sunlust as being the natural attractions that motivate people to travel to other destinations such as climate, relaxation and rest. Saayman (2001:10) identified some of the characteristics that a person may have when travelling for sunlust. These characteristics are summarised in Table 3.1, and shows that sunlust tourists usually travel for holiday purposes and are drawn to local attractions and natural characteristics such as climate. According to Saayman (2001:10), additional characteristics include visiting one country, either rest

or high activity and, importantly, travel is not viewed as an important consideration after arriving at the destination.

On the other hand, Gray defines *wanderlust* as "*that basic trait in human nature which causes some individuals to want to leave things with which they are familiar and to go and see at first hand different exciting cultures and places*" (Ritchie, 2003:30). *Wanderlust* thus motivates people to travel because of cultural aspects. Saayman (2001:10) also identifies the characteristics of a person that travels for *wanderlust* in Table 3.1. Such a person's motivation is opposite to that of a person travelling for sunlust in the sense that that they visit more than one country and travel is an important consideration throughout the visit. Additionally, *wanderlust* tourists do not travel to relax or be active, they travel for more educational purposes and different cultures and cuisine attracts these people to a destination. All the characteristics of *wanderlust* and sunlust are summarised in Table 3.1 below.

Table 3.1 Characteristics of sunlust and *wanderlust*

Sunlust	***Wanderlust***
Refuge, holiday	Tourist business
Visit one country	Visit probably more than one country
Local attractions attract travellers	Different cultures and art of cooking attract travellers
Natural characteristics such as climate	Physical characteristics where climate is less important
Travel is an insignificant consideration after arrival at destination	Travel is an important consideration throughout the visit
Either rest and relax or very active	Not relaxed or sporting - rather educational
Relatively more local travels	Relatively more international journeys

Source: Saayman (2001:10)

Espinoza (2006) states that the *wanderlust*-sunlust motives assist in understanding why nature tourists travel, but confusion between person-specific and resort-specific attributes exist in the theory. He states for this reason that Gray's model only partially assists in understanding what motivates a person to travel.

3.3.2 Maslow's need theory and travel motivation

Maslow builds his thesis on the assumption that human needs are organised in a hierarchy (Stephens, 2000:2). Human needs for survival are at the lower or more basic levels and self-actualisation is at the top level. This is illustrated in Figure 3.1 below.

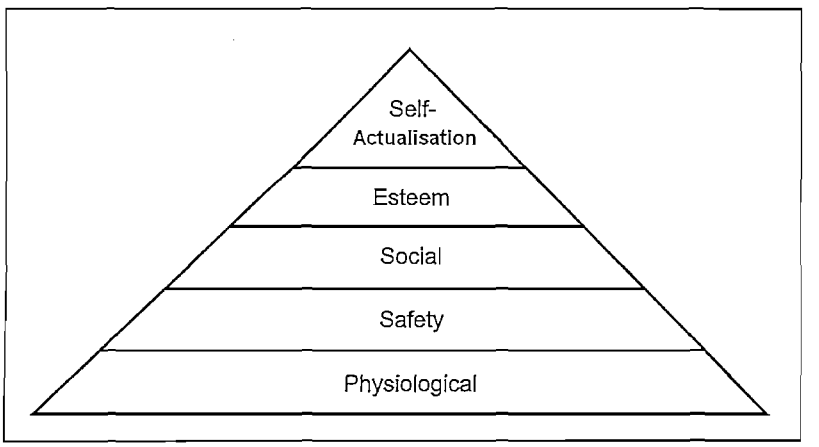


Figure 3.1: Hierarchy of needs
Source: Stephens (2000:2)

When lower level needs such as physiological needs are satisfied, higher level needs become more important in determining human behaviour. When lower level needs remain unsatisfied, higher level needs such as self esteem, creativity and innovation remain stagnant (Stephens, 2000:2). Physiological needs include food, shelter, temperature, oxygen and hunger while safety needs encompass security, physical safety and freedom from anxiety (Saayman, 2001:14). Social, esteem and self-actualisation are some of the higher level needs that motivate human behaviour when the lower level needs are fulfilled. The social need is the feeling of belonging to a group, while self-actualisation is the need for a feeling of personal self-fulfilment. How does Maslow's hierarchy of needs explain why people travel?

Sharma (2004:174) states that there exists an increasing level of literature that is built upon the work of Maslow to identify motivations of travel that go beyond the idea of "*needing to get away from it all*". Pearce (1988, as cited by Goeldner and Ritchie, 2006:256) expanded on Marlow's hierarchy of needs to develop the travel-needs ladder. This travel-needs ladder can be seen in Figure 3.2 below.

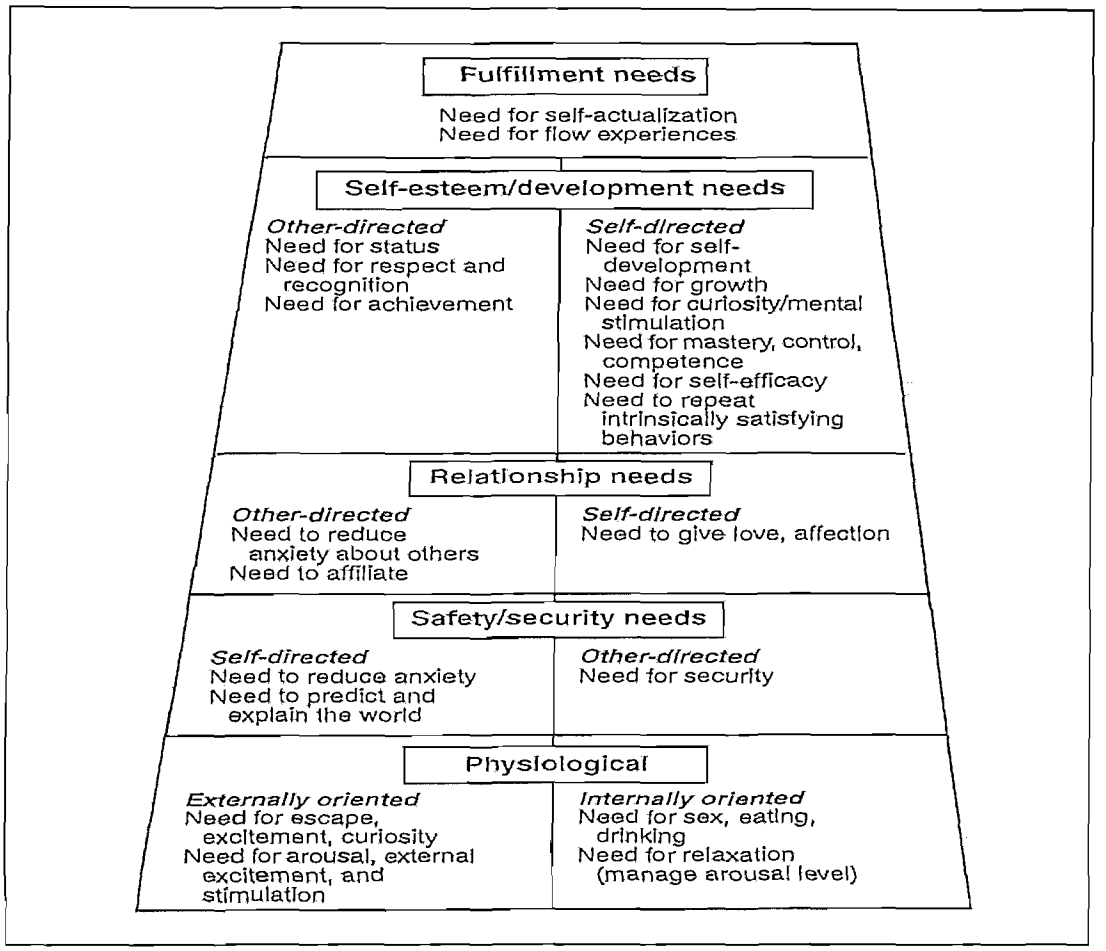


Figure 3.2: The travel-needs ladder

Source: Goeldner and Ritchie (2006:256)

The travel-needs ladder of Pearce (1988, as cited by Goeldner and Ritchie, 2006:256) has the same basic principle as Maslow's hierarchy of needs: the lower needs of the traveller have to be satisfied before the traveller can move on to higher level needs. Physiological needs and safety/security needs are at the bottom of Figure 3.1 as well as Figure 3.2. Where Maslow identified physiological needs such as food, shelter, hunger and so forth, Pearce, in his travel-needs ladder, used those needs to identify the externally motivated need for travel. Thus, the physiological need for eating and drinking could motivate a person to travel due to externally motivated needs for escape, curiosity and excitement. Similarly, where Maslow identified safety needs, Pearce identified a need to reduce anxiety and a need to explain the world as motivations for travel. Social needs, which Pearce renamed relationship needs, could motivate travel because of the need to reduce anxiety about others and the need to associate. When these lower needs are satisfied, higher level needs such as self esteem and self-actualisation (renamed by Pearce in the travel-needs ladder as fulfillment needs) become more important. Self-esteem needs can motivate travel because of a need for status or respect. While fulfillment needs may motivate a person to travel due to a need for a flow of experiences.

Goeldner and Ritchie (2006:256) state that the travel-needs ladder explains why people are motivated to experience tourism. The needs theory of Maslow has come under some critique. Trigg (2004) states that Maslow's theory can be socially critiqued for downplaying social interactions and placing too much importance on the individual self, in isolation from culture and education. Maslow's theory has also been criticized for its economic applications that utilise a needs-based approach at the bottom of the hierarchy, but replace it at the higher end with more social and evolutionary approaches (Trigg, 2004). All things considered, Maslow's need theory and motivation still contributes to the explanation of why people travel. Other motivations for travel are the "push" and "pull" factors. These push and pull forces will be discussed in the following section as a reason why people travel.

3.3.3 Push and pull factors as motivation for travel

Push and pull factors have been identified as another possible explanation as to why people travel (Dann, 1977). Push factors can be seen as motivational factors inside a person that motivate a person to travel, while pull factors are factors outside a person that motivate a person to travel such as features, attractions or attributes of a destination (Kim, Lee and Klenosky, 2003).

Dann (1977) states that people travel because of compelling urges that push or pull them towards travel. The four most common push factors found in studies were: escape from everyday environment, novelty, social interaction and prestige (Kim, Lee and Klenosky, 2003). Yoon and Uysal (2005) explain that push motivations are connected with internal and emotional aspects whereas pull motivations are related to external, situational, or cognitive aspects. Crompton (1979) identified some of the push motivations as relaxation, prestige, enhancement of kinship relationships and social interaction. Pull motivations are encouraged by how appealing a destination is, for example the beaches, recreation facilities, cultural attractions, entertainment, natural scenery, shopping and parks (Yoon and Uysal, 2005). Push and pull factors are an important concept in tourism motivation literature and many researchers have based their empirical research upon this concept.

Uysal and Jurowski (1994) explore the relationship between push and pull factors for pleasure tourism and find high associations between push and pull factors in a canonical correlation analysis. This is a very important finding, because previously push factors were examined in isolation from pull factors. Uysal and Jurowski (1994) thus show that a relationship between push and pull factors exists, and the factors can simultaneously influence a person's decision making to travel. While the internal force pushes someone to travel, the external force simultaneously pulls a person to travel. The findings of the study done by Kim, Lee and Klenosky (2003) support the results obtained by Uysal and Jurowski who reported a link between push and pull factors.

Uysal (1994: 144-145) also investigated the competitive environment of the overseas travel market wishing to attract the experienced German travel market. Uysal (1994:144-145) ranked the most important motivational push and pull forces exerted on German visitors. The results are shown in Table 3.2.

Table 3.2 Rankings of motivational push and pull factors

Five most important push factors	**Five most important pull factors**
Experiencing new and different life styles	Interesting and friendly local people
Seeing and experiencing a foreign destination	Outstanding scenery
Being free to act the way you feel	Warm welcome for tourists
Finding thrills and excitement	Warm and sunny climate
Getting a change from a busy job	Environmental quality of air, water, and soil
Five least important push factors	**Five least important pull forces**
Participating in sport	Golf and tennis
Roughing it	Casinos and gambling
Reliving past good times	Fishing
Watching sporting events	Snow skiing, downhill, cross country
Visiting places my family came from	Hunting

Source: Uysal (1994:144-145)

Uysal (1994: 144-145) found the most important push factors that attract German visitors include a new/different life style, experiencing a foreign destination, being liberated to act the way you feel, thrills and excitement and a change of pace from a busy job. However, when examining other push factors that motivate travel, the response is small to participating in sport, roughing it, reliving past good times, watching sporting event and visiting places their families came from. Pull factors (which are encouraged by how appealing a destination is) that are most attractive to German tourists are friendly local people, scenery, warm welcome for tourists, sunny climate and quality of air, water and soil. The pull factors that German visitors do not really care for are golf and tennis, casinos and gambling, fishing, snow skiing and hunting.

Yoon and Uysal (2005) took another approach by examining the relationship between the push and pull motivations, satisfaction and destination loyalty for Northern Cyprus, in the Mediterranean region. Their proposed hypothetical model is visualised in Figure 3.3 below.

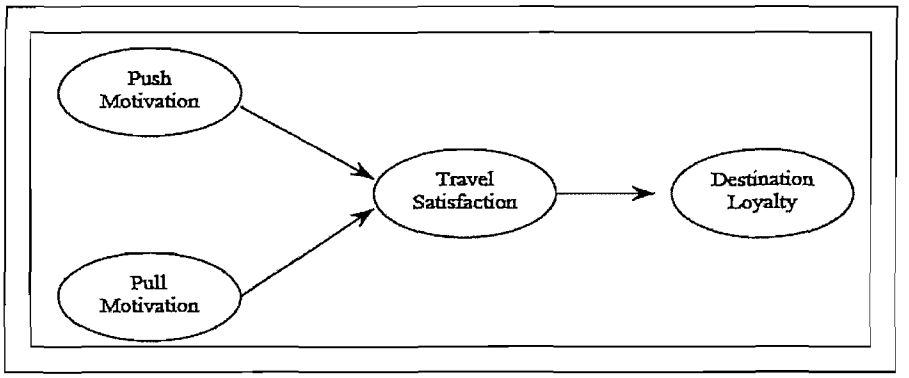


Figure 3.3: Yoon and Uysal's hypothetical model

Source: Yoon and Uysal (2005)

Yoon and Uysal (2005) find that a relationship exists between push/pull motivations and destination loyalty. They state (hypothetically) motivation influences tourist satisfaction which then affects destination loyalty. This means that push and pull factors are more than tourists' needs and wants. According to Yoon and Uysal (2005), push and pull factors are needed for human actions and can be represented as a travel satisfaction that leads to future destination loyalty. Their findings suggest that it would be advisable for destination managers to invest in their tourism destination resources to increase the experience for the tourist.

It is thus clear that push and pull factors play a role in motivating people to travel. More importantly, these push and pull factors work together to stimulate the urge for travel and therefore they should not be examined separately. Several other studies have also been completed regarding push and pull factors theory of motivation. These studies include Crompton's nine motives as well as Iso-Ahola's personal-interpersonal motives. These motive theories will now be discussed in the following section as an elaboration of the push and pull factors theory of motivation.

3.3.4 Socio-psychological motivations for travel

Crompton (1979) conducted research to identify the motives which influence the selection of a destination for pleasure vacationers. Crompton (1979) emphasises that socio-psychological motives can be located along a disequilibrium continuum. Crompton's theory is useful because it introduces logical and temporal sequencing, while empirically allowing modelling techniques that can be used to identify motivation for tourism (Saayman, 2001:14). In the motivation study, Crompton (1979) interviewed 39 individuals and empirically identified nine motives where seven were identified as socio-psychological. The two remaining motives, novelty and education, formed the alternate cultural category.

The seven socio-psychological motives identified are:

- Escape from a perceived mundane environment
- Exploration and evaluation of self
- Relaxation
- Prestige
- Regression
- Enhancement of kinship relationships
- Facilitation of social interaction.

Crompton (1979) states that people go on vacation to satisfy a variety of these different motives. These socio-psychological factors can be seen as "push" factors, because they "push" tourists to travel to other destinations. Saarinen (1998) states that these needs are consequences of modernisation and other community transformations rather than complete explanations in themselves.

However, as stated by Crompton and McKay (1997), it is important to identify tourists' motives for the following three reasons:

- Motives assist in developing offerings for tourists.
- Motives relate directly to the satisfaction that the tourist seeks.
- Prioritising motives assists tourism marketers and travel planners to understand the decision process of travellers.

It was stated earlier that socio-psychological factors can be seen as "push" factors because the internal psychological factors "push" people into travelling. Iso-Ahola's personal-interpersonal motives also work under these push and pull factors and will be discussed in the following section.

3.3.5 Personal-interpersonal motives

Iso-Ahola (1982) suggests a two-dimension theory of tourist motivation. This theory proposes that two motivational forces influence the person's behaviour at the same time. These two motivational forces include "*escaping*" and "*seeking*" that simultaneously influence the individual's behaviour. The "*seeking*" component encourages a person to seek intrinsic rewards by travelling, while the "*escaping*" component involves getting away from routine everyday life (Norman and Carlson, 1999). "*Seeking*" and "*escaping*" are further divided into personal and interpersonal components. By escaping personal environments, tourists try to avoid personal problems and when tourists seek personal rewards it means they are striving for personal competence (Norman and Carlson, 1999). By escaping interpersonal environments, tourists try to avoid routine commitments. When tourists seek interpersonal rewards it means they participate in activities that encourage social contact (Norman and Carlson, 1999). This theory can be graphically illustrated in Figure 3.4 below.

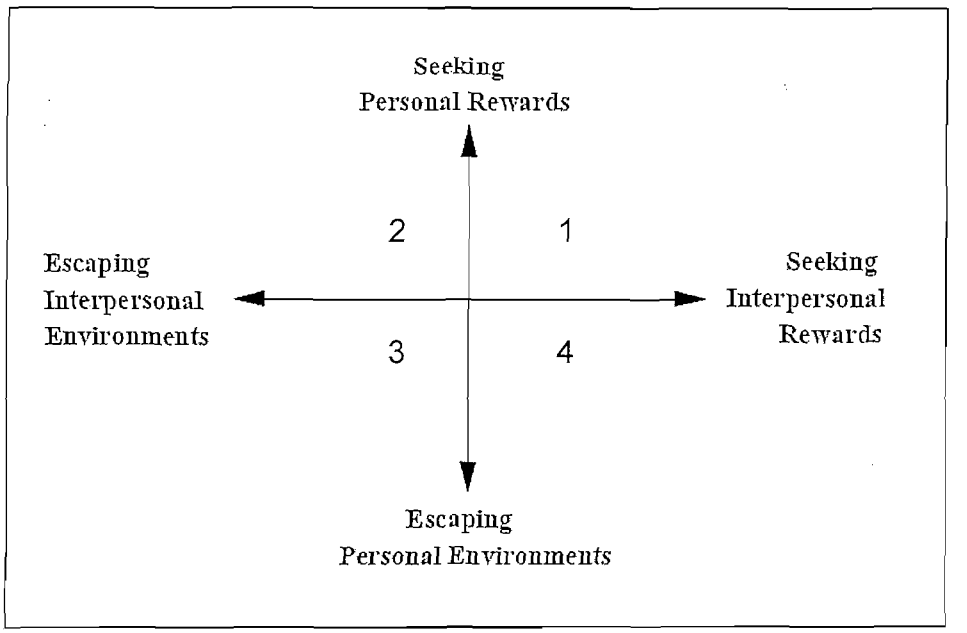


Figure 3.4: Seeking and escaping dimensions of Leisure motivation developed by Iso-Ahola
Source: Norman and Carlson (1999)

Figure 3.4 illustrates the different quadrants that may serve as motivation for travel where a traveller may move from one quadrant to another. These quadrants can be explained as follows (Saayman, 2001: 9):

Quadrant 1: This component is known as "*seekers*" and includes tourists seeking interpersonal rewards (activities that encourage social contact) and seeking personal rewards (personal competence).

Quadrant 2: This quadrant includes tourists that want to escape interpersonal environments (avoid routine commitments) and are seeking personal rewards (personal competence).

Quadrant 3: This component is known as "*escapers*" and includes tourists escaping personal environments (attempting to avoid personal problems) and escaping personal environments (avoiding routine commitments).

Quadrant 4: This quadrant includes tourists that want to escape their personal environment (avoid routine commitments) and seek interpersonal rewards (activities that encourage social contact).

Norman and Carlson (1999) set out to test Iso-Ahola's (1982) theory empirically. They sought the answers to three very important questions:

- Can individuals be segmented into four categories such as suggested by Iso-Ahola?
- Do the resulting segments accurately capture an individual's travel motives?
- Are the resulting seeking-escaping groupings useful as a tourism market segmentation tool?

To find the answers to these questions, Norman and Carlson (1999) conducted a survey from a list of inquirers to a regional tourism destination marketing organisation in the Southeastern United States. The survey consisted of 1 984 individuals for the period July 6, 1995 to June 30, 1996. They find that the seeking-escaping model can be created with the responses to four motive statements and these segments reflect the groups identified by Iso-Ahola (1982). Their study confirmed that seeking and escaping travel motives can be a segmentation base for tourists' motives as proposed by Iso-Ahola (1982).

Patridge (1998) also tested Iso-Ahola's escaping and seeking theory. Patridge (1998) focused on the examination of issues concerning nature-based tourism, the nature-based tourist, and bird-watching as a nature-based tourist activity by using a cross-section of population data for May and June 1997. The results supported Iso-Ahola's theory that the two motivational forces simultaneously have an influence on tourist behaviour. The results also portrayed the dominance of one dimension over another within a specific tourist group/setting.

The seeking and escaping dimensions of leisure motivation, developed by Iso-Ahola, assists in explaining why people travel and empirical evidence support these findings. Iso-Ahola (as cited by Goeldner and Ritchie, 2006:255) emphasises the importance of the individual's feelings of self-determination and competence to ensure travel motivation and satisfaction. Cohen used another method, namely investigating the experiences tourists seek and distinguishing between four types of travellers, to explain why people travel. His theory will be discussed in the following section.

3.3.6 Cohen's tourist typologies

Cohen (1972) distinguished between four types of travellers:

- **The organised mass tourist:** This tourist is highly organised with minimal contact with the host community in a destination. This tourist is low on adventurousness and is often on a package holiday.
- **The individual mass tourist:** This tourist is more flexible than the organised mass tourist and desires to visit other sights not covered on organised tours in the destination.
- **The explorer:** The traveller in this category plans their trip independently and wants to experience the social and cultural lifestyles of the destination. This traveller seeks comfortable accommodation and reliable transport.
- **The drifter:** This kind of traveller wants to get away from familiarity at home and does not want to make contact with other tourists. This traveller prefers to live amongst the local people and absorb the local culture.

By identifying these different types of travellers, it is possible to derive the different motives of each of these travellers. Organised mass tourists and individual mass tourists are sub-divisions of institutionalised tourists. They desire comfort and safety and rely on the tourism industry to provide it (Banerjia, 2008). The explorer and drifter on the other hand, are sub-divisions of non-institutionalised tourists and prefer next to no contact with the tourism industry (Banerjia, 2008). Cohen (1972) believes that most tourists are attracted to novelty and strangeness, but some tourists still need something familiar around them. Novelty and strangeness can thus be seen as motivation for tourists. From the tourist typologies, rest, relaxation and exploring different cultures can also be described as possible motivations for travel.

Pearce (1982, as cited in Sharma, 2004:175) states that Cohen's tourist typologies suffers from shortcomings, since it ignores the diversity of holidays undertaken and inconsistencies in tourist behaviour. Cohen's typologies can also not be tested empirically. An elaboration of Cohen's typologies was developed by Smith (1978) who divided tourists into seven groups with respect to their volume and their adaptation to the local situation. These groups were identified as explorer, elite, off-beat, unusual, incipient mass, mass and charter. This is also on the same scale as Cohen (1972) with explorer and charter. Smith was concerned with the cultural impact of tourism on a destination. In contrast, Plog identified different tourists in 1974 by using his psychographic theory and by doing that, identified tourist motivation. Plog's psychographic theory will now be discussed in the next section.

3.3.7 Plog's psychographic theory

Plog classified the U.S. population in 1974 into psychographic types, with travellers distributed along a continuum (Sharma, 2004:176). Plog's psychographic position of destinations is shown in Figure 3.5 below.

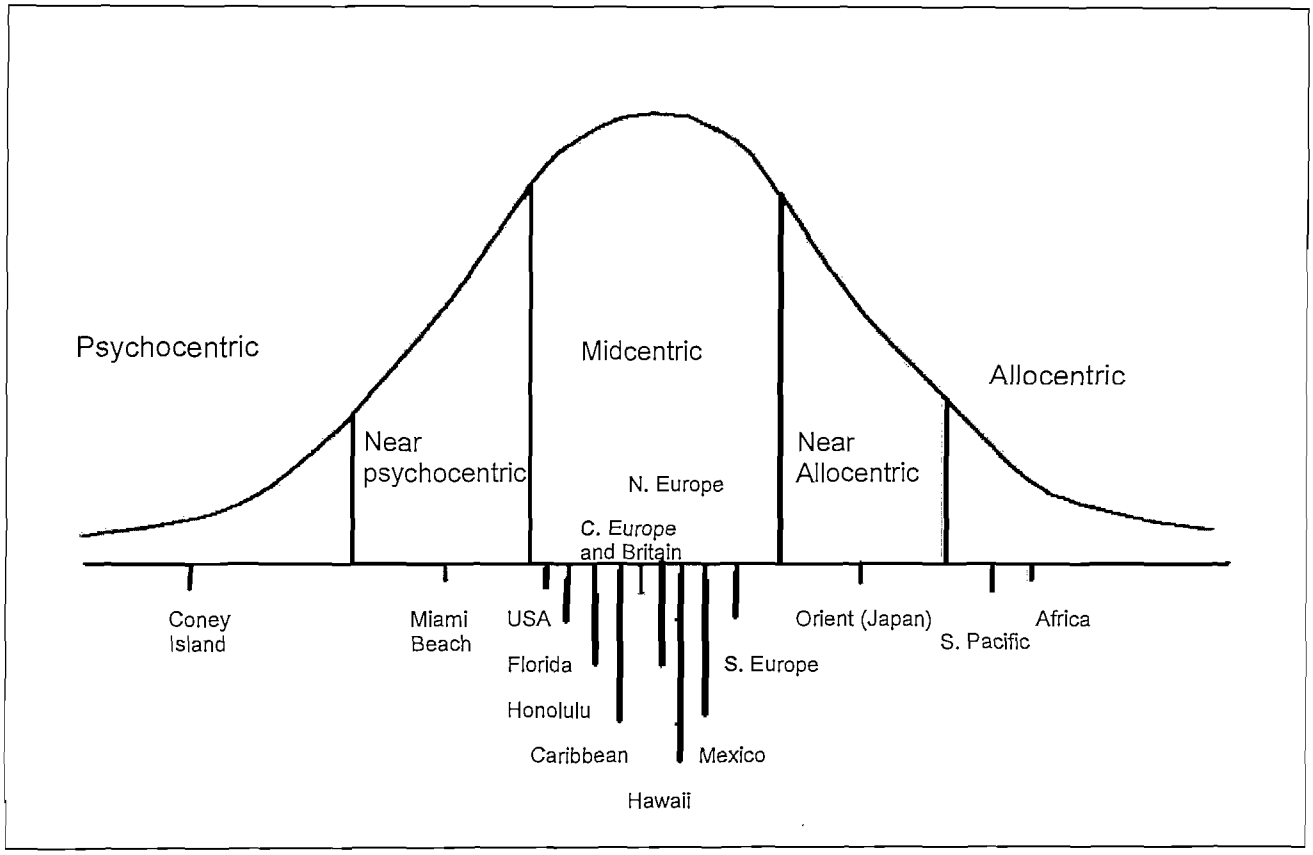


Figure 3.5 Plog's psychographic position of destinations

Source: Sharma (2004:176)

As seen in Figure 3.5, travellers can be classified as psychocentric, allocentric or somewhere in the middle of these two extremes. Psychocentrics are anxious, inhibited and less adventurous travellers while allocentrics are adventurous travellers who are outgoing and seeking new experiences (Sharma, 2004:176). Allocentrics are likely to visit adventurous destinations such as Africa, while less adventurous travellers will most likely stick to destinations close to home. By classifying travellers into these different groups, it is possible to determine what motivates them to travel.

Goeldner and McIntosh (1990:146) identified some of the motivations for the different psychographic groups. These motivations are shown in Table 3.3 below. Allocentrics who are outgoing, adventurous travellers are motivated by adventurous aspects such as the search for exotic places and developing friendships in foreign places. Gambling and a sense of freedom also motivate allocentric people to travel. Near-allocentric people see travel as a chance to experience a new lifestyle. They are motivated by sporting events, religious pilgrimages, hiking, diving, theatres and special entertainment. Psychocentrics or near-psychocentrics, which are the complete opposite of allocentrics, are motivated to travel by aspects such as ego-enhancement, a quest for status, to be socially comfortable or travel as a cultural norm. Travellers that are

somewhere in the middle of the two extreme psychographic groups, psychocentric and allocentric, are called midcentric. Midcentric tourists are motivated by relaxation, pleasure, a need for change and the opportunity to escape or family/personal matters.

Table 3.3 Motivations for the different psychographic groups

Allocentric	Near-allocentric	Midcentric	Near-psychocentric and psychocentric
Education and cultural	Religious pilgrimages or inspiration	Relaxation and pleasure	Ego enhancement, quest for status
Search for the exotic	Sporting events and activities	Health- change in climate, medical treatment	Travel for acceptance, to be comfortable socially
Gambling – Monte Carlo, Las Vegas	Travel as a challenge such as hiking or diving	Need for change for a period	Travel as a cultural norm - paid vacations required by law
Development of new friendships in foreign places	Business travel, conventions, meetings	Opportunity to escape life's problems	Visit to places seen or read about in the news
Satisfaction and sense of freedom	Theatre tours, special entertainment	Beauty - parks, forests, ocean shores	Visit to amusement parks
Sharpening perspectives	Chance to try a new lifestyle	Family or personal matters	

Source: Goeldner and McIntosh (1990:146)

Plog's model did suffer some criticism however Pearce (1995, as cited in Sharma, 2004: 176) states that Plog's model is difficult to use because it does not distinguish between extrinsic and intrinsic motivations without including a dynamic element to cover the changing nature of travellers. Goeldner and McIntosh (1990:148) state recognition of the fact that the world has changed a great deal since Plog introduced his model. However, they concede that Plog's pioneering efforts should not be overlooked and that his model nevertheless provides a way for examining travel. Goeldner and McIntosh (1990:131) also identified their own motivators for why people travel. These motivators will be discussed in the next section.

3.3.8 Basic travel motivators

Goeldner and McIntosh (1990:131) state that another important consideration when evaluating tourist motivations is that a person may travel for more than one reason. They divide the basic travel motivators into four categories, and state that more than one category can simultaneously

influence a person's decision to travel. The following four categories are identified by Goeldner and McIntosh (1990:131) with respect to travel motivators:

- **Physical motivators:** These motivators are important because they lead to a reduction of stress through physical activities such as rest, sport performances, relaxing and other activities that promote an individual's health.
- **Cultural motivators:** These motivations are linked to the craving to learn more about other cultures and areas. Cultural motivators include learning more about another culture's food, music, art, folklore, dances, paintings and religion.
- **Interpersonal motivators:** These motivators include an aspiration to meet new people, visit friends or relatives and escape from every day's routine and familiar people. It is a desire to seek new and diverse experiences.
- **Status and prestige motivators:** These motivators are linked to ego enhancement, education and the desire for recognition, attention, knowledge and a good reputation. In this category, travels could include business, conventions, hobbies or education.

Ritchie (2003:31) identifies travel and educational motives as being physical, cultural, social, spiritual and fantasy motives. Physical, cultural and social motives are closely related to the basic motives identified by Goeldner and McIntosh (1990:131). As identified by Ritchie (2003:31), spiritual and fantasy motives include the following:

- **Spiritual motivators:** These motivators include visiting places and people for religious reasons such as a pilgrimage to "find oneself".
- **Fantasy motivators:** These motivators are linked to the personal excitement that travel generates and sensual indulgences that are both real and imagined.

Another possible theory that could contribute to explaining what motivates people to travel, is the expectancy theory proposed by Victor Vroom in 1964. This theory will be examined in more detail in the following section.

3.3.9 Expectancy theory

The expectancy theory was developed by Victor Vroom and deals with motivation and examines why people choose a specific course of action from a motivational perspective (Droar, 2006). The expectancy theory includes three variables (Droar, 2006):

- **Valence:** This is the importance that a person places upon the expected outcome of a situation. It can be seen as the value, worth or attractiveness of an outcome.
- **Expectancy:** This is the belief that there is a relationship between the output of the situation and the success of a situation.

- **Instrumentality:** This is the belief that the success of the situation is connected with the expected outcome of the situation.

This theory is applicable to any situation where someone does something because they expect a certain outcome (Droar, 2006). The expectancy theory can thus also apply to tourism motivation. Espinoza (2006) reinforces this idea by stating that behaviour depends on the traveller's belief that the valence of an outcome (a type of holiday taken) is useful to achieve another outcome (such as rest, knowledge, and desire for new experiences) with a greater valence. For example, if a traveller goes to a beautiful natural setting, the traveller has the belief that there is a relationship between the outcome of the situation (experiencing nature) and the success of the situation (intrinsic value and attractiveness). The instrumentality is to attain physical and psychological recovery from tension (Espinoza, 2006). Vroom's expectation theory is presented graphically in Figure 3.6 below.

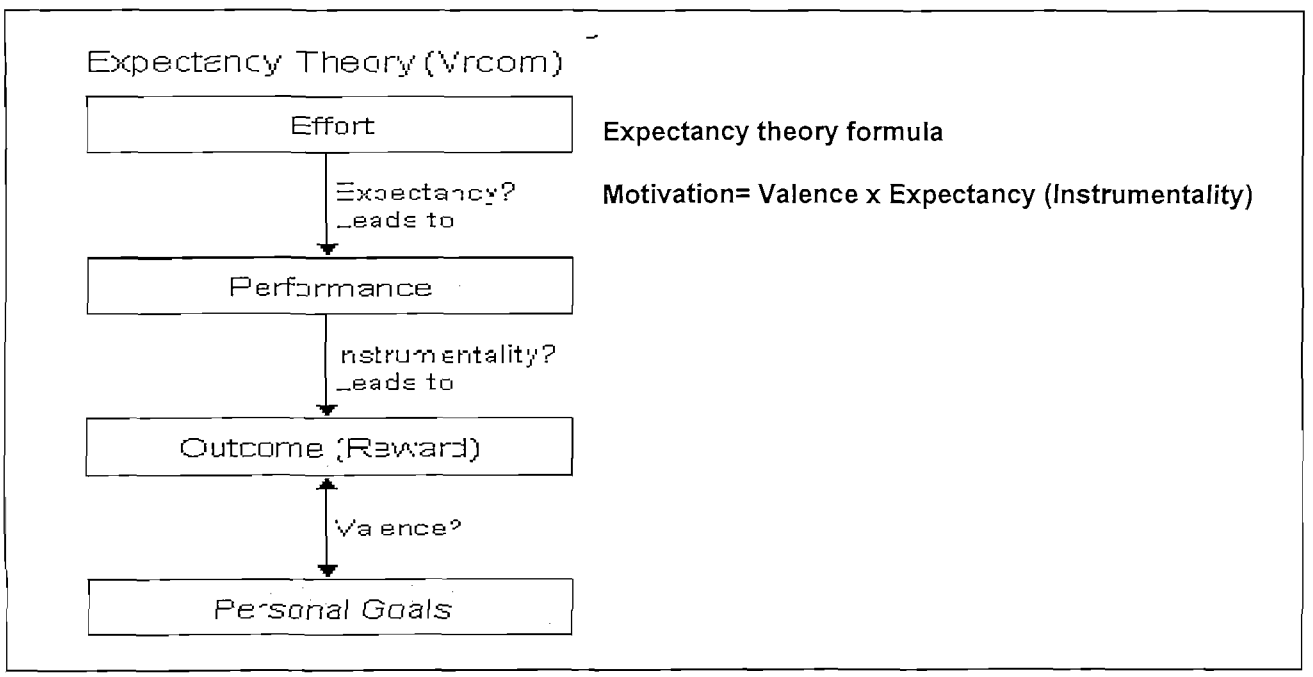


Figure 3.6 Vroom's expectancy theory

Source: (Anon., 2008c)

Figure 3.6 shows that a traveller's belief about expectancy, instrumentality and valence creates a motivational force which encourages persons to travel and attain their personal goals. The expectancy theory formula is also present in Figure 3.6. The formula shows how to calculate the motivational force by using the three variables identified by Vroom. Espinoza (2006) comments on this theory by stating that the expectancy theory provides a good outline for analysing tourist motivation, but the complexity of the theory makes it hard to use the model to predict an

individual's behaviour. However, various other reasons can also explain why people travel. These reasons will be examined in the next section.

3.3.10 Other reasons why people travel

Mokhtarian and Salomon (2001) state that, under conventional wisdom, travel is a derived demand, however under certain circumstances, travel is desired for its own sake. Their empirical results from a study with more than 1900 residents of the San Francisco Bay Area suggest evidence for a positive utility for travel. In their study more than three-quarters of the sample stated that they often travel "*just for the fun of it*". Another possible reason why people travel could thus be just because it is fun and they like to travel to another place.

Dann, Larsen and Mehmetglu (2001) conducted a study with a somewhat different nature. They studied seven solo travellers in the Norwegian Lofoten islands in order to determine what the motivation is for people travelling alone. They identified two groups of travellers - those that travel alone because they have no travel companion and those that travel alone because they want to. The motivations for solo travellers to travel to different places were identified by Dann *et al.* (2001) as being ease, experience, flexibility, freedom, exploration, absence of a travel companion, prestige, sex, spontaneity, temporal considerations, guilt avoidance, solitude and selective contact.

MacPherson, Guérillot, Streiner, Ahmed, Gushulak and Pardy (2000) state that people travel for the following possible reasons:

- The globalisation of the world's economy
- Marketing for tourism
- International humanitarian activities in response to natural and human disasters.

Additionally, the tourism product could also motivate people to travel. (Saayman, 2001:65) identifies the product as: "*the total tourism facilities that the infrastructure and suprastructure offer to the destination*". Thornton and Feinstein (2005) state that a tourism product refers to what tourists perceives they are purchasing and these products can be divided into tangible and intangible components. They identify tangible products as natural and cultural assets and attractions (such as beaches, museums), basic infrastructure (such as airports, roads, trains) and tourism infrastructure and services (such as accommodation, catering, transport). Intangible products they identify as being leisure activities, image and symbolic values (concerning lifestyle, self-esteem and status). These tourism products play an important role in motivating people to travel.

Another possible reason why people might travel is for shopping. Kent, Shock and Snow (1983), state that while shopping is seldom mentioned as the prime reason for travel, it is perhaps the most general tourist activity. Shopping is the second most important expenditure item in international and domestic tourism, while in some markets (such as Hong Kong) shopping is more important than accommodation and is listed as the most important tourist expenditure (Reisinger and Turner, 2000). Reisinger and Turner (2000) state that there are many reasons for considering shopping as a tourist activity. These include that shopping creates a motive for travel, it creates an attractive tourist product, it creates an inviting environment for tourists and shopping creates delight and excitement for the tourist.

So far, the reasons why people travel have been discussed in terms of psychological motives, push and pull factors and other reasons such as shopping and the globalisation of the world's economy. These reasons for travel are important, but are difficult to model in tourism demand models. What are the most renowned reasons for travel that can be used in tourism demand models? This will be discussed in the following section.

3.3.11 Reasons for travel in terms of tourism demand models

Lim (1997) did a study where tourism demand models were reviewed with regards to sample sizes, model specifications, types of dependent and explanatory variables and the number of explanatory variables that were used. Lim (1997) reviewed 100 published studies where most of these studies were published in the 1980's. Her study found that the most popular dependent variables that were used in the 100 published studies included tourist arrivals/departures and expenditures/receipts. The most frequently used explanatory variables included income, relative tourism prices, exchange rates and transportation cost. Thus, income, tourism prices, exchange rates and transportation costs may also be viewed as reasons why people choose to travel. Additionally, these reasons are easier to portray in tourism demand models because data are available for these reasons.

Oh and Ditton (2005) also performed a similar study to Lim (1997). They explored the most important explanatory variables in modelling tourism demand by using aggregated data on international tourism demand in Korea. Their results found that tourism prices with exchange rate and relative consumer price index are the best variables when modelling tourism demand. Additionally, Saayman and Saayman (2008) conducted a study to identify the determinants of inbound tourism to South Africa for the period 1993 to 2004. They used cointegration analysis in a multivariate framework and found that income, relative prices and travel cost are strong determinants of tourist arrivals. In their study they used gross domestic product (GDP) as a proxy for income, the real exchange rate as a proxy for relative prices and the price of crude oil and jet fuel as a proxy for travel costs. They also find that climate and capacity are important for tourist

arrivals. Saayman and Saayman (2008) used sunshine days in Cape Town as a proxy for climate in their study. Thus, climate (sunshine days) can be seen as another reason why tourists choose to travel.

3.3.12 Conclusion: travel motivations

This section was devoted to answering the question: "why do people travel?" Many possible reasons were given. Gray (1970, as cited in Ritchie, 2003:30) suggested sunlust and wanderlust as possible reasons why people travel. Maslow's hierarchy of needs was given as another possible reason why people travel. Pearce (1988, as cited by Goeldner and Ritchie, 2006:256) then expanded on Maslow's hierarchy of needs by developing the travel-needs ladder to further explain the motivation to travel. Push and pull motivators were then discussed which included the socio-psychological motivations for travel as identified by Crompton (1979) as well as Iso-Ahola's personal-interpersonal motives. Cohen's tourist typologies, Plog's psychographic theory and Vroom's expectancy theory were also discussed as motivators for travel. Goeldner and McIntosh (1990:131) identified the basic travel motivators while other reasons for travel included shopping, the globalisation of the world's economy, marketing for tourism, international humanitarian activities in response to natural and human disasters and travelling "*just for the fun of it*". Lastly, the reasons why people travel with regard to tourism demand models were identified. The reasons why people travel were identified as income, tourism prices, exchange rates and transportation costs. Now that it is evident what could possibly motivate people to travel, it is important to discuss the relevant theories of tourism development. These theories will be discussed in the following section.

3.4 Theories of tourism development

Tourism has grown exceedingly in size and importance over the years. International tourist arrivals for January 2007 to August 2007 were estimated at 610 million travels (UNWTO barometer, 2007). This demonstrates that tourism is an industry not to be taken lightly. In the beginning of this chapter, possible definitions were given for tourism, but what is tourism development? Howard (2006) defines tourism development as "*the differential process of formal and informal sector spatial development that is specifically associated with servicing tourism and associated socioeconomic activity*". Tourism development may instigate a series of impacts on social aspects, culture, socioeconomics, the environment and politics (Howard, 2006). Howard (2006), states that as tourism has grown to play a major role in the global economy, tourism development has impacted on economic, socio-cultural and socio-environmental aspects of host communities. However, not all regions develop at the same pace (or at all) with respect to tourism and the economy. It is thus important to discuss the relevant theoretical background. Three main theories explain the patterns of tourism development. The three tourism development theories that will be

discussed are the diffusionist paradigm, dependency theory and the formal and informal sector analysis.

3.4.1 The diffusionist paradigm

Howard (2006) lists three main elements of the diffusionist theory:

- Development is unavoidable.
- Development occurs in distinct stages.
- At some point development will spread from the central to secondary areas.

Two main theories are prevalent under the diffusionist paradigm. These are the development stage theory and the diffusion theory and are discussed below.

(a) Development stage theory

This theory assumes that tourism development occurs in certain distinct stages and the developing countries will be at the same stage of development (at some future time) in which developed countries are today (Batta, 2000:42). This theory is based upon the five stages of economic growth as proposed by Rostow (1960, as cited in Oppermann, 1993). The five stages have been linked to tourism evolution and include the traditional society, the preconditions to take off, take off, drive to maturity and age of high mass consumption (Batta, 2000:42). In "the traditional society" stage only the privileged have enough money and time for pleasure travel. As economic development occurs, the number of social classes that can enjoy tourism increases up until the stage of "age of high mass consumption" where all social classes can participate in tourism (Oppermann, 1993). It is suggested that the involvement in tourism by the local population is linked to the level of industrial development of the economy (Batta, 2000:42).

(b) Diffusion theory

This theory is based on A.O. Hirschmann's hypothesis of balanced development and assumes that at some point development will spread from the developed areas to the less developed areas (Batta, 2000:43). To effectively eradicate backwardness, growth poles must be developed which can either be whole cities or an economic sector which is thought to have a high multiplier effect (Batta, 2000:43). By using this theory, it is assumed that tourism not only has a positive impact on the economy, but that tourism can also be seen as a mechanism in the development of peripheral areas (Oppermann, 1993). Oppermann (1993) states that because tourism consumption occurs at the place of production it has, through its connections with other industries (i.e., agriculture, building), a possible multiplier effect on the host economy. However, to what degree tourism actually encourages development remains a highly-contested debate (Batta, 2000:44).

3.4.2 Dependency theory

The diffusion theory led to frustration because the multiplier effects were significantly lower than expected due to high import rates (Oppermann, 1993). This gave rise to the dependency theory.

The dependency theory states that tourism is built up by the developed countries in the developing countries to maintain the dependency of the developing countries and worsen the existing socio-economic disparities within developing countries (Batta, 2000:44). This theory entails that, as visitor numbers rise and the host community integrates into the global tourism industry, more foreign ownership becomes present in local industries and few locals end up receiving economic benefits (Milne and Ateljevic, 2001). Tourism also brings crucial foreign investment to developing countries which deepens dependence on the developed countries and causes instability in the host economy if tourism falters (Batta, 2000:45).

It is worth noting some of the critique against the dependency theory. Milne and Ateljevic (2001) state that this theory fails to take into account the possibility that local government, industries and individuals can maintain a level of control over their own destinies. Another critique was launched by Oppermann (1993) where he states that the dependency theory addresses mostly mass tourism and, thus only one sector of international tourism in developing countries is examined. With respect to the diffusionist paradigm and the dependency theory, Howard (2006) states that both of the paradigms in all probability have elements that are true for tourism development in general. However, Howard (2006) emphasises that these paradigms are dependent on the specific location of development because what may be prevalent in one area may not be prevalent in the other.

3.4.3 The formal and informal sector analysis

Oppermann (1993) states that all the above-mentioned theories have one thing in common, namely they neglect to discuss drifter tourism. He believes that the differentiation of tourism into a "*formal or upper circuit*" sector and an "*informal or lower circuit*" sector has important spatial and economic implications. These two different sectors have different characteristics which generate certain impacts (socio-economic, the environment and politics) on the host economy. The characteristics of the two tourism sectors are summarised in Table 3.4 below.

Table 3.4 Characteristics of the formal and informal tourism sectors

Characteristics	**Formal sector**	**Informal sector**
Capital	Abundant	Limited
Technology	Capital-intensive	Labour-intensive
Organisation	Bureaucratic	Primitive
Ownership	Companies	Individual, Family
Prices	Generally Fixed	Negotiable
Inventories	Large quantities and/or high quality	Small quantities- poor quality
Fixed costs	Substantial	Negligible

Advertisement	Necessary	Almost none
Credit	Institutional	Non- institutional
Turnover	Large	Small
Profit Margin	Small per unit and investment costs	Large per unit and investment costs
Education	Skilled	Unskilled
Regular Wages	Prevalent	Less prevalent
Government Aid	Extensive	None or almost none
Dependence on Foreign Countries	Great, externally oriented	Small or none

Source: Oppermann (1993)

From Table 3.4 it can be seen that the formal sector is very dependent on foreign exchange while the informal sector has more integration with the local economy. The formal sector is also characterised by capital abundance, capital-intensity, company ownership, high turnover, skilled workers and government aid is extensive. In contrast, the informal sector is characterised by limited capital, labour-intensity, family or individual ownership, low turnover, unskilled workers and government aid is almost non-existent.

Oppermann (1993) states that the formal and informal sector are in competition with each other, but that biased views of the government towards the formal sector will lead to the eradication of the informal sector. Oppermann (1993) then concludes that the impact of the formal sector is limited to a few resorts in the area of capital cities while the distribution of the informal sector is much wider and the impacts on the regional economic structure is greater. Oppermann (1993) thus identifies that the informal tourism sector has a higher multiplier-effect on the local economy which could lead to greater tourism development. Howard (2006) adds that formal sector development results in higher economic leakages out of the local area compared to the informal sector which has lower economic leakages.

Howard (2006) states that, as tourism has grown to play a major role in the global economy, tourism development has impacted on economic, socio-cultural and socio-environmental aspects of host communities. As is evident when examining the tourism development theories, not all these impacts are positive. The World Tourism Organisation (2003) to the European Commission stated that tourism has become one of the most important development sectors of the international economy by generating higher growth, job opportunities, and investment and trade activities. There is no doubt that tourism has positive impacts on host economies, but not all of these positive impacts are felt by everyone in the host country. Just like trade, tourism thus has its advantages

and disadvantages. It is important to discuss these to create a realistic picture of what tourism can and cannot do for the local economy as well as the global economy. These advantages and disadvantages of tourism will be discussed in the following section.

3.5 Advantages and disadvantages of tourism

Tourism not only brings advantages for the economy and local community, but brings certain disadvantages as well. These advantages and disadvantages will now be identified and discussed.

3.5.1 Advantages of tourism

The activities which tourists are involved in may bring with them a number of advantages. These advantages include:

a) **Increased employment:** Vellas and Bécherel (1995:218) state that tourism, in industrialised as well as developing countries has created many jobs because of various industries directly linked to tourism such as hospitality, transport, accommodation, entertainment, and travel agencies as well as related services such as administration, finance and health. MacLeod (2004:105) seconds this and adds that tourism has also increased the opportunities for women in the labour market. This could assist in increasing gender equality in certain countries. Vellas and Bécherel (1995:220) reveal that employment statistics show that the percentage of women employed in the tourism industry is usually more than 50 percent. The Word Travel and Tourism Council (2007) states that tourism is one of the world's largest industries. The Word Travel and Tourism Council (2007) estimates that travel and tourism will create nearly 10 million new jobs in the near future for the world economy and in 2007 ensured approximately 238 million jobs for people in the international tourism industry.

b) **Increased income:** When tourists leave their home country to visit a foreign country, they shift their expenditure patterns from their home country towards the foreign country (Khan, 2006). This means that the country which is visited receives income because tourists spend their money there. A higher level of income improves the quality of life and improves standards of living. Goeldner and Ritchie (2006:387) explain that tourist spending generates an economic effect that is a specific number of times what was initially spent (the multiplier effect). They state that this effect is an income multiplier because tourist expenditure becomes income, directly and indirectly, to local people.

c) **Increased supply of foreign exchange:** Spending by tourists visiting another country leads to a much needed supply of foreign exchange (Goeldner and Ritchie, 2006:32). Faulkner, Moscardo and Laws (2000:321) state that where tourism is a major earner of

foreign currency it adds a supply to the foreign exchange market. Furthermore, they explain that this reduces the cost of foreign currency below what it would otherwise be or put differently; increases the value of the domestic currency beyond what it would have been. Berno and Bricker (2001) find that tourism is one of the five top export categories for 83 percent of countries and the major source of foreign exchange for no less than 38 percent of them.

d) **Increased infrastructure development:** As the tourist industry grows, businesses grow which leads to more infrastructure and superstructure being constructed (Goeldner and Ritchie, 2006:388). Vanhove (2005:173) states that transportation networks, water quality and sanitation facilities may have been improved to cater for the tourist industry (or because of income derived from the tourist industry), but the infrastructure development also benefits other sectors of the economy. Brohman (1996) emphasises the importance of developing major infrastructure (roads, airports, electrical grids, and water supply), not only to serve resorts and the tourism industry, but also to meet the needs of the broader economic and social community.

e) **Promotion of cultural preservation:** Goeldner and McIntosh (1990:151) call attention to the fact that tourism promotes cultural relations and international cooperation. They state that tourism promotes knowledge and understanding of other cultures and creates a favourable image of the nation among tourists. This in turn encourages the nation to preserve its culture. Cultural and social factors may include (Goelder and Ritchie, 2006:265):

- Dress/clothing
- Language
- Architecture
- Art/music
- Leisure
- Religion
- History.

One of the cultural aspects that were highlighted by Goelder and Ritchie (2006:265) was history. Goelder and Ritchie (2006:265) state that there are tourists who specifically go to destinations to visit its historical resources. They emphasise the importance of preserving the history of nations to ensure successful tourism.

f) **Promotion of nature conservation:** In addition, the World Tourism Organisation (2003) to the European Commission stated that where tourism is the principal service sector it generates not only gender equality, employment and cultural preservation but also nature conservation. Nature conservation is thus of high priority where tourism is concerned. Saayman (2001:55) states that natural environment assets are important in attracting tourists, but stresses that these assets must not be made profitable at the cost of conservation. Tourists visiting a country to see their natural environment assets could encourage the country to protect their environment which includes conservation of nature and wildlife. Brohman (1996) encourages nations to develop standards and regulations for environmental and cultural impact assessments in order to make informed tourism-related decisions to promote nature conservation.

g) **Investment stimulation:** Goeldner and McIntosh (1990:278) recognise that the tourism industry in fact comprises a large number of very small units which covers different service sectors such as small restaurants, motels, guest houses, laundries, arts and craft shops and so forth. They state that investment in infrastructure and superstructure by government stimulates investment in small businesses. Additionally, Goeldner and McIntosh (1990:278) state that an initial investment in tourism attracts larger investments in supporting and tertiary industries such as major hotels, restaurants, shopping complexes, marinas, airports and so forth.

h) **Increased tax revenue:** Tourists pay taxes in the form of sales tax, airport tax, exit fees, customs duty and charges for granting visas (Goeldner and McIntosh, 1990:278). This means more income for the host government to possibly spend on social projects, education, housing, and in general a better living for its people.

A number of possible advantages have been mentioned and discussed. In addition, Goeldner and Ritchie (2006:32) mention other possible positive effects of tourism. They state that tourism:

- Expands educational and cultural horizons and develops feelings of self-worth.
- Endorses a global community that values international understanding and peace.

Unfortunately, tourism doesn't only consist of advantages and positive effects. If not managed well, tourism may also have its disadvantages and be harmful to the economy, community and environment. These disadvantages will now be discussed.

3.5.2 Disadvantages of tourism

The disadvantages of tourism are:

a) **Marginal employment:** Employment is one of the positive effects of tourism. However, many jobs created in tourism are mainly for semi-skilled and unskilled workers which means low wages and low benefits (such as health care) that do not necessarily mean a higher quality of life (Vellas and Bécherel, 1995:218). Another problem of employment in the tourism industry is that many of the jobs are part-time and some of the jobs are based on seasonality (Vanhove, 2005:203). Vanhove (2005:203) states that the seasonality of employment in the tourism industry differs from country to country, but that it ultimately makes employment in tourism less attractive. As mentioned earlier (section 3.5.1), MacLeod (2004:105) states that tourism has also increased the opportunities for women in the labour market. Ayoub (1998) interviewed women in Costa Rica and found that a woman's social class determines whether or not she will be exploited in the tourism industry. When Ayoub (1998) talked to the people of Costa Rico the overall view was that tourism was bad, because it caused alcoholism, as well as created jobs such as prostitution and drug dealing, which resulted in social problems for the community.

b) **Cultural destruction:** Goeldner and McIntosh (1990:151) call attention to the fact that tourism promotes cultural relations and international cooperation which, in turn, encourages the nation to preserve its culture. However, Brohman (1996) recognises that contact with the indigenous culture tends to be packaged rather than spontaneous with mass-produced artefacts. This may lead to resentment by the local people who feel that the visitors view their culture as entertainment (Goeldner and Ritchie, 2006:300). The following is a statement by a native Hawaiian at a church-sponsored conference on Third World tourism (quoted in Pfafflin, 1987:577 as cited in Brohman, 1996): "*We don't want tourism. We don't want you. We don't want to be degraded as servants and dancers. This is cultural prostitution. I don't want to see a single one of you in Hawaii. There are no innocent tourists*".

c) **Environmental destruction:** Vellas and Bécherel (1995:235) state that tourism may damage the natural environment due to the urbanisation of natural sites, the development of access infrastructures and the pollution of rivers and beaches. Many countries believe their infrastructure is not sufficient to control the damage caused by tourism and that tourism is a threat to wildlife and vegetation (Vellas and Bécherel, 1995:235). The United Nations Environment Programme (UNEP, 2008) lists three main impact areas of tourism. These three impact areas and the damage they can cause (as listed by UNEP, 2008) to the

environment are discussed below in Table 3.5. These are: natural resources, pollution and physical impacts. Firstly, tourism could influence natural resources by leading to depletion of water supplies (overuse of water by hotels), the depletion of local resources (pressure on resources such as food) and land degradation (because of construction). Secondly, tourism could cause pollution such as air pollution and noise (from transportation emissions), solid waste, littering and sewage. Thirdly, tourism could also cause physical impacts such as construction and infrastructure development (which causes soil erosion), marina development (which causes coastline changes) and trampling (which causes loss of organic matter). It is thus evident that tourism could have a vastly negative impact on the environment.

Table 3.5: The three main impact areas of tourism

1. Natural resources	2. Pollution	3. Physical impacts
Depletion of water resources: The tourism industry overuses water for hotels, swimming pools and golf courses.	**Air pollution and noise**: Increase in tourism leads to air and noise pollution from transportation emissions.	**Construction and infrastructure development:** This may cause beach and sand dune erosion, soil erosion, land degradation and loss of wildlife habitats.
Depletion of local resources: Tourism places pressure on resources such as food, energy and raw materials.	**Solid waste and littering:** Increase in tourism causes problems with waste disposal. This can pollute the water and shoreline and cause the death of marine animals.	**Marina development:** Marinas and breakwaters can cause changes in currents and coastlines.
Land degradation: Construction due to tourism places pressure on land resources such as forests.	**Sewage:** Hotels and other facilities for tourists may lead to increased sewage pollution which can cause the death of humans and animals.	**Trampling:** When tourists use the same trail repeatedly they trample the vegetation and soil which causes loss of organic matter and ground cover.

Source: The United Nations Environment Programme (2008)

d) **Over-dependency on tourism:** There are countries in the Caribbean where a staggering 50 percent of the working population is employed in the tourism sector or in an interrelated industry (Vellas and Bécherel, 1995:235). Macleod (2004:106) studied tourism in La Gomera (a Canary Island fishing settlement) where he found that if tourists were to disappear completely, at least half of the businesses would instantly collapse, while the

remaining businesses would struggle to remain open. Many third world countries have developed an over-dependency on tourism which reduces tourism's potential for generating expansive-based growth and the financial advantages that tourism brings to developing economies (Brohman, 1996). When a country is too dependent on a specific industry, such as tourism, for income it may cause volatility in the markets of that economy. Tourism is influenced by local and world events. If world events create a negative sentiment for travelling and tourism levels then suddenly decrease, for a country which is dependent on tourism, economic conditions will worsen in that country.

e) **Foreign domination:** Many of the financial advantages that should go to the host country with regards to tourism opportunities never reach the local inhabitants of that country. Many people that are employed in the tourism industry are foreigners. According to Vellas and Bécherel (1995:235) the proportion of foreigners employed in the tourism industry in Germany reached 25 percent; while in a developing country such as Cameroon, 32 percent of hotel and catering employees are from elsewhere. Brohman (1996) states that an additional negative impact of foreign domination has been the failure of the Third World tourism industry to retain control over local resources. The advantages that these local resources should bring are then lost, because is the resources are foreign controlled. Brohman (1996) adds that decisions that influence people in the host community are then made elsewhere according to the narrow interest of those that control the tourism industry.

f) **Increase in inflation:** When the inflow of tourists increases dramatically during a specific season, it could lead to an increase in the prices of many goods and services in the tourist region (Vanhove, 2005:175). Haralambopoulos and Pizam (1996) investigated the impacts of tourism by interviewing residents of the Greek island of Samos. They find that prices of goods and services worsen as a result of tourism and places continuing strain on the community. Vanhove (2005:175) states that retailers increase the prices of goods and provide more expensive goods because tourists can afford to buy goods at higher prices. Additionally, an increase in tourism raises the demand for land which makes land prices higher (Vanhove, 2005:175). Thus, local residents are forced to pay more for homes.

In addition to the disadvantages already mentioned, Goeldner and Ritchie (2006:301) also mention possible positive negative effects of tourism. They state that tourism:

- May result in unbalanced economic development.
- Commercialises culture, religion, and the arts.
- May add to disease, economic fluctuations and transportation problems.
- May create racial tension where racial differences between tourists and their hosts exist.

- Sometimes creates change in local ways of life that are too rapid because of being overwhelmed by too many tourists.
- May cause financial leakages when revenues arising from tourism activities "*leak away*" from the destination country to another country. This could be due to tourism-linked goods and services that are imported to the destination country.

It is thus clear that tourism not only consists of advantages, but consists of certain disadvantages as well. However, Goeldner and Ritchie (2006:32,301) state that these negative effects of tourism can be eliminated or minimised by intelligent planning and management. In the next section the current global tourism patterns will be explored.

3.6 Current global tourism patterns

The previous sections discussed what tourism is, why people travel, tourism development, and the advantages and disadvantages of tourism. This contributed to a basic understanding of what tourism entails and where tourism *came from.* What is now important to discuss is where tourism is *now* and where tourism *is going.* This will be done by examining international tourism trends. International tourist arrivals are discussed in section 3.6.1 and international tourism receipts in 3.6.2. In section 3.6.3 international arrivals and receipts by region are discussed. International tourism flows and the level of economic development is the topic of discussion in section 3.6.4. The main tourist destinations are explored in section 3.6.5 and tourism forecasts are explored in section 3.6.6.

3.6.1 International tourism arrivals

The United Nations World Tourism Organisation (UNWTO barometer, 2007) shows a steady upward trend in tourism arrivals since 1990. The UNWTO barometer (2007) statistics indicate that there were 436 million international tourist arrivals in 1990, which increased to 682 million in 2000, and 846 million in 2006. Vellas and Bécherel (1995:15) attribute the growth in tourist arrivals since 1970 to mass tourism which brought excessive numbers of tourists to certain zones, specifically coastal regions. A staggering amount of nearly 900 million international tourist arrivals were shown in 2007 which is nearly 52 million more arrivals than in 2006 (UNWTO, 2008). The upward trend in international tourist arrivals can be seen in Figure 3.7 below.

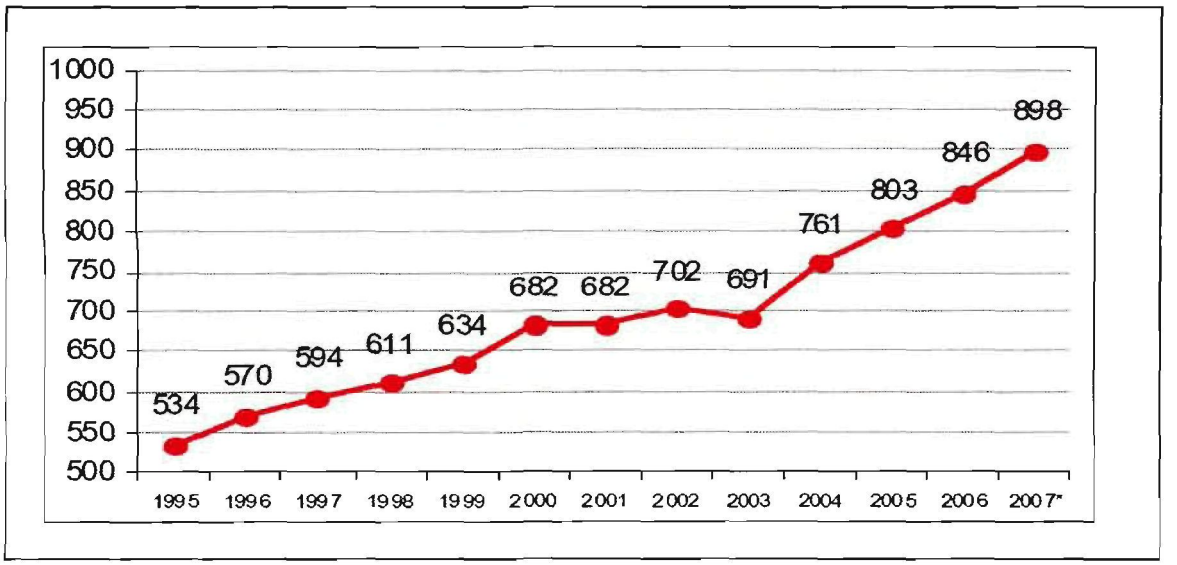


Figure 3.7: International tourist arrivals per million

Source: UNWTO (2008)

UNWTO (2008) states that when examining monthly data of international tourist arrivals, growth remained steady even through hardships in 2007 such as soaring fuel prices, exchange rate fluctuations, economic slowdown, credit crunch, natural disasters and isolated terrorist incidents. External factors seemed not to faze tourists.

Why did people travel? Figure 3.8 shows that just over 50 percent of people travelled for pleasure, 27 percent travelled to visit family, relatives or for health and religion while 16 percent travelled for business reasons. When examining the modes of transport (Figure 3.9) it can be seen that 46 percent of people travelled by air, 43 percent by road, 7 percent by water and 4 percent by rail. International arrivals by road can be attributed to intra-European distances where the road system is highly developed (Vellas and Bécherel, 1995:16). Water travel can be seen as ferries, for example between the UK and France and Belgium, between Italy and Greece, and between Sweden and Denmark (Vellas and Bécherel, 1995:16).

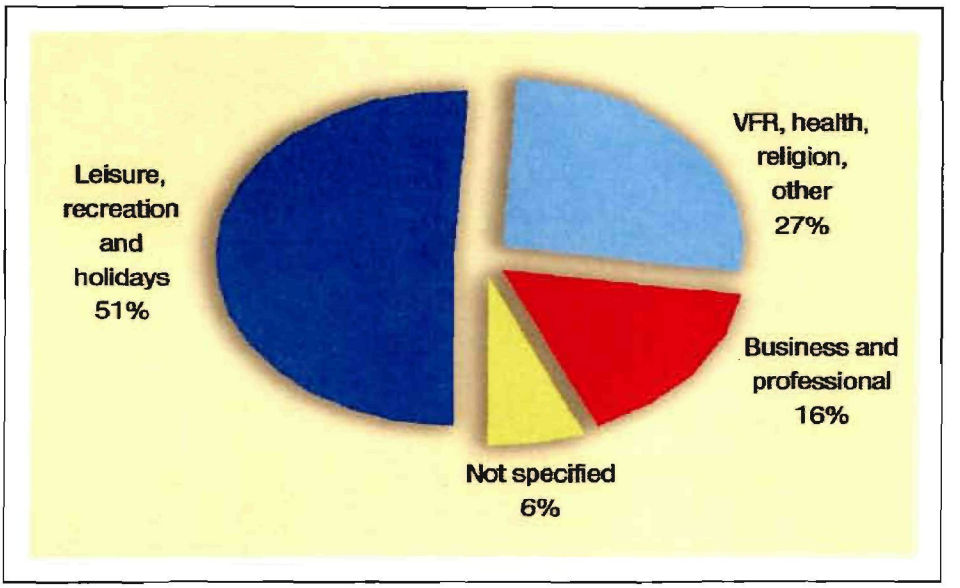


Figure 3.8: Purpose of international visits 2006

Source: UNWTO (2007)

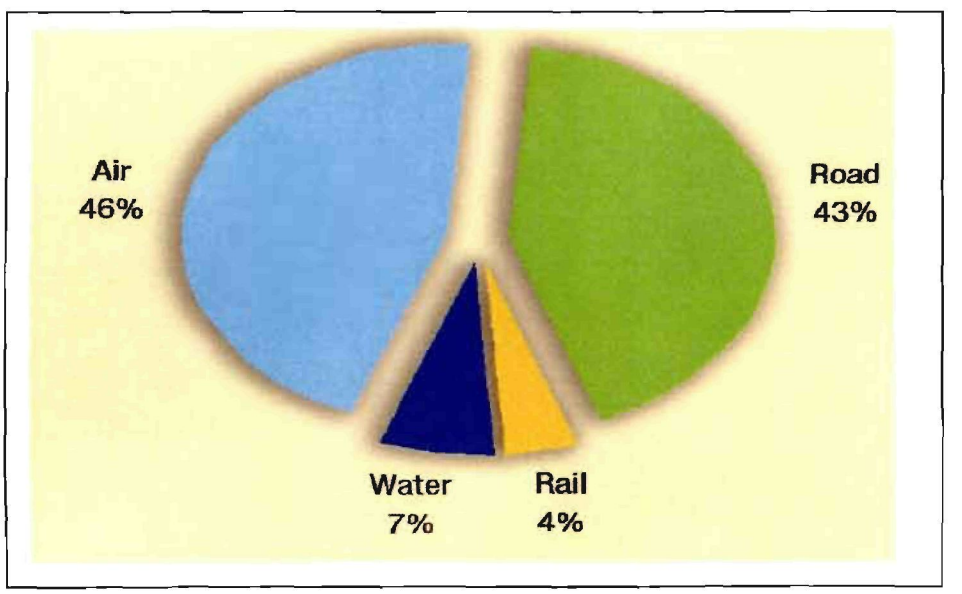


Figure 3.9: International arrivals by mode of transport

Source: UNWTO (2007)

3.6.2. International tourism receipts

International tourism receipts are defined as expenditures by international inbound visitors and include payments for international transport, lodging, food and drinks, fuel, transport in the country, entertainment, shopping, etcetera (Kester, 2005). Receipts include transactions carried out by tourists such as overnight/same-day visitors, as well as by same-day visitors such as excursionists and cruise passengers (Kester, 2005). Tourism receipts for 2006 reached $733 billion as can be seen in Table 3.6 below. (However, these do not include receipts from international passenger

transport contracted from companies outside the travellers' countries of residence, which are reported in a separate category, 'international passenger transport'.)

Table 3.6: International tourism receipts

	International tourism receipts (billion)					Change current prices (percent)		Change constant prices (percent)	
	1990	1995	2000	2005	2006	05/04	06/05	05/04	06/05
Local currencies						6.5	7.7	3.2	4.3
US$	264	405	474	676	733	7.5	8.3	4	5
Euro	207	310	513	544	584	7.5	7.3	5.2	5

Source: UNWTO (2007)

The UNWTO (2007) states that the growth in tourism receipts and arrivals is linked very closely to the difference in 2006, amounting to less than one percentage point. This relationship can be seen in Figure 3.10.

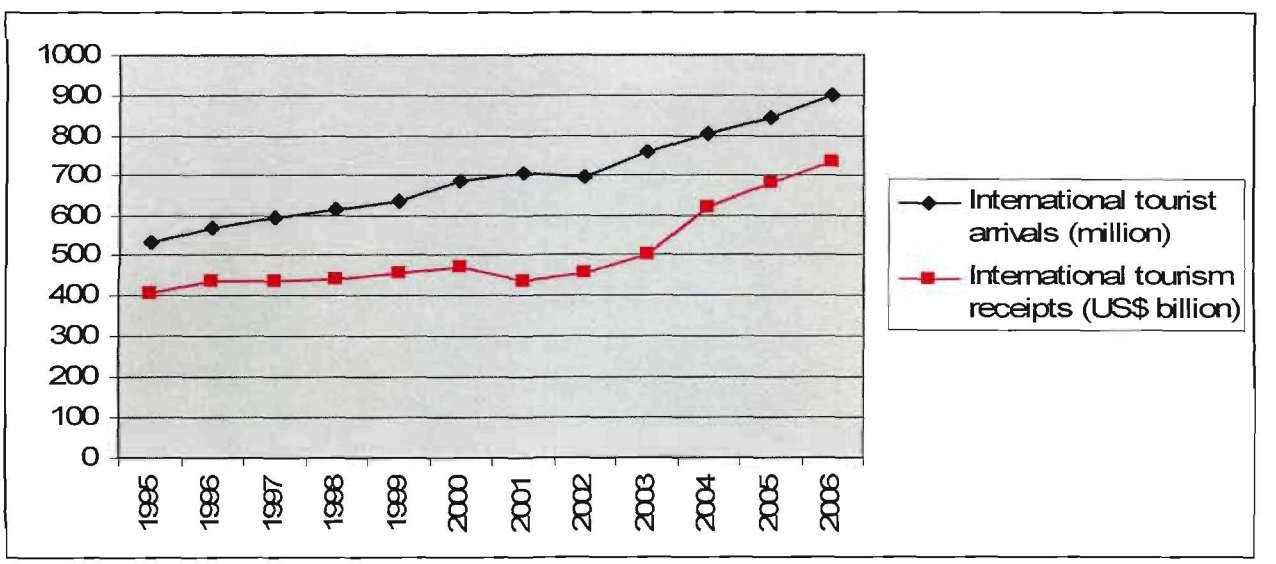


Figure 3.10: Inbound tourism: International tourist arrivals and international tourism receipts

Source: UNWTO (2007)

Vellas and Bécherel (1995:17) state that the first big crisis in the tourism sector was during 1991, when receipts increased by 1,06 percent while in contrast, arrivals fell. Vellas and Bécherel (1995:17) state that this standstill in tourism growth can be attributed to the Gulf War and the decrease in economic growth in most of the industrialised countries. In the period 1996 to 2000, international tourism receipts grew faster than international tourist arrivals (Goeldner and Ritchie, 2006:376). When examining Figure 3.10, it can be seen that international travel suffered during 2001 to 2003. After the September 11 attacks in 2001, people cut back on travel due to the anxiety caused by these events (Goeldner and Ritchie, 2006:374). The war in Iraq and terrorism impacted tourism negatively during 2000-2003. Soaring fuel prices, exchange rate fluctuations,

economic slowdown, credit crunch, natural disasters and isolated terrorist incidents are things that have had to be faced by tourism since then. However, as shown in Figure 3.10, both tourist arrivals and tourism receipts have shown a strong upward trend since 2004 which gives reason to be positive.

3.6.3 International arrivals and receipts by region

When examining international arrivals and receipts by region, it can be seen from Table 3.7, that Europe has the biggest market share, followed by Asia and the Pacific and Americas.

Table 3.7 International tourist arrivals and tourism receipts for 2006 (market share)

Tourist arrivals by region (2006)	Percentage share	Tourism receipts by region (2006)	Percentage share
Europe	54	Europe	51
Asia and Pacific	20	Asia and Pacific	21
Americas	16	Americas	21
Africa	5	Africa	3
Middle East	5	Middle East	4

Source: UNWTO (2007)

When illustrating Table 3.7 graphically, as seen in Figure 3.11 below, it can be seen that Africa and the Middle East have a very small share of international tourist arrivals as well as tourism receipts while Europe ultimately dominates the tourism sector.

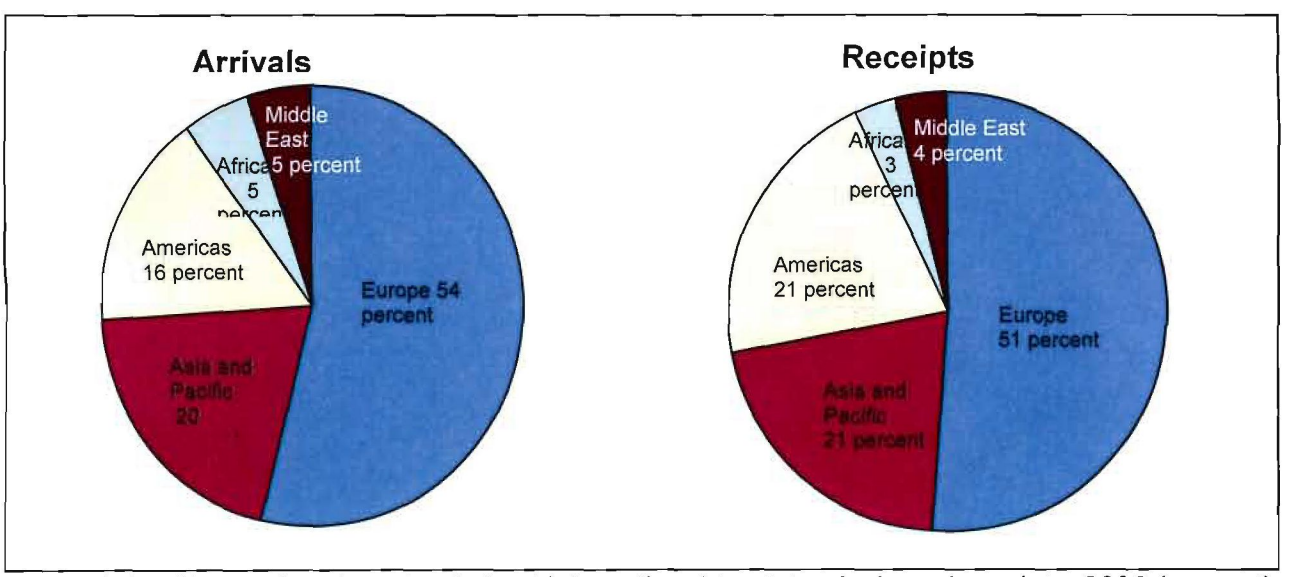


Figure 3.11: Share of each region in total international tourist arrivals and receipts, 2006 (percent)

By examining each of the regions separately, a better understanding can be obtained of how each region's market share has changed and what gave rise to this change. The international tourist arrivals and tourism receipts are obtained from UNWTO (2007) and can be seen in Table 3.8 below. International tourist arrivals are valued in millions of visits and international tourist receipts are valued in billions of dollars.

Table 3.8 International tourist arrivals and tourist receipts

	International tourist arrivals (visits mln)					International tourist receipts ($ bln)		
	1990	1995	2000	2005	2006		2005	2006
World	436	536	684	803	846	World	676	733
Europe	262.3	310.88	392.5	438.7	460.8	Europe	348.7	374.5
Asia and the Pacific	56.2	82.5	110.6	155.3	167.2	Asia and the Pacific	134.5	152.6
Americas	92.8	109	128.2	133.2	135.9	Americas	145.2	154
Africa	15.2	20.1	27.9	37.3	40.7	Africa	21.7	24.3
Middle East	9.6	13.7	24.5	38.3	41.8	Middle East	26.3	27.3

Source: UNWTO (2007)

Europe: Table 3.8 shows that 43 million additional tourists arrived in 2006 compared to 2005. Twenty-two million of those people visited Europe. Europe recorded a 5 percent growth rate in tourist arrivals. Tourist arrivals in Europe grew 4 percent from 2006 to 2007 and reached 480 million in 2007 (UNWTO, 2008). When examining tourism receipts, Figure 3.11 shows that Europe's share is 51 percent of the world total in tourism receipts (UNWTO, 2007). According to a report by European Tourism Insights (2006), Europe remains a popular destination for tourists because of its rich diversity of landscapes, cultures and historical attractions. The report further states that mega-events, which included the Winter Olympic Games in Turin, the FIFA Football World Cup in Germany, the Ryder Cup in Ireland as well as the 400th anniversary of Rembrandt's birth, Mozart's 250th anniversary and Picasso's 125th, gave European tourism a boost in 2006. Europe's main source markets for attracting tourism include France, Germany, Italy, the Netherlands, Russia and the United Kingdom (European Tourism Insights, 2006). Interestingly, these are mostly intra-regional, which means that Europe attracts most of its tourist arrivals from countries within the same region.

Asia and the Pacific: Of the 43 million increase in tourist arrivals from 2005-2006, 12 million were for Asia and the Pacific. Asia and the Pacific recorded an 8 percent growth in tourism arrivals from 2005 to 2006 and a 10 percent growth in tourist arrivals from 2006-2007 to reach 185 million tourist in 2007 (UNWTO, 2008). From Figure 3.11 it can be seen that Asia and the Pacific is on even ground with the Americas with a 21 percent share of the world total of tourism receipts. What is boosting tourism in Asia and the Pacific? The report by European Tourism Insights (2006) states that Asia and the Pacific are becoming increasingly popular (especially among Western markets) because these countries are more exotic and sometimes relatively cheaper to visit. The tsunami wreaked havoc in December 2004, but growth has been good in Asia's tourism industry since then. China's growth in tourist arrivals was the highest in the North-East Asia region (18 percent) due to the development of new hotels and casinos which resulted in more intra-regional tourism (UNWTO, 2007). South-East Asia, Thailand and Cambodia recorded a growth of 20 percent while India's growth in tourist arrivals reached 13 percent (UNWTO, 2007). The strong economic growth of

Asian countries such as China, India, Hong Kong and Singapore has created more disposable income which has resulted in a strong demand for tourism (UNWTO, 2008).

Americas: Of the 43 million increase in tourist arrivals from 2005-2006, 3 million were for the Americas. The Americas recorded 2 percent growth in tourists arrivals from 2005 to 2006, but 5 percent from 2006-2007 to reach 142 million tourist arrivals in 2007 (UNWTO, 2008). From Figure 3.11 it can be seen that the Americas' share of world tourism receipts is 21 percent. The reason that the Americas have such a large share of world tourism receipts is because they generally attract a greater number of high-spending tourists and business travellers (Vellas and Bécherel, 1995:18). The Americas was the weakest performing region in 2006 due to stagnating arrivals in Canada and Mexico. Arrivals were good for Central America, the Caribbean and South America. The reasons for the stagnating arrivals in Canada were due to high fuel prices, a poor exchange rate and United States border regulations (UNWTO, 2007). Stagnating arrivals in Mexico were a result of improvements to tourism facilities after damages caused by a hurricane in October 2005. The increase in tourist arrivals of 5 percent in 2007 can be partly attributed to the fact that the USA doubled its growth rate. The Americas are also very dependent on intra-regional tourism.

Africa: Of the 43 million increase in tourist arrivals from 2005-2006, 3 million were for Africa. Africa recorded 9 percent growth in tourist arrivals from 2005 to 2006, which was the highest growth of all the regions for that period. Africa then grew at 8 percent from 2006-2007 to reach 44 million tourist arrivals in 2007 (UNWTO, 2008). Even though Africa is growing fast as a tourism destination, Figure 3.11 paints a bleak picture when examining tourist arrivals and receipts. From Figure 3.11 it can be seen that Africa's share of worldwide international tourist arrivals is only 5 percent and Africa's share of world tourism receipts is a mere 3 percent. Vellas and Bécherel (1995:18) state that Africa is a weak tourism region compared to other regions because Africa doesn't have satisfactory infrastructure in order to develop its tourism industry. Morocco decided to change this and invested a great deal in tourism infrastructure and low-cost airlines (UNWTO, 2007). This resulted in growth of 7 percent for North Africa, while Sub-Saharan Africa grew at an impressive rate of 10 percent (UNWTO, 2007). However, even though Africa has a high growth rate in tourist arrivals, many of the tourist arrivals were due to intra-regional tourism and Africa still remains stricken in poverty.

Middle East: Of the 43 million increase in tourist arrivals from 2005-2006, 3 million were for the Middle East. The Middle East recorded 9 percent growth in tourist arrivals from 2005 to 2006. However, the Middle East recorded growth of 13 percent in tourist arrivals from 2006-2007 to reach 46 million tourist arrivals in 2007 (UNWTO, 2008). This was the highest growth of all the regions for this period. Even though the Middle East is growing fast as a tourism destination, Figure 3.11

paints the same bleak picture, when examining tourist arrivals and receipts, as is the case with Africa. From Figure 3.11 it can be seen that the Middle East's share of worldwide international tourist arrivals is only 5 percent and Africa's share of world tourism receipts is 4 percent. The Middle East crisis discouraged many tourists from visiting the region, but it seems that the Middle East recorded successful tourist numbers despite the Israel-Lebanon crisis. Tourist arrivals were recorded at 31 percent for Syria, 8 percent for Jordan and 16 percent for Yemen (UNWTO, 2007). What does this mean? How big is intra-regional trade? According to the United Nations (2006:40), Arab intra-regional tourism amounts to a significant portion of overall tourism. European and German tourists used to control the tourist market in Yemen, however, due to the political and security situation where tourists have been kidnapped in Yemen, Arab intra-regional tourism is now the primary market (the United Nations, 2006:40). This illustrates the great impact that the political crisis in the Middle East had on tourism.

3.6.4. International tourism flows and the level of economic development

It is evident from the previous section that some of the developing economies are growing faster with regard to tourism than developed countries. The Middle East recorded growth of 13 percent in tourist arrivals from 2006-2007, while Africa grew at a record 8 percent. Meanwhile Europe and the Americas recorded growth of 13 percent in tourist arrivals from 2006-2007. Figure 3.12 below confirms that the lower income countries are attracting tourists faster than the world as a whole.

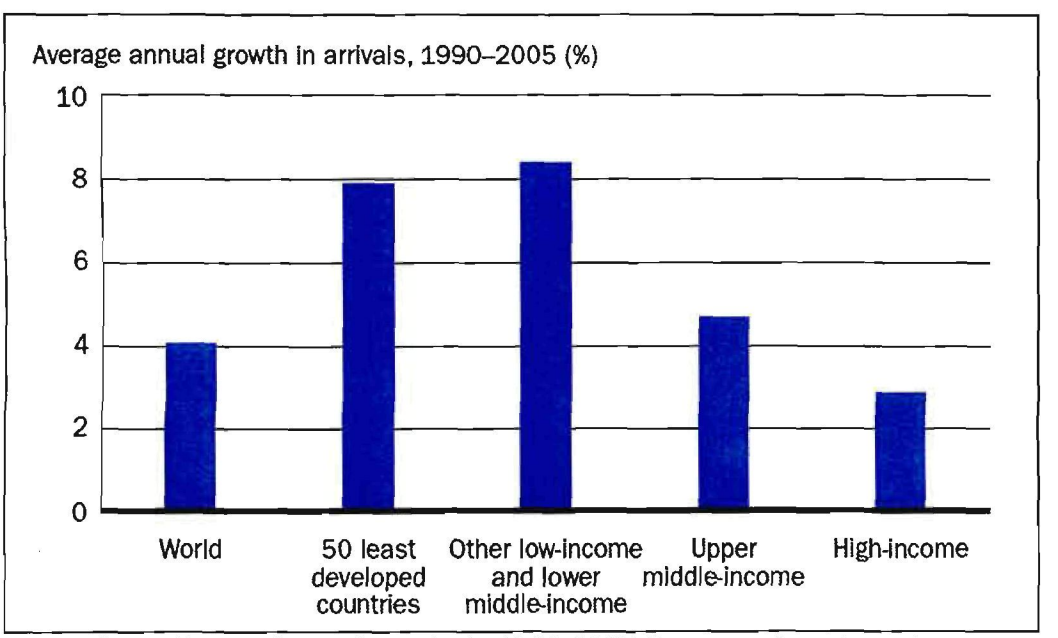


Figure 3.12: Growth in tourist arrivals 1990-2005 (in percentage terms)

Source: The World Tourism Organisation

Tourism is thus growing faster in developing countries. However, when examining the map in Figure 3.13, it becomes apparent that it is still the more developed regions such as Europe and the Americas which have the highest share of tourism receipts. The map in Figure 3.13 distinguishes between international tourist arrivals (ITA) and international tourism receipts (ITR).

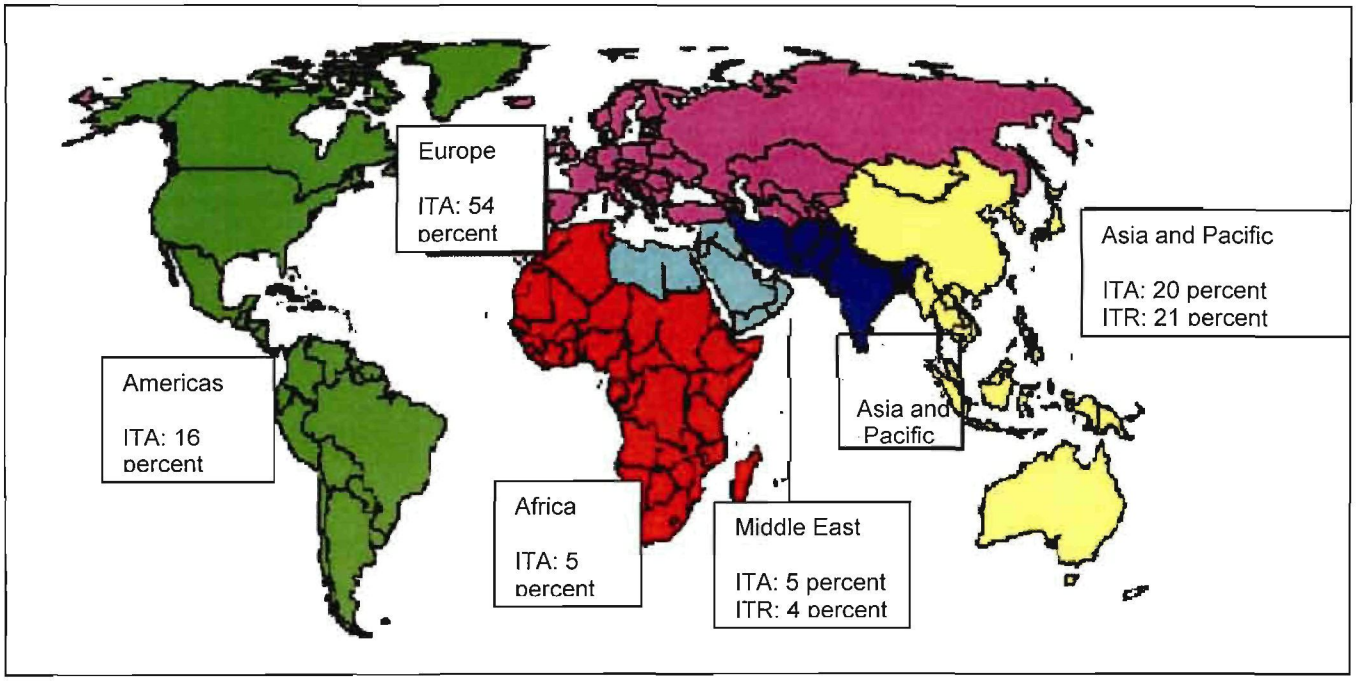


Figure 3.13: International tourist arrivals and tourism receipts according to region 2006 (map)
Source: World Tourism Organisation

The map in Figure 3.14 indicates the classification of countries according to income. When comparing this map with the map in Figure 3.13, certain phenomena become apparent. Africa may be growing fast in tourist arrivals, but it only has a 3 percent worldwide share of tourism receipts. When examining Figure 3.14, it can be seen that most countries on the African continent are low or lower middle income countries. Europe and most of the Americas are high income or upper middle income countries (Figure 3.14) and have the highest share of tourism receipts (Figure 3.13).

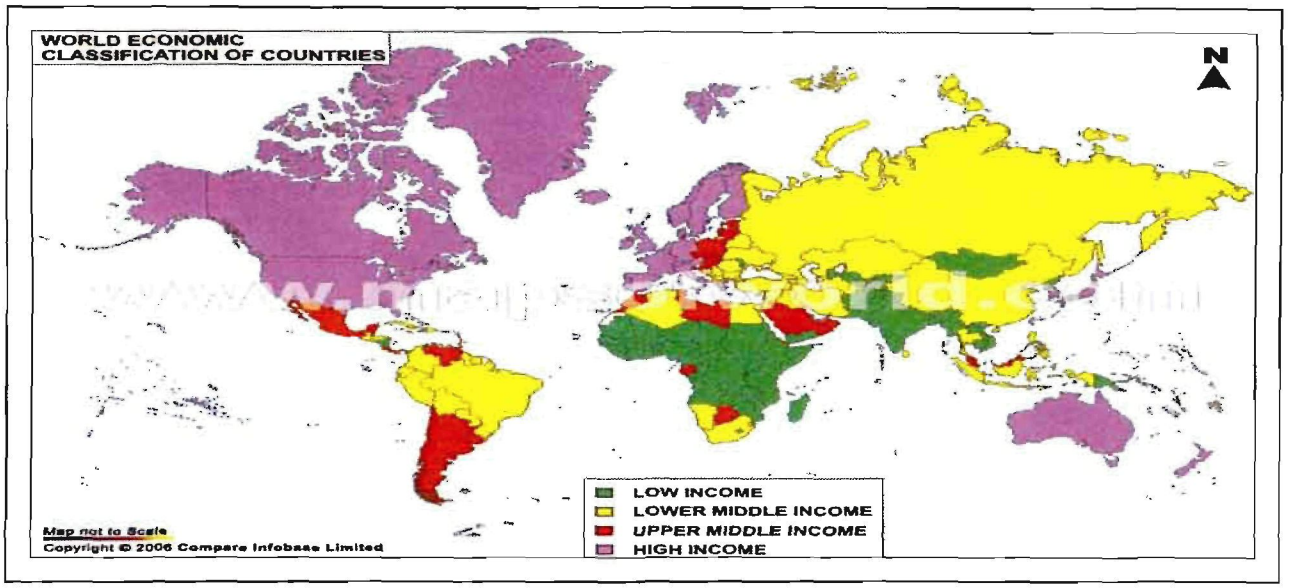


Figure 3.14: Classification of countries according to income
Source: The World Bank

When dividing international tourist receipts by the classification of countries according to income, Table 3.9 is the result.

Table 3.9 International tourism receipts

	1990	**2001**
Low income countries	10 970	16 709
Lower middle income countries	22 403	71 418
Upper middle income countries	21 710	54 168
High income countries	212 121	319 585
World Total	265 316	457 890

Source: World Tourism Organisation; World Development Report 2003 (World Bank)

From Table 3.9 it can be seen that, in 2001, 70 percent of tourism receipts went to high income countries. Vellas and Bécherel (1995:20) state that tourism receipts per capita GNP (gross national product) are very low in low income countries. Vellas and Bécherel (1995:20) state that the consequence is that low income countries are unable to finance tourism infrastructures and ultimately depend on services that generate low revenue. Additionally, the average price of tourism products in low income countries is generally much lower compared to other countries (Vellas and Bécherel, 1995:20). Now that the regions that receive the most tourists have been identified, attention can now be turned to the top tourist countries.

3.6.5 The main tourist destinations

According to UNWTO (2007) the top tourist destination (as can be seen in Table 3.10 below) for 2006 was France, followed by Spain and the United States.

Table 3.10 Main tourist destinations according to international tourist arrivals

2006 rank	Country	Arrivals (millions)		Percent change 2005/2004	Percent change 2006/2005
		2005	2006		
1.	France	75.9	79.1	1.0 percent	4.2 percent
2.	Spain	55.9	58.5	6.6	4.5
3.	United States	49.2	51.1	6.8	3.8
4.	China	46.8	49.6	12.1	6.0
5.	Italy	36.5	41.1	-1.5	12.4
6.	United Kingdom	28.0	30.7	9.2	9.3
7.	Germany	21.5	23.6	6.8	9.6
8.	Mexico	21.9	21.4	6.3	-2.6
9.	Austria	20.0	20.3	3.0	1.5
10.	Russian Federation	19.9	20.2	0.2	1.3

Source: UNWTO (2007)

It can also be seen that China ranks fourth, and Italy fifth, while the United Kingdom and Germany rank sixth and seventh respectively. Germany overtook Mexico in 2006, and this may be attributed to the fact that Germany hosted the FIFA Football World Cup. Mexico now ranks eighth while Austria and the Russian Federation moved up a place to ninth and tenth position since 2005.

Table 3.11 shows the results of examining the top tourist destinations with regard to international tourist receipts.

Table 3.11 Main tourist destinations according to international tourism receipts

2006 rank	Country	Receipts (billions)		Percent change 2005/2004	Percent change 2006/2005
		2005	2006		
1.	United States	81.8	85.7	9.7 percent	4.8 percent
2.	Spain	48.0	51.1	6.0	6.6
3.	France	42.3	42.9	3.5	1.5

4.	Italy	35.4	38.1	-0.7	7.7
5.	China	29.3	33.9	13.8	15.9
6.	United Kingdom	30.7	33.7	8.7	9.8
7.	Germany	29.2	32.8	5.4	12.3
8.	Australia	16.9	17.8	11.0	5.8
9.	Turkey	18.2	16.9	14.2	-7.2
10.	Austria	16.0	16.7	2.8	4.0

Source: UNWTO (2007)

The United States is in first place with regard to tourism receipts, which indicates that the U.S. generally attracts a greater number of high-spending tourists and business travellers (Vellas and Bécherel, 1995:18). Spain is second place, both with regard to tourist arrivals as well as tourism receipts. France, which ranks first when examining tourist arrivals, ranks third when examining international tourist receipts. Turkey ranks ninth according to tourism receipts even though it is not one of the top 10 with regard to international tourist arrivals. Russia, on the other hand, ranks tenth on the international arrivals list, but is not present in the top 10 countries with regard to tourism receipts.

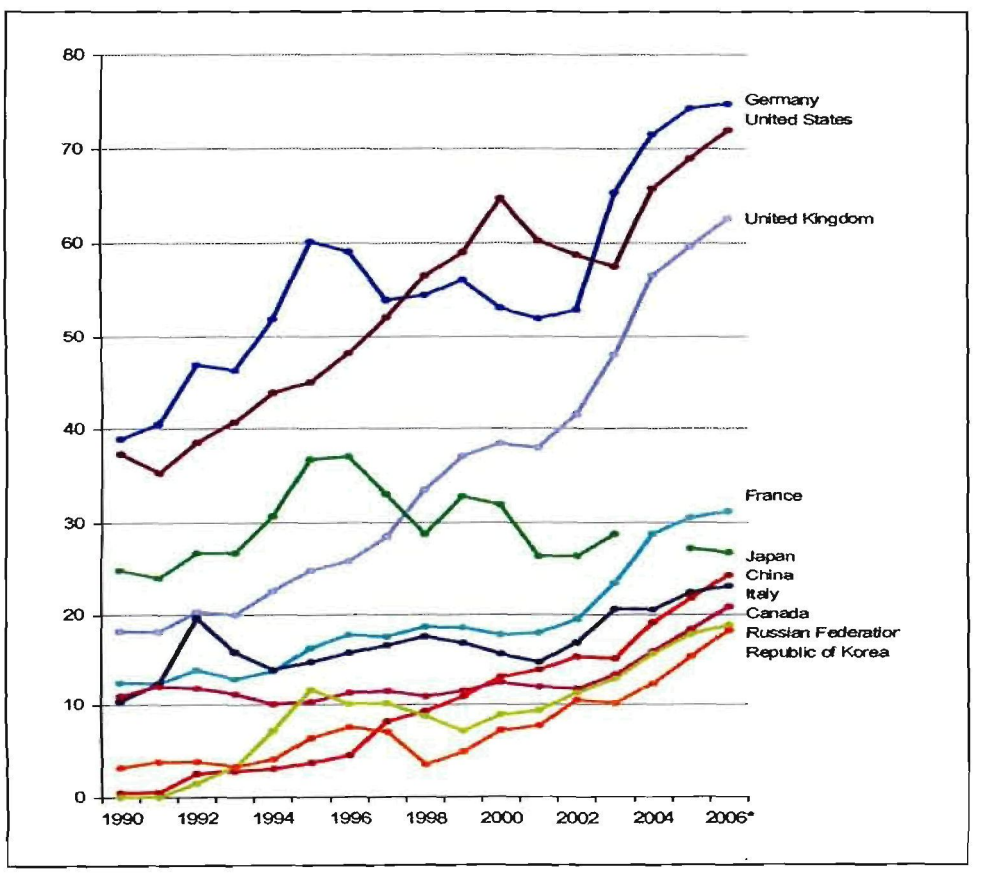


Figure 3.15: International Tourism Expenditure (US$ billion)

Source: UNWTO (2007)

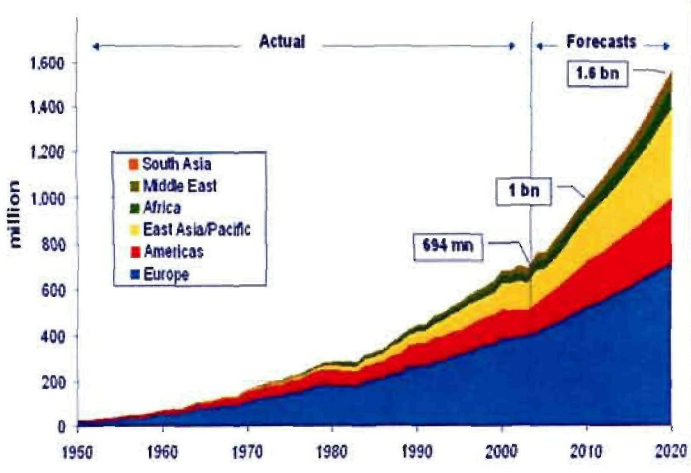
When examining the top countries with respect to tourist expenditure, Figure 3.15 illustrates that Germany ranks first place, with the United States and the United Kingdom ranking second and third respectively. China ranks sixth, overtaking Italy. The results indicate that the strongest growth in international tourism spending was as a result of emerging markets (UNWTO, 2007). France, which ranked first in tourist arrivals and third in tourism receipts, ranked fourth in international tourism expenditure. The next section presents some of the future trend forecasts for the tourism industry.

3.6.6 Tourism forecasts

Currently, France is ranked first in terms of international tourist arrivals and Spain is ranked second. However, forecasts state that China will surpass Spain by 2010 and France by 2020, to become the number one tourist destination in the world (Lux, 2007).

Tourism 2020 Vision is the World Tourism Organisation's long-term forecast of tourism through the first 20 years of the new millennium. The World Tourism Organisation's *Tourism 2020 Vision* predicts that international arrivals will reach 1.6 billion by the year 2020 where 1.2 billion of these will be intra-regional travellers and 378 million will be long-haul travellers (UNWTO, 2007). As can be seen in Figure 3.16, the largest share of these future international arrivals will still belong to Europe followed by Asia and the Pacific and the Americas. Europe will receive 717 million tourist arrivals, East Asia and the Pacific 397 million, and the Americas 282 million.

When forecasting growth rates, The World Tourism Organisation's *Tourism 2020 Vision* predicts that East Asia and the Pacific, Asia, the Middle East and Africa will grow at rates of over 5 percent while Europe and the Americas will grow at a slower pace (UNWTO, 2007). The World Tourism Organisation's *Tourism 2020 Vision* further predicts that Europe will maintain the highest share of world arrivals, but it will decline to 45 percent in 2020. This is illustrated in Figure 3.16.



	Base Year	Forecasts		Market share (%)		Average annual growth rate (%)
	1995	2010	2020			
	(Million)			1995	2020	1995-2020
World	565	1006	1561	100	100	4.1
Africa	20	47	77	3.6	5.0	5.5
Americas	110	190	282	19.3	18.1	3.8
East Asia and the Pacific	81	195	397	14.4	25.4	6.5
Europe	336	527	717	59.8	45.9	3.1
Middle East	14	36	69	2.2	4.4	6.7
South Asia	4	11	19	0.7	1.2	6.2

Figure 3.16: International tourist arrivals forecast

Source: UNWTO: Tourism 2020 Vision

Therefore, it can be concluded that international tourist arrivals will continue to rise and reach 1.6 billion arrivals in 2020. Additionally, tourism arrival growth rates will be higher for Africa, East Asia and the Pacific, the Middle East and South Asia in comparison to America and Europe. However, Europe and America as well as East Asia and the Pacific will have the dominant market share of tourist arrivals by 2020. Furthermore, Lux (2007) predicts that China will surpass Spain by 2010 and France by 2020, to become the number one tourist destination in the world.

3.7 Summary

The aim of this chapter was to explore the different aspects of tourism and, more specifically, the reasons why tourism takes place. Firstly, the introduction underlined the importance of tourism by revealing that the World Tourism Organisation (2003) declared that tourism was one of the most important development sectors of the international economy, generating higher growth, job opportunities and investment and trade activities. Secondly, it was important to define the term "*tourism*". The British Tourism Society (Vanhove, 2005:2) gave this clear definition of tourism: "*Tourism is deemed to include any activity concerned with the temporary short-term movement of people to destinations outside the places where they normally live and work, and their activities during the stay at these destinations*". Furthermore, the division of tourism into different categories (international-, internal-, domestic- and national tourism) as well as the different categories of tourists (domestic visitor, international visitor, international tourist and excursionist), was discussed.

Thirdly, the reasons why people travel were explored. This was done by examining the following important tourism motivation theories: Gray's travel motivation theory, Maslow's need theory and travel motivation, push and pull factors as motivation for travel, socio-psychological motivations for

travel, personal-interpersonal motives, Cohen's tourist typologies, Plog's psychographic theory, basic travel motivators, expectancy theory and other reasons why people travel. Each of these theories assisted in obtaining a better knowledge of what motivates people to travel, and it was found that each one of these motivation theories explained the behaviour of tourists. Tourism has certainly grown in size and importance, and thus, tourism development has expanded. Fourthly, the three tourism development theories were discussed, namely: the diffusionist theory, dependency theory and the formal and informal sector analysis, which concluded that tourism development has indeed impacted on the economic, socio-cultural and socio-environmental aspects of host communities. However, not all regions develop at the same pace (or at all) regarding tourism and the economy. The diffusionist theory, dependency theory and the formal and informal sector analysis assisted in obtaining a better understanding of the relationship between tourism and the economy.

Following the discussion of the tourism development theories, attention was turned to the advantages and disadvantages of tourism. Advantages included increased employment, increased income, increased supply of foreign exchange, increased infrastructure development, promotion of cultural preservation, promotion of nature conservation, investment stimulation and increased tax revenue. In contrast, the disadvantages of tourism included marginal employment, cultural destruction, environmental destruction, over-dependency on tourism, foreign domination and increase in inflation. Tourism, thus, has both advantages and disadvantages.

Lastly, the focus shifted towards current global tourism patterns. International tourist arrivals, international tourism receipts, international arrivals and receipts by region, international tourism flows and the level of economic development, the main tourist destinations and tourism forecasts were reviewed. It was shown that 878 million tourist arrivals were recorded for 2007 and tourism receipts reached $733 billion in 2006 (UNWTO barometer, 2007). Europe, Asia and the Pacific and the Americas are the regions with the highest percentage share of tourist arrivals and tourism receipts, however, the Middle East and Africa recorded the highest growth in tourist arrivals. France recorded the most tourist arrivals for 2007. The United States was the main tourist destination according to tourism receipts.

Furthermore, when discussing international arrivals and receipts by region (in section 3.6.3) it was noted that the tourism taking place in Europe, Asia and the Pacific as well as the Americas is mostly intra-regional tourism. This means that tourism in these regions exists between countries within the same region. This is particularly interesting, since intra-regional trade in Europe, Asia and North America plays a large part in international trade for these regions (section 2.6.5). In 2006, Europe's intra-trade had a share of 31.4 percent, Asia's share was 14.1 percent and North

America's share was 8 percent (World Trade Organisation, 2007). Does the intra-regional tourism and intra-regional trade between these regions indicate a possible link between tourism and trade?

To conclude, the aim of this chapter namely, to explore the different aspects of tourism and discuss the reasons why tourism takes place, was achieved. Chapter 2 was dedicated to trade motivations in a global context, while Chapter 3 was dedicated to tourism theories in a global context. The next chapter will focus more specifically on South Africa's unique situation by discussing South Africa's trade and tourism patterns.

Chapter 4 South Africa's Trade and Tourism Patterns

4.1 Introduction

In Chapter 2, the reasons why trade takes place and current global trade patterns were investigated, while Chapter 3 investigated the reasons why people travel as well as current global trends in tourism. Up until this point, a global focus regarding international trade and tourism was prevalent. In this chapter, the focus will move towards South Africa's trade and tourism patterns. South Africa has a unique trade structure in the sense that, although South Africa is situated on the African continent, Europe accounts for almost half of South Africa's foreign trade (Anon., 2008b). South Africa also makes an interesting case study, as the country is hosting the 2010 FIFA World Cup in 2010 for which an estimated 450 000 international visitors are expected to arrive in the space of six weeks (Mbola, 2008). This chapter aims to explore South Africa's unique trade structure and tourism situation. In section 4.2, South Africa's international trade position is examined while South Africa's tourism situation is investigated in section 4.3. Furthermore, a possible link between trade and tourism for South Africa is discussed in section 4.4.

4.2 South Africa's international trade

South Africa's trade structure will be explored by firstly identifying South Africa's trading partners in section 4.2.1. This is necessary in order to identify possible trading partners for the empirical analysis in Chapter 5. In addition to this, exports and imports by product group will be discussed in section 4.2.2 while South Africa's balance of payments will be examined in section 4.2.3. Exports and imports by product group are discussed in order to gain an enhanced perspective of South Africa's trade structure and assist in identifying the link between trade and tourism. Furthermore, the balance of payments is examined with the intention of identifying South Africa's current trade situation. Lastly, South Africa's competitiveness in trade will be examined in section 4.2.4 with the aim of determining South Africa's current position in the global trade market.

4.2.1 South Africa's trading partners

When identifying South Africa's international trading activities according to the trade with different continents in 2007, it is found that Europe accounts for the largest share of South Africa's export trade while Asia accounts for the largest share of import trade (The Department of Trade and Industry, 2008). This can be seen from Table 4.1 below which shows that when examining exports, Europe ranks first, Asia ranks second while the Americas rank third.

Table 4.1 South Africa's exports and imports by continent

CONTINENTS	EXPORT (R'000)		Rank
name	2007	2006	2007
TOTAL EUROPE	163,076,909	139,574,505	1
TOTAL ASIA	140,644,487	104,975,032	2
TOTAL AMERICAS	68,111,910	51,234,763	3
TOTAL AFRICA	68,081,947	53,445,611	4
TOTAL PACIFIC	10,972,639	9,779,213	5
Total CONTINENTS	450,887,892	359,009,124	
GRAND TOTAL	**494,201,604**	**396,471,146**	

CONTINENTS	IMPORT (R'000)		Rank
name	2007	2006	2007
TOTAL ASIA	228,902,808	193,627,245	1
TOTAL EUROPE	200,574,026	168,198,615	2
TOTAL AMERICAS	74,474,444	58,971,278	3
TOTAL AFRICA	40,864,837	29,410,378	4
TOTAL PACIFIC	12,517,319	10,824,851	5
Total CONTINENTS	557,333,434	461,032,366	
GRAND TOTAL	**559,284,119**	**462,102,415**	

Source: The Department of Trade and Industry (2008)

When examining imports by continent in Table 4.1 it is evident that Europe no longer ranks first. Asia is South Africa's top trading partner when considering imports, while Europe ranks second and the Americas rank third. When examining exports and imports by region however, it is shown that the European Union ranks first as South Africa's main export and import region. This can be seen in Figure 4.1.

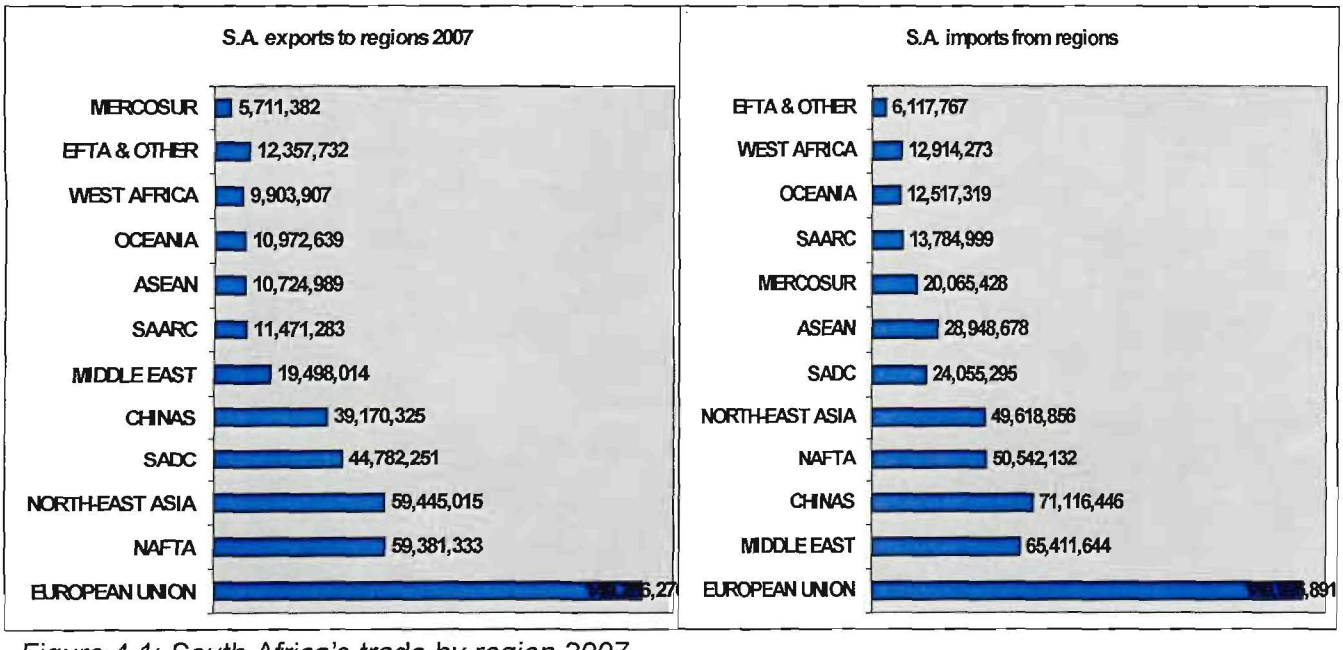


Figure 4.1: South Africa's trade by region 2007

Source: The Department of Trade and Industry (2008)

Trade blocs and agreements were discussed in section 2.6.4 where the size and importance of trade blocs became evident. Figure 4.1 shows South Africa's trade with the main trading blocs. Thus, South Africa's main export regions are the European Union, North-East Asia, NAFTA (North American Free Trade Agreement), SADC (Southern African Development Community) and China. South Africa's main import regions are the European Union, the Middle East, China, NAFTA and North-East Asia.

What influence do these trading blocs have on South Africa's intra- and inter-regional trade? It is evident from Figure 4.1 that South Africa's main trading regions (the EU, North-East Asia, NAFTA, Asia and the Middle East) contribute to inter-regional trade (trade that exists between countries from different regions). Inter-regional trade, thus, plays a much larger role in South African trade than intra-regional trade (trade that exists between countries within the same region). South Africa is situated on the African continent; however intra-regional trade (trade between South Africa and SADC, South African Customs Union, West Africa, North-East Africa and North Africa) is relatively small when compared with South Africa's trade with overseas trading regions.

What implications do these trading blocs have for South Africa on the topic of North-South and South-South trade? South Africa's main trading regions (the EU, North-East Asia, NAFTA, Asia and the Middle East) are situated in the Northern hemisphere. Thus, North-South trade dominates South Africa's trade structure. On the other hand, it is evident from Figure 4.1 that South-South trade does not play a very important role in South Africa's trade composition. After conducting research, the Organisation for Economic Co-operation and Development (2006:141) finds that the barriers facing South-South trade are nearly three times higher than those facing North-North trade. This might explain South Africa's reluctance to trade with countries in the Southern hemisphere such as South American countries and Australia.

Another important consideration is South Africa's international trade analysed according to country. Table 4.2 shows that the United States, Japan, Germany, the UK and China have been South Africa's main export trading partners for 2007. But what about imports?

Table 4.2: South Africa's trade by countries

COUNTRY	EXPORT (R'000)		Rank
name	2007	2006	2007
UNITED STATES - (NAFTA)	52,754,601	41,157,763	1
JAPAN - (NORTH-EAST ASIA)	50,400,492	41,315,989	2
GERMANY - (EUROPEAN UNION)	35,357,278	26,867,127	3
UNITED KINGDOM - (EUROPEAN UNION)	34,619,689	31,717,873	4
CHINA - (CHINAS)	28,014,727	14,019,861	5
NETHERLANDS - (EUROPEAN UNION)	19,862,700	18,068,444	6
SPAIN - (EUROPEAN UNION)	12,955,572	10,001,326	7

BELGIUM - (EUROPEAN UNION)	12,465,855	10,174,552	8
ITALY - (EUROPEAN UNION)	10,325,269	9,379,751	10
KOREA REP SOUTH - (NORTH-EAST ASIA)	8,124,293	6,828,082	17
GRAND TOTAL	**494,201,604**	**396,471,146**	

COUNTRY	IMPORT (R'000)		Rank
name	2007	2006	2007
GERMANY – (EUROPEAN UNION)	65,620,967	57,844,240	1
CHINA - (CHINAS)	60,298,345	46,718,798	2
UNITED STATES - (NAFTA)	43,155,143	35,176,906	3
JAPAN - (NORTH-EAST ASIA)	36,978,079	30,261,109	4
UNITED KINGDOM - (EUROPEAN UNION)	27,287,819	23,099,217	5
SAUDI ARABIA - (MIDDLE EAST)	25,383,070	24,544,792	6
IRAN - (MIDDLE EAST)	20,802,502	18,328,963	7
FRANCE - (EUROPEAN UNION)	18,963,990	16,985,694	8
INDIA - (SAARC)	12,510,077	10,960,347	11
ANGOLA - (SADC)	11,584,443	2,486,137	14
GRAND TOTAL	**559,284,119**	**462,102,415**	

Source: The Department of Trade and Industry (2008)

South Africa's main import trading partners for 2007 were Germany, China, the United States, Japan and the United Kingdom.

It became evident from the discussion thus far, that South Africa's trade can be examined by continent, region and country. However, the important question now is this: why is the European Union South Africa's main export and import region when South Africa is situated so far away? Equally important is the question: why are the United States, Japan, Germany, the UK and China South Africa's main export trading partners? Likewise, why is Germany, China the United States, Japan and the United Kingdom South Africa's main importing partners?

Firstly, South Africa and the European Union have strong ties that date back far in history especially in terms of the Netherlands. South Africa used to be an English colony (1806-1961) and the French Protestants sought refuge in South Africa (1688) when they were prosecuted in France for their religious beliefs. Secondly, in addition to historic ties, trade relations between the European Union and South Africa further strengthened through the Trade, Development and Co-operation Agreement (TDCA) that ensures increased trade through the establishment of a free trade area (European Commission in SA, 2008). The TDCA was implemented in 2000 and aims to remove 90 percent of all trade barriers over the next decade (European Commission in SA, 2008). Evidently, these aspects have encouraged trade between South Africa and the European Union. However, what encourages trade between South Africa and the United States or South Africa and Japan?

The question that needs to be answered is this: why are the United States, Japan, Germany, the United Kingdom and China South Africa's main export trading partners? The United States., Japan, Germany, the United Kingdom and China will thus be discussed regarding their positions as South Africa's export trading partners.

a) **The United States:** The United States is one of the main export destinations for South Africa. Why is this so? This is due to the thriving demand that the United States has for South African products especially raw materials and minerals. These products include platinum, diamonds, iron and steel, passenger vehicles and parts, and aluminum which boost exports from South Africa to the U.S. (Department of Commerce USA, 2007).
b) **Japan:** The TICAD (Tokyo International Conference for African Development) initiative assists in building a strong relationship between South Africa and Japan (Department of Foreign Affairs, 2008). Japan, as an industrialised economy, imports a great deal of its basic raw materials and minerals from South Africa (Department of Foreign Affairs, 2008). This is one of the aspects that greatly influences export trade from South Africa to Japan.
c) **Germany:** South Africa exports commodities to Germany, but has also diversified to exporting manufactured products such as parts and accessories for motor vehicles and their engines. Germany is one of the leading car manufacturers in the world and has situated several of its car and component firms in South Africa (Lünsche, 2006). This has encouraged export trade from South Africa to Germany.
d) **The United Kingdom:** Goods and services are imported from South Africa and the U.K. is also a significant foreign direct investor in South Africa. Tariffs are being reduced between South Africa and the U.K. in line with the TDCA (European Commission in SA, 2008) which increases export trade from South Africa to the U.K.
e) **China:** The recent China-Africa Co-operation Forum has strengthened ties between South Africa and China. South Africa is an important trading partner for China, because China imports raw materials and minerals from South Africa (Department of Foreign Affairs, 2008).

Another important question that arises is: why are China, Germany, the United States, Saudi Arabia and Japan, South Africa's main importing partners? These countries are now discussed with respect to their positions as import trading partners for South Africa.

a) **Germany:** South Africa imports capital goods and technology from Germany and for this reason Germany is a very important trading partner for South Africa (European Commission in SA, 2008). Germany is also a large supplier of foreign direct investment for

South Africa with the main sector being the automotive industry (European Commission in SA, 2008).

b) **China:** China exports manufactured products to South Africa. The China-Africa Co-operation Forum has strengthened international ties between South Africa and China which encourages South Africa to import manufactured goods from China.

c) **The United States:** According to the Department of Commerce (2007) South Africa imports machinery, aircrafts, vehicles, electrical machinery and non-crude oil from the U.S. and for this reason, the U.S. is a significant import trading-partner for South Africa.

d) **Japan:** Japan, as an industrialised economy, exports its manufactured products to South Africa and is therefore an essential import partner for South Africa (Department of Foreign Affairs, 2008).

e) **The United Kingdom:** The United Kingdom is one of South Africa's most important trading partners and the tariff reductions between South Africa and the U.K. increases import trade between these two countries. The majority of U.K. imports into South Africa are manufactured products (European Commission in SA, 2008).

Chapter 2 was dedicated to discussing trade patterns and more specifically, section 2.3 was dedicated to the discussion of why nations trade. Possible reasons that were given were comparative advantage, economies of scale, imperfect competition, Linder's thesis and the technological gap and product cycle. The question that arises is: why does South Africa trade with other nations? From the discussion above it is evident that South Africa is a country that is rich in commodities, raw materials and minerals. Thus, South Africa could have a comparative advantage in exporting those products. Economies of scale could also encourage South Africa to export its products. On the other hand, when examining South Africa's imports from other countries, it becomes obvious that South Africa imports a great deal of manufactured products, oil, capital goods and technology. Linder's thesis states that exports grow from domestic production, but it applies only to manufactured products (Chacholiades, 1990: 106). This could explain why South Africa engages in trade with countries that have manufactured products. Additionally, the concepts of the technological gap and product cycle contribute to the state of affairs that when a new product is developed and is profitable in the home country, the innovating firm has a brief monopoly and easy access to foreign markets. This could encourage nations to engage in export activities and explain why South Africa engages in trade.

To summarise, this section focused on identifying South Africa's trading partners. Asia, Europe and the Americas are South Africa's most important trading partners when examining trade by continent. When examining trade by region, the European Union, North-East Asia, NAFTA, SADC and China are South Africa's most important export regions. South Africa's main import regions

are: the European Union, the Middle East, Chinas, NAFTA and North-East Asia. Another important consideration is South Africa's international trade according to country. The United States, Japan, Germany, the United Kingdom and China are South Africa's main export trading partners for 2007 Germany, China, the United States, Japan and the United Kindom are South Africa's main import trading partners. It became evident when discussing trade with regard to these countries, that most of South Africa's trading partners are important because of the products and services that are imported and exported from and to these countries. Subsequently, exports and imports by the various product groups will be discussed in the following section.

4.2.2 Exports and imports by product group

It can be seen from Figure 4.2 below that, when examining South African exports, the bulk of South Africa's exports lie in manufacturing. From 1992 to 1994, South African exports consisted mainly of mining, but South Africa diversified its exports by concentrating more on manufactured products. What do South Africa's exports in manufacturing, agriculture and mining consist of? The main products of each of these categories are listed in Table 4.3 below, as well as each of these products' share of total exports.

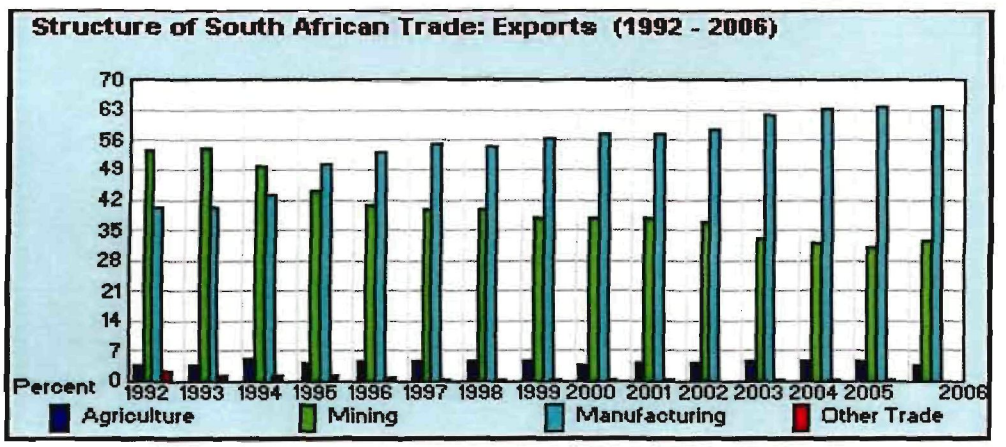


Figure 4.2: South African exports 1992-2006

Source: The Department of Trade and Industry (2008)

Table 4.3 South Africa's export products 2007

Manufactured products	Percent total
BASIC PRECIOUS AND NON-FERROUS METALS	17.25
BASIC IRON AND STEEL	16.74
MOTOR VEHICLES	10.37
OTHER GENERAL PURPOSE MACHINERY	7.49
BASIC CHEMICALS, EXCEPT FERTILIZERS AND NITROGEN COMPOUNDS	4.98
RECYCLING OF METAL WASTE AND SCRAP N.E.C.	3.27
PETROLEUM REFINERIES / SYNTHESISERS	2.81
PARTS AND ACCESSORIES FOR MOTOR VEHICLES AND THEIR ENGINES	2.36
PULP, PAPER AND PAPERBOARD	2.36
3921.JEWELLERY AND RELATED ARTICLES	2.13

Agricultural products	Percent total
GROWING OF CROPS; MARKET GARDENING; HORTICULTURE	74.14
LOGGING AND RELATED SERVICES	12.08
FARMING OF ANIMALS	8.36
OCEAN AND COASTAL FISHING	5.42
Total	100.00
Mining products	**Percent total**
PLATINUM GROUP METALS	25.39
MINING OF GOLD AND URANIUM ORE	24.90
MINING OF COAL AND LIGNITE	14.96
MINING OF NON-FERROUS METAL ORES, EXCEPT GOLD AND URANIUM	12.05
MINING OF DIAMONDS (INCLUDING ALLUVIAL DIAMONDS)	8.07
MINING OF IRON ORE	6.84
EXTRACTION OF CRUDE PETROLEUM AND NATURAL GAS; SERVICE	6.32
OTHER MINING AND QUARRYING N.E.C.	0.66
STONE QUARRYING, CLAY AND SANDPITS	0.48
MINING OF CHEMICAL AND FERTILIZER MINERALS	0.30
EXTRACTION AND EVAPORATION OF SALT	0.02
Total	100.00

Source: The Department of Trade and Industry (2008)

From Table 4.3, it is evident that basic precious and non-ferrous metals account for 17.25 percent of manufactured exports while basic iron and steel products account for 16.74 percent. Collectively, basic iron and steel products, in addition to basic precious and non-ferrous metals, account for 34 percent of South Africa's manufactured exports. When examining agricultural products, Table 4.3 shows that the category crops, gardening and horticulture accounts for a staggering 74.14 percent of agricultural exports. Platinum group metals, in addition to mining of gold and uranium ore, account for more than 50 percent of mining exports. Figure 4.3 below illustrates that 63.7 percent of South African exports consists of manufacturing while 32.61 percent consists of mining and agriculture contributes a mere 3.6 percent. Now that it is evident what South Africa's export position is regarding the respective product groups, it is important to investigate South Africa's import position regarding the same product groups.

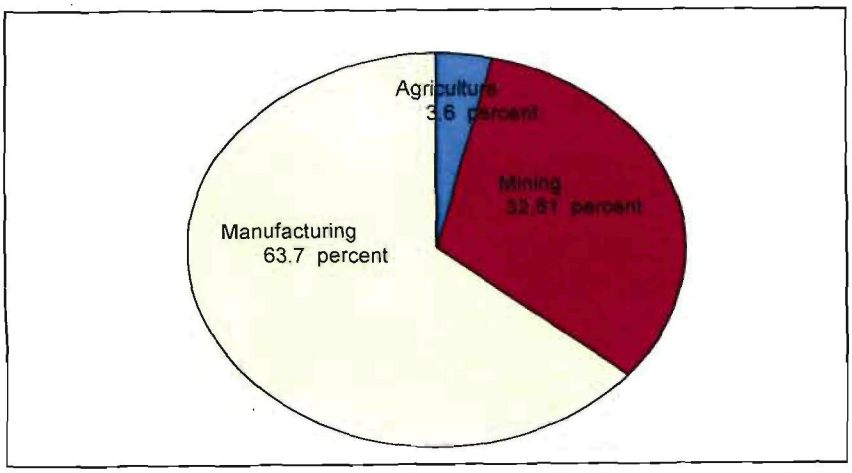


Figure 4.3: Manufacturing, mining and agriculture as percentage of exports 2006

It can be seen from Figure 4.4 below that, when examining South African imports, the bulk of South Africa's imports also lie in manufacturing. In addition to this, the main imports in manufacturing, agriculture and mining are listed in Table 4.4 as well as each of these products' share of total imports.

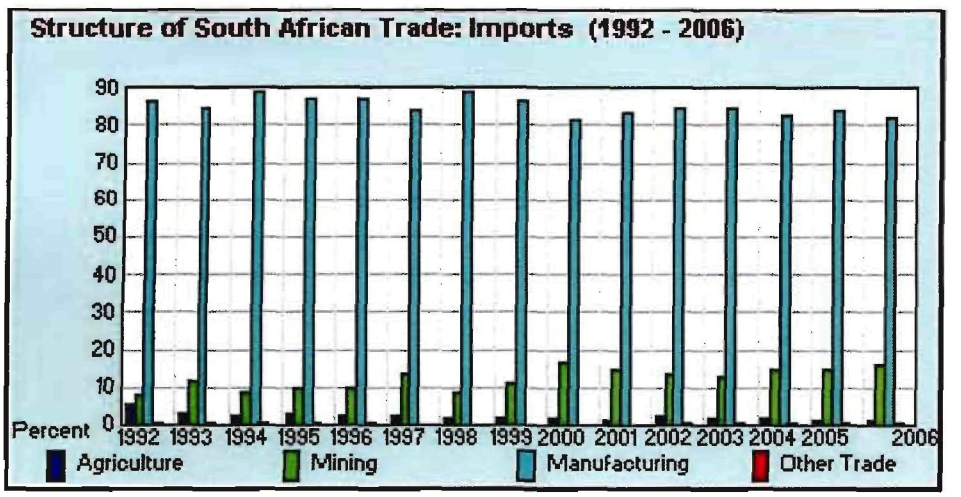


Figure 4.4: South African imports 1992-2006

Source: The Department of Trade and Industry (2008)

Table 4.4 South Africa's import products 2007

Manufactured products	Percent Total
PARTS AND ACCESSORIES FOR MOTOR VEHICLES AND THEIR ENGINES	10.73
MOTOR VEHICLES	9.77
PETROLEUM REFINERIES / SYNTHESISERS	5.18
TELEVISION AND RADIO TRANSMITTERS AND APPARATUS	4.90
OFFICE, ACCOUNTING AND COMPUTING MACHINERY	3.42
MACHINERY FOR MINING, QUARRYING AND CONSTRUCTION	3.23
OTHER SPECIAL PURPOSE MACHINERY	2.92
BASIC PRECIOUS AND NON-FERROUS METALS	2.82
AIRCRAFT AND SPACECRAFT	2.76
BASIC CHEMICALS, EXCEPT FERTILIZERS AND NITROGEN COMPOUNDS	2.61
Agricultural products	**Percent Total**
GROWING OF CROPS; MARKET GARDENING; HORTICULTURE	91.85
FARMING OF ANIMALS	3.81
LOGGING AND RELATED SERVICES	3.62
OCEAN AND COASTAL FISHING	0.70
FISH HATCHERIES AND FISH FARMS	0.03
Total	100.00
Mining products	**Percent Total**
EXTRACTION OF CRUDE PETROLEUM AND NATURAL GAS; SERVICE	85.41
MINING OF DIAMONDS (INCLUDING ALLUVIAL DIAMONDS)	6.76
MINING OF NON-FERROUS METAL ORES, EXCEPT GOLD AND URANIUM	3.93

MINING OF COAL AND LIGNITE	1.59
PLATINUM GROUP METALS	0.78
MINING OF CHEMICAL AND FERTILIZER MINERALS	0.49
OTHER MINING AND QUARRYING N.E.C.	0.45
MINING OF IRON ORE	0.35
STONE QUARRYING, CLAY AND SANDPITS	0.18
MINING OF GOLD AND URANIUM ORE	0.04
EXTRACTION AND EVAPORATION OF SALT	0.01
Total	100

Source: The Department of Trade and Industry (2008)

When analysing manufactured imports, Table 4.4 shows that parts for motor vehicles (10.73 percent), motor vehicles (9.77 percent), petroleum refineries (5.18 percent) and television and radio transmitters (4.90 percent) are the most important manufacturing imports. Agricultural products, such as growing of crops, market gardening and horticulture, account for 91.85 percent of agricultural imports. Furthermore, Table 4.4 demonstrates that extraction of crude petroleum and natural gas is the most important mining import and accounts for 85.41 percent of mining imports. Figure 4.5 illustrates that 82.11 percent of South African imports consists of manufacturing while 16.18 percent consists of mining, and agriculture contributes a mere 1.31 percent.

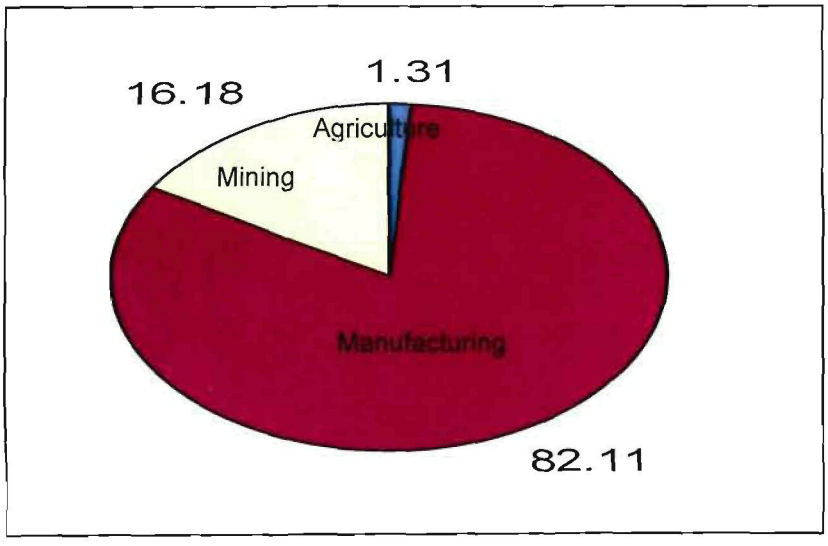


Figure 4.5: Manufacturing, mining and agriculture as percentage of imports 2006

In conclusion, this section dealt with exports and imports by product group, where it became evident that manufactured products are significant in terms of exports and imports for South Africa. Figure 4.3 illustrates that 63.7 percent of South African exports consists of manufacturing while, Figure 4.5 illustrates that 82.11 percent of South African imports consists of manufacturing. This coincides with the global trade patterns that were examined in section 2.6.2, where it was found that globally manufactured goods lead the way with an average annual growth rate of 7.5 percent, while mining products and agricultural products lagged behind with 4 percent and 3.5 percent respectively (Figure 2.5: World merchandise trade volume by major product group, 1950-2006).

This could explain South Africa's appetite for manufactured products as well as the reason why South Africa diversified its exports by concentrating more on manufactured products.

Mining products form the second most important product group for South Africa while agriculture enjoys a relatively small share of exports and imports in South Africa. This also coincides with section 2.6.2 where it was found that Central and South America, the Middle East and Africa have a smaller share of manufactured product exports. These countries have a higher share in exporting fuels and mining products relative to total exports.

Another important consideration for this chapter is South Africa's balance of payments which illustrates international transactions between South Africa and the world. The balance of payments is important for this chapter because it is determined by a country's exports and imports and it indicates a country's status in international trade. The balance of payments thus, gives a clear indication of a country's financial situation. In the next section, South Africa's balance of payments will be examined and discussed.

4.2.3 South Africa's balance of payments

South Africa's balance of payments can be seen in Table 4.5 and shows the transactions between South Africa's residents and the rest of the world for the period 2001-2007.

Table 4.5 Balance of payments annual figures

Balance of payments							
	2001	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**
Current account							
Merchandise exports, free on board	236556	289608	259328	281827	325129	399030	495837
Net gold exports	29276	43643	32106	28698	27023	35470	39898
Service receipts	41471	52309	62292	62197	70896	81294	95301
Income receipts	21125	22711	21373	20973	29550	40234	46113
Less: Merchandise imports, free on board	221235	283004	264752	311759	358519	476545	575956
Less: Payments for services	44766	57633	60285	66418	77384	96950	116842
Less :Income payments	53301	52111	56244	48823	60975	75985	108573
Current transfers (net receipts +)	-6257	-5844	-7478	-11326	-17899	-18894	-20794
Balance on current account	**2869**	**9679**	**-13660**	**-44631**	**-62179**	**-112346**	**-145016**
Capital transfer account (net receipts +)	**-256**	**-163**	**327**	**338**	**193**	**205**	**197**
Financial account							
Direct investment							
Liabilities	58404	16540	5550	5155	42270	-3567	40154
Assets	27359	4195	-4275	-8721	-5916	-45511	-22027

Net direct investment	85763	20735	1275	-3566	36354	-49078	18127
Portfolio investment							
Liabilities	-24000	5344	7548	46575	36026	144237	107374
Assets	-43626	-9619	-1001	-5946	-6123	-15045	-24168
Net portfolio investment	-67626	-4275	6547	40629	29903	129192	83206
Other investment							
Liabilities	-10226	304	14594	10881	31963	64160	61502
Assets	-31158	-4329	-36919	-2163	-22201	-42232	-12268
Net other investment	-41384	-4025	-22325	8718	9762	21928	49234
Balance on financial account	**-23247**	**12435**	**-14503**	**45781**	**76019**	**102042**	**150567**
Unrecorded transactions	8397	-5871	22978	36040	20230	39891	42068
Change in net gold and other foreign reserves owing to balance of payments transactions	**-12237**	**16080**	**-4858**	**37528**	**34263**	**29792**	**47816**
Change in liabilities related to reserves	13571	-20090	1911	2949	2577	-5453	-7361
SDR allocations and valuation adjustments	31630	-20041	-11262	-10617	11003	23350	5642
Net monetisation (+)/ demonetisation (-) of gold	622	-563	1137	84	-226	163	169
Change in gross gold and other foreign reserves	**33586**	**-24614**	**-13072**	**29944**	**47617**	**47852**	**45996**
Memo item: Change in capital transfer and financial accounts including unrecorded transactions	-15106	6401	8802	82159	96442	142138	192832

Source: South African Reserve Bank (2008)

The balance of payments (BOP) figures are used to summarise international transactions between one country and the rest of the world. The BOP is divided into the following three sections: the current account, the capital transfer account and the financial account (Heakal, 2008). These three categories will be discussed below by examining South Africa's figures given in Table 4.5.

a) Current account

The current account illustrates the inflow and outflow of goods and services as well as earnings on investments - public as well as private (Heakal, 2008). Firstly, the inflow will be examined with regards to merchandise exports and net gold exports. When examining goods in terms of South Africa's merchandise exports, it is apparent from Table 4.5 that merchandise exports have shown a steady increase from 2003 onwards. An increase in exports from R399 billion in 2006 to R495 billion in 2007 is shown. This increase in merchandise exports is illustrated graphically in Figure

4.6 where it can be seen that monthly merchandise exports for 2007 are higher than those for 2006. Furthermore, an increase in exports for January 2008, in comparison to January 2007, can be seen in Figure 4.6. The increase in merchandise exports can be attributed to an increase in demand for South Africa's mining products, vehicles, transport equipment as well as a growing demand for base metals and coal from the Chinese economy (South African Reserve Bank, 2008).

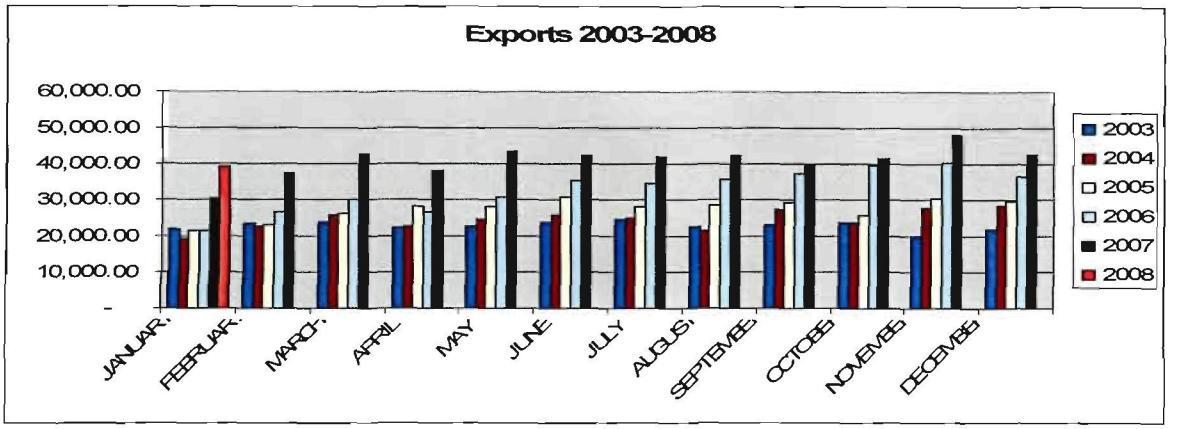


Figure 4.6: South African monthly exports for 2003-2008

Source: South African Revenue Service (2008)

South Africa is one of the major gold extracting countries in the world and gold exports are very important for South Africa. Thus, in South Africa's BOP (as illustrated in Table 4.5) there is a separate entry for net gold exports. Table 4.5 shows that net gold exports have increased from R35 billion in 2006 to R39 billion in 2007. This could be ascribed to the price increase of gold. Gold was trading at $639 per fine ounce at the beginning of 2007 and at $833 per fine ounce at the end of 2007. However, South Africa's gold production continued to decrease as can be seen in Figure 4.7. Figure 4.7 shows an overall decline in gold production from 2000 to 2007. The decline in local gold production is due to the higher costs of mining at deep underground levels, local strikes and increasing labour costs (South African Reserve Bank, 2007).

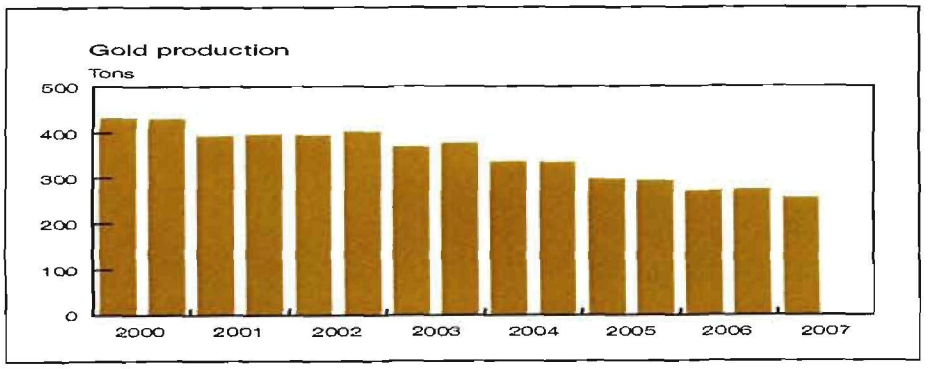


Figure 4.7: Gold production South Africa 2000-2007

Source: South African Reserve Bank (2007)

In addition to merchandise exports and net gold exports, two additional components generate inflows in the current account, namely service receipts and income receipts. Service receipts refer to receipts from tourism, transportation, engineering and business service fees (Heakal, 2008). Table 4.5 shows that South Africa's service receipts have demonstrated a steady upward trend with an increase from R81 million in 2006 to R95 million in 2007. This study focuses on the relationship between trade and tourism in South Africa. It is thus important to examine the link that the balance of payments has with tourism receipts. What fraction do tourism receipts account for of total service receipts and how did it grow?

Table 4.6 shows that service receipts have demonstrated an upward trend from 2001 to 2003 and again from 2004 to 2007. This can also be seen graphically in Figure 4.8, which shows service receipts from travel for the period 1990 to 2007. Figure 4.8 shows a clear upward trend in service receipts from travel.

Table 4.6 Service receipts for travel 2001-2007

Year	Receipts for services - Travel (million of Rands)	Growth in service receipts - Travel	Total service receipts (million of Rands)	Travel receipts as a percentage of total service receipts
2001	22,073		41,471	53.23
2002	30,665	28.02	52,309	58.62
2003	41,782	26.61	62,292	67.07
2004	40,580	-2.96	62,197	65.24
2005	46,596	12.91	70,896	65.72
2006	53,329	12.63	81,294	65.60
2007	59,310	10.08	95,301	62.23

Source: South African Reserve Bank (2007)

In addition, Table 4.6 shows the growth in service receipts from travel. Growth in travel receipts from 2006 to 2007 was recorded at 10.08 percent, which is less than the growth between 2005 and 2006. Furthermore, it is evident from Table 4.6 that travel receipts, as a percentage of total service receipts, are more than 50 percent for each year since 2001.

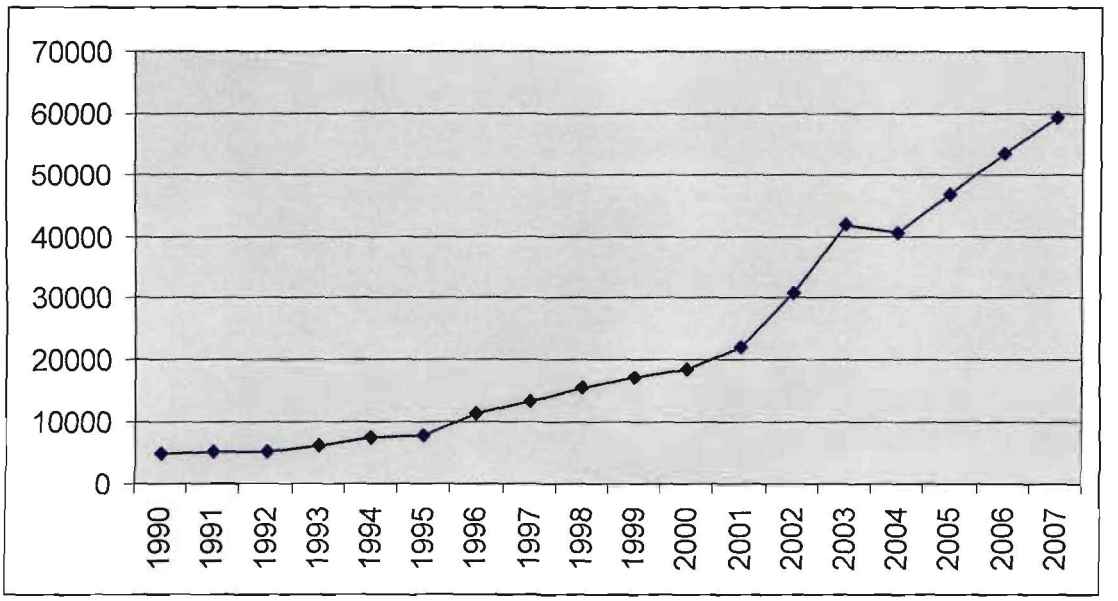


Figure 4.8: Service receipts for travel 1990-2007

Source: South African Reserve Bank (2007)

Income receipts are income generated from assets such as stocks which is in the form of dividends (Heakal, 2008). Table 4.5 illustrates that income receipts have shown a large increase from R40 billion in 2006 to R46 billion in 2007.

When examining the import side, Table 4.5 shows an increase in imports since 2003. Additionally, merchandise imports increased from R476 billion in 2006 to R575 billion in 2007. South Africa's monthly import figures can be seen in Figure 4.9 where an increase in imports from January 2006 to 2007 is shown. It can also be seen that there is an increase in imports from January 2007 to January 2008. Overall monthly imports for 2007 were higher than monthly imports in 2006, except for imports in November 2006. Why have imports increased?

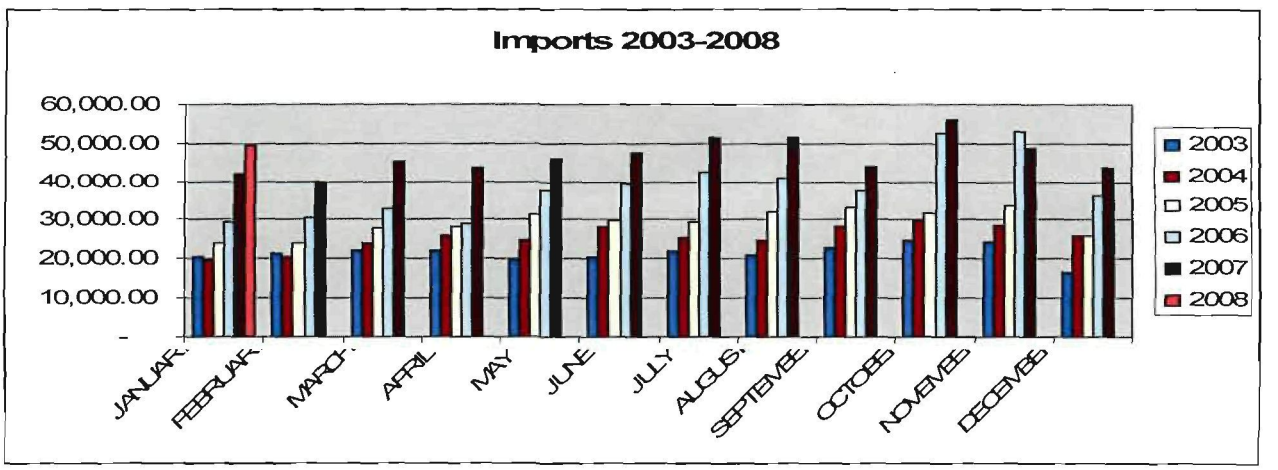


Figure 4.9: South African monthly imports for 2003-2008

Source: South African Revenue Service (SARS)

The increase in imports is due to higher demand for imported goods such as mineral products, machinery, electrical equipment and vehicle and transport equipment (South African Reserve Bank, 2008). The increase in these imports could be attributed to various infrastructural projects such as preparations for the 2010 FIFA World Cup. The volatility in international crude oil prices has also contributed to an increase in the price of merchandise imports. Oil prices reached $92 a barrel in October 2007, $99 a barrel in November 2007 and broke the $100 mark a barrel in February 2008 (South African Reserve Bank, 2008).

The balance of trade[8] for 2007 shows a deficit of R40.2 billion. This means that imports exceeded exports, thus, more money flowed out of South Africa than flowed into South Africa. The trade deficit in 2007 is less than the R42 billion deficit in 2006. When examining the monthly trade balance data for 2007 and comparing it with 2006 it can be seen from Figure 4.10, that deficits were present for every month except December 2006. This trade surplus was mainly due to a decrease in imports of R3.7 billion in machinery and a R3.6 billion decrease in mineral products (SARS, 2007). When examining the trade balance of 2007 (Figure 4.10), it can be seen that January and October showed very large trade deficits. January's huge trade deficit was due to an increase in imports of machinery, electrical equipment and vehicle equipment to the value of R3.7 billion and a decrease in exports of mineral products of R2.8 billion (SARS, 2007). The trade deficit for January 2007 was R11.9 billion compared to the R7.7 billion deficit in January 2006. October 2007 showed a deficit of R14.9 billion compared to the R12.9 billion deficit in October 2006. This deficit was due to an increase in imports of petroleum, crude oil, machinery and motor vehicles. January 2008 showed a deficit of R10.2 billion which is smaller than the R11.9 billion deficit in January 2007. The January 2008 deficit was due to an increase in imports of mineral oil and fuels and a decrease in exports of precious stones and metals (SARS, 2008). A deficit in the balance of trade could mean that South Africa is importing more in an attempt to increase its productivity with a view to possibly moving to more exports, which could eventually narrow the deficit (Heakal, 2008). Heakal (2008) states that a deficit is not necessarily bad for an economy, because sometimes an economy has to spend money in order to make money. However, Heakal (2008) states that it is important for a country to be able to finance an international deficit through ways that will decrease external liabilities. Generally, growing developing economies usually have a trade deficit, because of growing imports. Markheim (2008) states that a growing trade deficit is normally a sign of a healthy, expanding economy and presents good opportunities for profitable investment.

[8] The trade balance is calculated by subtracting the value of merchandise imports from merchandise exports (merchandise exports free on board plus net gold exports).

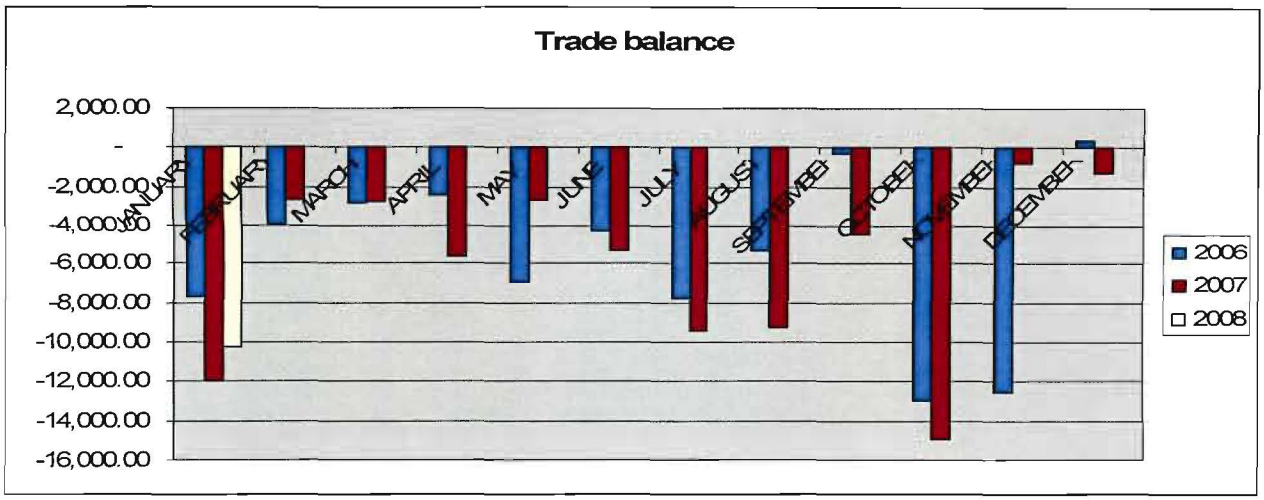


Figure 4.10: Trade balance 2006-2008

Source: South African Revenue Service (SARS)

When examining South Africa's trade balance with its trading partners, it can be seen from Figure 4.11 that China has increased in importance as a trading partner for South Africa. China's demand for South African minerals and metals creates an increase in exports to China (South African Reserve Bank, 2007). South Africa has a trade surplus with the U.K., Japan and the U.S., which means that South Africa exports more to these countries than it imports from these countries. The deficit with Germany narrowed in 2007 due to an increase in the export of vehicles and equipment to Germany (South African Reserve Bank, 2007). It can also be seen from Figure 4.11 that the trade surplus with the U.S. showed even greater improvement in 2007 compared to previous years.

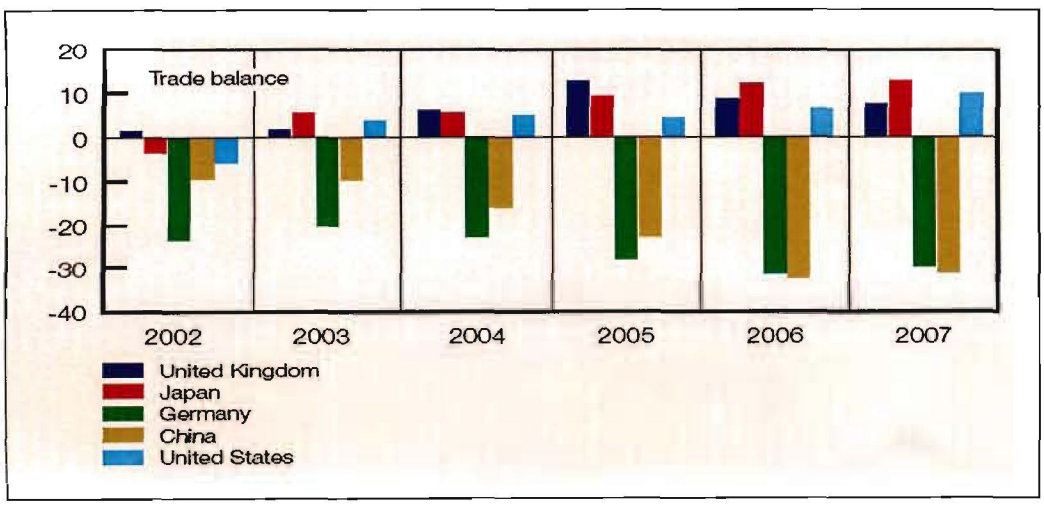


Figure 4.11: Trade balance with trading partners 2002-2007

Source: South African Reserve Bank (2007)

In 2007, South Africa showed a deficit on the current account[9] of R145 billion, which is larger than the deficit of R112 billion in 2006. The current account deficit increased from 6.5 percent of gross domestic product in 2006 to 7.3 per cent in 2007 (South African Reserve Bank, 2008). Heakal (2008) states that a deficit on the current account means that a country is investing more than it is saving and is utilizing resources from other economies to meet its local consumption and investment requirements. Thus, a deficit is not necessarily something to worry about. When returns are obtained in the future they will enter the current account as income receipts and could assist in reducing the deficit on the current account. However, Mueller (2006) warns of the hidden dangers of ongoing trade deficits. Mueller (2006) states that it is not the trade deficit *per se* that is the problem, but how to eliminate it when foreign financing stops. Mueller (2006) states that an ongoing trade deficit means debt accumulation that is unsustainable and, when foreign lending ends, the debt pyramid will come crashing down. Now that the current account has been discussed, another important consideration is the capital transfer account which will be discussed below.

b) Capital transfer account

The capital transfer account in Table 4.5 refers to the acquisition or discarding of non-financial assets (such as physical assets or land) as well as debt forgiveness, the transfer of goods, transfer of financial assets, gifts and inheritance taxes, death levies and uninsured damage to fixed assets (Heakal, 2008). The years 2001 and 2002 both recorded deficits on the capital transfer account, while surpluses were recorded from 2003 to 2007. This means that more capital was transferred into South Africa than out of South Africa. However, the surplus in 2007 (R197 billion) was smaller than the surplus in 2006, which was R205 billion. The South African Reserve Bank (2008) attributes the increase in the inflow of capital transfers to favourable economic conditions in emerging market economies.

c) Financial account

The financial account, as shown in Table 4.5, records international monetary flows related to business investment, real estate, bonds and stocks (Heakal, 2008). The financial account is subdivided into the following categories: direct investment, portfolio investment and other investment. The net amounts of each of these categories are then accumulated to obtain a net amount for the financial account. The financial account shows a surplus for portfolio investment, which accounts for the largest share compared to direct and other investment. Portfolio investment refers to transactions concerning the acquisition/sale of shares in a company (Heakal, 2008). However, portfolio investment can easily be withdrawn if investors lose confidence in a country and

[9] The balance of trade is calculated by subtracting the value of merchandise imports from the value of merchandise exports, while the balance on current account is calculated by subtracting the total payments in the current account from the total receipts.

this can place negative pressure on the domestic currency, because of weakening demand for the currency. Foreign direct investment has shown a significant increase from an outflow of R49 billion in 2006 to an inflow of R18 billion in 2007. The overall balance on the financial account showed a surplus of R150 billion for 2007, which represents an increase from the R102 billion surplus in 2006 (Table 4.5).

South Africa's overall balance of payments position (Table 4.5) shows a surplus of R47.8 billion in 2007 which is an increase from the R29.8 billion surplus in 2006. This means that fewer total payments were made to, than received from foreigners during the period 2007. South Africa, thus, is an attractor of foreign savings.

To conclude, this section focused on South Africa's BOP by examining the current account, capital transfer account and the financial account. It became evident that the balance of trade for 2007 had a deficit of R40.2 billion which narrowed marginally from the R42 billion deficit in 2006. The current account showed a deficit of R145 billion in 2007, which is larger than the deficit of R112 billion in 2006. A surplus was recorded for the capital transfer account as well as the financial account (R150 billion for 2007). The overall balance of payments position shows a surplus of R47.8 billion, which is an increase from the R29.8 billion recorded in 2006. This section focused on South Africa's overall local position in terms of international transactions. However, by discussing the balance of payments, this question may arise: what is the economic impact of trade on the South African economy? What contribution has foreign trade made to the GDP? This will be addressed in section 4.2.4.

4.2.4 The contribution of foreign trade to the South African economy

It became evident that the balance of trade for 2007 had a deficit of R40.2 billion, which narrowed marginally from the R42 billion deficit in 2006. The deficit for 2007 equalled 2.4 percent of GDP, which is a reduction from the deficit by 2 percent of GDP in 2006 (South African Reserve Bank, 2008). The current account showed an overall deficit of R145 billion in 2007 which is larger than the deficit of R112 billion in 2006. The current account deficit increased from 6.5 percent of GDP in 2006 to 7.3 percent in 2007.

What does this mean in terms of the contribution that foreign trade makes to the South African economy? In section 4.2.3, it was mentioned that a current account deficit is not necessarily something to worry about and that most growing developing economies have a deficit on their current account. However, a current account deficit in excess of 3 percent of GDP is usually regarded as dangerous. Mueller (2006) states that an ongoing trade deficit means debt accumulation that is unsustainable and, when foreign lending ends, the debt pyramid will come

crashing down. The country runs the risk of not being able to cover its debt without using its foreign exchange reserves. This could lead to the depletion of the foreign exchange funds.

What contribution have exports and imports made to the GDP? Exports were estimated at 29.37 percent of GDP in 2006 and imports measure at 30.55 percent of GDP (Legatum Institute, 2006). How does this translate into jobs for South Africans? The trade industry employs more than 3 million people and accounts for 24 percent of new jobs (Legatum institute, 2006). In conclusion, foreign trade has made an impact on the South African economy through job creation and contributing to the GDP. However, how does South Africa rank in terms of overall competitiveness globally? Likewise, how do South African exports and imports rank in terms of competitiveness in the world? These questions will be discussed in more detail in the following section.

4.2.5. South Africa's overall competitiveness

To determine South Africa's international competitiveness, three index rankings will be discussed. These are the global competitiveness index, export and import rankings and the trade development index. These index rankings have been chosen due to the fact that they are well-known and consist of recent data. Each of these index rankings will subsequently be discussed, in order to determine how competitive South Africa is in the international trade arena.

a) The global competitiveness index

According to the Global Competitiveness Report (2008), the top ten ranking countries in terms of competitiveness are:

1) The United States
2) Switzerland
3) Denmark
4) Sweden
5) Germany
6) Finland
7) Singapore
8) Japan
9) United Kingdom
10) The Netherlands.

Where does South Africa rank in terms of the Global Competitiveness Report? South Africa ranks at number 44 of the 131 countries considered in the report. In terms of the business confidence index, South Africa ranks 34th of the 127 countries considered. The Global Competitiveness Report (2008) ranks a country by examining certain pillars of the country such as infrastructure and

macroeconomic stability to determine how competitive the country is. This is illustrated in Table 4.7 where South Africa's scores are shown in terms of these different pillars. As can be seen in Table 4.7, South Africa ranks well in terms of Sub-Index C which consists of sophistication factors (11th pillar) and business innovation (12th pillar). South Africa ranks 33rd (of the 131 countries) in Sub-index C. South Africa also ranks well in Sub-index B (efficiency enhancers) which consists of higher education training (5th pillar), goods market efficiency (6th pillar), labour market efficiency (7th pillar), financial market sophistication (8th pillar), technological readiness (9th pillar) and market size (10th pillar). South Africa ranks 36th in Sub-index B. However, the ranking for Sub-index A is not as good. Sub-index A consists of institutions (1st pillar), infrastructure (2nd pillar), macroeconomic stability (3rd pillar) and health and primary education (4th pillar). When examining Sub-index A (basic requirements), Table 4.7 shows that South Africa ranks 61st of the 131 countries.

Table 4.7 Global competitiveness index for South Africa 2007-2008

Global Competitiveness index 2007-2008	Out of 131 countries	Out of 7
	44	4.42
Sub-index A: Basic requirements	**61**	**4.45**
1st pillar: Institutions	39	4.55
2nd pillar: Infrastructure	43	4.22
3rd pillar: Macroeconomic stability	50	5.08
4th pillar: Health and primary education	117	3.96
Sub-index B: Efficiency enhancers	**36**	**4.44**
5th pillar: Higher education and training	56	4.12
6th pillar: Goods market efficiency	32	4.73
7th pillar: Labour market efficiency	78	4.16
8th pillar: Financial market sophistication	25	5.19
9th pillar: Technological readiness	46	3.57
10th pillar: Market size	21	4.89
Sub-index C: Innovation and sophistication factors	**33**	**4.16**
11th pillar: Business sophistication	36	4.61
12th pillar: Innovation	32	3.71

Source: The Global competitiveness Report

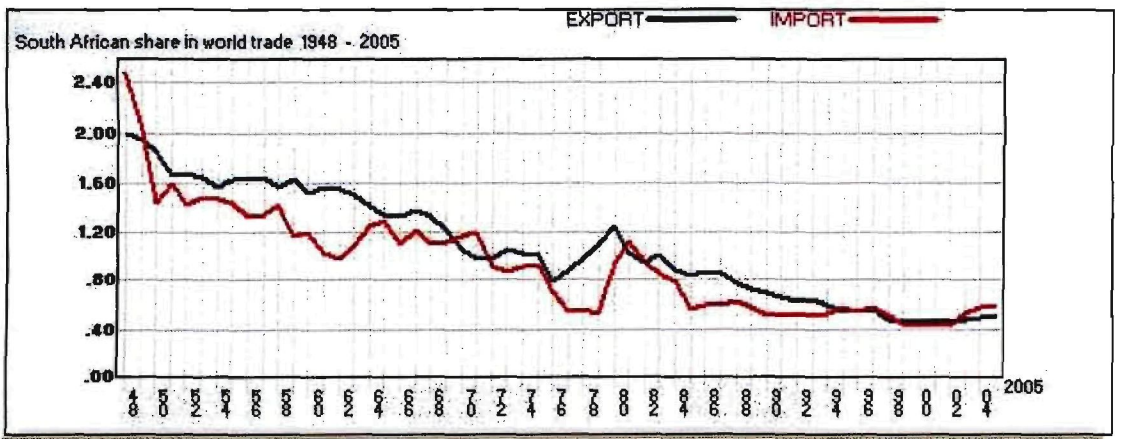
It is thus evident that South Africa's problem areas lie within Sub-index A which consists of the basic requirements that is needed for the country. South Africa ranks at number 117 in regards to the 4th pillar which is health and primary education. Furthermore, The Global Competitiveness Report (2008) ranks the inadequately educated workforce as the most problematic factor in South

Africa. This is followed by crime and theft, inefficient government bureaucracy, restrictive labour regulations and an inadequate supply of infrastructure. Do these factors restrict South Africa's international trade? How do South African exports and imports rank in the world?

b) Export and import rankings

South Africa's export ranking in 2006 and 2007 consistently remained at position number 40 when considering 227 countries (The World Factbook, 2008). The export and import rankings are determined by the value of trade (American dollars). Iran is just ahead of South Africa, claiming 39th position, while Chile and Venezuela trail behind South Africa at positions 41 and 42 respectively. South Africa's import ranking in 2006 was at 33rd position, but in 2007 South Africa claimed 39th position of the 227 countries (The World Factbook, 2008). Finland and Greece are just ahead of South Africa at positions 37 and 38 respectively, while Norway and Portugal claim the 40th and 41st positions.

When examining South Africa's share in world trade, it is evident from Figure 4.12 that South Africa's share of exports and imports showed a declining trend from 1948 to 1998, whereafter it stabilised. This could be due to the fact that South Africa has been diversifying its trade structure and concentrating more on manufactured products. The increase could also have been assisted by the TDCA, which was implemented in 2000 and aims to remove 90 percent of all trade barriers between South Africa and the European Union (European Commission in SA, 2008). South Africa has also formed important ties with China by establishing the China-Africa Co-operation Forum. Additional ties have also been formed with other countries such as Japan, the U.K. and the U.S.



	1948	1950	1960	1970	1980	1990	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Exports	2	1.85	1.52	1.06	1.25	0.68	0.54	0.54	0.56	0.48	0.47	0.47	0.47	0.46	0.48	0.5	0.5
Imports	2.49	1.44	1.19	1.17	0.94	0.52	0.58	0.55	0.58	0.52	0.45	0.44	0.44	0.44	0.53	0.58	0.58

Figure 4.12: South Africa's share of world trade

Source: The Department of Trade and Industry (2005)

c) The trade and development index

The trade and development index (TDI) examines the relationship between trade and development for 123 countries to determine if global trade has improved development performance in a country. South Africa moved up from 50th position in 2005 to 47th position in 2006 in this index (United Nations Conference on Trade and Development, 2008). The U.S has gained first position in this index, followed by Germany, Denmark, the U.K. and Singapore. Mexico and South Africa share position 47 on the TDI and are followed by Bolivia, Azerbaijan and Mauritius, which trail just behind. The TDI is determined by an input measure index which contains conditioning factors and an output measure index which contains performance indicators. These conditioning factors and performance indicators are shown in Table 4.8, where South Africa and other emerging economies are ranked.

Table 4.8 Conditioning factors and Performance indicators for emerging economies (2006)

Conditioning Factors	**South Africa**	**Brazil**	**China**	**Republic of Korea**	**India**	**Mexico**	**Russian Federation**
Human capital	28	26	15	22	17	26	22
Physical Infrastructure	12	13	53	63	22	16	18
Financial intermediation	62	16	55	45	15	7	10
Domestic finance	49	57	77	68	53	51	68
International finance	115	109	100	145	134	122	119
Institutional Quality	65	60	50	69	49	59	34
Economic structure	64	60	58	64	52	64	63
Macroeconomic stability	92	60	96	84	95	84	33
Environmental Sustainability	16	15	13	17	12	16	19
Openness to trade	76	73	78	78	61	69	76
Market Access, Foreign	80	77	82	82	65	79	79
Performance indicators							
Trade Performance	98	102	155	122	102	112	94
Economic and Social Well-Being	228	307	322	338	187	281	332

Source: United Nations Conference on Trade and Development (2008)

From Table 4.8 it is evident that South Africa does not rank very well in terms of performance indicators. In fact, South Africa ranks second last in trade performance and economic and social well-being. China ranks 1st in trade performance and the Russian Federation ranks last. Furthermore, The Republic of Korea ranks the highest with regards to economic and social well-being while India ranks the lowest in this category. When shifting the focus to conditioning factors in Table 4.8, it is evident that South Africa also lags behind in physical infrastructure and domestic finance. In contrast, South Africa ranks the highest in financial intermediation compared to other

emerging economies. It is interesting to note that the gaps between conditioning factors and performance indicators are very large for Mexico and China (United Nations Conference on Trade and Development, 2008). South Africa's gap between conditioning factors and performance indicators is more balanced, which might be an indication that South Africa is under-performing relative to other emerging markets, given its conditions.

What do these competitive indicators mean for South Africa's trade position? These indicators show that South Africa's overall position in the global trading arena is fairly positive. South Africa's export ranking in 2007 was 40th and its import ranking was 39th when considering 227 countries. South Africa is, thus, globally competitive when considering international trade. However, certain aspects may prevent South Africa from achieving its full potential in the international trade arena. The global competitiveness index showed that South Africa is lacking the basic health care, primary and higher education as well as labour market efficiencies to be competitive in international markets. The TDI also shows that South Africa lags behind in physical infrastructure, domestic finance and ranks second last in trade performance and economic and social well-being.

What does this mean for South Africa? This means that South Africa may lose competitiveness in the international market if it does not pay attention to the basic requirements of the country. What do these indicators imply in terms of this study? These indicators give an indication of South Africa's position with regard to international trade. This chapter aims to explore South Africa's unique trade structure and position. These indicators have assisted in determining South Africa's unique trade position in the global economy.

4.2.6 Summary: South Africa's international trade

To conclude, this section dealt with South Africa's international trade by examining South Africa's trading partners, exports and imports by product group, balance of payments and South Africa's competitiveness. Asia, Europe and the Americas were identified as South Africa's most important trading partners, while the EU, North-East Asia, NAFTA, China and the Middle East were identified as South Africa's most important trading regions. When examining exports and imports by product group it became evident that manufactured products are very important for South Africa in terms of exports and imports. Mining products form the second most important product group while agriculture enjoys a small share of exports and imports. The BOP was examined by paying attention to the current account, capital transfer account and the financial account. The overall balance of payments position showed a surplus of R47.8 billion in 2007, which is an increase from the R29.8 billion in 2006. Lastly, South Africa's overall competitiveness was examined by inspecting the global competitiveness index, export and import rankings and the TDI. South Africa ranks at number 44 of the 131 countries considered in the global competitiveness index.

Furthermore, South Africa's export ranking in 2007 was at 40th position and its import ranking at 39th when considering 227 countries. The trade and development index (TDI) examines the relationship between trade and development for 123 countries in order to determine if global trade has led to development performance in that country. South Africa shares position 47 with Mexico (2006) in this index. It became evident in this discussion, what South Africa's position is regarding international trade. In the next section, South Africa's tourism patterns will be explored and its tourism position in the world.

4.3 South Africa's tourism patterns

This section focuses on South Africa's tourism by examining South Africa as a unique tourist destination. Firstly, tourist arrivals into South Africa are analysed in section 4.3.1, while tourism receipts are the focus of section 4.3.2. Furthermore, the main travellers that visit South Africa are explored in section 4.3.3 and the top tourist destinations are listed in section 4.3.4. The impact of tourism on the South African economy is evaluated in section 4.3.5, and opportunities and challenges for the South African tourism sector are discussed in section 4.3.6.

4.3.1 Tourist arrivals into South Africa

When examining international tourist arrivals totals for each year (Table 4.9) it is evident that it is showing an increasing trend. This can also be seen in Figure 4.13 where international tourist arrivals from 1999 to 2007 are represented graphically. Figure 4.13 illustrates an upward trend for tourist arrivals since 1999. According to Table 4.9, 2006 recorded a total of 8 508 806 arrivals which represents an increase of 13.2 percent compared to 2005. On the other hand, in 2007 a total of 9 207 698 arrivals was recorded, which represents an increase of 8.2 percent compared to 2006. This increase is less than the percentage increase from 2005 to 2006. The question is what is South Africa's market share position in Africa when examining tourist arrival figures?

Table 4.9 shows that South Africa has been gaining market share in the African market. South Africa owned 20.1 percent of the African tourism market in 2005, but increased its share to 20.6 percent in 2006. How does South Africa's international arrivals ranking compare when considering the entire world?

Table 4.9 South Africa's tourist arrivals, market share and growth change

International tourist arrivals							Market share in Africa region		Change (percent)	
2001	2002	2003	2004	2005	2006	2007	2005	2006	06/05	07/06
546092	6549916	6640095	6815202	7518320	8508806	9207698	20.1	20.6	13.2	8.2

Source: UNWTO (2006)

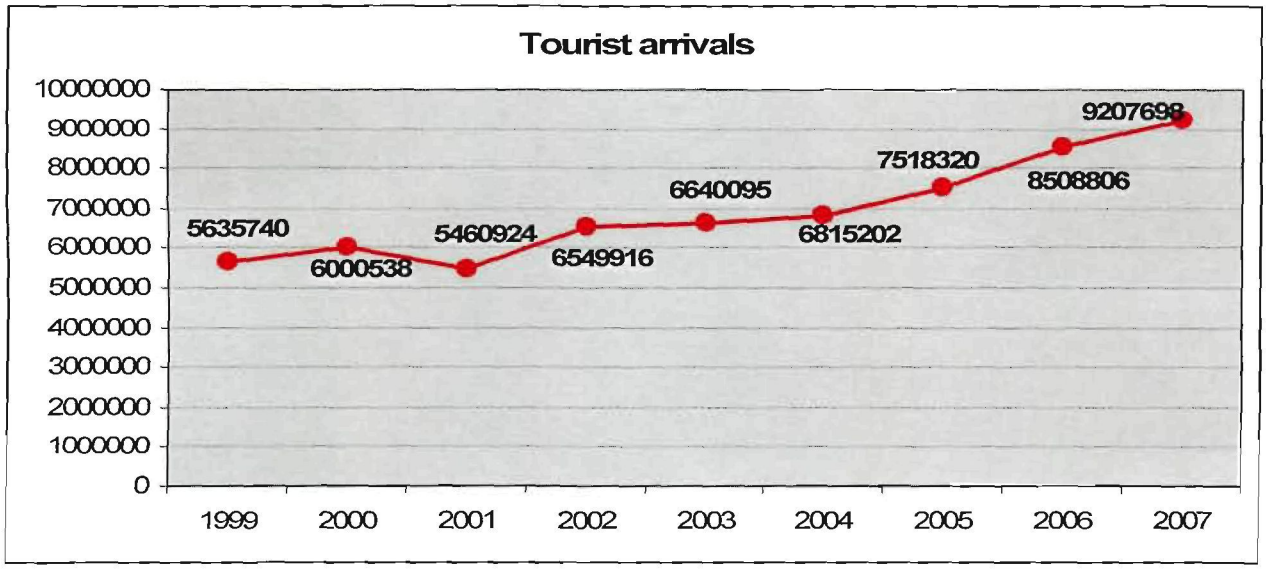


Figure 4.13: Tourist arrivals for South Africa 1999-2007

Source: Statistics South Africa

Table 4.10 shows the top ranking countries with respect to tourism arrivals for 2006. Table 4.10 shows that South Africa ranks at 25th position - ahead of Switzerland, Singapore and Brazil. South Africa's tourism arrivals grew at 13.5 percent from 2005 to 2006, which is faster than the growth shown by France, Spain, the U.S. or China. Additionally South Africa's growth rate in tourist arrivals is above the world growth rate of 5 percent in 2006. However, South Africa's share of world arrivals is only 1 percent (Table 4.10). This prompts the question as to why foreigners travelled to South Africa.

Table 4.10: International tourist arrivals – top countries 2005-2006

Ranking	Countries	2005 (millions)	2006 (millions)	Share of world arrivals (%)	Growth (%)
	World	802	842		5.0
1	France	75.9	79.1	9.4	4.2
2	Spain	55.9	58.5	6.9	4.7
3	United States	49.2	51.1	6.1	3.9
4	China	46.8	49.6	5.9	6.0
5	Italy	36.5	41.1	4.9	12.6
6	United Kingdom	28.0	30.1	3.6	7.5
7	Germany	21.5	23.6	2.8	9.8
8	Mexico	21.9	21.4	2.5	-2.3
9	Austria	20.0	20.3	2.4	1.5
10	Russian Federation	19.9	20.2	2.4	1.5
25	South Africa	7.4	8.4	1.0	13.5
28	Switzerland	7.2	7.9	0.9	9.7
29	Singapore	7.1	7.6	0.9	7.0
37	Brazil	5.4	5.0	0.6	-7.4
38	Australia	5.0	n/a	0.6	4.2
42	India	3.9	4.4	0.5	12.8
43	Argentina	3.8	4.2	0.5	10.5

Source: World Tourism Organisation

Figure 4.14 shows that 93.1 percent of people travelled to South Africa in 2007 to go on holiday, while 2.1 percent came to South Africa for business purposes. Border traffic attributed 1.9 percent, work 1.3 percent, study 1.2 percent and transit 0.4 percent to foreign arrivals. Thus, the majority of travellers visited South Africa for the purpose of going on holiday.

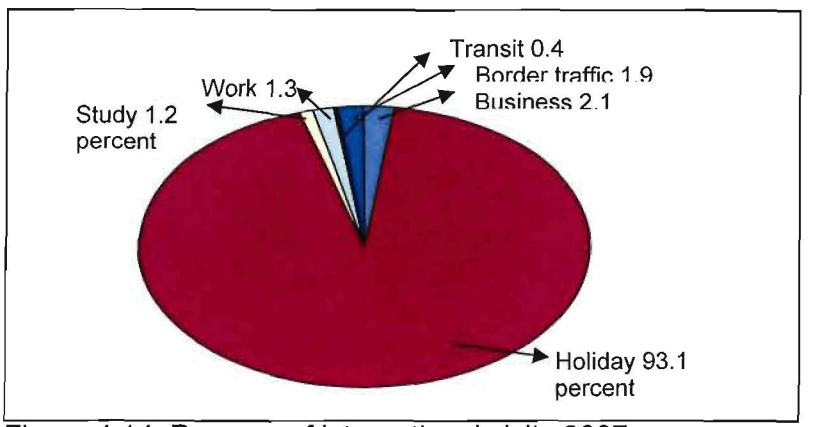


Figure 4.14: Purpose of international visits 2007

Source: Statistics South Africa

Figure 4.15 shows that 68.7 percent of the people that travelled to South Africa used road transport while 27.2 percent used air transport. When examining the departing countries of travellers that visit South Africa, it is found that overseas travellers generally use air transport while travellers from Africa generally use road transport (Statistics South Africa, 2008). Since approximately 69 percent of tourist arrivals come from Africa (Statistics South Africa, 2007), road transport contributes to a higher percentage of the travelling modes. It can therefore be concluded that the amount of tourists coming to South Africa is growing at a rapid pace, yet South Africa's share of world arrivals is only 1 percent. However, tourism is not only measured in numbers of arrivals, but also in income. This is the topic of section 4.3.2.

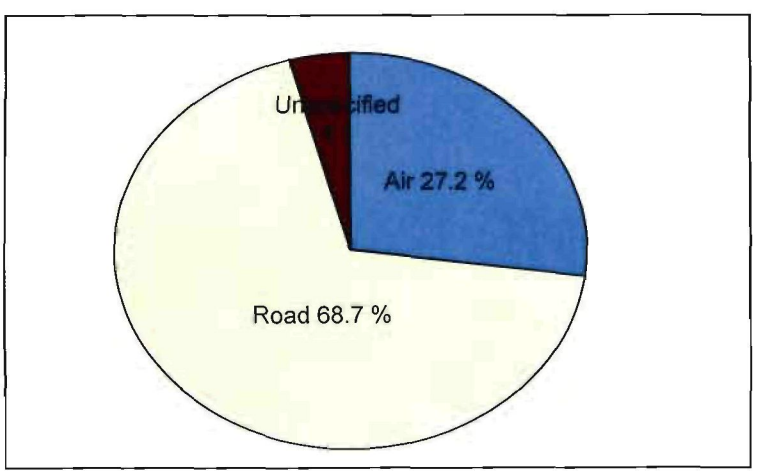


Figure 4.15: Mode of travel 2007

Source: Statistics South Africa

4.3.2 Tourism receipts

It was indicated in chapter 3 (section 3.6.2) that tourism receipts are expenditures by international inbound visitors and include payments for international transport, lodging, food and drinks, fuel, transport in the country, entertainment, shopping and so forth (Kester, 2005). Table 4.11 shows international tourism receipts for South Africa from 2000 to 2006 in U.S. dollars. According to Table 4.11, tourism receipts for 2006 reached $7.9 million, which represents an 8.2 percent increase from the 2005 tourism receipts, which totalled $7.3 million (UNWTO, 2007).

Table 4.11 International tourism receipts South Africa 2000-2006

International tourism receipts (US$, million)					Change (percent)	
2000	2003	2004	2005	2006	05/04	06/05
2,675	5,523	6,282	7,327	7,9	16.6	8.2

Source: UNWTO

Figure 4.16 graphically illustrates the relationship between tourist arrivals and tourism receipts for South Africa for the period from 1995 to 2005 (UNWTO, 2007). Figure 4.16 shows that tourism receipts and arrivals are very closely linked, especially since 2003. The period from 2000 to 2002 demonstrates a downward trend in tourist arrivals and tourism receipts. This could be ascribed to the September 11 attacks on the World Trade Centre in America in 2001. People cut back on travel due to anxiety caused by these events as well as the war that followed in Iraq afterwards (UNWTO, 2007). Table 4.10 demonstrates how South Africa ranks in terms of international tourist arrivals worldwide and it was indicated that South Africa currently fills the 25th place. The question remaining now is: how does South Africa rank in terms of international tourist receipts? Table 4.12 offers the answer to this question.

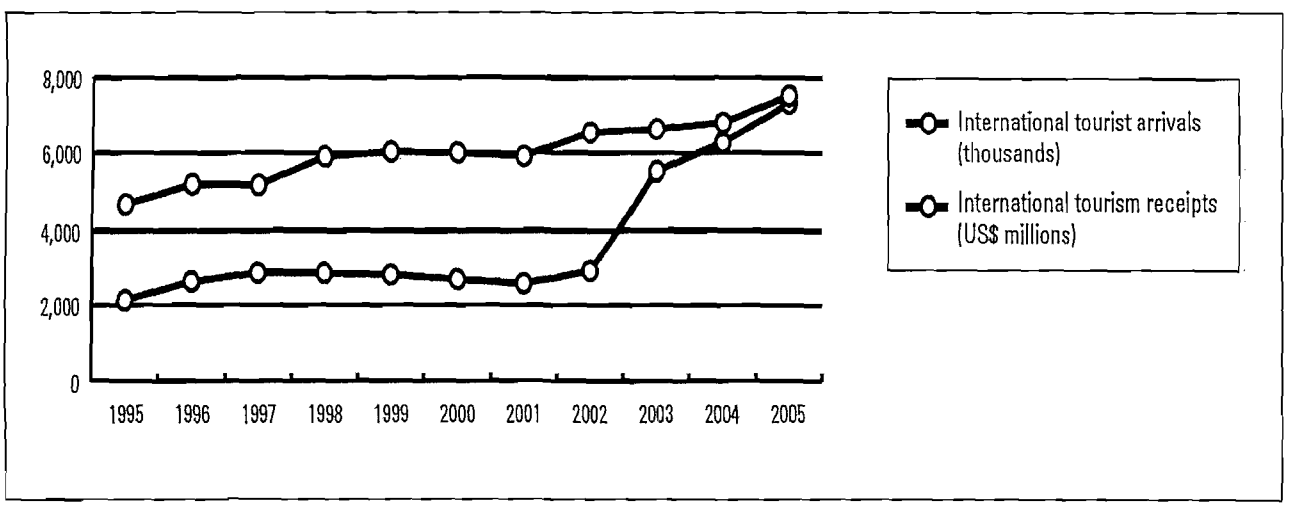


Figure 4.16: International tourist arrivals and international tourism receipts for South Africa

Source: UNWTO

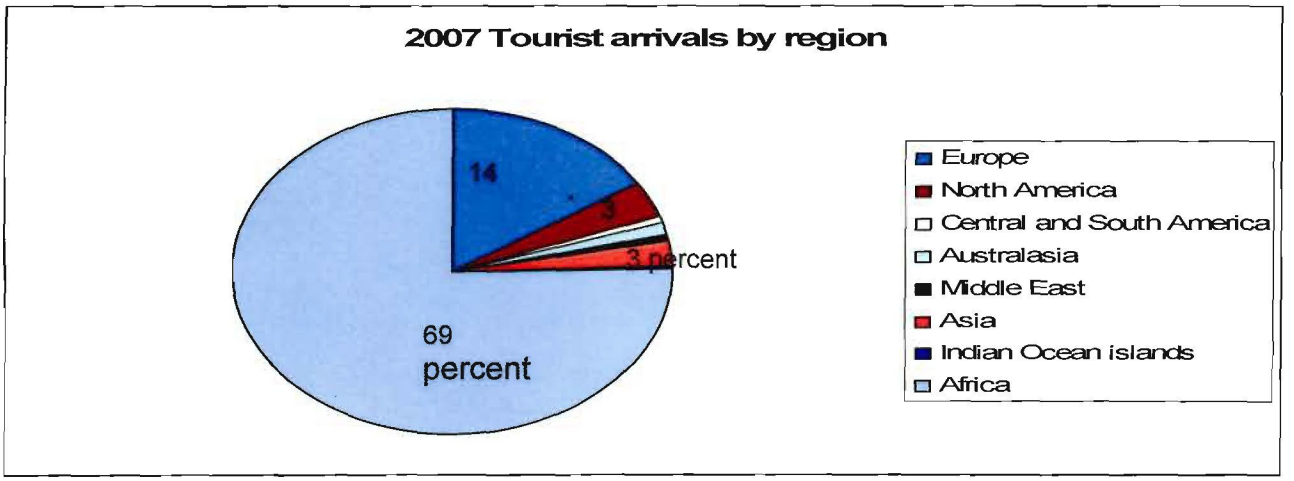


Figure 4.17: 2007 Tourist arrivals by region

Source: Statistics South Africa

Table 4.13 highlights the main tourists for 2007 that contribute to South Africa's tourist arrivals as well as each country's foreign arrival percentage in accordance to the region total (Statistics South Africa, 2007). It is evident from Table 4.13 that the main countries in Africa that contribute to South Africa's foreign arrivals are Lesotho (31.5 percent), Mozambique (15.8 percent), Swaziland (15.1 percent), Zimbabwe (14.2 percent) and Botswana (11.9 percent). As is expected, these countries are South Africa's neighbouring countries. When examining Europe, which contributes to the largest share of overseas travellers, Table 4.13 shows that the main countries in Europe that contribute to South Africa's foreign arrivals are the United Kingdom (35 percent), Germany (18 percent), the Netherlands (9 percent) and France (8.2 percent). Table 4.13 further shows that 83.9 percent of travellers from North America come from the United States, while 16.1 percent come from Canada. When examining Asia, Table 4.13 shows that 23 percent of Asian travellers that visit South Africa come from India. Close behind is China, with 18.9 percent.

What does this section imply for tourism in South Africa? The majority of South Africa's tourist arrivals come from the African continent. Additionally, the majority of African tourist arrivals come from South Africa's neighbouring countries, which is to be expected (Statistics South Africa, 2007). The distance that African tourists have to travel to reach South Africa is not as far when compared to European and American tourists which lead to intra-regional tourism. On the other hand, the major overseas contributor to South Africa's tourist arrivals is Europe. The U.K., Germany, the Netherlands and France are the main sources of tourist arrivals for South Africa when examining Europe. Thus, it can be concluded that Africa and Europe are South Africa's main sources of tourist arrivals.

Table 4.13 Main countries' contribution to South Africa's tourist arrivals for 2007

Africa		Europe		North America		Asia	
	percent of African total		percent of European total		percent of North American total		percent of Asian total
Lesotho	31.5	UK	35	USA	83.9	India	23.6
Mozambique	15.8	Germany	18	Canada	16.1	China	18.9
Swaziland	15.1	Netherlands	9	Other	0.025	Other	14.5
Zimbabwe	14.2	France	8.2			Japan	13.7
Botswana	12	Other	6.1			Rep of Korea	8.6
Namibia	3.2	Italy	3.8			Rep of China (Taiwan)	6.8
Zambia	2.7	Sweden	3			Malaysia	4.1
Other	2.5	Belgium	3			Philippines	3.6
Malawi	2.2	Ireland	3			Singapore	3.2
Angola	0.5	Switzerland	2.7			Hong Kong	2.9
Kenya	0.4	Spain	2.2				
		Portugal	2.1				
		Denmark	1.8				
		Austria	1.6				
		Greece	0.6				
Total	100		100		100		100

Source: Statistics South Africa

The discussion thus far has focused on South Africa's tourist arrivals, tourism receipts and where South Africa's main travellers come from. However, what has not been discussed thus far is why people take the time to visit South Africa. What tourist attractions in South Africa motivate tourists to visit South Africa? An answer to this question will follow when South Africa's main tourist attractions are discussed.

4.3.4 Top tourist destinations in South Africa

Chapter 3 (section 3.3) gave a number of reasons why people choose to travel. This prompts the question of why do people travel to South Africa as a tourist destination? People may travel to South Africa because of its scenic beauty (pull factors), or to experience a new lifestyle (push factors). Pull factors are factors outside a person such as features, attractions or attributes of a destination that motivate a person to travel. The main destinations and their unique pull factors that motivate tourists to travel to South Africa are listed below and briefly discussed (based on Anon., 2008d). These destinations can also be found in Figure 4.18 on the map of South Africa.

a) **Natural scenery:** South Africa has beautiful natural scenery which includes the winelands (Western Cape), Drakensberg (Kwazulu-Natal), the Garden Route, Cape Town and Namaqualand. The wineland regions such as Constantia, Stellenbosch, Franschoek, Paarl and the Breede River Valley offer wine tasting, cellar tours and a scenic background, while

the Drakensberg Mountains create a semi-circular border with Lesotho and offer scenic beauty, peaks, trails, streams, pools, rock paintings, hiking, climbing and horse riding. The Garden Route stretches from Mossel Bay, through George, Wilderness, Sedgefield, Knysna, Plettenberg Bay and ends at Nature's Valley. This coastline is notorious for its green forests and offers many outdoors activities. Cape Town is a world famous tourist destination. The top of Table Mountain can be reached by cable car or foot, to experience a breathtaking view of the city. Additionally, in early spring, the dry Namaqualand is transformed into a flower wonderland after the winter rains. These wild flowers (mainly daisies) paint the landscape in white, yellow, orange and purple colours.

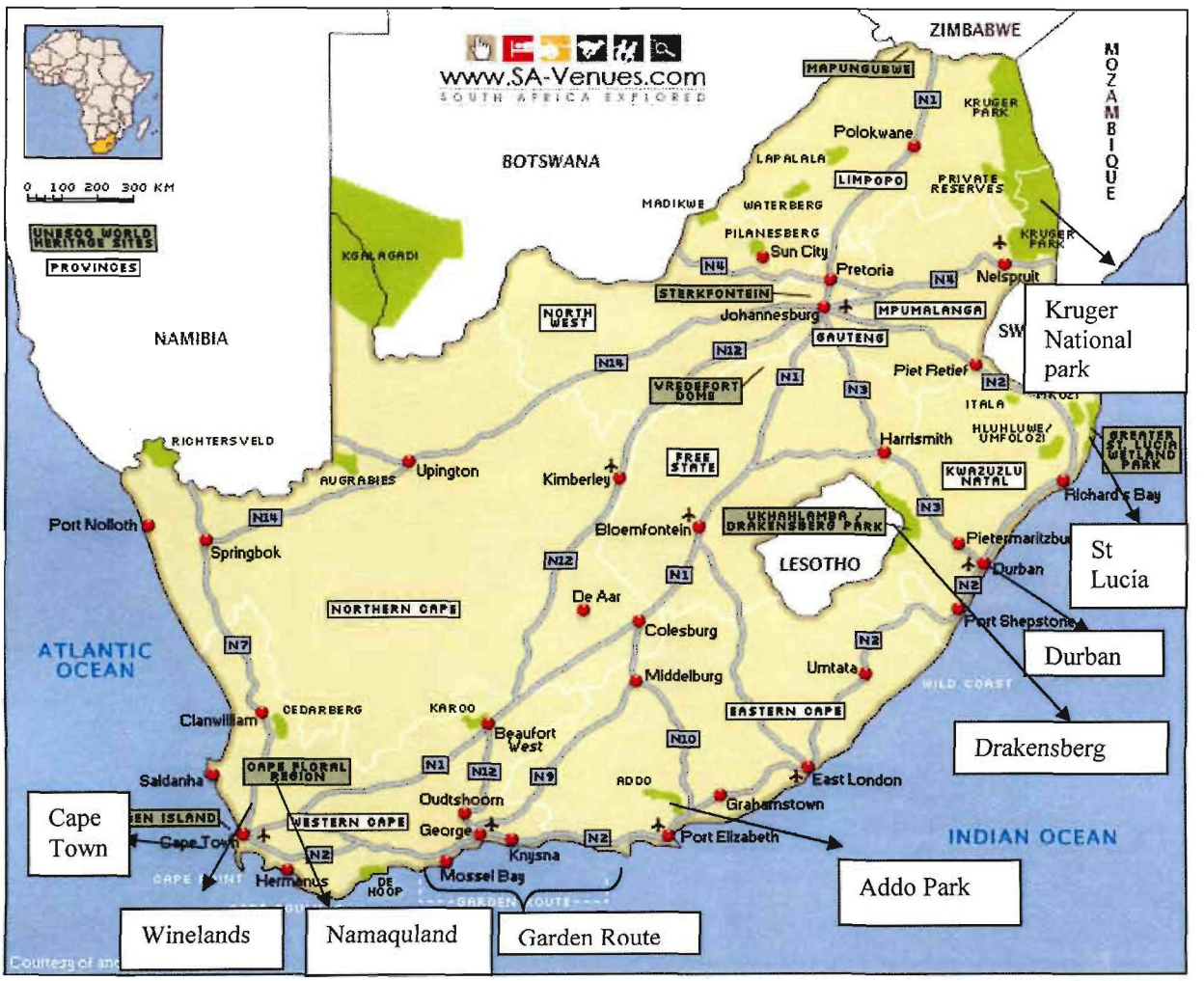


Figure 4.18: Map of South Africa with top tourist destinations
Source: www.SA-Venues.com

b) Parks: The Kruger National Park is situated next to the Mozambique border. This world-renowned National Park is a very popular tourist destination, because it allows the tourist to experience South Africa's wildlife in its natural habitat. Another important park in South

Africa is the Addo Elephant Park, which is located 50 kilometres north-east of Port Elizabeth and offers game drives to view elephants, buffalo, black rhino, antelope, a variety of birds as well as the great white shark and the southern right whale. On the other hand, St Lucia Wetland Park is an eco-tourist spot which presents excellent wildlife experiences such as bird watching, whale watching, turtle tours and sightings of hippo, crocodiles, leopards and warthog.

c) **Beaches:** Durban is the largest port city in South Africa. It presents beautiful beaches with warm Indian oceanic water (Anon., 2008d). The Garden Route, which was mentioned in terms of natural scenery, is also well renowned for its beautiful beaches and coastline. Cape Town is also known for its beautiful beaches and a ferry trip from Cape Town to Robben Island allows one to visit the prison where former president Nelson Mandela was held captive for many years. The West Coast has beaches where one can walk for miles without seeing another person.

d) **Cultural attractions:** Durban is renowned for its rich Zulu cultural activities. The Zulu culture can be explored by visiting cultural villages, music tours or rural and urban homestays. Wine tasting at Constantia, Stellenbosch, Franschoek, Paarl and the Breede River Valley can also be seen as a cultural attraction that attracts tourists.

e) **Adventure travel:** There are many adventure activities in South Africa that attract tourists. These include: diving and snorkelling, surfing, canoeing, horse trails, mountain biking, sky diving, hiking, paragliding, climbing, abseiling and bungy jumping.

This section was dedicated to highlighting some of South Africa's main tourist destinations and it is evident that "pull" factors are scenic attractions, parks, beaches, cultural attractions and adventure travel which attract tourists to South Africa. However, another important consideration is what the impact of these tourists has on the South African economy. Section 4.2.3 (a) focused on the current account of the balance of payments. More specifically, tourism receipts, and Table 4.6 showed an increase in tourism receipts from R22 million in 2001 to 59 million in 2007 (South African Reserve Bank, 2007). What contribution do these tourism receipts make to South Africa's GDP (gross domestic product) or employment?

4.3.5 Contribution of tourism to the South African economy

South Africa had an estimated population of 47.9 million people in 2007, where 23 percent of the people in South Africa were unemployed (Statistics South Africa, 2007). Creating jobs is thus very

important for South Africa in alleviating poverty. The tourism industry can contribute to South Africa's goals of job creation and creating better living circumstances for its population.

Table 4.14 summarises the economic impact of tourism on GDP and employment in South Africa. It is very important to distinguish between the direct impact and the indirect impact of tourism. In table 4.14 "*tourism industry contribution to GDP*" is the direct contribution of tourism to economic growth. However, tourism leads to economic growth and job creation in indirect ways as well. An example is where businesses do not specifically cater for tourists, but are visited by tourists and receive income from tourists. Table 4.14 notes the indirect impact of tourism as: "*Tourism economy contribution to GDP* ".

Table 4.14 shows that the indirect impact of tourism on the economy is much more immense than the direct impact of tourism on the economy. The direct impact of the tourism industry's contribution to GDP was 3.3 percent for 2008 thus far. On the other hand, the indirect impact of the tourism industry's contribution to GDP was 8.4 percent in 2008. The projection for 2018 is that the direct impact of tourism to GDP will increase to 4.1 percent, whereas the indirect impact of tourism to GDP will decrease slightly from 8.4 percent in 2008 to 8.3 percent in 2018 (World Travel and Tourism council, 2008). This direct and indirect impact of tourism on GDP is illustrated in Figure 4.19. Figure 4.19 clearly shows that the indirect impact of tourism is much larger than the direct impact of tourism to GDP. A steady upward trend is also evident in Figure 4.19 for tourism's contribution to GDP since 2005. Now that the impact of tourism on GDP has been discussed, what effect will tourism have on job creation?

Table 4.14 Economic impact of tourism in South Africa

	2000	**2008**	**2018 (Projection)**
Tourism industry contribution to GDP (percent)	3.6	3.3	4.1
Percentage of total employment	3.4	3.3	2.2
Tourism economy contribution to GDP (percent)	7.9	8.4	8.3
Percentage of total employment	7.5	7.6	7.6

Source: World Travel and Tourism council (2000; 2008)

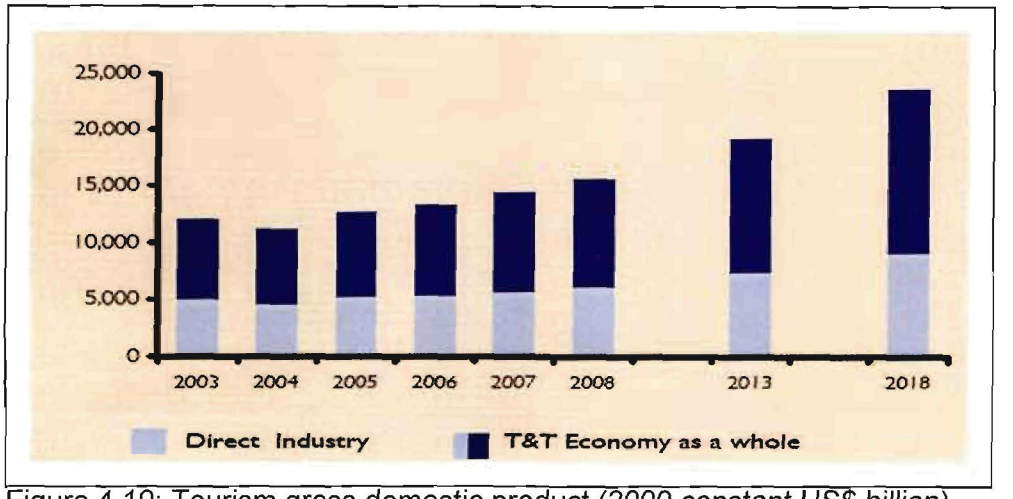


Figure 4.19: Tourism gross domestic product (2000 constant US$ billion)

Source: World Travel and Tourism council (2000; 2008)

Table 4.14 shows that the direct impact of tourism to total employment in 2008 is 3.3 percent; whereas the indirect impact of tourism to total employment is 7.6 percent. This means that 1,011,000 jobs are created through the tourism economy (World Travel and Tourism council, 2008). This is equivalent to 1 in every 13.2 jobs in South Africa (World Travel and Tourism council, 2008). This is crucial for a country such as South Africa which suffers from a 23 percent unemployment rate. The direct and indirect impact of tourism on employment is graphically illustrated in Figure 4.20 where it is shown that the direct impact is larger than the indirect impact. Figure 4.20 also shows that there has been a steady upward trend in tourism's contribution to employment since 2005. Additionally, Figure 4.20 shows that this upward trend will continue well into the future projection of 2018. However, is this upward trend a certainty? Or are there certain opportunities and challenges that could assist South Africa in, or prevent South Africa from, achieving this goal?

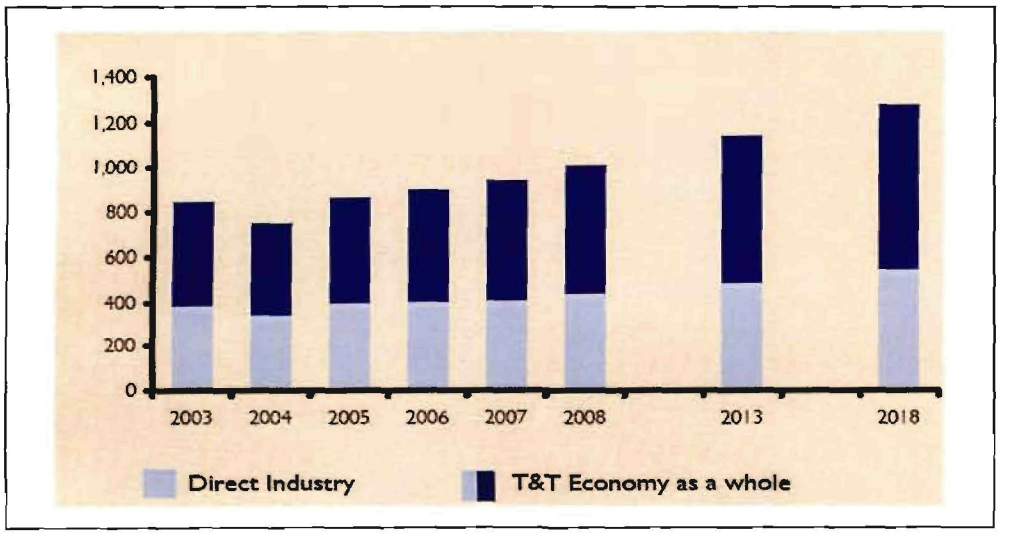


Figure 4.20: Tourism employment ('000 jobs)

Source: World Travel and Tourism council (2000; 2008)

To achieve optimal GDP and employment from tourism there are certain tourism opportunities that could be taken advantage of in order for South Africa to obtain its goals. There are, however, also certain challenges for the South African tourism industry that could make it difficult for South Africa to achieve its 2018 projections in terms of employment and GDP. These opportunities and challenges will be identified and addressed in the following section.

4.3.6 Opportunities and challenges for South African tourism

Certain opportunities could assist South Africa in achieving economic goals such as economic growth and higher employment. These opportunities are:

a) **FIFA 2010 World Cup:** South Africa won the bid to host the Soccer World Cup in 2010 and an estimated 450 000 international visitors are expected to arrive in the space of six weeks (Mbola, 2008). The FIFA 2010 World Cup will lead to increased tourism exposure and job creation for South Africa. Additionally, it could guarantee return visits when the event is over.

b) **Growth in emerging countries as tourist destinations:** According to the Department of Trade and Industry (2008), international travel patterns are changing. More international tourists are visiting emerging economies such as South Africa, China and Mexico in search of a differentiated tourism experience. South Africa can use this new international travel pattern to its advantage by marketing itself as a differentiated tourism experience.

However, there are also certain challenges for South Africa's tourism sector. International tourism is particularly vulnerable to global events (such as the 2001 terror attacks in America) and to global perceptions. Currently, South Africa has been facing some domestic crises that may influence global perceptions negatively and reduce tourist arrivals. These crises include:

a) **Xenophobia:** A number of South Africans have been lashing out at foreigners living in South Africa by beating them, looting their shops and, in extreme cases, killing them (Sapa, 2008). The attacks started in the informal settlements of Johannesburg on May 11 2008, but have since spread to other cities and provinces. These attacks have left many homeless. Environmental and Tourism Minister, Marthinus van Schalwyk, said at a briefing in Cape Town (Sapa, 2008), that the xenophobic violence could cause serious harm to South Africa's tourism industry and that tourists from African countries were likely to keep from visiting South Africa.

b) **Crime:** Crime is a very serious problem in South Africa. What is the impact of crime on South African tourism? According to South Africa's annual tourism report (South African tourism strategic research unit, 2006), 80 percent of tourists had no bad experience when visiting South Africa. This is shown in Figure 4.21 below. Figure 4.21 identifies possible negative experiences that tourists had in South Africa and what percentage of tourists had them. Of those tourists who did have bad experiences in South Africa, 12 percent mentioned safety as a negative experience. In Figure 4.21, safety and security refers to general safety while robbery, theft and crime refer to personal safety.

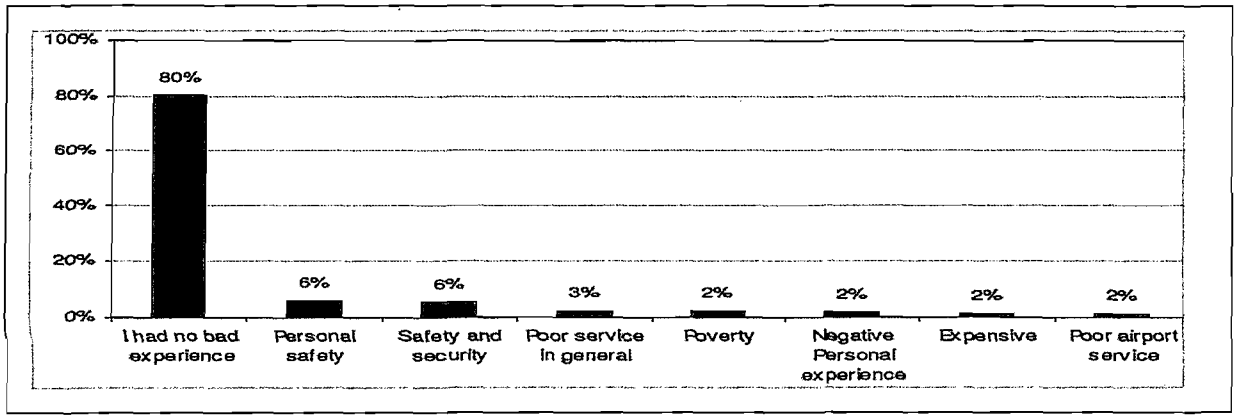


Figure 4.21: Tourists' negative experiences in South Africa 2006
Source: South African tourism strategic research unit (2006)

c) **Power crisis:** The ongoing power crisis has recently put extra strain on South Africa's economy. Eskom (which supplies 95 percent of South Africa's energy) did not keep up with electricity demand and reserve margins. Reserve margins, which were 25 percent in 2001, have fallen to 6 percent in 2008, which left the country exposed to blackouts during peak hours (Oxford business group, 2008:84). This power crisis may impact South Africa's tourism sector negatively, especially with the impending 2010 FIFA World Cup. The chief executive of the South African tourism services association, expressed his concerns by asking if people will still be willing to come to South Africa if they know they will be going back to hotels and guest houses with no power (Reuters, 2008).

4.3.7 Summary: South Africa's tourism

The focus of chapter 3 was on tourism as a global concept. This section was dedicated to discussing and evaluating South Africa's unique tourism position. Identical to the discussion in section 3.6 (current global tourism patterns), this section focuses on tourism patterns, but with one difference: where section 3.6 studies tourism on a global scale this section focuses on tourism by examining, specifically, South Africa. Firstly, tourist arrivals into South Africa were discussed. It was shown that South Africa recorded a total of 9 207 698 arrivals which represents an increase of

8.2 percent since 2006. When comparing South Africa's tourist arrivals to other countries, South Africa ranked at 25th position in 2006, ahead of Switzerland, Singapore and Brazil. 93.1 percent of people travelled to South Africa in 2007 to go on holiday and 68.7 percent of the people that travelled to South Africa used road transport.

Secondly, in order to determine South Africa's tourist position, tourism receipts were discussed. Tourism receipts for 2006 reached $7.9 million, which represents an 8.2 percent increase from 2005. When compared to other countries, it was shown that South Africa ranked at 26th position in 2006 in terms of tourism receipts - ahead of Singapore, Indonesia and Brazil.

Thirdly, the main travellers that visit South Africa were identified. It became evident that 69 percent of tourist arrivals came from Africa, while 14 percent came from Europe, and North America as well as Asia contributed 3 percent each. The main countries in Africa that contributed to South Africa's foreign arrivals are Lesotho, Mozambique and Swaziland. Europe contributed the largest share of overseas travellers, and the main countries that contributed to South Africa's foreign arrivals were the United Kingdom, Germany and the Netherlands.

Fourthly, the reasons why people travel to South Africa were discussed by naming the main pull factors that motivate tourists to travel to South Africa. These pull factors were identified as natural scenery, parks, beaches, cultural attractions and adventure travel. The key destinations that were identified were Cape Town, the Winelands, the Kruger National Park, the Garden Route, the Addo Elephant National Park, Durban, the Drakensberg, St Lucia and surrounds, the West Coast and the Namaqualand flowers.

Tourism receipts were discussed as part of the balance of payments in section 4.2.3 (a) and this gave rise to the question: how do these tourism receipts contribute to the South African economy? Subsequently, the contribution that tourism makes to the South African economy was discussed Table 4.14 showed that the direct impact of the tourism industry's contribution to GDP is 3.3 percent for 2008, whereas the indirect impact of the tourism economy's contribution to GDP is 8.4 percent. Another important consideration is the number of jobs that are created by tourism. Table 4.14 showed that the direct impact of tourism to total employment in 2008 is 3.3 percent; whereas the indirect impact of tourism to total employment is 7.6 percent. This is equivalent to approximately 1 million jobs created due to the tourism industry in South Africa (World Travel and Tourism council, 2008). However, it became apparent that certain challenges could prevent an optimal economic effect of tourism on GDP and employment. Equally, certain opportunities could have a positive effect for South Africa.

Thus, lastly, these opportunities and challenges were identified. The opportunities listed were: the 2010 FIFA World Cup and growth in emerging countries as tourist destinations. The challenges identified were: xenophobia, crime and the power crisis.

It has became evident from the discussion thus far, what South Africa's unique tourism situation is and what it entails. Section 4.3.3 indicated the importance of intra-regional tourism for South Africa, since 69 percent of tourist arrivals came from the African continent (Statistics South Africa, 2007). However, when examining inter-regional tourism, Europe accounts for the biggest share of oversees tourist arrivals into South Africa. Additionally, Europe is also one of South Africa's most important trading partners (section 4.2.1). A possible relationship between trade and tourism will briefly be discussed in the following section.

4.4 Tourism as a percentage of trade

Cornelissen (2005:117) states that tourism is essentially a form of international trade. Why is this so? Cornelissen (2005:117) substantiates this by pointing out that tourism (similar to international trade) is an exchange of currencies, revenue, goods, equity and people on a very large scale between different countries and economic regions across the world.

It was mentioned in Chapter 1 that a possible relationship between trade and tourism can be substantiated with certain arguments such as, for instance, that when tourists leave their home country to visit a foreign country, they shift their expenditure patterns from their home country towards the foreign country. Tourists consume goods and services in the foreign country, many of which have to be imported. Thus, tourism could lead to trade. Another argument was that travel could lead to increased international trade through business visitors starting up new ventures or government agents negotiating trade agreements. A number of tourists may also travel to foreign countries and request local producers to export favourable items to their home country, leading to international trade.

Table 4.15 shows South Africa's international tourism receipts as a percentage of South Africa's exports from 1995 to 2005. It can be seen from Table 4.15 that this percentage has increased from 7.72 percent in 1995 to 12.72 percent in 2005. Additionally, it became evident from Table 4.15 that South Africa's rank has moved up from 55th position in 1995 to 40th position in 2005. The Bahamas claimed first position. Their tourism receipts equalled 68.59 percent of their exports (World development indicators database, 2005). Nigeria ranked last, at 147th position, with tourism receipts that equalled only 0.13 percent of exports.

The results from Table 4.15 indicate that a relationship between tourism and trade may indeed exist. However, empirical evidence is needed to verify this relationship. Further attention will be given to this empirical investigation in chapter 5.

Table 4.15 South Africa's tourism receipts as a percentage of exports

Date	Percentage	Rank
1995	7.72	55
1996	8.84	53
1997	9.36	55
1998	9.88	60
1999	10.1	60
2000	9.02	59
2001	9.07	56
2002	10.06	51
2003	13.9	42
2004	12.74	45
2005	12.72	40

Source: World development indicators database (2005)

4.5 Summary

The two aims of this chapter were to (a) evaluate South Africa's unique trade structure and (b) evaluate South Africa's tourism situation. To achieve the first aim, South Africa's international trade position was examined. An investigation into South African trade revealed some interesting facts about the country's trading partners, exports and imports by product group, the balance of payments and South Africa's competitiveness. This chapter concluded by examining chapter 2 and 3 and applying it specifically to South Africa's unique situation.

Firstly, an examination of South Africa's trading partners exposed Asia, Europe and the Americas as South Africa's most important trading partners, while the EU, North-East Asia, NAFTA, China and the Middle East were identified as South Africa's most important trading regions. This means that inter-regional trade is more important for South Africa than intra-regional trade. Secondly, an evaluation of South Africa's exports and imports by product group showed that South Africa has changed its trade patterns by moving away from mining products and placing more emphasis on manufactured products. It was shown that 63.7 percent of South African exports were due to the manufacturing sector (Figure 4.2), whereas 82.11 percent of South African imports were due to the manufacturing sector (Figure 4.5). Mining products form the second most important product group while agriculture enjoys a small share of exports and imports.

Thirdly, the BOP was examined by paying attention to the current account, capital transfer account and the financial account. The trade indicators in the current account showed huge growth since the current account deficit increased from R112 billion in 2006 to R145 billion in 2007. The overall balance of payments position showed a surplus of R47.8 billion in 2007, which represents an increase from R29.8 billion in 2006. Lastly, South Africa's overall competitiveness was examined by inspecting the global competitiveness index, export and import rankings and the TDI. South Africa ranks at number 44 of the 131 countries considered in the global competitiveness index.

To achieve the second aim of this chapter, South Africa as a tourist destination was evaluated. Firstly, tourist arrivals into South Africa were discussed. It was shown that South Africa recorded a total of 9 207 698 arrivals, of which 93.1 percent of people travelled to South Africa in 2007 to go on holiday and 68.7 percent of the people that travelled to South Africa used road transport. Secondly, tourism receipts were discussed. Tourism receipts for 2006 reached $7.9 million, which is an 8.2 percent increase from 2005. When compared to other countries, it was shown that South Africa ranked 26th in 2006 in terms of tourism receipts - ahead of Singapore, Indonesia and Brazil.

Thirdly, it was shown that the main travellers that visit South Africa are from Africa (69 percent) and, thus, intra-regional tourism is very important for South Africa. On the other hand, when examining inter-regional tourism, 14 percent of tourist arrivals came from Europe, and North America and Asia contributed 3 percent each. Fourthly, South Africa's top tourist destinations were identified in terms of pull factors.

Fifthly, the contribution of tourism to the South African economy was discussed. Table 4.14 showed that the direct impact of the tourism industry's contribution to GDP was 3.3 percent for 2008, whereas the indirect impact of the tourism industry's contribution to GDP was 8.4 percent. Furthermore, it was shown that approximately 1 million jobs were created in 2008 through tourism (World Travel and Tourism council, 2008). Lastly, tourism opportunities and challenges were identified. Opportunities were listed as: the 2010 FIFA World Cup and growth in emerging countries as tourist destinations. Challenges identified were xenophobia, crime and the power crisis.

Following this discussion, tourism as a percentage of trade was briefly discussed. It was illustrated in Table 4.15 that South Africa's international tourism receipts as a percentage of South Africa's exports equaled 12.72 percent in 2005. This represents an increase from 7.72 percent in 1995.

It became apparent from the discussion thus far that a possible relationship between tourism and trade may exist. However, does the empirical evidence verify this relationship? Furthermore, does

tourism cause trade or does trade cause tourism? This relationship between tourism and trade for South Africa will be tested empirically in the following chapter and, more specifically, causality will be researched in terms of this relationship.

Chapter 5 Empirical Investigation

5.1 Introduction

Chapter 2 and 3 discussed why and how nations trade and why people travel. Chapter 4 focused on South Africa's trade and tourism patterns, and it was seen that Asia, Europe and the Americas were identified as South Africa's most important trading partners even though South Africa is situated on the African continent. This means that inter-regional trade (trade between countries from different regions) is more important for South Africa than intra-regional trade (trade between countries from the same region). On the other hand, the main travellers that visit South Africa are from Africa. Thus intra-regional tourism is very important for South Africa. However, the main overseas travellers that visit South Africa (inter-regional tourism) are from Europe, North America and Asia. These inter-regional tourism destinations coincide with the inter-regional trade destinations that were identified as being Asia, Europe and the Americas. Therefore, Chapter 5 aims to test the relationship between trade and tourism in South Africa empirically. In Chapter 1 (section 1.5.2) the methods to be used were identified as being the Granger causality test (as conducted by Santana-Gallego *et al.* in 2007 and Khan *et al.* in 2005), cointegration tests (as conducted by Santana-Gallego *et al.* in 2007 and Saayman and Saayman in 2008) and Block exogeinity tests. The Granger causality test is done in order to determine if tourist arrivals leads international trade and assists in predicting international trade in South Africa or visa versa. Cointegration tests are performed to determine if a long-term relationship exists between tourist arrivals and trade in South Africa. Lastly, the Block exogeneity test is performed to distinguish between endogenous and exogenous variables when considering tourism arrivals and trade data for each individual country. This is done in order to determine whether tourism explains (causes) trade or trade explains (causes) tourism or if other variables explain (cause) tourism and trade.

The empirical investigation of this study involves two analyses. The first analysis involves the panel set data which includes the tourism and trade data of 40 countries with South Africa for the period 1992 – 2007. A panel data set is a time series where every cross-sectional member in the data set is included (Asteriou and Hall, 2007:9). The reason for choosing panel data is because it renders certain advantages in that it allows a variety of estimation models and it assists in obtaining significant t-ratios or F-statistics from regressions (Asteriou and Hall, 2007:9). The aim of the first analysis is to determine whether a long-run relationship exists between tourism and trade and if tourism assists in predicting trade at some stage in the future or vice versa.

The second analysis involves identifying South Africa's main tourism and trade partners. The aim of this second analysis is to determine if a long-run relationship exists between tourism and trade when examining South Africa's main tourism and trade partners as well as the causality between tourism and trade.

5.2 Panel data analysis

This first analysis comprises a panel data set where all 40 countries (see Table 5.1) are included for the period 1992 to 2007. The aim of the panel data analysis is to determine whether a long-run relationship exists between tourism and trade and to establish if tourism causes trade or trade causes tourism. A series of tests are conducted to determine the nature of the relationship between tourism and trade.

5.2.1 Description of the data

The purpose of this study is to investigate the relationship between international trade and tourism by using South Africa as a case study. Trade flow data includes total trade (sum of exports and imports) between South Africa and countries of Europe, North America, Central and South America, Australasia, Middle East, Asia, Indian Ocean islands and Africa for the period 1992 to 2007, while the tourist arrivals data cover the same period and countries. In total, 40 countries will be examined. These countries are shown in Table 5.1 below. Monthly tourism and trade data is obtained for each of these countries. However, tourist arrivals for October 1998 were not available. To obtain a complete dataset, tourist arrivals for October 1998 were interpolated by taking the average monthly tourist arrivals in 1998 and multiplying that average with a seasonal adjustment component that makes use of the moving average method[10].

Tourism data were obtained from Statistics South Africa and trade data from the Department of Trade and Industry. Exports, imports and total trade data are considered in this investigation. The tourist arrival data of each country as well as the trade data of each country can be found in the appendix (Figure A-5.1, Figure A-5.2 and Figure A-5.3).

Table 5.1 Country data used in the investigation

Europe	North America	South America	Australasia	Middle East	Asia	Indian Ocean Islands	Africa
Austria	Canada	Argentina	Australia	Israel	China +Taiwan	Mauritius	Botswana
Belgium	U.S.	Brazil	New Zealand		Hong Kong		Kenya
Denmark		Chile			India		Lesotho
France					Japan		Malawi
Germany					Malaysia		Mozambique
Greece					Philippines		Namibia
Ireland					Korea		Swaziland

[10] The moving average method calculates the average of the time series over a period of time and allows the average to move up or down. In terms of this study, the seasonal adjustment component used the moving average method and thus the average of tourism seasonality was calculated, but the average is able to move up or down. This method was used, in order to calculate the most accurate tourist arrivals data for October 1998.

Italy					Singapore		Zambia
Netherlands							Zimbabwe
Portugal							
Spain							
Sweden							
Switzerland							
U.K.							

5.2.2 Panel unit root test

It is important to determine if a series is stationary or non-stationary. A time series is said to be stationary when it comprises the following three characteristics (Asteriou and Hall, 2007:230):

- Shows evidence of mean reversion in that it fluctuates around a constant long-run average
- Contains a finite variance that is time-invariant
- Comprises a hypothetical correlogram that diminishes as the lag length increases.

Why is it important to have a stationary time series? In a stationary time series, shocks will be temporary and over time their effects will be removed as the series returns to its long-run mean (Asteriou and Hall, 2007:288). However, in a non-stationary series the shocks will be permanent and, thus, contains no long-run mean which the series returns to. In addition, the variance of a non-stationary series will depend on time and advance towards infinity as time goes to infinity. What is a unit root? A unit root is a feature of a statistical model where its autoregressive parameter is one (Anon., 2008a). Consider the following model (Asteriou and Hall, 2007:288):

$$Y_t = \Phi Y_{t-1} + u_t \qquad (5.1)$$

Where u_t is a white noise process[11]. If the parameter $\Phi = 1$, it means that $Y_t = Y_{t-1}$. In other words, the value of Y_t depends entirely on the value of the previous period (Y_{t-1}). When this occurs, the series contains a unit root and is non-stationary.

Both cointegration and Granger causality tests require an investigation into the stationarity of the data. Granger and Newbold (as cited in Chen, Kuo and Chen, 2006) state that the Granger-causality test will lead to spurious regression if the data set is non-stationary. In order to make sure that the data set is stationary, unit root tests are also expanded to panel data. For the most part, panel unit root tests are based on an extension of the augmented Dickey Fuller (ADF) test (Asteriou and Hall, 2007:366).

[11] A white noise process is when the disturbances in the autoregression model are independent with a mean zero and the disturbances are identically distributed random variables (Murray, 2006:730).

In a panel data set, the Im, Pesaran and Shin (IPS) test is now regularly used to test for a unit root on the panel data. The advantage of the IPS test is that it allows for heterogeneity[12] in the coefficient of the variable $Y_{i,t-1}$ (Asteriou and Hall, 2007:368). Al-Rabbaie and Hunt (2004) state that this renders a more powerful test of the unit root hypothesis than the standard single time series test.

Im, Pesaran and Shin (1997) proposed the following model:

$$\Delta Y_{i,t} = \rho_i Y_{i,t-1} + \sum_{L=1}^{p_i} \Phi_{iL} \Delta Y_{i,t-L} + z_{it}'\gamma + u_{it} \qquad (5.2)$$

Where the null and alternative hypothesis are:

$H_0 : \rho_i = 0$ for all i

$H_0 : \rho < 0$ for at least one i

Therefore, the null of this test is that all series are non-stationary processes and the alternative test states that a portion of the series is assumed to be stationary. The aim is to determine if the panel data set is stationary by applying the IPS test. If both the tourism and trade data are non-stationary, the next step would be to test whether there is a statistically acceptable long-run relationship between the variables.

5.2.3 Panel cointegration tests

Firstly, it is important to define what is meant by the term "cointegration". Asteriou and Hall (2007:307) state that if two variables are non-stationary, the error term can be represented as a combination of the two cumulated error procedures. The expectation would arise that the cumulated error processes would produce an additional non-stationary process. However, Asteriou and Hall (2007:307) state that if the two variables (X and Y) are truly related then they will move together and a combination of the two should produce a combination which eliminates the non-stationarity. In other words, if an authentic long-run relationship exists between X_t and Y_t, then, even though the variables will rise over time (because the variables are trended), there will be a common trend that links the variables together, and the variables are then said to be cointegrated (Asteriou and Hall, 2007:307).

Why is it important to test if the panel data set is cointegrated or not? Asteriou and Hall (2007:307) answer this question by stating that testing for cointegration is mainly linked with the requirement of

[12] A heterogeneous panel refers to a panel where some of the parameters vary across the panel (Asteriou and Hall, 2007:358).

investigating the problem of spurious regressions, which are present only in the presence of non-stationarity. To test for cointegration in this specific panel data set, the cointegration tests proposed by Pedroni (1997, 1999, 2000) are applied. Al-Rabbaie and Hunt (2004) state that the test by Pedroni (1997, 1999, 2000) represents an important improvement in addressing the low power of conventional single equation cointegration tests for a single time series by taking advantage of cross-sectional and time series formation.

Pedroni's (1997) test for cointegration in panel data models permits individual heterogeneous fixed effects and trend terms. Additionally, it considers both pooling 'within' dimension tests and pooling 'between' dimension tests. Pedroni suggests the following panel regression model:

$$Y_{i,t} = a_i + \delta_i t + \sum_{m=1}^{M} \beta_{mi} X_{mi,t} + u_{i,t} \qquad (5.3)$$

Where a_i is the member-specific intercept, or fixed effects parameter which varies across individual cross-sectional units, and $\delta_i t$ is the slope coefficient and member-specific time effect. Pedroni (1997, 1999, 2000) proposed seven different tests to determine cointegration in the panel data models. Four of these tests apply to pooling 'within' dimensions and three of these tests apply to pooling 'between' dimensions. Pooling 'within' dimensions refers to the pooling of the autoregressive coefficients across the different countries of the panel for the unit root test on the residuals, in the form of $\hat{u}_{it} = p_i \hat{u}_{i,t-1} + v_{it}$, where u_{it} is a white noise process.

The null hypothesis for the pooling 'within-dimension' estimation is the following:

$H_0 : \rho_i = 1$ for all i

$H_A : \rho_i = \rho < 1$ for all i

The null hypothesis for the pooling 'between dimension' estimation is the following:

$H_O : \rho_i = 1$ for all i

$H_A : \rho_i < 1$ for all i

The aim is to apply the Pedroni cointegration test in order to determine if cointegration exists between tourism and trade for the 40 countries for the period 1992-2007. Cointegration indicates a systematic long-term relationship between tourism and trade. The next process in these analyses is to determine the nature of the causality between tourism and trade.

5.2.4 Panel causality tests

What does Granger causality mean? Causality can be explained by the following example. If there are two variables, for instance, x_t and y_t, and it is said that x_t is Granger casual for y_t, it simply means that x_t assists in predicting y_t at some stage in the future (Sorensen, 2005).

Sorensen (2005) states that it is important to note that Granger causality is not causality in the deep sense of the word. He states that it involves linear prediction and it only occurs if one event takes place before the other (in other words if Granger causality is found in one direction). Thus, Granger causality means that one series leads another series and assists in predicting that series. The aim of the Granger causality test in this study is to determine whether tourism leads trade and assists in predicting trade, or perhaps whether trade leads tourism and assists in predicting tourism.

5.2.5 Results for the panel unit root test

Section 5.2.2 stated that for the most part, panel unit root tests are based on an extension of the augmented Dickey Fuller (ADF) test (Asteriou and Hall, 2007:366). In order to obtain the t-statistic of the ADF test, 40 (one for each country) different regression equations were estimated of the standard ADF unit root test using an intercept and trend and using an intercept only. This was performed on tourism and trade data. The ADF test statistics for each country are reported in Table 5.2 below.

Table 5.2 ADF results for individual countries

ADF	Intercept			Intercept and trend		
Country	Tourism	Exports	Total trade	Tourism	Exports	Total trade
Argentina	-2.0448	*-9.720	-0.1861	-1.8557	*-10.823	-2.4221
Austria	-1.791	-2.004	-0.2937	-1.6597	*-13.216	*-3.8493
Australia	-0.0823	-0.376	0.9643	-1.5445	-3.2989	*-5.7567
Belgium	-1.5758	-0.665	-0.1951	-1.7026	*-10.912	*-6.2258
Brazil	0.4051	-1.353	-0.2489	-0.8321	-3.1664	-2.5267
Botswana	-1.0361	*-5.975	-1.3056	-3.019	*-6.4421	-2.2172
Canada	1.0516	1.711	-1.3938	-1.3479	*-4.5379	*-5.3826
Switzerland	-2.1025	*-3.234	-2.7658	-1.9012	*-4.1437	*-4.5798
Chile	-2.5271	*-3.919	*-2.8134	-2.4676	*-5.8123	*-4.4912
China + Taiwan	-2.3653	-0.600	4.2593	*-6.845	-2.3766	2.0605
Germany	-1.6811	0.842	-0.2319	-2.0433	-1.669	-3.1612
Denmark	-0.5446	-1.265	0.5309	-2.3988	*-12.375	*-10.584
Spain	-0.2322	1.123	-0.4141	-2.6052	-1.5258	-3.0835
France	-1.3917	-0.848	0.4595	-2.1854	*-4.8328	*-7.069
United Kingdom	-0.9609	-0.702	-0.6933	-1.7322	*-12.028	-*10.736
Greece	-1.3405	-2.019	-1.5613	*-3.8118	*-6.701	-3.2344
Hong Kong	-2.2975	*-4.796	-1.1439	-2.5216	-*6.5782	-*6.7648
Ireland	0.6613	-1.776	-0.3247	-1.5761	-*10.903	-*12.003
Israel	-0.4675	-2.564	-1.6672	*-11.107	*-5.4861	*-11.571

India	-1.6504	-0.211	-0.1619	*-8.9901	*-3.6949	-2.2716
Italy	-0.7031	-1.299	-0.4674	-2.5463	*-5.3045	-3.3038
Japan	-1.3965	3.734	4.0372	-2.3245	0.8614	1.57
Kenya	1.1592	-0.345	-0.4242	-0.3163	-3.0867	-3.1172
Rep of Korea	1.2566	-0.427	-0.4008	-1.412	-1.3601	-1.3302
Singapore	-1.931	*-3.810	-1.7898	-1.8073	*-11.268	*-5.4285
Lesotho	-1.3483	*-49.375	*-14.551	-2.7401	*-49.413	*-14.584
Mauritius	-1.2474	-2.518	-2.2668	-2.1646	*-5.2441	*-4.4547
Malawi	-1.0083	*-2.849	*-3.5623	-3.6307	*-6.0994	*-6.1422
Malaysia	*-4.8032	-1.832	0.0556	*-8.9134	*-10.142	-2.4893
Mozambique	-0.6602	-1.454	-1.003	-2.5565	*-5.6487	*-4.2282
Namibia	-2.384	*-4.491	-0.075	-2.9591	*-4.4804	-1.2371
Netherlands	-1.2972	-0.387	0.0312	-1.1296	*-5.1535	-2.7161
New Zealand	-2.7529	-0.867	0.829	*-10.359	*-3.7526	*-3.6695
Philippines	-2.373	*-8.590	-1.092	*-8.9085	*-9.7008	*-10.398
Portugal	-1.3511	-1.570	-1.0316	-2.0559	*-3.5643	-3.2866
Sweden	0.2881	-1.809	0.5394	-1.2383	*-3.8059	-1.5765
Swaziland	-2.1843	*-11.361	*-9.3091	*-5.1137	*-11.656	*-9.5501
United States	-0.129	1.369	0.617	-1.6589	-1.1185	-1.7708
Zambia	0.5097	-0.781	-0.6951	-2.3321	-3.1021	-2.9843
Zimbabwe	-1.7733	-1.885	-0.8395	-2.316	*-9.407	*-8.2116

Note: The individual ADF statistics are calculated by use of the Schwarz information criterion. * indicates that the series is stationary.

Table 5.2 shows that some of the series are stationary. However, the results from Table 5.2 validate the need for an alternative test, since it is not possible to reject the unit root hypothesis for individual countries (Al-Rabbaie and Hunt, 2004).

Therefore, the IPS test was conducted. The results for the IPS unit root tests for tourism and trade data for the 40 countries are shown in Table 5.3.

Table 5.3 IPS panel unit root test results

Variable	**Intercept**	**Statistic**	**Probability**[13]
Exports	Intercept	-12.418	<0.001
	Intercept and trend	-39.7156	<0.001
Total trade(imports+ exports)	Intercept	3.50637	0.9998
	Intercept and trend	-21.8424	<0.001
Tourism	Intercept	2.25835	0.9880
	Intercept and trend	-8.65293	<0.001

The unit root cannot be rejected in all the series if P>0.05; the unit root for all series may be rejected if P<0.05. Table 5.3 shows that the probability of exports with an intercept, and with an intercept and trend, is <0.001. Equally, the probability of total trade and tourism with an intercept

[13] $H_0 : \rho_i = 0$ for all i and $H_0 : \rho < 0$ for at least one i

and trend is <0.001. Thus, the null hypothesis, $H_o : \rho_i = 0$ for all i, can be rejected, which means that the existence of a unit root in all series is rejected. In other words, the IPS test implies that at least one series is stationary for these sets of data. However, the null hypothesis cannot be rejected for total trade with an intercept and tourism with an intercept. This means that there are no stationary series in these data sets. These results were expected, since the initial country ADF tests (Table 5.2) showed that certain countries' data series were stationary. Cointegration tests are only performed on non-stationary series. Thus, the cointegration test can only be performed on total trade (assuming an intercept only) and tourism (assuming an intercept only).

5.2.6 Results for the panel cointegration test

In section 5.2.3, it was stated that Pedroni (1997, 1999 & 2000) proposed seven different tests to determine cointegration in the panel data models. Four of these tests apply to pooling 'within' dimensions and three of these tests apply to pooling 'between' dimensions. The test statistics for these tests are as follows:

Table 5.4 Panel cointegration tests for the period 1992-2007 for 40 countries

No deterministic trend	
Test	
Panel v stat	18.17223
Panel rho-stat	-52.3978
Panel pp-stat	-23.6744
Panel adf	-4.77636
Group rho-stat	-98.6248
Group pp stat	-46.2807
Group adf	-11.7013

Note: *** indicates significance levels at 5 percent

For the Pedroni cointegration test, the null hypothesis assumes no cointegration. If the panel v-statistic of the pooled data panel has a positive value, and/or if there are negative values for the other six statistics, then the null hypothesis can be rejected.

For the results obtained in Table 5.4, the null hypothesis of no cointegration can be rejected. It can therefore be concluded that there is a long-run relationship between tourism and trade in South Africa. Since cointegration only indicates the existence of a long-term relationship, but not the nature of the relationship, further tests have to be conducted. To determine the nature of the relationship between tourism and trade in South Africa, the results of the Granger causality test will be shown in the next section.

5.2.7 Results for the Granger causality test

The null hypothesis for the Granger causality test is that trade does not Granger-cause tourism in the first regression and that tourism does not Granger-cause trade in the second regression. The test results are given in Table 5.5.

Table 5.5 Granger causality test for tourism and trade

	Observations	F-statistic	Probability
Trade does not Granger-cause tourism	7200	3.22067	0.0001
Tourism does not Granger-cause trade		3.63681	2.00E-05

The null hypothesis that tourism does not Granger-cause trade, as well as the null hypothesis that trade does not Granger-cause tourism, can be rejected. Thus, trade assists in predicting tourism at some stage in the future, but the opposite is also true in that tourism assists in predicting trade at some stage in the future according to the Granger causality test. A two-way Granger causality is present. This is graphically illustrated in Figure 5.1.

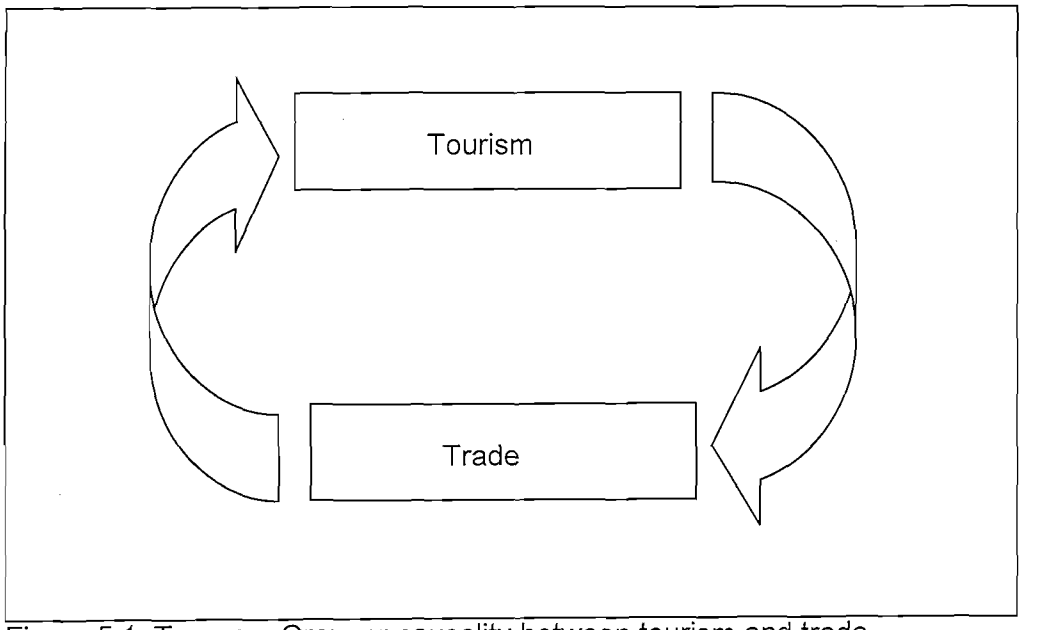


Figure 5.1: Two-way Granger causality between tourism and trade

Figure 5.1 graphically represents the two-way Granger causality and shows that tourism leads to trade and assists in predicting trade, but also that trade leads to tourism and assists in predicting tourism.

5.2.8 Problems with this specific panel data analysis

Table 5.1 listed the 40 different countries used in the panel data analysis. Included in these 40 countries are Botswana, Lesotho, Swaziland, Namibia and Korea. However, the trade data for

these countries was lacking for many months during the sample period. For this reason, it is not possible to generate natural logarithms of the data in order to make meaningful comparisons between tourism arrivals and trade data. Thus, the relationship between tourism and trade will be re-examined by excluding these 5 countries and logging the tourism and trade data. The IPS panel unit root results for the panel data set, excluding these 5 countries, are shown in Table 5.6.

Table 5.6 IPS panel unit root test by excluding Botswana, Lesotho, Swaziland, Namibia and Korea

Variable	**Intercept**	**Statistic**	**Probability****
Log Exports	Intercept	-4.63768	<0.001
	Intercept and trend	-30.8903	<0.001
Log Total trade(imports+ exports)	Intercept	-0.78611	0.2159
	Intercept and trend	-28.2452	<0.001
Log Tourism	Intercept	-5.88982	<0.001
	Intercept and trend	-8.99303	<0.001

When comparing the results from Table 5.6 with the results from Table 5.3, it can be seen that the results are, overall, the same. The probability of the logged exports with an intercept, and with an intercept and trend, is <0.001. Equally, the probability of logged total trade and logged tourism with an intercept and trend is <0.001. Thus, the null hypothesis, $H_o : \rho_i = 0$ for all i, can be rejected, which means that at least one series is stationary for these sets of data. Logged total trade with an intercept cannot be rejected, which means that all the series in the data set is non-stationary.

Table 5.3 finds that tourism with an intercept cannot reject the null hypothesis, however, when excluding Botswana, Lesotho, Swaziland, Namibia and Korea and logging the tourism data, it is found that tourism with an intercept now also rejects the null hypothesis. This means that at least one series is stationary. Because of the stationary time series in the panel data set, no cointegration tests can be performed.

When performing the Granger causality test by excluding Botswana, Lesotho, Swaziland, Namibia and Korea, the results (Table 5.7) are as follows:

Table 5.7: Granger causality test for tourism and trade with logged data and excluding: Botswana, Lesotho, Swaziland, Korea and Namibia

	Observations	F-statistic	Probability
Logged total Trade does not Granger-cause logged tourism	6650	28.4795	5.00E-13
Logged Tourism does not Granger-cause logged total trade		13.681	1.00E-06

According to Table 5.7, the null hypothesis that tourism does not Granger-cause trade, as well as the null hypothesis that trade does not Granger-cause tourism, can be rejected. Trade thus assists in predicting tourism to South Africa at some stage in the future, and tourism assists in predicting trade to South Africa at some stage in the future, according to the Granger causality test. These results show that, even though certain countries such as Botswana, Lesotho, Swaziland, Korea and Namibia, were excluded from the panel data set due to lack of sufficient data, the results in Table 5.7 are still the same as the results obtained in Table 5.5. This indicates that the two-way Granger causality between tourism and total trade is still applicable.

5.2.9 Core findings of the panel data analysis

The aim of this section was to determine the nature of the relationship between tourist arrivals and trade in South Africa. Given 40 countries' tourism and trade data for South Africa, it can be concluded that:

- The IPS test implies that exports have at least one series that is stationary
- Total trade and tourism (assuming an intercept and trend) have at least one series that is stationary
- Total trade and tourism (assuming only an intercept) have no stationary series
- The cointegration test between total trade and tourism (assuming an intercept) indicates a long-term relationship between tourism and trade
- Two-way Granger causality was found between tourism and trade.

However, it was mentioned in Section 5.2.8 that trade data was lacking in the sample period for Botswana, Lesotho, Swaziland, Namibia and Korea. To test the robustness of the first results, the panel data was tested again by excluding these five countries and the data was logged to ensure that there were no measurement problems (because tourism is indicated in arrivals and trade is indicated in Rands). Given the other 35 countries' tourism and trade data with South Africa, it was concluded that:

- Exports (intercept, and intercept and trend), tourism (intercept, and intercept and trend) and total trade (intercept and trend) have at least one series that is stationary according to the IPS test

- Total trade (assuming an intercept) has no stationary series
- Because the series are stationary, cointegration tests could not be performed
- Two-way Granger causality was found between tourism and trade, even when excluding Botswana, Lesotho, Swaziland, Namibia and Korea using log-transformed data.

However, when estimating the causality and cointegration results by using panel data, only an average is estimated. In order to overcome this problem, South Africa's main tourism and trading partners will be investigated based on Chapter 4, where South Africa's main trading and tourism partners were identified. The tourism and trade data of these countries with South Africa will be examined as time series data and it will be tested if a long-term relationship between tourism and trade does indeed exist. The causality between tourism and trade will also be tested when investigating these individual countries in order to determine the nature of the relationship between tourism and trade.

5.3 Time series data analysis

The second part of the analysis consists of examining South Africa's main tourism and trading partners as time series data. This is performed in order to overcome the problem of panel data which indicates only an average of 40 countries. Additionally, the time series analysis will render a better understanding of the relationship between tourism and trade for South Africa's main tourism and trading partners.

Section 4.2.1 in Chapter 4 was dedicated to identifying South Africa's main trading partners. Equally, section 4.3.3 identified the main travellers that visit South Africa. Table 4.2 in section 4.2.1 showed that the United States, Japan, Germany, the United Kingdom and the Netherlands were among South Africa's main exporting partners. Additionally, Germany, the United States, Japan, the United Kingdom and France were among South Africa's main importing partners. Table 4.13 in section 4.3.3 indicated that 31.5 percent of African tourists come from Lesotho while 15.8 percent come from Mozambique. The main tourists that come from Europe include the United Kingdom, Germany, the Netherlands and France. The United States contributes to 83.9 percent of tourist arrivals from North America and Japan contributes to 13.7 percent of tourist arrivals from the Asian continent.

For this reason, the countries that will be examined as time series data are Germany, the United Kingdom, the United States, France, the Netherlands, Japan and Mozambique. Lesotho will be not be included due to the lack of trade data. Additionally, Argentina will be included due to the availability of data and as a representative of the South-American continent. Equally, Australia will be included to represent tourism and trade of South Africa with Australasia. These countries'

export, total trade and tourism data will be utilised to test the relationship between tourism and trade. Export, total trade and tourism data are again transformed using natural logarithms in order to ensure no measurement problems.

5.3.1 Unit root test for the main tourism/trade countries

In section 5.2.2, the importance of testing for unit roots was stated. If a series has a unit root (and is non-stationary) the shocks will be permanent and, thus, contains no long-run mean which the series returns to. In addition, the variance of a non-stationary series will depend on time and advance towards infinity as time goes to infinity. If a series has a unit root and is non-stationary, tests that are performed on the time series will not be accurate and, thus, ineffective. Additionally, cointegration tests can only be performed on non-stationary data.

How are unit roots eliminated from a time series? If a series contains a unit root, the series should be first differenced and then again tested for stationarity. If the series is stationary after being first differenced, the series is said to be integrated of order 1 (I (1)). If the series is still not stationary after being first differenced, the series may be differenced again. If the series is stationary after being second differenced, the series is said to be integrated of order 2 (I (2)).

The countries were tested for unit roots by using the Augmented Dickey Fuller test[14]. The ADF unit root test was applied on the tourism, export and total trade data with no intercept and with an intercept. The ADF probabilities for each country regarding tourism, total trade and exports are shown in Table 5.8.

Table 5.8 ADF results for countries' tourism, total trade and export data

Tourism data		
	No Intercept	Intercept
	Prob*	Prob*
Argentina	0.8576	0.0997
Australia	0.9139	0.1629
Germany	0.9501	0.3403
France	0.962	0.2796
U.K.	0.9974	0.476
Japan	0.9922	0.102
Mozambique	0.7951	0.0665
Netherlands	0.9915	0.1617
U.S.	0.9986	**0.0156
Total trade data		
	No Intercept	Intercept
	Prob*	Prob*
Argentina	0.9453	0.2679
Australia	0.9933	0.2773

[14] See section 5.2.2 for a brief discussion of the ADF model.

Germany	0.9884	0.7219
France	0.9894	0.6905
U.K.	0.9937	0.3571
Japan	0.9824	0.841
Mozambique	0.9402	0.3141
Netherlands	0.9897	0.7111
U.S.	0.9979	0.5965
Export data		
	No Intercept	Intercept
	Prob*	Prob*
Argentina	0.8335	**0.0001
Australia	0.9989	0.47
Germany	0.9983	0.7557
France	0.9554	0.7412
U.K.	0.9935	0.6517
Japan	0.998	0.9228
Mozambique	0.9322	0.3197
Netherlands	0.9736	0.7654
U.S.	0.9866	0.5632

Note: The lag length was chosen according to the Schwarz information criterion. ** indicates that the series is stationary.

The null hypothesis is that the variable has a unit root. For a 5 percent significance level, the unit root cannot be rejected if P>0.05, but the unit root may be rejected if P<0.05. Table 5.8 show the probabilities of tourism with and without an intercept for tourism, total trade and export data. *According to the ADF unit root test, tourism, total trade and export data are non-stationary for all* countries when assuming that there are no intercepts. Therefore, cointegration tests can be performed on this data to test for a long-term relationship between tourism and trade for these countries. When testing for unit roots by including an intercept, tourism data is stationary for the United States and export data is stationary for Argentina.

After first differencing the non-stationary time series in Table 5.8, Table 5.9 shows that the tourism, export and total trade data is stationary.

Table 5.9 ADF results after first differencing non-stationary series

Tourism data		Total trade data	Export data
No intercept		No Intercept	No intercept
	Prob*	Prob*	Prob*
Argentina	<0.001	<0.001	<0.001
Australia	<0.001	<0.001	<0.001
Germany	0.0001	<0.001	<0.001
France	0.0001	<0.001	<0.001
U.K.	<0.001	<0.001	<0.001
Japan	<0.001	<0.001	<0.001
Mozambique	<0.001	<0.001	<0.001
Netherlands	0.0049	<0.001	<0.001
U.S.	0.0006	<0.001	<0.001

Because the tourism, total trade and export data are non-stationary on level form (by including no intercept), the cointegration test can be performed to test to determine if a long-term relationship exists between tourism and trade for Argentina, Australia, Germany, France, the U.K., Japan, Mozambique, the Netherlands and the U.S. When applying the cointegration test, the lag length has to be specified. Therefore, the next section will be dedicated to determine the lag length of the vector autoregression models. These lags will then be used in the cointegration tests.

5.3.2 Lag length of the vector autoregression models

It is possible that the tourism and trade data not only depend on current values, but that they depend on past (lagged) values as well. It is important to determine the number of lags to include in each model. Since Section 5.2.7 showed that there might be two-way causality between tourist arrivals and trade, no *a priori* decision is taken as to which variable is the dependent variable, and a vector autoregression model (VAR) is therefore used. Vector autoregression is an econometric model where some variables are not only explanatory variables for a given dependent variable, but they are also explained by the variable that they are used to determine (Asteriou and Hall, 2007:279). Liu (2005) states that in a vector autoregression (VAR) model, lag length selection is critical. He states that if the lag length is too small, the model is less accurate and if the lag length is too long, it consumes degrees of freedom.

The lag length for each country was tested by estimating a VAR model and then examining the following most common lag length criteria. Zivot and Wang (2003:374) state that the Akaike criterion asymptotically overestimates the order with positive probability, whereas the Schwarz and Hannan-Quinn criteria estimate the order consistently under fairly general conditions. Additionally, Asghar and Abid (2007) compared the criteria of Akaike, Schwarz, Hannan-Quinn, final prediction error and the corrected version of Akaike with each other. They find that the Schwarz information criterion is best for large samples. Furthermore, Ba and Zaman (1998) find that the Schwarz and Hannan-Quinn criteria emerge as the best criteria when considering normal error distributions and large samples.

Therefore, the decision was made to use the Schwarz information criteria in this study to determine the lag length of the VAR models. A VAR model was determined for a combination of tourism and export data, as well as a combination of total trade and tourism data. The lag length which was indicated by the Schwarz information criteria for each VAR model of each country is indicated in Table 5.10.

Table 5.10 Lag length according to Schwarz information criteria

	VAR Model	VAR Model
	Exports and tourism	Total trade and tourism
	Lag length	Lag length
Argentina	1	3
Australia	3	2
Germany	13	13
France	3	3
U.K.	7	5
Japan	3	3
Mozambique	3	3
Netherlands	13	13
U.S.	3	3

Table 5.10 shows the optimal lag length for each VAR model of each country. These lag lengths will now be used to determine if cointegration exists between tourism and trade for each country.

5.3.3 Cointegration of the vector autoregression models

In section 5.2.3, it was pointed out that Asteriou and Hall (2007:307) stated that if an authentic long-run relationship exists between X_t and Y_t, then, even though the variables will rise over time there will be a common trend that links the variables together, and the variables are then said to be co-integrated. Additionally, they stated that the importance in testing for cointegration is mainly linked with the requirement of investigating the problem of spurious regressions, which are present only in the presence of non-stationarity. Therefore, the VAR models of tourism and total trade, as well as the VAR model of exports and tourism will be tested for cointegration in order to determine if a long-term relationship exists between tourism and trade.

The Johansen cointegration test is used in this study to determine if cointegration exists. Wassel and Saunders (2005) state that the Johansen test is superior to the Engle and Granger test (1987) or the method used by Stock and Watson (1988) because of its advantageous properties. These properties include the fact that all test variables are treated as endogenous variables and an unrestricted VAR involving potentially non-stationary variables is included (Wassel and Saunders, 2005).

The Johansen test produces two statistics, namely the trace and the maximal eigenvalue statistics. Both of these statistics can be used to determine the number of cointegration vectors that are present. However, these two statistics may conflict and do not always indicate the same number of cointegration vectors. Furthermore, '*r*' determines the number of cointegrating vectors. Thus, when r=0, there are no cointegrating vectors. The trace statistic has a null hypothesis that the number of cointegrating vectors is less than or equal to *r*, while the alternative hypothesis is that there are more than *r* cointegration vectors. The maximal eigenvalue has a null hypothesis that *r*

cointegrating vectors are present; while the alternative hypothesis states that (r +1) cointegration vectors are present.

Importantly, it should be noted that the Johansen test can be affected by the lag order that is chosen. The lag orders that are used in the Johansen test are the lag orders that were determined in Table 5.10 by using the Schwarz information criteria. The cointegration results for each country and each VAR model are shown in Table 5.11, where r =0 means no cointegration vectors, r =1 means at least one cointegration vector and r =2 means at least 2 cointegration vectors.

Table 5.11 Johansen cointegration test results of the 2 VAR models

VAR model including tourism and export data					
Data trend	None	None	Linear	Linear	Quadratic
Test type	No intercept	Intercept	Intercept	Intercept	Intercept
	No trend	No trend	No trend	Trend	Trend
Argentina	1 (1)	2 (2)	2 (2)	2 (2)	2 (2)
Australia	1 (0)	1 (1)	1 (1)	2 (2)	2 (2)
Germany	1 (1)	1 (1)	0 (0)	0 (0)	0 (0)
France	1 (1)	1 (1)	1 (1)	1 (1)	2 (2)
U.K.	2 (2)	2 (2)	1 (1)	1 (1)	1 (1)
Japan	2 (2)	1 (1)	1 (1)	2 (2)	2 (2)
Mozambique	1 (1)	1 (1)	1 (1)	1 (1)	2 (2)
Netherlands	2 (2)	1 (1)	0 (0)	0 (0)	0 (0)
U.S.	2 (2)	1 (1)	1 (1)	1 (1)	2 (2)
VAR model including tourism and total trade data					
Data trend	None	None	Linear	Linear	Quadratic
Test type	No intercept	Intercept	Intercept	Intercept	Intercept
	No trend	No trend	No trend	Trend	Trend
Argentina	1 (1)	0 (0)	1 (0)	2 (2)	2 (2)
Australia	2 (2)	2 (2)	2 (2)	2 (2)	2 (2)
Germany	0 (0)	1 (1)	0 (0)	1 (0)	2 (0)
France	1 (1)	1 (1)	1 (1)	2 (2)	2 (2)
U.K.	2 (2)	2 (2)	1 (1)	1 (1)	2 (2)
Japan	1 (1)	1 (1)	1 (1)	2 (2)	2 (2)
Mozambique	1 (1)	1 (1)	1 (1)	1 (1)	2 (2)
Netherlands	1 (1)	1 (1)	0 (0)	0 (0)	0 (0)
U.S.	2 (2)	1 (1)	1 (1)	1 (1)	2 (2)

Note: The maximum eigenvalues are indicated in brackets. The values not in brackets are the trace statistics.

When examining the VAR model with tourism and exports, Table 5.11 indicates a cointegration relationship for each country, except for Germany and the Netherlands (assuming a linear intercept and no trend) which indicates weak evidence of cointegration.

On the other hand, when examining the VAR model with tourism and total trade, Table 5.11 indicates a cointegration relationship for each country, except for Argentina, Germany and the

Netherlands which indicates weak evidence of cointegration. It is interesting to note that Germany and the Netherlands, which have shown weak evidence of cointegration in terms of the VAR model including tourism and exports, as well as the VAR model including tourism and total trade, have recorded considerable lag lengths (13 months each) in Table 5.10. Charemza and Deadman (1992) state that using long lags may be inconsistent with economic sense. Thus, no long-run relationship between the examined variables for the Netherlands and Germany may be the consequence of the long lag length.

In conclusion, a long-term relationship exists between tourism and trade for the following countries that trade with and visit South Africa: Australia, France, the United Kingdom Japan, Mozambique and the United States.

In section 5.2.7, it was determined that a two-way causality exists between tourism and trade when examining the panel data. The next section focuses on determining the causality between tourism and trade when examining South Africa's main tourism and trading partners.

5.3.4 Block exogeneity and the vector autoregression models

In Chapter 1 (section 1.7) an important distinction was made between exogenous and endogenous variables. It was explained that endogenous variables are explanatory variables that are jointly determined with the dependent variable, and exogenous variables are variables that are uncorrelated with the disturbances of the system (Murray, 2006:552). This distinction is very important since exogenous variables appear only as explanatory variables and not as dependent variables.

In order to determine which variables are exogenous in the VAR model of each country, the Granger causality/block exogeneity Wald tests are undertaken. The block exogeneity of the tourism and trade variables are tested relative to the term structure and relative to each other. These tests are conducted in order to establish whether or not each endogenous variable (tourism and trade) could be treated exogenously at significance levels of 5 percent for the sizes of the individual chi-square values. The null hypothesis is that the coefficients are zero and there is no Granger causality.

The results of the block exogeneity Wald tests for each country and each VAR model are shown in Table 5.12. (The chi-square statistics and probabilities for each country are shown in Table A -5.1 in the appendix.)

Table 5.12 Results for the exogeneity Wald test

VAR model including tourism and export data				
Countries	**Exogenous variables**			**Tourism and exports endogenous**
	Tourism	**Exports**	**Tourism and exports**	
Argentina			X	
Australia		X		
France			X	
Germany		X		
Japan		X		
Mozambique			X	
Netherlands		X		
U.K.			X	
U.S.		X		

VAR model including tourism and total trade data				
Countries	**Exogenous variables**			**Tourism and total trade endogenous**
	Tourism	**Total trade**	**Tourism and total trade**	
Argentina		X		
Australia		X		
France		X		
Germany		X		
Japan		X		
Mozambique			X	
Netherlands		X		
U.K.			X	
U.S.		X		

When examining the VAR model which includes tourism and export data, Table 5.12 shows that exports can be treated as an exogenous variable for Australia, Germany, Japan, the Netherlands and the U.S. Tourism and exports are both exogenous variables for Argentina, France, Mozambique and the U.K. This is graphically illustrated in Figure 5.2.

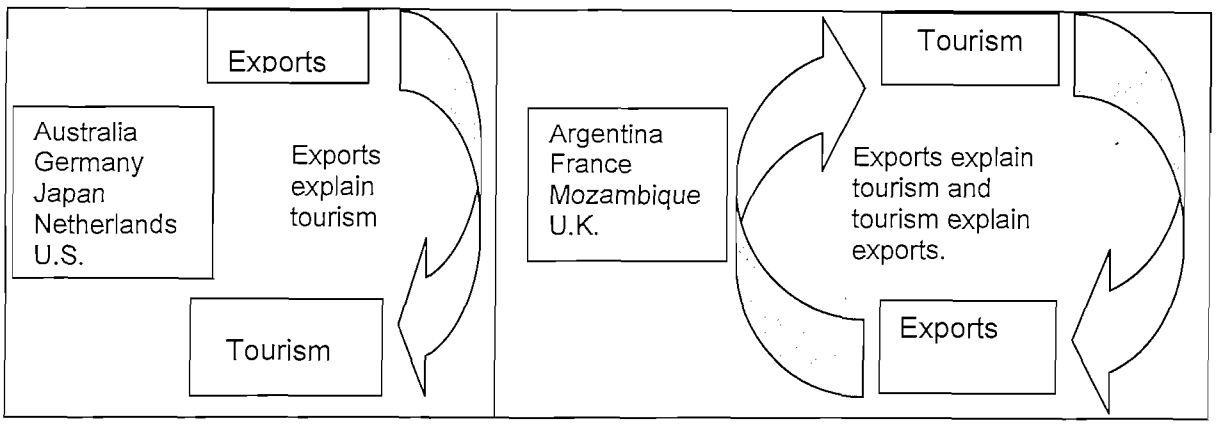


Figure 5.2: VAR model including tourism and export data, exogenous variables

Figure 5.2 shows that because exports are the explanatory variable for Australia, Germany, Japan, the Netherlands and the U.S., exports lead to (cause) tourism. On the other hand, where tourism and exports are both exogenous variables (Argentina, France, Mozambique and the U.K.) it means that two-way causality exists between tourism and trade. Thus, tourism causes trade and trade causes tourism.

When examining the VAR model with tourism and total trade, Table 5.12 shows that total trade can be treated as the exogenous variable for Argentina, Australia, France, Germany, Japan, the Netherlands and the U.S. Tourism and total trade are both exogenous variables for Mozambique and the U.K. This is graphically illustrated in Figure 5.3 which shows that total trade leads to tourism when examining Argentina, Australia, France, Germany, Japan, the Netherlands and the U.S. However, because tourism and total trade are both exogenous variables, two-way causality exists between tourism and trade for Mozambique and the U.K.

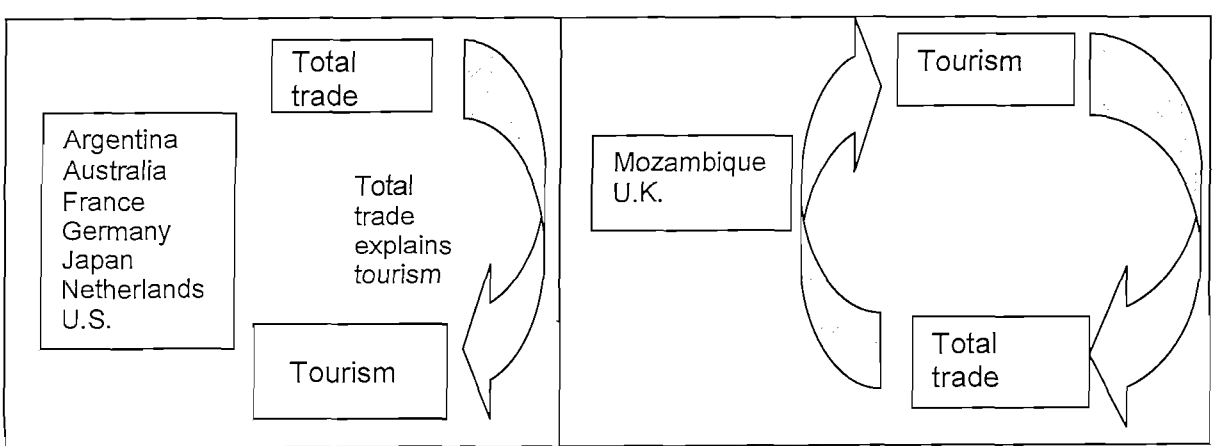


Figure 5.3: VAR model including tourism and total trade, exogenous variables

Tourism and trade were found to be exogenous variables for Argentina, France, Mozambique and the U.K. when considering the VAR model with tourism and exports. Equally, tourism and trade were found to be exogenous variables for Mozambique and the U.K. when considering the VAR model with tourism and total trade. Because tourism and trade were found to be exogenous variables in these cases, it means that a two-way causality relationship exists between tourism and trade. However, other variables may also exist that may better explain the relationship between tourism and trade. For this reason, certain control variables will be introduced to each country's model in order to determine what explains the link between tourism and trade. The control variables are described in the following section.

5.3.5 Control variables

Section 3.3 discussed the reasons why people travel. This was done by examining numerous reasons and theories regarding tourism. In section 3.3.1, Gray's travel motivation theory classified the motives for pleasure travel as "*sunlust*" or "*wanderlust*". Gray defines sunlust as the natural attractions that motivate people to travel to other destinations such as climate, relaxation and rest. Furthermore, Plog's psychographic theory (section 3.3.7) classified tourists into psychographic types along a continuum according to destination. Distance, thus, also plays an important role in determining tourism. In reviewing South Africa's important drawcards (see section 4.3.4) it was shown that many of these are important factors for tourism to South Africa. However, not all of these factors have data available that can be used in an empirical model.

Section 3.3.11 reviewed the reasons why people travel that could also be used in tourism demand models. Saayman and Saayman (2008) conducted a study to identify the determinants of inbound tourism to South Africa for the period 1993 to 2004. They found that income, relative prices and travel costs are strong determinants of tourist arrivals. They also find that climate and capacity are important for tourist arrivals. In their study, they used gross domestic product (GDP) as a proxy for income, the real exchange rate as a proxy for relative prices and the price of crude oil and jet fuel as a proxy for travel costs. Additionally, they used sunshine days in Cape Town as a proxy for climate in their study.

Alternatively, when examining trade theories, the Gravity model (section 2.4.7) states that countries that are close together, rich, large and have things in common (such as currency or language), will have a higher percentage of trade with each other. Additionally, the model states that imports are negatively related to distance between countries and exchange rates. Thus, distance and the exchange rate also play an important part in determining trade. Equally, price competitiveness can also be seen as a determinant for trade (section 2.4.3) as well as tourism (section 3.3.11).

By incorporating the theories of tourism and trade, the control variables of climate, distance, price competitiveness and exchange rates have been chosen. These control variables, as well as their proxies, are shown in Table 5.13. Income was not chosen as a control variable, because GDP data for South Africa is only available quarterly while the other control variables have monthly data available. The proxy for climate is sunshine hours in Cape Town, the proxy for distance is the price of crude oil, the proxy of price is the consumer price index (CPI), while the proxy for exchange rates are the market rates of the different countries. The data is compiled monthly for the period January 1992 to June 2006. This period was chosen due to the availability of data for sunshine hours in Cape Town. CPI data for Australia is only available quarterly. For this reason, the CPI of each country is divided by South Africa's monthly CPI in order to obtain monthly CPI data for Australia.

Table 5.13 Variable description and sources

Variable	Proxy	Description	Source
Tourism	Tourist arrivals	Monthly tourist arrivals from countries	Compiled from Stats SA
Trade	Total trade	Monthly total trade (exports + imports)	Department of Trade and Industry, South Africa
Climate	Sunshine hours, Cape Town	Monthly averages of sunshine hours in Cape Town	SA Weather Service
Distance	Price of crude oil	Oil prices: spot price, dollars per barrel	Energy Information Administration
Price competitiveness	Consumer price index (CPI)	Monthly CPI from countries	International Monetary Fund (IMF)
Exchange rate	Market rates	Monthly market rates (National currency per special drawing rights) from countries	IMF

The control variables distance, price competitiveness and exchange rates were transformed with natural logarithms to ensure no measurement problems. The sunshine hours of Cape Town were not transformed with natural logarithms since the data is already a monthly average. These control variables will be tested for unit roots in the following section by using the Augmented Dickey Fuller test. This is done in order to determine if the control variables are non-stationary, since cointegration tests can only be performed on non-stationary data.

5.3.6 Augmented Dickey Fuller test of the control variables

Because the tourism and total trade data was non-stationary when assuming no intercept, the control variables are tested by the ADF test with no intercept. The results for the ADF test are shown in Table 5.14. It is evident from Table 5.14 that all the control variables are non-stationary on level form, except for the CPI of Australia, France, Netherlands and the U.S. This means that no cointegration tests can be performed on the VAR models of these countries. Additionally, Table 5.14 shows that all the series are stationary after being first differenced.

Table 5.14 ADF test results for control variables

Series: Level	None ADF Prob.	Series: First differenced	None ADF Prob.
LCPI_Argentina	0.1961	LCPI_Argentina	**<0.001
LCPI_Australia	**<0.001	LCPI_Australia	**<0.001
LCPI_France	**0.0065	LCPI_France	**<0.001
LCPI_Germany	0.1067	LCPI_Germany	**0.0192
LCPI_Japan	0.0845	LCPI_Japan	**0.024
LCPI_Mozambique	0.367	LCPI_Mozambique	**0.0462
LCPI_Netherlands	**<0.001	LCPI_Netherlands	**0.0001
LCPI_UK	0.1001	LCPI_UK	**0.024
LCPI_US	**0.0132	LCPI_US	**0.0002
LMarketrate_Argentina	0.7279	LMarketrate_Argentina	**<0.001
LMarketrate_Australia	0.6574	LMarketrate_Australia	**<0.001
LMarketrate_France	0.1679	LMarketrate_France	**<0.001
LMarketrate_Germany	0.1445	LMarketrate_Germany	**<0.001
LMarketrate_Japan	0.315	LMarketrate_Japan	**<0.001
LMarketrate_Mozambique	0.6352	LMarketrate_Mozambique	**<0.001
LMarketrate_Netherlands	0.9915	LMarketrate_Netherlands	**<0.001
LMarketrate_UK	0.1609	LMarketrate_UK	**<0.001
LMarketrate_US	0.7017	LMarketrate_US	**<0.001
LOil	0.9617	LOil	**<0.001
Sunshine	0.8183	Sunshine	**<0.001

Note: ** indicates that the series is stationary.

Cointegration tests cannot be performed on the VAR models of Australia, France, Netherlands and the U.S. because the control variable, CPI, is stationary on level form of these countries. However, cointegration tests can still be performed on the VAR models of Argentina, Germany, Japan, and the U.K. Additionally, the cointegration test cannot be performed on the VAR model of Mozambique due to negative values present in Mozambique's CPI values. Before the

cointegration tests can be performed, however, the lag length for each of the VAR models must be determined.

5.3.7 The lag length criteria and cointegration relationship between the variables

In section 5.3.2, the advantages of using Schwarz information criteria in order to determine lags were discussed. For this reason, the Schwarz information criteria are chosen to determine the lags of the variables. The lag results according to this criterion are shown in Table 5.15.

Table 5.15 Lag length according to Schwarz information criteria for the variables

	VAR Model
	Tourism, total trade, CPI, sunshine hours, oil prices and exchange rates
	Lag length
Argentina	1
Germany	1
U.K.	1
Japan	1

Table 5.14 shows that the optimal lag length for all the countries is one lag length. Furthermore, in order to determine if a cointegration relationship exists between the variables, the Johansen cointegration test is performed by utilising the VAR space. The summarised results for the Johansen cointegration test are shown in Table 5.16.

Table 5.16 Johansen cointegration results of the variables

Test type	**Data trend**	**Argentina**	**Germany**	**U.K.**	*Japan*
No intercept or trend	None	2 (2)	4 (4)	3 (3)	3 (3)
Intercept, no trend	None	2 (2)	5 (3)	4 (4)	4 (4)
Intercept, no trend	Linear	2 (2)	4 (3)	4 (3)	3 (3)
Intercept and trend	Linear	2 (2)	3 (2)	3 (3)	3 (3)
Intercept and trend	Quadratic	2 (2)	3 (2)	3 (3)	3 (3)

Note: the value in brackets indicate the eigenvalue statistic, whereas the other value indicates the trace statistic.

Table 5.16 indicates more than one cointegration vector for Argentina, Germany, the U.K., Japan and the control variables. Thus, a long-term relationship is present between tourism, total trade and the control variables for these countries. The exogeneity Wald test will indicate which variables are exogenous in the following section.

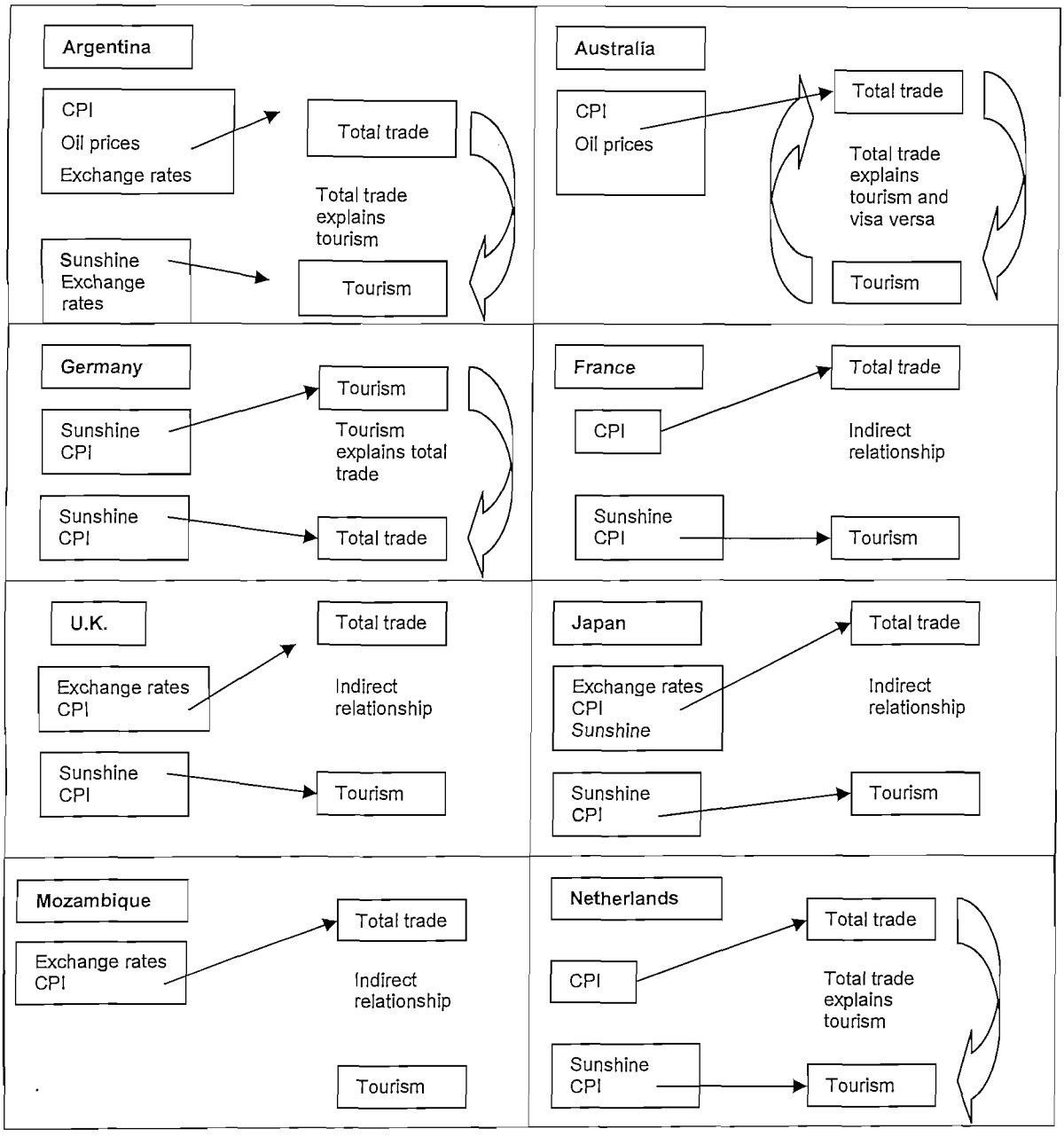
5.3.8. Exogeneity Wald test by including control variables

In order to determine which variables are exogenous in the VAR model of each country, the Granger causality/block exogeneity Wald test was undertaken (as in section 5.3.4). However, the test was performed by including the control variables of distance, sunshine, exchange rates and price competitiveness. The aim is to determine which variables explain tourism and trade when examining the VAR model of each country. The results are shown in Table 5.17. (The chi-square statistics and probabilities for each country are shown in Table A – 5.2 in the appendix.)

Table 5.17 VAR pairwise Granger causality/ Block exogeneity Wald test with control variables

Countries	Exogenous variables when considering trade as the dependent variable					
	Tourism	Total trade	CPI (price)	Sunshine hours (climate)	Oil prices (distance)	Market rate (exchange rate)
Argentina			x		x	x
Australia	x		x		x	
France			x			
Germany	x		x	x		
Japan			x	x		x
*Mozambique			x			x
*Netherlands			x			
U.K.			x			x
*U.S.			x	x		x
Countries	**Exogenous variables when considering tourism as the dependent variable**					
	Tourism	**Total trade**	**CPI (income)**	**Sunshine hours (climate)**	**Oil prices (distance)**	**Market rate (exchange rate)**
Argentina		x		x		x
Australia		x				
France			x	x		
Germany			x	x		
Japan			x	x		
*Mozambique						
*Netherlands		x	x	x		
U.K.			x	x		
*U.S.						

Table 5.17 shows the explanatory variables for each country when considering total trade and tourism, separately, as dependent variables. In some cases, such as Argentina, Australia, Germany and the Netherlands, a causal relationship exists between tourism and trade. However, when examining France, the U.K., Japan, Mozambique and the U.S., an indirect relationship exists between tourism and trade via the control variables. In these cases, tourism and trade are explained by one or more of the control variables, except for tourism in Mozambique and the U.S. which are not explained by trade or any of the other control variables. These results are shown graphically in Figure 5.4.



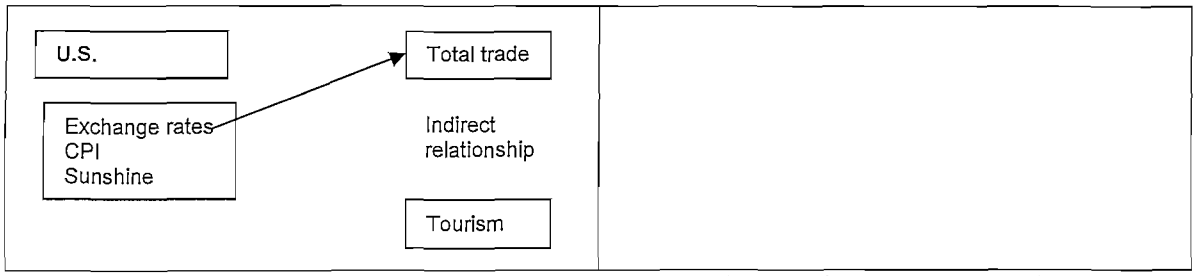


Figure 5.4: Graphical representation of Block exogeneity Wald test with control variables

Figure 5.4 will now be discussed in terms of each country.

- **Argentina:** Without the control variables, a one-way causality was found where total trade between Argentina and South Africa explains tourist arrivals from Argentina to South Africa (Figure 5.3). When including control variables, this one-way causality still exists. Additionally, income, distance and exchange rates play an important part in explaining international trade. Argentina is situated in South America and this could possibly explain why distance (oil price) plays an important role in international trade with South Africa. Furthermore, South Africa and Argentina trade in different currencies and this has an influence on international trade as well as tourism. One Argentina peso equals approximately R3.20 (19 October 2008). Tourists from Argentina are also influenced by the sunshine hours (climate) in South Africa.

- **Australia:** Without the control variables, a one-way causality was present where total trade between South Africa and Australia explains tourist arrivals from Australia to South Africa. It can be seen from Figure 5.4 that two-way causality now exists when including the control variables. Thus, tourism explains trade, and trade explains tourism. Total trade is explained by the CPI (price competitiveness) as well as distance (oil price). However, exchange rates do not play an important part in international trade with Australia. Perhaps this is because the Australian dollar is fairly strong (approximately R6.86 on 19 October 2008). Tourist arrivals from Australia are only explained by total trade. A possible reason why sunshine hours do not influence tourist arrivals from Australia could be the fact that Australia is a country which already has a lot of sunshine hours.

- **Germany:** Without the control variables, a one-way causality was present where total trade between South Africa and Germany explains tourist arrivals from Germany to South Africa. Figure 5.4, which includes the control variables, now shows that tourist arrivals from Germany lead to trade between Germany and South Africa. Tourism, as well as trade, is influenced by the CPI and sunshine hours. Germany ranked as South Africa's sixth largest importer of agricultural products in 2007 (The Department of Trade and Industry, 2008).

Agricultural products are in some cases very dependent on climate and sunshine hours. This could explain why sunshine hours not only influence tourist arrivals, but international trade as well.

- **France:** Without the control variables, a one-way causality was present where total trade between South Africa and France explains tourist arrivals from France to South Africa. When including the control variables, Figure 5.4 shows that no direct relationship exists between tourism and trade. Both trade and tourism are endogenous variables according to the Wald block exogeneity test performed in Table 5.17. Thus, trade does not explain tourism, and tourism does not explain trade. This means that other variables exist in explaining what influences trade and tourism. Figure 5.4 shows that trade can be explained by the CPI, while tourism can be explained by the CPI as well as sunshine hours. One possible explanation is that price competitiveness in South Africa allows South Africa to export more goods and services to France, which encourages trade between these two countries. Increased trade between these two countries could then lead to increased business travels to South Africa, which encourages tourist arrivals into South Africa. Equally, price competitiveness in France could lead to increased imports from France to South Africa, which encourages trade and could ultimately lead to tourist arrivals. Furthermore, Figure 5.4 indicates that climate plays an important part in French tourists' decision to visit South Africa. Climate could lead to more tourist arrivals, which, in turn, could lead to increased trade through business visitors starting up new ventures or government agents negotiating trade agreements (Khan, 2006). On the other hand, price competitiveness (which also explains tourism) could make tourism products and destinations more affordable. Thus, more French tourists will travel to South Africa if tourist products and other products are more affordable. A number of tourists may also request local producers to export favourable items to their home country or start businesses in South Africa because of price competitive products. Tourism then solicits trade.

- **U.K.:** *Without the control variables, a two-way causality was found between total trade and* tourist arrivals. When including the control variables, Figure 5.4 shows that there is no direct relationship between tourism and trade when examining the U.K. Exchange rates and the CPI explain international trade between the U.K. and South Africa. When discussing the results for France, it was mentioned that price competitiveness could encourage trade through an increase in exports from the country with the competitive products. The increase in trade, in turn, could lead to more tourist arrivals in South Africa as business people from the U.K. visit the country to explore business opportunities, or perhaps just to see the country. Furthermore, exchange rates also explain international trade between the U.K. and

South Africa. A weaker currency in South Africa makes exports cheaper to the U.K., while a stronger currency in South Africa makes imports cheaper from the U.K. to South Africa. Through these channels, the exchange rate thus encourages international trade between South Africa and the U.K., which, in turn, could lead to more tourist arrivals. The U.K.'s currency is the pound, and 1 pound equals approximately R16.98 (19 October 2008). This means that South Africa's currency is currently weak, which could promote exports to the U.K. Furthermore, CPI and sunshine hours explain tourist arrivals from the U.K. to South Africa. The U.K. is well-known for its many rainy days, and this could explain why sunshine hours is a key decision making factor for U.K. tourists to visit South Africa. Climate and price competitiveness (more affordable tourist products in South Africa) could lead to more tourist arrivals, which, in turn, could lead to increased trade through business visitors starting up new ventures or government agents negotiating trade agreements.

- **Japan:** Without the control variables, a one-way causality was present where total trade between South Africa and Japan explains tourist arrivals from Japan to South Africa. When including the control variables, Figure 5.4 shows that there is no direct relationship between tourism and trade. Total trade between South Africa and Japan can be explained by the CPI, exchange rates and sunshine hours. Price competitiveness could encourage trade between these two countries due to more affordable products which can be exported from South Africa or Japan. A weaker exchange rate in South Africa makes exports cheaper to Japan, which encourages trade between South Africa and Japan. Japan, as an industrialised economy, imports a great deal of its basic raw materials and minerals from South Africa (Department of Foreign Affairs, 2008). A stronger currency in South Africa could make imports cheaper from South Africa. Japan, as an industrialised economy, exports its manufactured products to South Africa and is therefore an essential import partner for South Africa (Department of Foreign Affairs, 2008). Currently, R1 equals approximately 10.16 Japanese yen (19 October 2008). Therefore, exchange rates and price competitiveness can encourage tourism, which, in turn, can encourage tourist arrivals from Japan to South Africa. However, how does the climate influence international trade between Japan and South Africa? Japan imports raw materials from South Africa and ranked as South Africa's third largest importer of agricultural products in 2007 (The Department of Trade and Industry, 2008). This could explain why sunshine hours are important for international trade with South Africa. Furthermore, CPI and sunshine hours explain tourist arrivals from Japan to South Africa. Price competitiveness and sunshine hours, which encourages tourist arrivals from Japan then, in turn, could lead to business opportunities, which encourage trade between Japan and South Africa.

- **Mozambique:** Without the control variables, a two-way causality was found between total trade and tourist arrivals. When including the control variables, Figure 5.4 shows no direct relationship between tourism and trade. Trade between Mozambique and South Africa is explained by the CPI and the exchange rate. Price competitiveness and the exchange rate may encourage trade, which, in turn, may lead to tourist arrivals from Mozambique into South Africa (as was discussed when examining France, the U.K. and Japan). However, what is very peculiar about Mozambique is that none of the control variables explain tourism between Mozambique and South Africa. Perhaps tourist arrivals in South Africa from Mozambique are influenced by reasons other than climate, exchange rates or price competitiveness. Many people from Mozambique work and live in South Africa, since South Africa and Mozambique are neighbouring countries (Statistics South Africa, 2007). The families of these workers that still live in Mozambique then come to South Africa to visit them. Thus, family visits could influence tourist arrivals from Mozambique into South Africa which, in turn, could encourage trade between these two countries. Furthermore, many people from Mozambique cross the border to shop in South Africa. It was mentioned in Section 3.3.10 that shopping could motivate people to travel. Thus, shopping could also explain tourist arrivals from Mozambique to South Africa which, in turn, could encourage trade between these two countries.

- **Netherlands:** Without the control variables, a one-way causality was present where total trade between South Africa and the Netherlands explains tourist arrivals from the Netherlands to South Africa. With the control variables it can be seen from Figure 5.4 that international trade with the Netherlands leads to tourist arrivals from the Netherlands to South Africa. Price competitiveness explains international trade as well as tourist arrivals from the Netherlands to South Africa. Price competitiveness in the Netherlands or South Africa makes products more affordable, which may encourage trade between these two countries. Price competitiveness in South Africa, which makes products more affordable, can also attract tourist arrivals from the Netherlands into South Africa. In turn, trade could then lead to tourism or tourism could lead to trade. Additionally, sunshine hours also explain tourist arrivals from the Netherlands to South Africa.

- **U.S.:** Without the control variables, a one-way causality was present where total trade between South Africa and the U.S. explains tourist arrivals from the U.S. to South Africa. When including the control variables, Figure 5.4 shows that no direct relationship exists between tourism and trade. Exchange rates, sunshine hours and price competitiveness explain international trade between the U.S. and South Africa. However, the U.S. is another peculiar case where tourist arrivals are not explained by any of the control variables.

Chapter 3 explored a wide variety of reasons why tourists may choose to travel, such as social reasons, esteem, to escape a mundane environment and relaxation. However, these reasons are difficult to portray in an empirical model. It was stated in section 5.3.5 that previous studies (such as Saayman and Saayman, 2008) found that income was an important determinant for tourist arrivals. Income was not chosen as a control variable in this study, because GDP data in South Africa is only available quarterly. Income may play a very important part when U.S. tourists decide to visit South Africa. Income may thus influence tourist arrivals into South Africa from the U.S. which, in turn, could encourage trade between these two countries. Additionally, South Africa has been voted as one of America's most popular adventure travel destinations in 2007 by one of America's leading online sellers of adventure travel namely iExplore.com (Anon., 2007). Adventure travel was discussed in section 4.3.4 and includes diving and snorkelling, surfing, canoeing, horse trails, mountain biking, sky diving, hiking, paragliding, climbing, abseiling and bungy jumping. However, these reasons are difficult to incorporate in an empirical model.

In order to determine which variables are exogenous in the VAR model of each country, the Granger causality/block exogeneity Wald test was undertaken. The test included the control variables of distance, sunshine, exchange rates and price competitiveness. The aim was to determine which variables explain tourism and trade when examining the VAR model of each country. Table 5.17 shows the results and Figure 5.4 represents these results graphically. The following section will be dedicated to discussing the overall results obtained in this chapter.

5.4 Discussion of the results

The aim of this analysis was to determine the nature of the relationship between tourist arrivals and trade in South Africa. This entailed an investigation into the causality and long-term relationship between tourist arrivals and trade in South Africa by undertaking two analyses. The panel data set, which included 40 countries' monthly trade and tourism data for the period 1992-2007, formed the basis for the first analysis. Export data as well as total trade was considered. Firstly, the IPS panel unit root implied at least one stationary series for all the data, except total trade (assuming an intercept) and tourism (assuming an intercept).

Secondly, the Pedroni cointegration tests were used to determine whether a long-term relationship existed between tourism and total trade. The null hypothesis of no cointegration was rejected, which means that a long-term relationship between tourism and total trade (assuming an intercept) does exist. This means that, for South Africa in total, there is a long-run relationship between trade and tourism.

Thirdly, to determine the causal relationship between tourism and trade, the Granger causality test was implemented. The null hypothesis that tourism does not Granger-cause trade was rejected as well as the null hypothesis that trade does not Granger-cause tourism. This means that trade between South Africa and the 40 countries assists in predicting tourist arrivals from the 40 countries into South Africa at some stage in the future and vice versa.

Although results were obtained from the panel data, it became clear that these results may be biased due to lack of data for the countries of Botswana, Lesotho, Swaziland, Namibia and Korea which were included in the panel analysis. Therefore, the panel data was examined again by excluding these countries and the data was transformed using natural logarithms. The IPS test implied at least one stationary series for all the data, which means that the data is stationary and a cointegration test could not be performed. However, the Granger causality test rendered the same results and indicated two-way causality between tourist arrivals and trade for South Africa as a whole.

The second part of this analysis involved the time series data of the main trading and tourism partners of South Africa. This was undertaken in order to examine the relationship between tourism and trade more closely and render results that may influence policy decision making when trading or when examining tourism with these countries. The aim of the second analysis was to determine whether a long-run relationship exists between tourism and trade when examining these countries. Additionally, the block exogeneity test was performed to determine whether tourism or trade may be identified as exogenous variables. The following countries were examined: Germany, the United Kingdom, the United States, France, the Netherlands, Argentina, Japan, Australia, Botswana and Mozambique.

Firstly, the ADF unit root test was performed (as with the panel data analysis) to determine whether the series were stationary. The results showed that tourism, export and total trade data are non-stationary when assuming no intercept.

Secondly, the lag length was determined for each series in order to determine whether cointegration exists between tourism and trade. Since no *a priori* decision was made as to whether tourism or trade should be used as the endogenous variable, a VAR framework was used. The results indicated a long-term relationship between tourist arrivals and total trade for each country, except for Argentina, Germany and the Netherlands, which show weak evidence of cointegration. A possible reason for the weak evidence of cointegration for the Netherlands and Germany could be the result of the long lag lengths (13 each). Charemza and Deadman (1992) states that using long lags may be inconsistent with economic sense. Thus, no long-run relationship between the

examined variables for the Netherlands and Germany may be the consequence of the long lag length.

Thirdly, the block exogeneity Wald test was performed in order to determine whether tourist arrivals lead to trade, or trade leads to tourism when examining each country. The results indicated that exports lead to tourist arrivals when examining Australia, Germany, Japan, the Netherlands and the U.S. However, a two-way causality relationship exists between tourist arrivals and exports when examining Argentina, France, Mozambique and the U.K. Furthermore, total trade leads to tourism when examining Argentina, Australia, France, Germany, Japan, the Netherlands and the U.S. Two-way causality between tourism and total trade exists for the U.K. and Mozambique. This means that when South Africa as a whole engages in international trade with seven of the nine countries that were considered, namely Argentina, Australia, France, Germany, Japan, the Netherlands and the U.S., trade will lead to tourist arrivals from these countries. On the other hand, when South Africa engages in trade with the U.K. and Mozambique it will lead to tourist arrivals into South Africa. However, tourist arrivals into South Africa from the U.K. and Mozambique will also lead to South Africa engaging in trade with the U.K. and Mozambique.

However, various determinants influence tourism and trade and these were omitted from the initial models. This might lead to an over-estimation of the strength of the link between trade and tourist arrivals. For this reason, certain control variables were introduced to each country's model. The control variables were identified as climate, distance, price competitiveness and exchange rate. Monthly data were gathered for the period January 1992 to June 2006. This period was chosen due to the availability of climate data.

The ADF unit root test with the control variables indicated that cointegration tests could be performed on the VAR models of Argentina, Germany, Japan, and the U.K. due to the non-stationarity of these series. The results pointed towards a long-term relationship between tourism and total trade for each of these countries.

Following the cointegration test, the block exogeneity Wald test was again performed in order to determine whether tourism leads to trade, or trade leads to tourism when examining each country. However, this time control variables were included. The results were quite different to those obtained earlier, which shows that control variables have a considerable impact on explaining the link between tourist arrivals and international trade.

Figure 5.4 shows that a causal relationship between tourism and trade exists for Argentina, Australia, Germany and the Netherlands. For Argentina, Germany and the Netherlands trade leads to tourism and a two-way causality exists between tourism and trade for Australia. However, when examining France, the U.K., Japan, Mozambique and the U.S., no direct relationship exists between tourism and trade. In these cases, tourism and trade are explained by one or more of the control variables, except for the tourist arrivals from Mozambique and the U.S. which are not explained by trade or any of the other control variables. A possible reason for this could be due to Mozambique workers in South Africa that motivate their families in Mozambique to come visit them in South Africa. Shopping could be another reason why people from Mozambique visit South Africa which, in turn, could encourage trade between these two countries. The exclusion of an income control variable could possibly explain tourist arrivals from the U.S. to South Africa. Furthermore, it was found that South Africa is a very popular adventure location for American travellers. Adventure travel, such as surfing, canoeing and climbing, could motivate U.S. tourist arrivals into South Africa. However, these reasons for travel are difficult to incorporate in an empirical model.

In conclusion, the results from the panel data analysis show that a two-way causality exists between tourism and trade in South Africa. This means that promoting trade could lead to an increase in tourism for South Africa and vice versa. However, when examining trade and tourism between South Africa and individual countries the results were quite different. Determinants of tourism and trade play an important role in influencing causality between tourism and trade when considering the relationship between South Africa and individual countries. This may have important policy implications.

5.5 Summary

A vast amount of research has been conducted to determine if a relationship exists between tourism and trade for developed countries. Empirical evidence for these countries supports that, in many cases, a relationship does indeed exist. Recent research by Santana-Gallego *et al.* (2007) find a relationship between trade and tourism by using data from the OECD countries and the UK. Khan *et al.* (2005) find support for this relationship by using data from Singapore and Fischer and Gil-Alana (2005) study the relationship by focusing on the effect that German tourism to Spain has on German imports of Spanish wine.

In this chapter, the relationship between tourist arrivals and trade was tested empirically for South Africa. The aim of this chapter was to identify the link between tourism and trade in South Africa and empirically verify the relationship and causality between tourist arrivals and trade for South Africa. For South Africa as a whole, the results show that there is indeed a long-term relationship

between tourist arrivals and trade, and that trade predicts tourist arrivals, and tourist arrivals influences trade.

Furthermore, the relationship between tourism and trade was also studied by examining South Africa's main tourism and trade partners. The results indicate that the determinants of tourism and trade play an important role in influencing causality between tourism and trade. Price competitiveness influences international trade by making products more affordable which encourages trade. The increase in international trade leads to business travels to South Africa, which encourages tourist arrivals into South Africa. On the other hand, price competitiveness influences tourism by making tourism products more affordable. This means more tourist arrivals into South Africa which, in turn, leads to trade through business visitors starting up new ventures or government agents negotiating trade agreements (Khan, 2006). Exchange rates may also influence the causality between tourist arrivals and trade. A weaker exchange rate makes exports cheaper and a stronger currency make imports cheaper. The exchange rate can, thus, influence trade which, in turn, leads to tourist arrivals into South Africa. The exchange rate, when favourable, has a positive influence on tourist arrivals, since price competitiveness remains a key consideration in choosing between destinations. This may then lead to increased international trade. Climate is important for agricultural production and influences South Africa's international exports agricultural products South Africa. Climate, on the other hand, is also an important determinant for tourism, which in turn could lead to increased trade. When examining the influence of the control variables on the causality between tourist arrivals and trade, it was found that price competitiveness was perhaps the most important control variable since it was present in each country's causality relationship.

These results could assist in policy making decisions when South Africa considers tourism or trade with the individual countries that were identified. Thus, the government could encourage tourism through trade, or vice versa, when interacting with these countries.

Chapter 6 Conclusions and Recommendations

6.1 Introduction

With high growth in international trade and tourism worldwide, it is important to determine the relationship between tourism and trade. When tourists leave their home country and travel to a foreign country, they shift their expenditure patterns to the foreign country. They use products in the foreign country, many of which have to be imported. When business visitors visit a foreign country, they sometimes start new ventures or government agents negotiate trade agreements. Thus, it is possible that tourism could lead to trade. On the other hand, when international trade occurs with a foreign country, it could prompt business visitors to visit that foreign country; perhaps out of curiosity or perhaps to experience the business conditions in the country first hand. Thus, it is possible that international trade could lead to tourist arrivals in a country. Does this mean that a relationship between tourist arrivals and trade exists? Is this a long-term relationship? Is it sustainable? If a relationship between tourist arrivals and trade does exist, does tourism lead to trade or does trade lead to tourism or do they cause each other? Is it even important to address the questions regarding the relationship between tourist arrivals and trade at all?

Researchers such as Santana-Gallego *et al.* (2007), Khan *et al.* (2005) and Fischer and Gil-Alana (2005) indicate that it is important to determine the relationship between tourism and trade. Empirical evidence for these studies support that, in many cases, a relationship does indeed exist. Thus, there is reason to believe that a study in terms of this relationship is plausible. Furthermore, their studies were conducted not long ago, which means that this research is recent and relevant. Santana-Gallego *et al.* (2007) studied data from OECD countries, while Khan *et al.* (2005) studied data from Singapore and Fischer and Gil-Alana (2005) studied the relationship by focusing on the effect that German tourism to Spain has on German imports of Spanish wine. Yet, no study in terms of the relationship between tourism and trade has been conducted for South Africa, while researchers (Santano-Gallego *et al.,* Khan *et al.* and Fischer and Gil-Alana) have clearly shown that such a study is plausible, relevant, a current issue and important. However, why should South Africa be the case study?

Firstly, this study is important because previous studies in terms of this relationship have only been conducted for developed countries and not for a developing country such as South Africa. Secondly, it is important to determine the nature of this relationship in order for policy makers to make the right decisions in terms of the relationship between tourism and trade. If trade leads to tourism, policy makers can promote trade in order to enhance tourism. Why is this knowledge important? Because tourism as well as trade contributes to economic growth which leads to job creation which is much needed in South Africa. Thirdly, this study is important because it is a basis for further research. It is now clear that data is available to conduct such a study, that there

are grounds for such a study, and that a study such as this one is important. Further research could possibly reveal further results that may be used to improve economic policy and conditions in South Africa.

This chapter is divided into: summary and key findings of each chapter, concluding remarks, policy implications and recommendations for further study.

6.2 Summary of key findings

The aim of this study was to investigate the relationship between trade and inbound tourism by using data of South Africa's trade and tourism with other countries. In order to achieve this objective, this study was divided into six chapters with different topics of discussion. This section summarises and highlights the key findings of Chapter 2 to 5.

6.2.1 Summary and key findings of Chapter 2 (Trade Patterns)

The first objective of this chapter (as stated in Chapter 1) was to investigate the reasons why trade takes place. Why was this important? International trade is one of the key aspects of this study along with tourism. It was thus important to understand the literature of international trade as well as the current global trends in international trade before examining the relationship between tourism and trade.

Key findings included:

- The reasons why nations trade can be explained by the following theories: comparative advantage, economies of scale, imperfect competition, Linder's thesis and the technological gap and product cycle.
- How nations trade can be explained by the following theories: the Ricardian model, the Rybczynski theorem, the Heckscher-Ohlin model, specific factors, the Stolper-Samuelson theorem, the new trade theory and the Gravity model.

The second objective of this chapter was to explore current global trade patterns for the world. Key findings included:

- The top exporting and importing countries for 2007 in the world are Germany, the United States (U.S.) and China (The World Factbook, 2008).
- When considering world merchandise trade by volume, manufactured goods lead the way with an average annual growth rate of 7.5 percent, while mining products and agricultural products lagged behind with 4 percent and 3.5 percent respectively.
- Dervis (2006) finds that North-North trade (trade between developed countries) is larger than South-South trade (trade between developing countries) or North-South trade.

- Intra- and inter- regional trade were compared and it was found that intra-regional trade outweighs inter-regional share by far. In terms of inter-regional trade, trade between Asia and North America has the highest share with 8.8 percent, followed by Europe and Asia with a share of 8.3 percent (World Trade Organisation, 2007).

6.2.2 Summary and key findings of Chapter 3 (Tourism Theories)

International trade was one of the key aspects of this study. The other key aspect was tourism. Therefore, this chapter was dedicated to discussing the literature in terms of tourism theories and to exploring the global trends in tourism.

Key findings included:

- The most important tourism theories in explaining why people travel include: Gray's travel motivation theory, Maslow's need theory and travel motivation, push and pull factors as motivations for travel, socio-psychological motivations for travel, personal-interpersonal motives, Cohen's tourist typologies, Plog's psychographic theory, basic travel motivators, expectancy theory and other reasons why people travel.
- Reasons for travel can also be explained in terms of tourism demand models. Saayman and Saayman (2008) conducted a study to identify determinants of inbound tourism to South Africa for the period 1993 to 2004. They found that income, relative prices, climate, capacity and travel cost are strong determinants of tourist arrivals.
- Global tourism trends show that Europe, Asia and the Pacific, and the Americas are the regions with the highest percentage share of tourist arrivals and tourism receipts. France recorded the most tourist arrivals for 2007.
- Tourism in Europe, Asia and the Pacific, and the Americas is mostly intra-regional tourism. This means that tourism in these regions exists between countries within the same region.

6.2.3 Summary and key findings of Chapter 4 (South Africa's Trade and Tourism Patterns)

After discussing trade and tourism on a global level, it was important to be more specific and focus on South Africa's unique tourism and trade situation. The objective of this chapter was to evaluate South Africa's unique trade structure and tourism situation.

Key findings included:

- Asia, Europe and the Americas were identified as South Africa's most important trading partners, while the EU, North-East Asia, NAFTA, Chinas and the Middle East were identified as South Africa's most important trading regions. Thus, South Africa's international trade is mostly inter-regional trade.

- South Africa's most important export trading partners in 2007 were the U.S., Japan, Germany, U.K., China and the Netherlands. South Africa's most important import trading partners in 2007 were Germany, China, the U.S., Japan, the U.K., Saudi Arabia, Iran and France.
- The main travellers that visit South Africa were from Africa (thus, intra-regional tourism), while 14 percent came from Europe, and North America as well as Asia contributed 3 percent each (inter-regional tourism).
- Main tourist arrivals from Africa, Europe, North America and Asia included Lesotho, Mozambique, Swaziland, the U.K., Germany, the Netherlands, France, the U.S., Canada, India, China and Japan.

6.2.4 Summary and key findings of Chapter 5 (Empirical Investigation)

From the discussions in the chapters thus far, it became evident that a possible relationship between tourism and trade could exist. However, this needed to be empirically verified. Consequently, the objective of this chapter was to empirically verify the relationship between tourist arrivals and trade in South Africa. This was done by using cointegration and Granger causality tests as conducted by Santana-Gallego *et al.* in 2007 and Khan *et al.* in 2005. Two types of analyses were conducted in this study. The first analysis involved a panel set data which included the tourism and trade data of 40 countries with South Africa for the period 1992 – 2007. In the second analysis, South Africa's nine main tourism and trade partners were identified as time series data. This was done in order to overcome the problem of panel data which indicates only an average of 40 countries.

Key findings included:

- For South Africa as a whole, the results show that there is indeed a long-term relationship between tourist arrivals and trade and that trade predicts tourist arrivals, and tourist arrivals influence trade.
- When studying the relationship between tourism and trade by examining South Africa's main tourism and trade partners, the results indicate that the determinants of tourism and trade play an important role in influencing causality between tourism and trade. The determinants included in this study were: climate, distance, price competitiveness and exchange rate.
- For Argentina, Germany and the Netherlands, trade leads to tourism and a two-way causality exists between tourism and trade for Australia. However, when examining France, the U.K., Japan, Mozambique and the U.S., no direct relationship exists between tourism and trade. In these cases, tourism and trade are explained by one or more of the

control variables, except for the tourist arrivals of Mozambique and the U.S. which are not explained by trade or any of the other control variables.

- A possible reason for this could be due to the exclusion of an income control variable. Adventure travel which motivates U.S. travellers to South Africa could also not be incorporated into the empirical model.

6.2.5 Concluding remarks

The aim of this study was to determine the nature of the relationship between tourist arrivals and trade in South Africa. However, before investigating this relationship empirically, certain objectives first had to be met. It was necessary to understand why nations trade and why people travel in order to identify control variables when testing for the relationship between tourist arrivals and trade. It was also necessary to understand South Africa's trade structure and tourism situation in order to determine the main tourism and trading countries which had to be analysed in terms of the relationship between tourist arrivals and trade in South Africa. Now, it can be concluded that for South Africa as a whole, the results show that there is indeed a long-term relationship between tourist arrivals and trade and that trade predicts tourist arrivals, and tourist arrivals influence trade. However, what are the policy implications?

6.3 Policy implications

The results show that there is indeed a long-term relationship between tourist arrivals and trade and that trade predicts tourist arrivals, and tourist arrivals influence trade. Thus, two-way causality between tourist arrivals and trade in South Africa exists.

The tourism industry should be considered as one of the channels for increasing international trade between South Africa and other countries. Government policy should focus on promoting inbound tourist arrivals from other countries to South Africa where the market fails to do so. Thus, government policies that encourage investment in infrastructure, restaurants and hotels are important. Policies that support training and skills for those in the tourism industry are also important, since the tourism industry is a service industry. Training and skills are needed to understand the needs of customers, to run hotels and restaurants and to develop tourism strategies to market South Africa as a tourism destination to foreign countries. Tourist arrivals could lead to international trade which could lead to economic growth and job opportunities in South Africa.

Additionally, government policy should also focus on promoting the international trade industry since international trade can be considered as one of the channels for increasing tourist arrivals into South Africa. Government policies could encourage trade by establishing trade agreements

with important trading nations in order to promote trade. Furthermore, trade liberalisation through the reduction of tariffs could also encourage trade between South Africa and other countries. Government policies should also focus on research and development to identify growth opportunities for international trade and encourage trading workshops where exporters and importers can learn more about trading internationally. An increase in international trade between South Africa and another country could lead to more foreign arrivals from that country, which could encourage economic growth and job opportunities in South Africa.

Furthermore, policymakers should keep in mind that tourist arrivals and trade also influence each other via other channels such as the exchange rate, climate, price competitiveness and travel costs. Climate change is out of the control of policy-makers, but government policies to ensure favourable conditions for the exchange rate, price competitiveness and travel costs can be created to promote tourist arrivals or international trade. Government policies that influence the exchange rate could increase international trade (by creating a favourable climate for imports or exports), or promote tourist arrivals into South Africa by making South Africa an affordable tourist destination. While intervention in the exchange rate is not proposed, creating a stable political and economic environment is important to fostering a stable exchange rate. Low inflation and credible monetary policy are key determinants of the exchange rate, and should therefore be promoted. Equally, government policies should encourage price competitive products, because more affordable products could encourage tourists to visit South Africa or encourage exports from South Africa. Promoting competition in various sectors of the tourism economy (including the airline industry, transport as well as accommodation) and strict action against price fixing and cartel-forming practices, could ensure that the cost of travelling to South Africa stays in tact. Through these channels, tourist arrivals can lead to trade, or trade can influence tourist arrivals.

6.4 Recommendations for further study

Table 5.1 indicated the 40 different countries used in the panel data analysis. Included within these 40 countries are Botswana, Lesotho, Swaziland, Namibia and Korea. However, the trade data for these countries was lacking for many months for the sample period. Because of this, it is not possible to generate natural logarithms of the data to make tourism arrivals and trade data comparable. For further study, the recommendation is made that the data of all the African countries are excluded from the panel data analysis in order to determine whether the same causality and long-term relationship between tourist arrivals and trade is found in South Africa.

Furthermore, the recommendation for further study is to add an income control variable to the time series analysis where the relationship between tourist arrivals and trade is determined for South Africa with other countries. This should be undertaken in order to obtain more accurate results and

to determine whether income is the channel through which tourism is motivated in order to lead to international trade.

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Appendix

In Figures A-5.1, A-5.2 and A-5.3, the countries are numbered as follows:

1) Argentina
2) Austria
3) Australia
4) Belgium
5) Brazil
6) Botswana
7) Canada
8) Switzerland
9) Chile
10) China and Taiwan
11) Germany
12) Denmark
13) Spain
14) France
15) U.K.
16) Greece
17) Hong Kong
18) Ireland
19) Israel
20) India
21) Italy
22) Japan
23) Kenya
24) Korea
25) Singapore
26) Lesotho
27) Mauritius
28) Malawi
29) Malaysia
30) Mozambique
31) Namibia
32) Netherlands
33) New Zealand
34) Philippines
35) Portugal

36) Sweden

37) Swaziland

38) U.S.

39) Zambia

40) Zimbabwe

Figure A-5.1 Tourist arrivals of 40 countries: 1992-2007

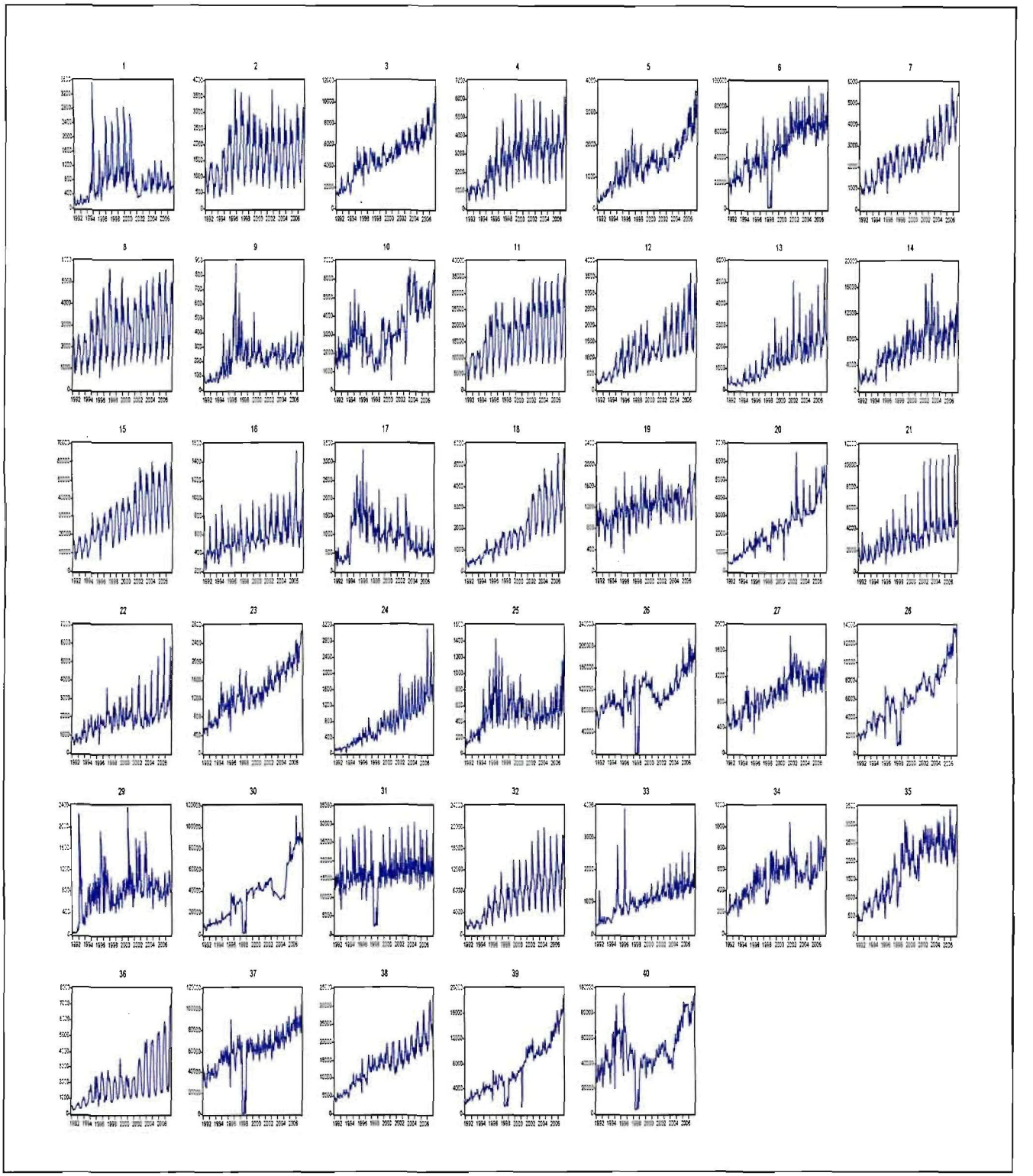

Figure A-5.2 Export data of 40 countries: 1992-2007

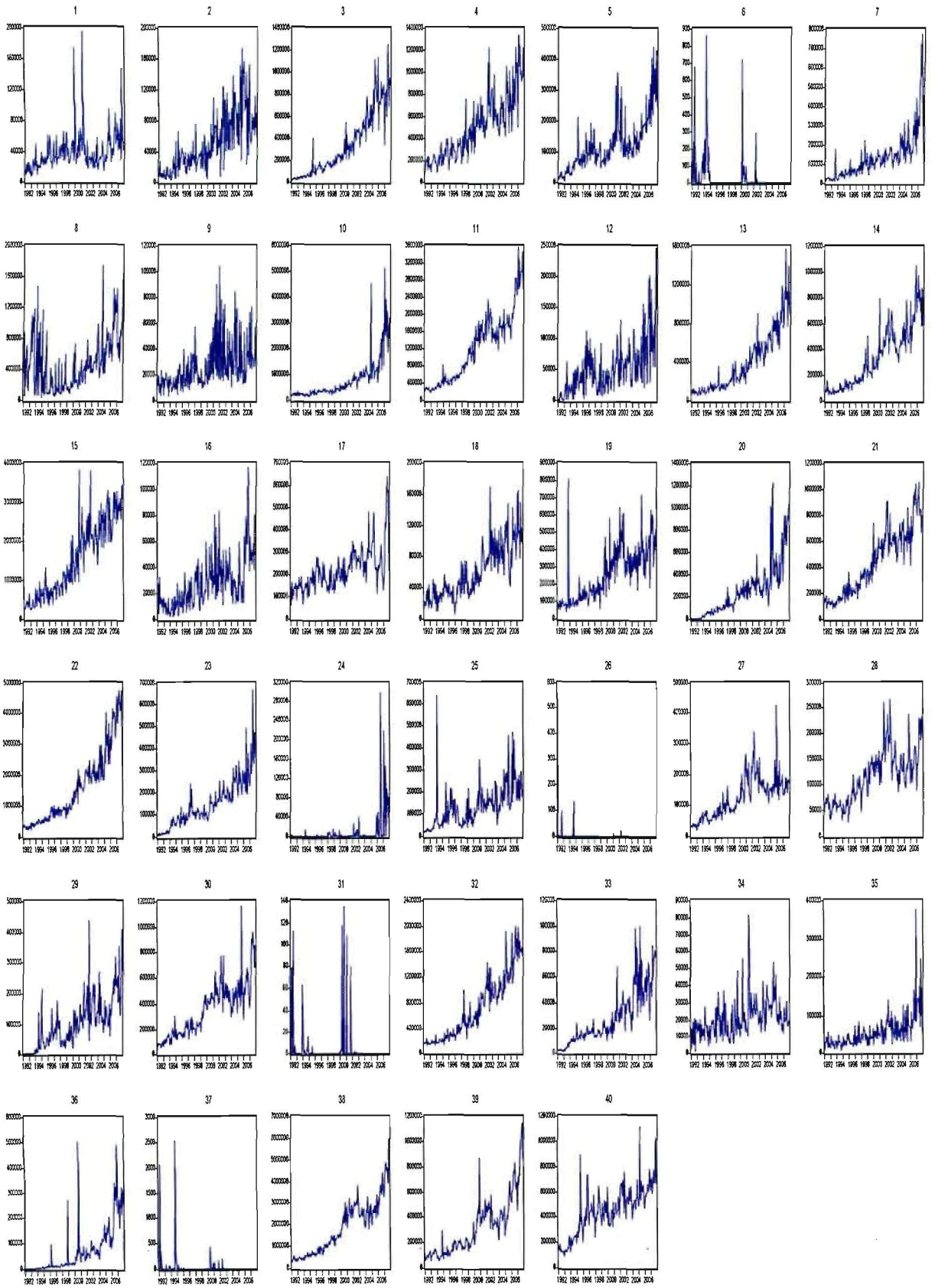

Figure A-5.3 Total trade data of 40 countries: 1992-2007

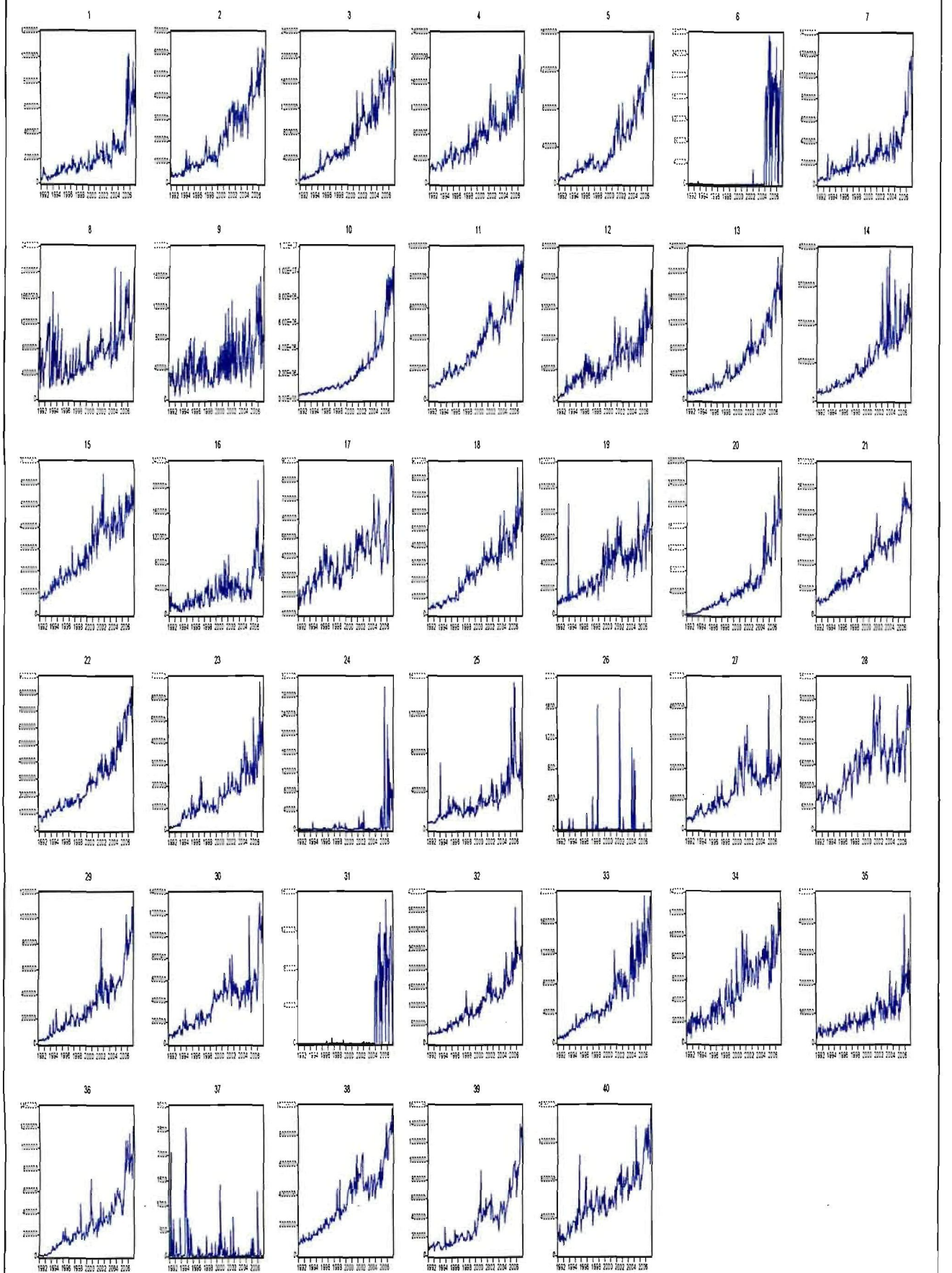

Table A – 5.1: Exogeneity test with tourism and trade and exports

Dependent variable: LTOURISM_AR			
Excluded	Chi-sq	df	Prob.
LEXPORT_AR	13.05201	2	**0.0015**
All	13.05201	2	0.0015
Dependent variable: LEXPORT_AR			
Excluded	Chi-sq	df	Prob.
LTOURISM_AR	5.805329	2	**0.0549**
All	5.805329	2	0.0549
Dependent variable: LTOURISM_AR			
Excluded	Chi-sq	df	Prob.
LTOTAL_AR	5.101454	1	**0.0239**
All	5.101454	1	0.0239
Dependent variable: LTOTAL_AR			
Excluded	Chi-sq	df	Prob.
LTOURISM_AR	1.110398	1	0.2920
All	1.110398	1	0.2920
Dependent variable: LEXPORT_AU			
Excluded	Chi-sq	df	Prob.
LTOURISM_AU	4.542049	2	0.1032
All	4.542049	2	0.1032
Dependent variable: LTOURISM_AU			
Excluded	Chi-sq	df	Prob.
LEXPORT_AU	31.45812	2	**0.0000**
All	31.45812	2	0.0000
Dependent variable: LTOURISM_AU			
Excluded	Chi-sq	df	Prob.
LTOTAL_AU	40.81673	2	**0.0000**

All	40.81673	2	0.0000
Dependent variable: LTOTAL_AU			
Excluded	Chi-sq	df	Prob.
LTOURISM_AU	0.919784	2	0.6314
All	0.919784	2	0.6314
Dependent variable: LTOURISM_FR			
Excluded	Chi-sq	df	Prob.
LEXPORT_FR	27.91232	2	**0.0000**
All	27.91232	2	0.0000
Dependent variable: LEXPORT_FR			
Excluded	Chi-sq	df	Prob.
LTOURISM_FR	6.265873	2	**0.0436**
All	6.265873	2	0.0436
Dependent variable: LTOTAL_FR			
Excluded	Chi-sq	df	Prob.
LTOURISM_FR	2.003884	2	0.3672
All	2.003884	2	0.3672
Dependent variable: LTOURISM_FR			
Excluded	Chi-sq	df	Prob.
LTOTAL_FR	24.28386	2	**0.0000**
All	24.28386	2	0.0000
Dependent variable: LTOURISM_DE			
Excluded	Chi-sq	df	Prob.
LTOTAL_DE	23.32249	2	**0.0000**
All	23.32249	2	0.0000
Dependent variable: LTOTAL_DE			
Excluded	Chi-sq	df	Prob.
LTOURISM_DE	3.072620	2	0.2152

All	3.072620	2	0.2152
Dependent variable: LTOURISM_DE			
Excluded	Chi-sq	df	Prob.
LEXPORT_DE	18.41445	2	**0.0001**
All	18.41445	2	0.0001
Dependent variable: LEXPORT_DE			
Excluded	Chi-sq	df	Prob.
LTOURISM_DE	4.223395	2	0.1210
All	4.223395	2	0.1210
Dependent variable: LEXPORT_JP			
Excluded	Chi-sq	df	Prob.
LTOURISM_JP	0.079984	2	0.9608
All	0.079984	2	0.9608
Dependent variable: LTOURISM_JP			
Excluded	Chi-sq	df	Prob.
LEXPORT_JP	26.61052	2	**0.0000**
All	26.61052	2	0.0000
Dependent variable: LTOURISM_JP			
Excluded	Chi-sq	df	Prob.
LTOTAL_JP	23.02451	2	**0.0000**
All	23.02451	2	0.0000
Dependent variable: LTOTAL_JP			
Excluded	Chi-sq	df	Prob.
LTOURISM_JP	0.611590	2	0.7365
All	0.611590	2	0.7365
Dependent variable: LEXPORT_MZ			
Excluded	Chi-sq	df	Prob.

LTOURISM_MZ	9.345133	2	**0.0093**
All	9.345133	2	0.0093
Dependent variable: LTOURISM_MZ			
Excluded	Chi-sq	df	Prob.
LEXPORT_MZ	14.95945	2	**0.0006**
All	14.95945	2	0.0006
Dependent variable: LTOURISM_MZ			
Excluded	Chi-sq	df	Prob.
LTOTAL_MZ	14.39616	2	**0.0007**
All	14.39616	2	0.0007
Dependent variable: LTOTAL_MZ			
Excluded	Chi-sq	df	Prob.
LTOURISM_MZ	8.861650	2	**0.0119**
All	8.861650	2	0.0119
Dependent variable: LTOURISM_NL			
Excluded	Chi-sq	df	Prob.
LEXPORT_NL	28.72898	2	**0.0000**
All	28.72898	2	0.0000
Dependent variable: LEXPORT_NL			
Excluded	Chi-sq	df	Prob.
LTOURISM_NL	3.830020	2	0.1473
All	3.830020	2	0.1473
Dependent variable: LTOTAL_NL			
Excluded	Chi-sq	df	Prob.
LTOURISM_NL	2.379575	2	0.3043
All	2.379575	2	0.3043
Dependent variable: LTOURISM_NL			
Excluded	Chi-sq	df	Prob.

LTOTAL_NL	29.00999	2	**0.0000**
All	29.00999	2	0.0000
Dependent variable: LEXPORT_GB			
Excluded	Chi-sq	df	Prob.
LTOURISM_GB	9.456030	2	**0.0088**
All	9.456030	2	0.0088
Dependent variable: LTOURISM_GB			
Excluded	Chi-sq	df	Prob.
LEXPORT_GB	31.61381	2	**0.0000**
All	31.61381	2	0.0000
Dependent variable: LTOURISM_GB			
Excluded	Chi-sq	df	Prob.
LTOTAL_GB	33.43951	2	**0.0000**
All	33.43951	2	0.0000
Dependent variable: LTOTAL_GB			
Excluded	Chi-sq	df	Prob.
LTOURISM_GB	7.582780	2	**0.0226**
All	7.582780	2	0.0226
Dependent variable: LEXPORT_US			
Excluded	Chi-sq	df	Prob.
LTOURISM_US	0.875506	2	0.6455
All	0.875506	2	0.6455
Dependent variable: LTOURISM_US			
Excluded	Chi-sq	df	Prob.
LEXPORT_US	23.04451	2	**0.0000**
All	23.04451	2	0.0000
Dependent variable: LTOURISM_US			
Excluded	Chi-sq	df	Prob.

LTOTAL_US	24.08007	2	**0.0000**
All	24.08007	2	0.0000
Dependent variable: LTOTAL_US			
Excluded	Chi-sq	df	Prob.
LTOURISM_US	3.675817	2	0.1591
All	3.675817	2	0.1591

Table A – 5.2: Exogeneity test with control variables

Dependent variable: LCPI_AR			
Excluded	Chi-sq	df	Prob.
LOIL	1.058012	2	0.5892
LRATE_AR	52.42838	2	0.0000
LTOTAL_AR	1.440770	2	0.4866
LTOURISM_AR	5.650595	2	0.0593
SUNSHINE	0.315156	2	0.8542
All	85.66349	10	0.0000
Dependent variable: LOIL			
Excluded	Chi-sq	df	Prob.
LCPI_AR	1.039616	2	0.5946
LRATE_AR	6.014860	2	0.0494
LTOTAL_AR	1.300561	2	0.5219
LTOURISM_AR	2.388006	2	0.3030
SUNSHINE	0.469658	2	0.7907
All	12.26811	10	0.2675
Dependent variable: LRATE_AR			
Excluded	Chi-sq	df	Prob.
LCPI_AR	8.374488	2	0.0152
LOIL	0.078143	2	0.9617
LTOTAL_AR	3.074759	2	0.2149
LTOURISM_AR	4.913463	2	0.0857
SUNSHINE	5.485529	2	0.0644
All	18.09120	10	0.0534
Dependent variable: LTOTAL_AR			
Excluded	Chi-sq	df	Prob.

LCPI_AR	12.48775	2	**0.0019**
LOIL	8.292845	2	**0.0158**
LRATE_AR	9.169211	2	**0.0102**
LTOURISM_AR	1.032491	2	0.5968
SUNSHINE	0.260985	2	0.8777
All	31.89271	10	0.0004

Dependent variable: LTOURISM_AR

Excluded	Chi-sq	df	Prob.
LCPI_AR	0.456776	2	0.7958
LOIL	1.190646	2	0.5514
LRATE_AR	9.167697	2	**0.0102**
LTOTAL_AR	17.93219	2	**0.0001**
SUNSHINE	23.29629	2	**0.0000**
All	47.06405	10	0.0000

Dependent variable: SUNSHINE

Excluded	Chi-sq	df	Prob.
LCPI_AR	2.113276	2	0.3476
LOIL	1.697372	2	0.4280
LRATE_AR	0.688812	2	0.7086
LTOTAL_AR	0.577623	2	0.7492
LTOURISM_AR	2.098590	2	0.3502
All	7.977871	10	0.6310

Dependent variable: LCPI_AU

Excluded	Chi-sq	df	Prob.
LRATE_AU	0.901316	2	0.6372
LTOTAL_AU	6.453831	2	0.0397
LTOURISM_AU	7.446835	2	0.0242
SUNSHINE	2.991200	2	0.2241
LOIL	2.170772	2	0.3378
All	14.31989	10	0.1589

Dependent variable: LRATE_AU

Excluded	Chi-sq	df	Prob.
LCPI_AU	3.885186	2	0.1433
LTOTAL_AU	3.440714	2	0.1790
LTOURISM_AU	3.301357	2	0.1919
SUNSHINE	1.694664	2	0.4286
LOIL	0.196326	2	0.9065
All	14.42807	10	0.1543

Dependent variable: LTOTAL_AU			
Excluded	Chi-sq	df	Prob.
LCPI_AU	30.75830	2	**0.0000**
LRATE_AU	0.367825	2	0.8320
LTOURISM_AU	6.291636	2	**0.0430**
SUNSHINE	5.777042	2	0.0557
LOIL	7.231156	2	**0.0269**
All	43.62237	10	0.0000

Dependent variable: LTOURISM_AU			
Excluded	Chi-sq	df	Prob.
LCPI_AU	0.824913	2	0.6620
LRATE_AU	2.074692	2	0.3544
LTOTAL_AU	7.298021	2	**0.0260**
SUNSHINE	0.668736	2	0.7158
LOIL	1.968784	2	0.3737
All	37.05177	10	0.0001

Dependent variable: SUNSHINE			
Excluded	Chi-sq	df	Prob.
LCPI_AU	0.809686	2	0.6671
LRATE_AU	1.668273	2	0.4342
LTOTAL_AU	7.668453	2	0.0216
LTOURISM_AU	18.03155	2	0.0001
LOIL	2.351713	2	0.3086
All	25.56683	10	0.0044

Dependent variable: LOIL			
Excluded	Chi-sq	df	Prob.
LCPI_AU	4.586345	2	0.1009
LRATE_AU	5.835970	2	0.0540
LTOTAL_AU	1.885183	2	0.3896
LTOURISM_AU	3.384215	2	0.1841
SUNSHINE	0.321073	2	0.8517
All	13.82016	10	0.1814

Dependent variable: LCPI_DE			
Excluded	Chi-sq	df	Prob.
LOIL	0.104059	2	0.9493
LRATE_DE	3.411833	2	0.1816
LTOTAL_DE	8.216848	2	0.0164
LTOURISM_DE	1.858209	2	0.3949

SUNSHINE	5.280750	2	0.0713
All	19.38961	10	0.0356
Dependent variable: LOIL			
Excluded	Chi-sq	df	Prob.
LCPI_DE	0.971075	2	0.6154
LRATE_DE	12.10770	2	0.0023
LTOTAL_DE	0.788053	2	0.6743
LTOURISM_DE	1.794899	2	0.4076
SUNSHINE	0.769346	2	0.6807
All	21.42810	10	0.0183
Dependent variable: LRATE_DE			
Excluded	Chi-sq	df	Prob.
LCPI_DE	2.468862	2	0.2910
LOIL	4.326404	2	0.1150
LTOTAL_DE	0.997581	2	0.6073
LTOURISM_DE	0.247211	2	0.8837
SUNSHINE	0.414891	2	0.8127
All	14.91189	10	0.1353
Dependent variable: LTOTAL_DE			
Excluded	Chi-sq	df	Prob.
LCPI_DE	17.48812	2	**0.0002**
LOIL	0.114786	2	0.9442
LRATE_DE	1.256468	2	0.5335
LTOURISM_DE	13.12329	2	**0.0014**
SUNSHINE	9.611357	2	**0.0082**
All	35.89161	10	0.0001
Dependent variable: LTOURISM_DE			
Excluded	Chi-sq	df	Prob.
LCPI_DE	7.836673	2	**0.0199**
LOIL	0.051113	2	0.9748
LRATE_DE	0.186397	2	0.9110
LTOTAL_DE	4.561466	2	0.1022
SUNSHINE	23.31113	2	**0.0000**
All	54.42472	10	0.0000
Dependent variable: SUNSHINE			
Excluded	Chi-sq	df	Prob.
LCPI_DE	0.329013	2	0.8483

LOIL	2.177752	2	0.3366
LRATE_DE	0.320601	2	0.8519
LTOTAL_DE	6.428191	2	0.0402
LTOURISM_DE	13.12866	2	0.0014
All	24.24454	10	0.0070
Dependent variable: LCPI_FR			
Excluded	Chi-sq	df	Prob.
LOIL	0.969561	2	0.6158
LRATE_FR	2.127479	2	0.3452
LTOTAL_FR	1.899463	2	0.3868
LTOURISM_FR	15.65250	2	0.0004
SUNSHINE	0.927914	2	0.6288
All	22.68044	10	0.0120
Dependent variable: LOIL			
Excluded	Chi-sq	df	Prob.
LCPI_FR	0.043304	2	0.9786
LRATE_FR	8.777691	2	0.0124
LTOTAL_FR	0.228197	2	0.8922
LTOURISM_FR	2.359047	2	0.3074
SUNSHINE	0.370461	2	0.8309
All	15.25461	10	0.1231
Dependent variable: LRATE_FR			
Excluded	Chi-sq	df	Prob.
LCPI_FR	2.310414	2	0.3150
LOIL	6.733345	2	0.0345
LTOTAL_FR	1.464839	2	0.4807
LTOURISM_FR	0.612457	2	0.7362
SUNSHINE	0.118000	2	0.9427
All	15.91193	10	0.1022
Dependent variable: LTOTAL_FR			
Excluded	Chi-sq	df	Prob.
LCPI_FR	37.39324	2	**0.0000**
LOIL	3.107594	2	0.2114
LRATE_FR	0.902568	2	0.6368
LTOURISM_FR	0.848671	2	0.6542
SUNSHINE	0.411203	2	0.8142
All	49.04391	10	0.0000
Dependent variable: LTOURISM_FR			

Excluded	Chi-sq	df	Prob.
LCPI_FR	28.58786	2	**0.0000**
LOIL	1.914592	2	0.3839
LRATE_FR	0.654461	2	0.7209
LTOTAL_FR	4.868758	2	0.0877
SUNSHINE	26.59683	2	**0.0000**
All	86.98725	10	0.0000

Dependent variable: SUNSHINE

Excluded	Chi-sq	df	Prob.
LCPI_FR	4.449967	2	0.1081
LOIL	2.485005	2	0.2887
LRATE_FR	0.738140	2	0.6914
LTOTAL_FR	1.418254	2	0.4921
LTOURISM_FR	2.692173	2	0.2603
All	11.63964	10	0.3099

Dependent variable: LCPI_GB

Excluded	Chi-sq	df	Prob.
LOIL	1.716031	2	0.4240
LRATE_GB	3.403810	2	0.1823
LTOTAL_GB	6.226705	2	0.0445
LTOURISM_GB	5.535995	2	0.0628
SUNSHINE	6.147848	2	0.0462
All	20.97171	10	0.0213

Dependent variable: LOIL

Excluded	Chi-sq	df	Prob.
LCPI_GB	0.897707	2	0.6384
LRATE_GB	1.058565	2	0.5890
LTOTAL_GB	1.132533	2	0.5676
LTOURISM_GB	0.195589	2	0.9068
SUNSHINE	0.230344	2	0.8912
All	5.926806	10	0.8214

Dependent variable: LRATE_GB

Excluded	Chi-sq	df	Prob.
LCPI_GB	4.194054	2	0.1228
LOIL	1.287629	2	0.5253
LTOTAL_GB	0.671216	2	0.7149
LTOURISM_GB	0.659455	2	0.7191
SUNSHINE	0.183836	2	0.9122

All	13.55233	10	0.1944
Dependent variable: LTOTAL_GB			
Excluded	Chi-sq	df	Prob.
LCPI_GB	61.48198	2	**0.0000**
LOIL	1.318299	2	0.5173
LRATE_GB	6.835785	2	**0.0328**
LTOURISM_GB	3.922796	2	0.1407
SUNSHINE	3.361592	2	0.1862
All	88.10509	10	0.0000
Dependent variable: LTOURISM_GB			
Excluded	Chi-sq	df	Prob.
LCPI_GB	10.96782	2	**0.0042**
LOIL	0.118492	2	0.9425
LRATE_GB	3.659602	2	0.1604
LTOTAL_GB	0.007452	2	0.9963
SUNSHINE	35.46718	2	**0.0000**
All	88.54103	10	0.0000
Dependent variable: SUNSHINE			
Excluded	Chi-sq	df	Prob.
LCPI_GB	0.498367	2	0.7794
LOIL	2.099291	2	0.3501
LRATE_GB	6.597678	2	0.0369
LTOTAL_GB	2.103760	2	0.3493
LTOURISM_GB	9.887765	2	0.0071
All	24.30323	10	0.0068
Dependent variable: LRATE_JP			
Excluded	Chi-sq	df	Prob.
LTOTAL_JP	1.978471	2	0.3719
LTOURISM_JP	0.625332	2	0.7315
SUNSHINE	1.966495	2	0.3741
LCPI_JP	0.701259	2	0.7042
LOIL	1.422231	2	0.4911
All	9.046751	10	0.5277
Dependent variable: LTOTAL_JP			
Excluded	Chi-sq	df	Prob.
LRATE_JP	5.982920	2	**0.0502**
LTOURISM_JP	0.838007	2	0.6577

SUNSHINE	5.973241	2	**0.0505**
LCPI_JP	36.52948	2	**0.0000**
LOIL	4.268644	2	0.1183
All	50.08058	10	0.0000

Dependent variable: LTOURISM_JP

Excluded	Chi-sq	df	Prob.
LRATE_JP	4.405872	2	0.1105
LTOTAL_JP	2.378313	2	0.3045
SUNSHINE	10.92557	2	**0.0042**
LCPI_JP	14.89559	2	**0.0006**
LOIL	3.385514	2	0.1840
All	50.41469	10	0.0000

Dependent variable: SUNSHINE

Excluded	Chi-sq	df	Prob.
LRATE_JP	2.779128	2	0.2492
LTOTAL_JP	2.845569	2	0.2410
LTOURISM_JP	9.489776	2	0.0087
LCPI_JP	0.055988	2	0.9724
LOIL	2.229948	2	0.3279
All	21.25510	10	0.0194

Dependent variable: LCPI_JP

Excluded	Chi-sq	df	Prob.
LRATE_JP	0.214587	2	0.8983
LTOTAL_JP	1.413068	2	0.4934
LTOURISM_JP	3.933931	2	0.1399
SUNSHINE	3.780407	2	0.1510
LOIL	0.572237	2	0.7512
All	7.467677	10	0.6807

Dependent variable: LOIL

Excluded	Chi-sq	df	Prob.
LRATE_JP	0.874102	2	0.6459
LTOTAL_JP	0.100189	2	0.9511
LTOURISM_JP	5.673873	2	0.0586
SUNSHINE	0.107294	2	0.9478
LCPI_JP	2.379557	2	0.3043
All	10.96456	10	0.3603

Dependent variable: LCPI_MZ

Excluded	Chi-sq	df	Prob.
LOIL	3.493512	2	0.1743
LRATE_MZ	9.830311	2	0.0073
LTOTAL_MZ	5.304776	2	0.0705
LTOURISM_MZ	2.381846	2	0.3039
SUNSHINE	11.28036	2	0.0036
All	34.15565	10	0.0002

Dependent variable: LOIL

Excluded	Chi-sq	df	Prob.
LCPI_MZ	0.898320	2	0.6382
LRATE_MZ	1.207306	2	0.5468
LTOTAL_MZ	0.951916	2	0.6213
LTOURISM_MZ	0.934109	2	0.6268
SUNSHINE	0.305102	2	0.8585
All	7.084054	10	0.7175

Dependent variable: LRATE_MZ

Excluded	Chi-sq	df	Prob.
LCPI_MZ	1.623674	2	0.4440
LOIL	3.247374	2	0.1972
LTOTAL_MZ	1.166498	2	0.5581
LTOURISM_MZ	1.444684	2	0.4856
SUNSHINE	1.388838	2	0.4994
All	9.123421	10	0.5204

Dependent variable: LTOTAL_MZ

Excluded	Chi-sq	df	Prob.
LCPI_MZ	10.94846	2	**0.0042**
LOIL	3.477267	2	0.1758
LRATE_MZ	12.91756	2	**0.0016**
LTOURISM_MZ	4.939238	2	0.0846
SUNSHINE	1.363817	2	0.5057
All	42.12911	10	0.0000

Dependent variable: LTOURISM_MZ

Excluded	Chi-sq	df	Prob.
LCPI_MZ	2.360064	2	0.3073
LOIL	1.495360	2	0.4735
LRATE_MZ	0.426398	2	0.8080
LTOTAL_MZ	3.606465	2	0.1648
SUNSHINE	0.094539	2	0.9538
All	12.78109	10	0.2362

Dependent variable: SUNSHINE			
Excluded	Chi-sq	df	Prob.
LCPI_MZ	6.808281	2	0.0332
LOIL	0.847081	2	0.6547
LRATE_MZ	3.988217	2	0.1361
LTOTAL_MZ	5.006823	2	0.0818
LTOURISM_MZ	1.698853	2	0.4277
All	14.00700	10	0.1727

Dependent variable: LCPI_NL			
Excluded	Chi-sq	df	Prob.
LOIL	0.602952	2	0.7397
LRATE_NL	2.495092	2	0.2872
LTOTAL_NL	6.399588	2	0.0408
LTOURISM_NL	5.422447	2	0.0665
SUNSHINE	1.321903	2	0.5164
All	18.45791	10	0.0477

Dependent variable: LOIL			
Excluded	Chi-sq	df	Prob.
LCPI_NL	0.632763	2	0.7288
LRATE_NL	12.44578	2	0.0020
LTOTAL_NL	0.475737	2	0.7883
LTOURISM_NL	3.110712	2	0.2111
SUNSHINE	0.286667	2	0.8665
All	19.55925	10	0.0337

Dependent variable: LRATE_NL			
Excluded	Chi-sq	df	Prob.
LCPI_NL	6.109526	2	0.0471
LOIL	4.311083	2	0.1158
LTOTAL_NL	10.56568	2	0.0051
LTOURISM_NL	0.425105	2	0.8085
SUNSHINE	1.160307	2	0.5598
All	24.05366	10	0.0075

Dependent variable: LTOTAL_NL			
Excluded	Chi-sq	df	Prob.
LCPI_NL	12.42156	2	**0.0020**
LOIL	0.697098	2	0.7057
LRATE_NL	0.532701	2	0.7662
LTOURISM_NL	0.745327	2	0.6889

SUNSHINE	0.943480	2	0.6239
All	23.83561	10	0.0080
Dependent variable: LTOURISM_NL			
Excluded	Chi-sq	df	Prob.
LCPI_NL	26.28278	2	**0.0000**
LOIL	1.326586	2	0.5152
LRATE_NL	1.906827	2	0.3854
LTOTAL_NL	14.70286	2	**0.0006**
SUNSHINE	28.31782	2	**0.0000**
All	78.31763	10	0.0000
Dependent variable: SUNSHINE			
Excluded	Chi-sq	df	Prob.
LCPI_NL	1.710216	2	0.4252
LOIL	1.132500	2	0.5677
LRATE_NL	0.199967	2	0.9049
LTOTAL_NL	5.934500	2	0.0514
LTOURISM_NL	16.46020	2	0.0003
All	28.20858	10	0.0017
Dependent variable: LCPI_US			
Excluded	Chi-sq	df	Prob.
LOIL	5.700670	2	0.0578
LRATE_US	4.291196	2	0.1170
LTOTAL_US	8.350027	2	0.0154
LTOURISM_US	2.342803	2	0.3099
SUNSHINE	2.119507	2	0.3465
All	29.07881	10	0.0012
Dependent variable: LOIL			
Excluded	Chi-sq	df	Prob.
LCPI_US	0.730903	2	0.6939
LRATE_US	1.178487	2	0.5547
LTOTAL_US	0.564605	2	0.7540
LTOURISM_US	0.461128	2	0.7941
SUNSHINE	0.153624	2	0.9261
All	6.211713	10	0.7972
Dependent variable: LRATE_US			
Excluded	Chi-sq	df	Prob.
LCPI_US	5.171425	2	0.0753

LOIL	1.146829	2	0.5636
LTOTAL_US	2.250572	2	0.3246
LTOURISM_US	0.499859	2	0.7789
SUNSHINE	0.428572	2	0.8071
All	7.296210	10	0.6972

Dependent variable: LTOTAL_US

Excluded	Chi-sq	df	Prob.
LCPI_US	21.28087	2	**0.0000**
LOIL	4.716291	2	0.0946
LRATE_US	14.60584	2	**0.0007**
LTOURISM_US	1.268451	2	0.5303
SUNSHINE	11.34934	2	**0.0034**
All	47.16180	10	0.0000

Dependent variable: LTOURISM_US

Excluded	Chi-sq	df	Prob.
LCPI_US	4.701433	2	0.0953
LOIL	2.054181	2	0.3580
LRATE_US	3.433162	2	0.1797
LTOTAL_US	4.091374	2	0.1293
SUNSHINE	3.695230	2	0.1576
All	37.23867	10	0.0001

Dependent variable: SUNSHINE

Excluded	Chi-sq	df	Prob.
LCPI_US	2.923394	2	0.2318
LOIL	3.650054	2	0.1612
LRATE_US	2.492530	2	0.2876
LTOTAL_US	4.261419	2	0.1188
LTOURISM_US	2.904108	2	0.2341
All	14.27102	10	0.1610