

**GLOBALISATION, TRADE LIBERALISATION AND THE
LABOUR MARKET: LESSONS FOR SOUTH AFRICA**

by

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ABSTRACT

A specifically challenging problem in South Africa is the high rate of unemployment, which contributes significantly to poverty and a vast number of South Africa's population existing below an acceptable minimum standard of living. South Africa is characterised largely by employment growth that is insufficient relative to the growth in the labour force and this inability of the economy to create employment to absorb the unemployed as well as new entrants reflects the existence of rigidities in the labour market.

The Uruguay Round of trade negotiations concluded in 1994, which is the same year that South Africa elected its first democratic government. The objective of this study is to analyse changes in the South African post-1994 labour market in response to changes arising from globalisation and trade liberalisation without undertaking any statistical analyses, but rather providing a review of the more recent theoretical literature and empirical research drawing out important lessons within the South African framework.

South Africa's rapid integration into the world economy as trade liberalisation increased in the 1990s and 2000s forces firms to become more internationally competitive. Trade liberalisation is beneficial as long as the gains from trade are redistributed in society and the process is accompanied by flexibility, which is a fundamental active labour market policy instrument. In this thesis, we develop the original insight that South Africa, paradoxically for historic reasons, has an abundance of skilled labour and a relative shortage of unskilled (near-skilled) labour making it the scarce factor that is most adversely affected by trends toward skill-biased technological change, which accompanies trade liberalisation with inflexible and segmented labour markets.

Higher economic growth is essential to alleviate unemployment and it is imperative that constituents in the strategy for high quality growth in South Africa include promoting efficiency in production together with sound and stable macroeconomic policies aimed at consistency, analogous to those implemented in Asian countries. Limited good

governance; development through economic liberalisation; local and foreign direct investment; proactive competition policies and human capital investment in all types of labour (essentially via the Accelerated and Shared Growth Initiative of South Africa - ASGISA and the Joint Initiative for Priority Skills Acquisition - JIPSA) contribute to promoting efficiency, stability and consistency. Since an analysis of passive unemployment policies lead to prescriptions highlighting the need for active labour market policies, it is the adoption of cost effective active labour market policies coupled with macroeconomic policies that will successfully alleviate unemployment. Once labour, trade and other macroeconomic policies are consistent, then investment will improve, allowing for growth.

APPROVAL FOR SUBMISSION

As the candidate's Supervisor, I have approved this thesis for submission.

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Dr Richard Simson

DECLARATION

This thesis was undertaken in the School of Business at the University of Kwazulu-Natal, Pietermaritzburg under the supervision of Dr Richard Simson and has not been submitted previously in any form to any other academic institution. I hereby certify that this thesis is an original piece of work. The use of other sources is duly acknowledged and referenced in the text.

Signed:



Date: 11/07/2007

Nishani Parshad

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LIST OF ACRONYMS AND ABBREVIATIONS

ABET	Adult Basic Education and Training
ACP	African, Caribbean and Pacific
AGOA	African Growth and Opportunity Act
ASGISA	Accelerated and Shared Growth Initiative of South Africa
ATC	Average Total Cost
AVC	Average Variable Cost
BEE	Black Economic Empowerment
BBBEE	Broad Based Black Economic Empowerment
BCEA	Basic Conditions of Employment Act
BLNS	Botswana, Lesotho, Namibia and Swaziland
BPO	Business Process Outsourcing
COMESA	Community for Eastern and Southern Africa
COSATU	Congress of South African Trade Unions
CU	Customs Union
CDE	Centre for Development and Enterprise
DOE	Department of Education
DOL	Department of Labour
DPLG	Department of Local and Provincial Government
DPSA	Department of Public Service and Administration
DST	Department of Science and Technology
DTI	Department of Trade and Industry
EPA	Economic Partnership Agreement
EPZ	Export Processing Zone
EU	European Union

LIST OF ACRONYMS AND ABBREVIATIONS continued...

FDI	Foreign Direct Investment
FET	Further Education and Training
FTA	Free Trade Area
FTAA	Free Trade Agreement of the Americas
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
GEAR	Growth, Employment and Redistribution
GEIS	General Export Incentive Scheme
GDP	Gross Domestic Product
GNP	Gross National Product
GTZ	<i>Deutsche Gesellschaft für Technische Zusammenarbeit</i> the technical arm of the German Development Cooperation
H-O	Heckscher-Ohlin
H-O-S	Heckscher-Ohlin-Samuelson
H-O-V	Heckscher-Ohlin-Vanek
ICASA	Independent Communications Authority of South Africa
IIT	Intra Industry Trade
ILO	International Labour Organisation
IMF	International Monetary Fund
ISI	Import Substitution Industrialisation
JIPSA	Joint Initiative for Priority Skills Acquisition
LDCs	Less Developed Countries
LED	Local Economic Development

LIST OF ACRONYMS AND ABBREVIATIONS *continued...*

MERCOSUR	<i>Mercado Común del Sur</i> or Southern Common Market
MC	Marginal Cost
MFN	Most Favoured Nation
MITI	Ministry of International Trade and Investment
MNCs	Multinational Corporations
MPP	Marginal Physical Product
MR	Marginal Revenue
MRP	Marginal Revenue Product
NAFTA	North American Free Trade Agreement
NEA	Non Economically Active Population
NEPAD	New Partnership for Africa's Development
NICs	Newly Industrialised Countries
NQF	National Qualifications Framework
NTBs	Non Tariff Barriers
OECD	Organisation for Economic Cooperation and Development
PGMs	Platinum Group Metals
PIR	Poverty and Inequality Report
PWPs	Public Works Programmes
SA	South Africa
SAB	South African Breweries
SACU	South African Customs Union
SACTWU	South African Clothing and Textiles Workers Union
SADC	South African Development Community
SAMDI	South African Management Development Institute

LIST OF ACRONYMS AND ABBREVIATIONS *continued...*

SAPs	Structural Adjustment Programmes
SAQA	South African Qualifications Authority
SARB	South African Reserve Bank
SDI	Spatial Development Initiatives
SEDA	Small Enterprise Development Agency
SETAs	Sector Education and Training Authorities
SMMEs	Small, Medium and Micro Enterprises
SOEs	State-Owned Enterprises
SSA	Sub-Saharan Africa
STCs	Short-Term Contractors
TAA	Trade Adjustment Assistance Programme
TDCA	Trade, Development and Cooperation Agreement
THS	Temporary Help Services
TRAs	Trade Readjustment Allowances
TRIMs	Trade Related Investment Measures
TRIPs	Trade related aspects of Intellectual Property Rights
US	United States
USA	United States of America
VER	Voluntary Export Restraint
VMP	Value of Marginal Product
VMPK	Value of Marginal Product of Capital
VMPL	Value of Marginal Product of Labour
WTO	World Trade Organisation

CHAPTER ONE

GLOBALISATION, TRADE LIBERALISATION AND THE LABOUR MARKET: LESSONS FOR SOUTH AFRICA OBJECTIVES AND OUTLINE OF STUDY

“Everything depends on everything else”

Economist’s Lament

1.1 INTRODUCTION

This study provides a major review of the more recent literature on international trade and labour markets. Trade is an engine of growth as maintained by traditional economic theory (Loots 2002: 2). Consequently, much of this study relates to increased openness in the economy that increases competitiveness and impacts on the labour market. We focus on the causes of unemployment primarily arising from globalisation and trade liberalisation and link them to the South African economy. This thesis provides a standard analysis of globalisation and trade liberalisation, simultaneously determining the outcomes, particularly so for the resource labour in South Africa.

The objective of this study is to provide an analysis of the subject of unemployment without undertaking any surveys or econometric analyses. The statistical information is obtained from Statistics South Africa (Stats SA), the World Bank and *via* articles using data from these plus other principal sources.

Although there is extensive literature available on globalisation, trade liberalisation and the labour market, this study in providing a broad overview of the various aspects of the subject matter, provides a cumulative view. We begin this chapter by presenting the background and rationale for the study. An executive summary follows, briefly outlining the content of each chapter.

1.2 BACKGROUND AND RATIONALE FOR STUDY

One of the most significant problems that persists in the South African economy is the high level of unemployment. The consequences of unemployment are higher levels of poverty and a vast amount of the population subsisting with an income that is below acceptable minimum living standards. Much of the debate concerning changes in the economy in recent years has been concentrated on the topic of globalisation and trade liberalisation. The spotlight on the effects of globalisation and trade liberalisation on the labour market is therefore a subject of importance, particularly in a small open developing economy like South Africa, which became more integrated into the global economy as trade liberalisation increased at a rapid rate in the 1990s and 2000s. Although countries that trade are more likely to experience higher living standards, rapid employment growth has not accompanied the trade liberalisation process in South Africa to enable the rise in living standards.

Protectionism is abandoned in most countries as it produces bias against exports (Ruiz-Nàpoles 2004: 106). Increased openness in contrast encourages the links required to expand into foreign markets. Lee (1996: 489) indicates that a key concern in developing countries is that economic liberalisation arising from the desire to benefit from the growth of world trade and investment flows, generates high levels of unskilled unemployment. Job losses in uncompetitive industries occur immediately whereas job creation on the other hand in the competitive new industries takes some time. This is due to the inability to obtain adequate investment, bottlenecks in infrastructure and shortages of skilled labour.

Trade liberalisation has the effect of changing the nature of jobs in the economy by displacing unskilled labour intensive jobs and creating skilled labour intensive and capital intensive jobs. Lane (1995) draws attention to new jobs arising in expanding industries not being accessible to low skilled workers who lost their jobs because of growth in international trade. Thus, international trade leads to unemployment in some sectors

simultaneously contributing to a skills mismatch in the economy especially in the presence of labour market rigidities.

In recent years, China's participation in the global economy has become increasingly significant in terms of providing cheaply manufactured imports. Large-scale labour intensive imports from low wage countries like China and India contribute to rising wage inequalities. Lee (1996: 490) attributes this to decreasing terms of trade, which indirectly decreases the wages of low skilled workers in all developing countries.

The objective of this study is to examine unemployment in the South African context for the post-1994 period. This is a significant starting point as South Africa's election of a new democratic government coincided with the conclusion of the Uruguay Round of trade negotiations in 1994. The new government implemented a number of trade policy reforms, the most important of which is the acceleration of trade liberalisation. Edwards and Lawrence (2006: 54) postulate that South Africa developed a comparative advantage in capital intensive primary and manufactured goods largely because of natural resource endowments and the pattern of protection prior to the 1990s. Against this background, we analyse developments in South Africa's post-apartheid labour market in response to changes arising from globalisation and trade liberalisation. Intermittently, we may quote results that are not specific to this period, in order to provide a historical background. Lee (1996: 489) asserts that although there are benefits accompanying trade liberalisation, there are also high transitional costs. Although we acknowledge that apartheid, affirmative action, HIV/Aids and increased feminisation in the labour force all play a vital role in employment, it is beyond the scope of this study to examine these particular topics.

1.3 EXECUTIVE SUMMARY

This thesis is constructed under seven chapters. The study incorporates an analysis of international trade theory and policy; labour market theory and policy; globalisation, trade liberalisation and developments in the South African labour market. We conclude

with a synthesis of the literature and overall lessons for South Africa. The study follows the following framework:

We begin by analysing trade theory in **Chapter Two**. This chapter commences with a brief review of mercantilism and proceeds to discuss the theories of absolute advantage (Adam Smith) and comparative advantage (David Ricardo). We then examine in section 2.4, the Hecksher-Ohlin theory, which according to Wood (1995: 59) links trade to wages *via* changes in product prices and the analysis comprises three theorems: the Hecksher-Ohlin theorem, the Stolper-Samuelson theorem and the factor price equalisation or Hecksher-Ohlin-Samuelson (H-O-S) theorem. We go on to study growth in a single factor of production with the Rybczynski theorem. A brief section citing empirical work on the Hecksher-Ohlin theory follows, noting some specific evidence for South Africa. Section 2.7 analyses the specific factors model, which adapts the Hecksher-Ohlin theory to the short run, where all factors are not perfectly mobile. We conclude this chapter with the new theories of international trade (section 2.8). Our rationale in developing international trade theory is that in latter chapters we refer to the effects of trade liberalisation and globalisation and compare these outcomes using the predictions of trade theory (specifically the Hecksher-Ohlin theory, the specific factors model and some empirical work for South Africa).

Chapter Three focuses on trade policy. In section 3.2, we provide a background to trade restrictions in the form of import tariffs, import quotas and export subsidies. We highlight the various forms of economic integration in section 3.4 and then provide an overview of the effects of trade liberalisation in section 3.5. In latter chapters, reference is made to the outcomes of trade liberalisation in domestic markets and globalisation in world markets and a comparison of these effects is constructed using trade theory. Globalisation and trade liberalisation are terms used interchangeably in this study. This chapter also reviews the Uruguay Round of trade agreements as well as subsequent rounds of trade negotiations in section 3.6. It is evident that the gradual liberalisation of import tariffs benefits South Africa even though the country is subject to high levels of unemployment.

Increasing investment flows, economic growth and employment remain a primary focus. Chapter Three draws to a close with an analysis of regional integration in South Africa.

Chapter Four provides a theoretical background encompassing perfect and imperfect labour markets in section 4.3. Section 4.4 covers imperfect competition, examines monopoly and monopsony and combines both in an analysis of the bilateral monopoly model. The bilateral monopoly model is especially relevant to South Africa as the economy is largely characterised by the presence of trade unions. The definition and types of unemployment are considered in section 4.5. We proceed to examine active and passive labour market policies (section 4.6) where it is clear that active labour market policies have a positive effect on employment whereas passive labour market policies adversely affect unemployment. In Chapter Seven, we draw attention to these policies and their relevance in the South African context. A discussion on the theory of human capital in section 4.7 completes Chapter Four. This chapter sets the scene for Chapter Five where we link the theory and policy specifically to the South African labour market.

In **Chapter Five**, we examine globalisation, trade liberalisation and developments in South Africa. Section 5.2.3.1 highlights important observations relating to globalisation, trade liberalisation and the labour market. The causes of unemployment in the South African economy are examined in section 5.3.2 where the aspects of principal focus are the bilateral monopoly model, human capital, efficiency wages, reduced consumer spending, economic growth and the business cycle. In section 5.3.2.6, the Heckscher-Ohlin theory of international trade and the specific factors model, which we examine in Chapter Two, is applied to the South African labour market. We differentiate between an 'abundance of labour' and a scarcity of unskilled or near-skilled workers. South Africa, for historic and other reasons has a vast amount of the resource labour (with substantial unemployment) but an insufficient amount of it has been given (*via* secondary schooling) even the most elementary of skills to be contemplated of as unskilled labour. Despite this, there has been an overinvestment in human capital in other sectors (*via* a perverse tertiary education system coupled with the impact of unionisation) making for a relative abundance of highly skilled labour. The consequence of this is that our scarce factor is

paradoxically unskilled labour which is most adversely affected by trade liberalisation. This chapter highlights labour market flexibility in section 5.4, which is an increasingly important active labour market policy instrument that is largely a response to the new competitive conditions arising from globalisation and trade liberalisation that impact on labour markets with rigidities. We consider the extent of labour market flexibility in South Africa (in section 5.4.3) and conclude this chapter by providing an overview of initiatives to alleviate unemployment (in section 5.5), which Chapter Seven examines in considerable detail.

Chapter Six highlights the experiences of selected countries with trade liberalisation. In representing developing and newly industrialised countries (NICs), we broadly outline the events in Latin America and Asia (in sections 6.3 and 6.4 respectively). The developed countries' cases incorporate a review of the experiences of the United States and the European Union in section 6.5. We also present a brief comparison of the European labour market which is "rigid, inflexible and characterised by high unemployment" to the North American labour market which is "dynamic, flexible and characterised by low unemployment" (Nickell 1997: 55). The selection of other countries' experiences ends with an overview of Africa and Sub-Saharan Africa in section 6.6. The experiences of the various countries correctly conclude that economies that are not adequately equipped for the full effects of change are subject to higher levels of unemployment. It is also evident that South Africa is neither alone nor unique in its endeavours to alleviate unemployment.

Chapter Seven synthesises the literature and concludes this study with lessons plus policy prescriptions for South Africa. The effects of globalisation and trade liberalisation in South Africa are not solely responsible for the high levels of unemployment. High unemployment is also attributed to the existence of rigidities in the labour market specific to South Africa as noted in Chapter Five section 5.2.3. Our analyses in earlier chapters strongly point out that although the net effect is gains from free trade, the factor most harmed by globalisation and trade liberalisation is unskilled labour. Section 7.4 reviews current initiatives, which comprise of the growth, employment and redistribution (GEAR)

programme; the accelerated and shared growth initiative of South Africa (ASGISA); the joint initiative for priority skills acquisition (JIPSA); developing small, medium and micro enterprises (SMMEs) and the new partnership for Africa's development (NEPAD). We then consider alternative policy prescriptions (in section 7.5) to alleviate unemployment and achieve higher levels of economic growth.

Policy prescriptions to reduce unemployment incorporate promoting labour market flexibility, increasing economic growth and investment, providing employment subsidies as well as other initiatives to augment the skills of the labour force. Chapter Seven focuses largely on policies to develop and absorb the unskilled factor of production in the labour market. We note that trade policy objectives must be consistent with other objectives for reform in the economy. The careful design of policies is critical in determining their long-term success in alleviating unemployment. Our findings verify that there are a number of viable policy options, which together create forward progress as well as further impetus for change. Adopting cost effective active labour market policies, together with macroeconomic policies will effectively alleviate unemployment.

1.4 CONCLUSION

This study examines the theories and policies of international trade and the labour market respectively. The effects of globalisation and trade liberalisation on the South African labour market is analysed in the context of the respective theories and policies. Globalisation, trade liberalisation and inflexible labour markets increases the demand for skilled labour in the economy and adversely affects unskilled labour, thereby contributing to unemployment. South Africa is a country largely characterised by an excess supply of the resource labour, but with a shortage of conventional labour skills, and policy must therefore seek to address the realisation of these beneficial skills. Our review of all the literature renders an unclear picture of the factor intensity content in South Africa. Our new view reveals that South Africa's imports save paradoxically on our scarce factor, labour with some skill.

It is evident that the key to reach lower unemployment levels lies in higher rates of economic growth. In South Africa however, even during periods of high economic growth there have not been corresponding increases in employment. Chapter Seven concludes the study by drawing from the literature important lessons for South Africa in order to critique and influence current policy with respect to the labour market. In order to achieve overall favourable results, trade policy objectives must be consistent with other objectives for reform in the economy.

Trade liberalisation is beneficial as long as the gains from trade are redistributed in society. This process must be accompanied by labour market flexibility as highlighted in Chapter Five section 5.4, as it is this active labour market policy instrument that facilitates realising the gains from trade. Free trade and openness can be implemented in the context of a rigid labour market. In this case, trade liberalisation effectively reduces the demand for unskilled labour and in the presence of wage rigidities, increases unskilled unemployment, thereby contributing to rising inequalities in South Africa.

In an economy where wages are rigid, active labour market policies are valuable in improving efficiency. Chapter Four section 4.6 points out that active rather than passive labour market policies are successful in alleviating unemployment and poverty. Labour market policies may be designed to: assist in reducing unemployment or labour market insecurity; influence labour supply; improve the productivity of labour; adjust labour mobility to improve labour market efficiency; contain economic redistribution effects; facilitate employment restructuring or improve other forms of labour market security.

South Africa can apply lessons from the successful Asian experience as noted in Chapter Six section 6.4, which emphasises efficiency in production together with stability and consistency in policies to achieve overall success. Key elements in the strategy for high quality growth include promoting sound and stable macroeconomic policies aimed at consistency, complimented by limited good governance; development *via* economic liberalisation; higher local and foreign direct investment; proactive competition policies and human capital investment in all types of labour. Human capital investment is

principally channelled through two programmes, namely the Accelerated and Shared Growth Initiative of South Africa (ASGISA) and the Joint Initiative for Priority Skills Acquisition (JIPSA). Once labour, trade and other macroeconomic policies are consistent, then investment will improve, allowing for higher economic growth.

CHAPTER TWO

THE TRADITIONAL AND NEW THEORIES OF INTERNATIONAL TRADE

“...Never attempt to make at home what it will cost more to make than to buy...”

Adam Smith – Wealth of Nations

2.1 INTRODUCTION

International trade refers to trade that occurs between two or more countries. Most countries rely on international trade to obtain natural resources as well as products that they do not produce. This chapter examines the traditional and new theories of international trade. We commence with a brief overview of mercantilism, which prevails in the seventeenth and early eighteenth centuries. This is followed by a discussion of the classical models of international trade, specifically Adam Smith's theory of absolute advantage and David Ricardo's theory of comparative advantage. The theory of comparative advantage largely implies that trade is beneficial even if one country is best at producing everything.

Section 2.4 studies the neoclassical theories of trade. The Hecksher-Ohlin theory comprises of three theorems namely, the Hecksher-Ohlin theorem, the Stolper-Samuelson theorem and the factor price equalisation or Hecksher-Ohlin-Samuelson (H-O-S) theorem. We then examine growth in a single factor of production in the Rybczynski theorem. The explanation of each of these theorems is facilitated by an illustration using the two factors, two goods (2 x 2) framework. Throughout this chapter, we consistently use the example of two countries: South Africa, the labour abundant country and United States, the capital abundant country. This chapter also acknowledges empirical tests on the Hecksher-Ohlin theory and the resultant Leontief Paradox, together with a brief overview of tests on the factor intensities in South Africa. In section 2.7, we analyse the

specific factors model, which incorporates a framework of three factors and two goods (3 x 2). We constantly apply the outcomes of trade liberalisation on the labour market in latter chapters (more specifically Chapter Five) to the theorems presented in sections 2.4 to 2.6.

Generally, the Hecksher-Ohlin (H-O) theory predicts the pattern of trade from relative factor endowments accurately. However, many of the assumptions that form the basis of the Hecksher-Ohlin (H-O) theory do not explain international trade in the real world. This leaves a portion of the current international trade (based on imperfect competition, economies of scale and the introduction of new technology) unexplained. Relaxing some of the assumptions requires new trade theories to explain specifically that part of trade which the Hecksher-Ohlin theory does not explain. This chapter concludes with a discussion of these new theories of trade.

2.2 THE MERCANTILIST AGE

During the seventeenth and early eighteenth centuries, the prevailing model of trade was **mercantilism**. Mercantilists measured the wealth of a country by the quantity of precious metals (gold and silver) that a country possessed. They view exports as ‘good’ for a country and imports as ‘bad’ for a country. Exports in excess of imports mean that the foreign country has to ship gold and silver to the exporting country. Similarly, if imports are greater than exports, the importing country would have to ship gold and silver to foreigners. Mercantilism strongly supports protectionism. According to Pugel and Lindert (2000: 33), mercantilists provide theoretical justification for government regulation to discourage imports and encourage exports.

Mercantilists view international trade as a zero sum game since the gains (surpluses) from one country arise as a result of losses (deficits) in other countries in terms of gold and silver. Pugel and Lindert (2000: 33) indicate that the mercantilism model is valid today in terms of world employment. This means that exports benefit a country because they create employment and imports are harmful as they reduce employment in the

importing countries and increase employment in foreign countries. Therefore, most countries demand trade restrictions to protect domestic jobs (Salvatore 2000: 32).

2.3 THE CLASSICAL ECONOMISTS

In the late eighteenth and early nineteenth centuries, Adam Smith and David Ricardo introduced theories highlighting free trade as a basis for international trade (Pugel and Lindert 2000: 32). These theories were a response to the mercantilist support for government intervention. Smith and Ricardo strongly advocate policies of *laissez-faire*, that is, policies with limited government intervention. **In this chapter, our analyses consistently refer to nominal wages in relation to the price of Good X and Good Y unless otherwise specified.** Nominal wages refers to the money wages that are paid to individuals.

2.3.1 THE THEORY OF ABSOLUTE ADVANTAGE: ADAM SMITH

Adam Smith presents a theory that highlights the benefits of two or more countries producing goods cheaply (goods for which they possess an absolute advantage) and acquiring those goods that are expensive to produce. According to Pugel and Lindert (2001: 32), the product price is determined by the cost of labour. A case of absolute advantage exists when a country is absolutely the best at producing a product in terms of labour cost. An alternative explanation is that absolute advantage is a comparison among producers according to their productivity (Mankiw 2003: 51). **Adam Smith's theory of absolute advantage** states that two countries will gain from trade by specialising in goods for which they are the most efficient or have an absolute advantage in producing and then exporting these goods to each other (Salvatore 2001: 33).

The following example illustrates Adam Smith's theory of absolute advantage:

(Pugel and Lindert 2000: 34)

	United States		South Africa
Labour required to produce:			
1 bushel of wheat	2	<	3
1 yard of cloth	4	>	1

In the absence of international trade, the prices of the two goods are determined by conditions within each country. Since Adam Smith identifies labour costs as a determinant for the amount of trade, equal labour values of wheat are exchanged for cloth in each country. In the United States, 2 bushels of wheat is exchanged for 1 yard of cloth¹. Similarly, in South Africa, 1 bushel of wheat is exchanged for 3 yards of cloth². With no trade, each country has a separate price ratio between the two goods.

In the presence of international trade, the United States exchanges wheat, for cloth from South Africa. In the United States, 0.5 yards of cloth is given up for 1 bushel of wheat whereas in South Africa, the same bushel of wheat is sold for 3 yards of cloth. South Africa by importing wheat saves 3 units of labour, which can then be utilised in the production of cloth. The excess cloth produced is then exchanged for wheat from the United States. The cloth can then be sold in the United States for more wheat, which will generate profits. Similarly, the United States can trade a bushel of wheat in South Africa for 3 yards of cloth and then ship the cloth back to the United States at 2 bushels per yard.

In the theory of absolute advantage, as long as the relative prices differ in the countries, potential arbitrage profits exist, that is, purchasing at a low price in one country and selling at a higher price in another country (Pugel and Lindert 2000: 35). Each country

¹ In the United States, four units of labour produce either 1 yard of cloth or 2 bushels of wheat.

² In South Africa, one unit of labour produces either 1 yard of cloth or 1/3 bushels of wheat.

therefore specialises in the production of goods for which it has an absolute advantage. Labour in the United States shifts towards the production of wheat because of its higher export value and shifts away from cloth, which is cheaper to import from South Africa. South Africa will increase the production of cloth for which the export value is high and simultaneously, the production of wheat will fall, as it is cheaper to import. The shifting of labour from the production of cloth to wheat in the United States and from the production of wheat to cloth in South Africa will continue until the countries are completely specialised and no further shifts are possible. The international equilibrium relative price will clear in the range:

$$0.5 \leq \text{international price of wheat} \leq 3 \text{ (yards/bushel), that is, where} \\ 2 \geq \text{international price of cloth} \geq 0.33 \text{ (bushels/yard)}$$

The theory of absolute advantage differs from the mercantilists' theory in two aspects. *Firstly*, mercantilists believe that one country's gain is only possible at the loss of another country. Adam Smith's theory shows that both countries can gain from trade by taking advantage of the extra output that arises from specialisation (Dunkley 2000: 109). *Secondly*, mercantilists support protectionism. Under the theory of absolute advantage, protectionism limits the gains from specialisation and thus this theory supports the idea that government intervention in limiting trade should be minimal, if not zero (Salvatore 2001: 33).

The shortcomings of this theory is that Adam Smith neither provides a basis to determine which country experiences the larger gains from trade nor does the theory predict the extent of trade. In addition, the theory of absolute advantage fails to provide an explanation for trade in the situation where one country has no absolute advantage over another country. We continue to examine David Ricardo's theory of comparative advantage and its role in overcoming the shortcomings of Adam Smith's theory.

2.3.2 THE THEORY OF COMPARATIVE ADVANTAGE: DAVID RICARDO

In the nineteenth century, David Ricardo provides a theory that highlights the benefits of trade for all countries irrespective of whether a country possesses an absolute advantage. This theory bases trade on comparative, that is, relative as opposed to absolute advantage in production (Caves and Jones 1977: 77). Pugel and Lindert (2000: 38) indicate that trade is beneficial even if one country is best at producing everything.

Every country has a comparative advantage in the production of some good and can therefore gain from trade (Dunkley 2000: 12; Mankiw 2003: 52). This suggests that every country has a lowest relative cost in terms of the production of other foregone products. The production methods and gains accruing to the countries may, however differ. Countries can gain from trade as long as their advantages or disadvantages in producing different goods differ. The **principle of comparative advantage** states that a country will experience gains from trade by exporting those goods for which it has the highest comparative advantage and importing those goods in which it has the lowest comparative advantage (Pugel and Lindert 2001: 38).

According to Evans (1989: 12), Golub and Hsieh (2000: 221-222) and Jones and Neary (1984: 11), David Ricardo's model is based on the following assumptions:

- Labour is the only factor of production and is mobile within each country. This ensures equal wages in each sector within a country;
- Labour is required in fixed proportions to produce each good;
- Labour productivities arise from technological differences;
- Production costs are independent of the level of output;
- Production techniques are independent of factor prices and the composition of output;
- Trade is subject to constant returns to scale (which arises when output increases proportionately to increases in inputs or factors of production);
- Trade occurs under perfect competition;
- Final goods are internationally mobile; and

- There are no externalities and no barriers (for example, customs duties and transport costs) to free trade.

The following numerical example illustrates David Ricardo's theory of comparative advantage³:

(Pugel and Lindert 2000: 38)

	United States		South Africa
Labour required to produce:			
1 bushel of wheat	2	>	1.5
1 yard of cloth	4	>	1

In the absence of international trade, the United States requires more labour hours to produce either wheat or cloth than South Africa, revealing that it is inferior in producing both goods. Both Ricardo's and Smith's theories strongly support the idea that labour costs determine the market value and prices when there is no international trade (Pugel and Lindert 2000: 39). In the United States, 2 bushels of wheat is exchanged for 1 yard of cloth⁴. In South Africa, 1.5 bushels of wheat is exchanged for 1 yard of cloth⁵.

The opportunities for arbitrage profits arise when trade opens. In the United States, 1 bushel of wheat is exchanged for 0.5 yards of cloth and the wheat is sold abroad for 1.5 yards of cloth providing a gain of 1 yard. Similarly, in South Africa, 0.67 bushels of wheat can be exchanged for 1 yard of cloth. The cloth is then sold in the United States in exchange for 2 bushels of wheat, resulting in a wheat gain of 1.33 bushels. Wheat

³ This example is based on a static model of trade between two countries (the United States and South Africa). Capital and land are not required in the production of goods. The only factor of production is labour which is perfectly mobile between the production of wheat and cloth in each country. Relative labour costs will therefore determine which country has a comparative advantage in which good.

⁴ In the United States, four units of labour produce either 1 yard of cloth or 2 bushels of wheat.

⁵ In South Africa, one unit of labour produces either 1 yard of cloth or 1/1.5 bushels of wheat.

becomes more expensive relative to cloth in the United States whilst it becomes cheaper in South Africa. A similar process occurs for cloth and these processes will continue until the two relative prices become one world equilibrium price. According to Evans (1989: 21), the relative input ratios or technical conditions in production determine the pattern of trade and the limits to the final equilibrium terms of trade. The terms of trade refers to the prices of exports relative to the prices of imports. The international price ratio will clear in the range:

$$0.5 \leq \text{international price of wheat} \leq 1.5 \text{ (yards/bushel), that is where}$$

$$2 \geq \text{international price of cloth} \geq 0.67 \text{ (bushels/yard)}$$

The theory of comparative advantage can also be shown using the production possibilities curve which represents all the possibilities of output that an economy can produce with fully employed resources and maximum productivity (Pugel and Lindert 2000: 41). In **Figure 2.1**, diagrams (A) and (B) are drawn for the United States and South Africa respectively. The y-axis measures wheat (billions of bushels per year) and the x-axis measures cloth (billions of yards per year) in both diagrams.

In Figure 2.1, in the absence of trade, the production possibilities are illustrated as straight lines reflecting the constant opportunity costs of each good in each country. With no trade, the consumption of wheat and cloth is on or below these production possibilities lines. An example of such a consumption point in both countries is reflected by S₀ in diagrams (A) and (B) respectively. Let us assume that the United States and South Africa have 200 hours per year. As per the numerical comparative advantage example, the United States requires 2 hours to produce 1 bushel of wheat and 4 hours to produce 1 yard of cloth. The United States can then produce 100 bushels of wheat *per annum* if only wheat is produced and 50 yards of cloth if only cloth is produced. Alternatively, the United States can produce any combination of goods that lie on the production possibilities line, for example 40 billion bushels of wheat per year in exchange for 30 yards of cloth per year [point (S₀) in diagram (A)]. In South Africa where 1 hour is

required to produce 1 yard of cloth and 1.5 hours is required to produce 1 bushel of wheat, either 200 yards of cloth or 133.33 bushels of wheat can be produced.

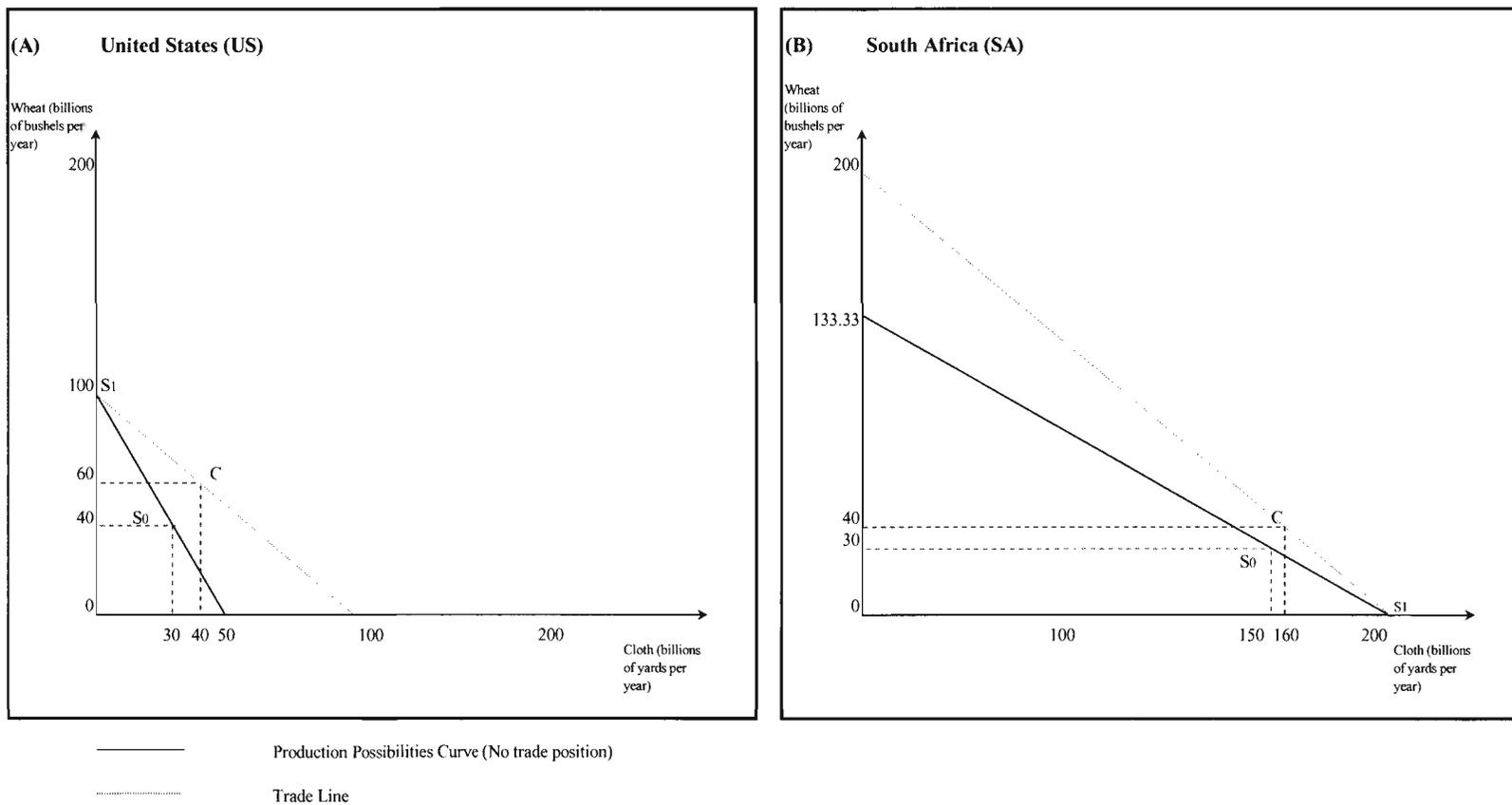
In the United States, the slope of the production possibilities line is the cost of producing extra cloth (that is, the number of bushels of wheat that has to be given up to produce an extra yard of cloth). Therefore, the slope or cost is equal to 2⁶. In South Africa, the slope of the production possibilities line is equal to 0.67⁷. In other words, the relative price of a yard of cloth is 0.67 bushels of wheat in South Africa when markets are competitive and there is no trade.

When trade opens, each country can trade at a price between 0.67 and 2 bushels per yard. Let us assume that the free trade price is equal to 1 bushel per yard. The dotted lines in both diagrams show this price combination. Each country specialises in the good in which it has a comparative advantage, that is, at point (S1) in each diagram. If the United States specialises in wheat production at point (S1), it can export wheat for cloth moving along the trade line. The United States consumption of wheat and cloth can be on any point along the trade line. Both countries gain from free trade if the relative world price differs from the no trade price. For each point like (S0) (the no trade position), there are better consumption options with the opening of trade, for example, point (C). At point (C) in diagram (A), the United States can produce 60 bushels of wheat in exchange for 40 yards of cloth. Similarly, at point (C) in diagram (B), South Africa can produce 160 yards of cloth in exchange for 40 bushels of wheat.

⁶ United States: 1 yard of cloth/1 bushel of wheat = $4/2 = 2$

⁷ South Africa: 1 yard of cloth/1 bushel of wheat = $1.5/1 = 0.67$

Figure 2.1⁸: Comparative advantage at country levels: David Ricardo's constant cost case and the gains from trade
(Pugel and Lindert 2000: 41)



⁸ Diagrams are not drawn to scale.

According to Jones and Neary (1984: 90), Smith's theory of absolute advantage and Ricardo's theory of comparative advantage provide an explanation for the basis of trade and for the gains from trade in terms of labour productivity. An important point to note is that the two countries have different price ratios before trade. Once trade opens and we have a world price in the correct range, the opportunity costs determine the direction of trade and the gains from trade.

Deardorff (1995: 476) and Golub and Hsieh (2000: 223-224) highlight two shortcomings of Ricardo's theory. The *first* shortcoming is that the model implies complete specialisation in the production of tradable goods, the only exception being the inability of a small country to satisfy the demands of a large country. This is unrealistic as import-competing sectors are unlikely to disappear in the face of foreign competition. Possible methods to reconcile incomplete specialisation with labour productivity can occur *via* disequilibrium or product differentiation. The explanation using relative unit labour costs is preferred to relative productivity. This is due to the relative unit labour costs providing an explanation for the effects of sector wage differences on international competitiveness. In other words, lower unit labour costs imply greater competitiveness. Product differentiation is discussed in section 2.8. The *second* shortcoming is that the assumption of technology and labour costs as the source of comparative advantage ignores other determinants of comparative advantage. These include the costs of capital as well as other intermediate inputs.

Pugel and Lindert (2000: 42) point out that a *third* shortcoming of Ricardo's theory is the assumption of constant marginal costs. Many industries are characterised by rising rather than constant marginal costs. This enables more of other goods to be given up to produce each extra succeeding unit of one good. Marginal costs are likely to rise when one industry expands at the expense of others. Further, even if an industry exhibits constant returns to scale, a shift from one industry to another may increase marginal costs because different goods utilise resource inputs in different proportions. We consider trade based on increasing returns to scale in section 2.8.1.

There are however advantages of a model using labour. In addition to labour being one of the main non-tradable primary inputs to production, international labour costs are much higher than other factors of production as it is the less mobile factor. In the special case where differences in labour efficiency cause technological differences between countries, the relative labour productivity solely determines comparative advantage.

Over the period 1951 to 1952, MacDougall conducted empirical tests on Ricardo's theory (where labour productivity and labour costs are determinants of comparative advantage) using export data for the United States and the United Kingdom for 1937. The results indicate that the industries exhibiting higher labour productivity in the United States compared to the United Kingdom are those industries that comprise a higher proportion of exports to other countries (excluding the United Kingdom). United States exports are therefore representative of the country's comparative advantage. Subsequent studies by Balassa (using 1950 data), Stern (using 1950 and 1959 data) as well as more recently Golub (using 1990 data) as discussed in Golub and Hsieh (2000: 222-230) and Salvatore (2001: 47-48) confirm these results.

The single exception to the principle of comparative advantage is if both countries have an absolute disadvantage in the same proportion for both goods (Leamer and Levinsohn 1995: 1344; Salvatore 2001: 37). If the labour ratios of both goods for both countries are the same, neither country would have a comparative advantage nor would mutually beneficial trade occur. Moreover, two aspects not examined by Smith and Ricardo include the determination of comparative advantage and the effect of international trade on the earnings of factors of production. These aspects are incorporated into an extended model of trade referred to as the Heckscher-Ohlin theory, which we examine in the next section.

2.4 THE NEOCLASSICAL THEORIES OF TRADE

This section reviews the neoclassical theories of international trade, specifically the Heckscher-Ohlin (H-O) theory of trade. Our trade model in section 2.3 as developed by the classical economists is extended to examine the basis or determination of comparative advantage and the effect of international trade on the earnings of factors of production in

trading countries. The Heckscher-Ohlin (H-O) theory of trade incorporates an explanation of these important aspects using the Heckscher-Ohlin (H-O) theorem, the Stolper-Samuelson theorem and the factor price equalisation or Heckscher-Ohlin-Samuelson (H-O-S) theorem. These trade theorems provide a foundation for examining the effects of trade liberalisation in forthcoming chapters as we evaluate the outcomes of trade policy in terms of the predictions of the standard international trade theory.

2.4.1 THE HECKSHER-OHLIN (H-O) THEORY OF TRADE

The Heckscher-Ohlin theory of trade is an important theory that determines the trade patterns of countries when trade opens. The **Heckscher-Ohlin theory** comprises of three theorems: the Heckscher-Ohlin theorem, the Stolper-Samuelson theorem (section 2.4.2) and the factor price equalisation (H-O-S) theorem (section 2.4.3).

Factor abundance and factor intensity are two concepts used in the explanation of this theory. If a particular factor (for example, labour) is abundant in a country, this means that the country has a higher ratio of that particular factor in terms of physical units compared to the rest of the world. Factor abundance can also be explained in terms of relative factor prices. A country is factor abundant if the relative price of a particular factor is lower in comparison to its relative price in the rest of the world. Salvatore (2001: 125) indicates that the definition of factor abundance in terms of physical units, considers the supply of factors only. The definition in terms of relative prices accounts for both the supply of, as well as the demand (a derived demand for the final good) for, a particular factor of production. If a particular product is factor intensive, then the factor costs are a greater share of its value than they are of the value of other products (Pugel and Lindert 2000: 56).

According to Salvatore (2001: 120-121), the Heckscher-Ohlin theory is based on the following assumptions:

- There are two countries, two goods and two factors of production, that is, a (2 x 2 x 2) model;
- The same technology is utilised in both countries;

- There are constant returns to scale, that is, an increase in the inputs to production is followed by an increase in output in the same proportion in both countries;
- The two countries exhibit equal tastes and incomplete specialisation;
- There are no barriers (such as, transport costs and tariffs) to free trade;
- Resources are fully employed and trade between the two countries is balanced;
- The market structure is perfectly competitive, that is, there are many producers and consumers in the market with an inability to affect the price of the final good;
- There is perfect internal factor mobility within each country, but there is no international factor mobility;
- Externalities, that is, factors external to the market resulting in collective costs or benefits being greater than private costs or benefits are absent.

The **Heckscher-Ohlin (H-O) theorem** predicts that a country will produce and export goods that use a higher proportion of its relatively abundant and cheap factor intensively and goods requiring a higher proportion of its scarce and expensive factor of production will be imported (Salvatore 2001: 129). The H-O theorem is also referred to as the factor proportions or the factor endowments theorem.

The smaller is the difference in factor intensities, the larger is the extent of changes in factor prices. If the relative price of the labour intensive good increases, the wage rate of labour relative to the interest rate on capital increases accordingly, thereby increasing the average cost⁹ of producing the labour intensive good (relative to the capital intensive good) (Caves and Jones 1977: 111; Jones 2003: 18). Similarly, the response of output to changes in factor endowments is more significant the closer together are factor intensities. If the supply of labour increases with capital as a given and production techniques unchanged, the capital intensive good will experience smaller decreases in output and the labour intensive good will experience larger increases in output.

Based on the Heckscher-Ohlin theorem, a country with a lower endowment of one of its factors of production cannot have all of its exports more intensive in that factor than all of

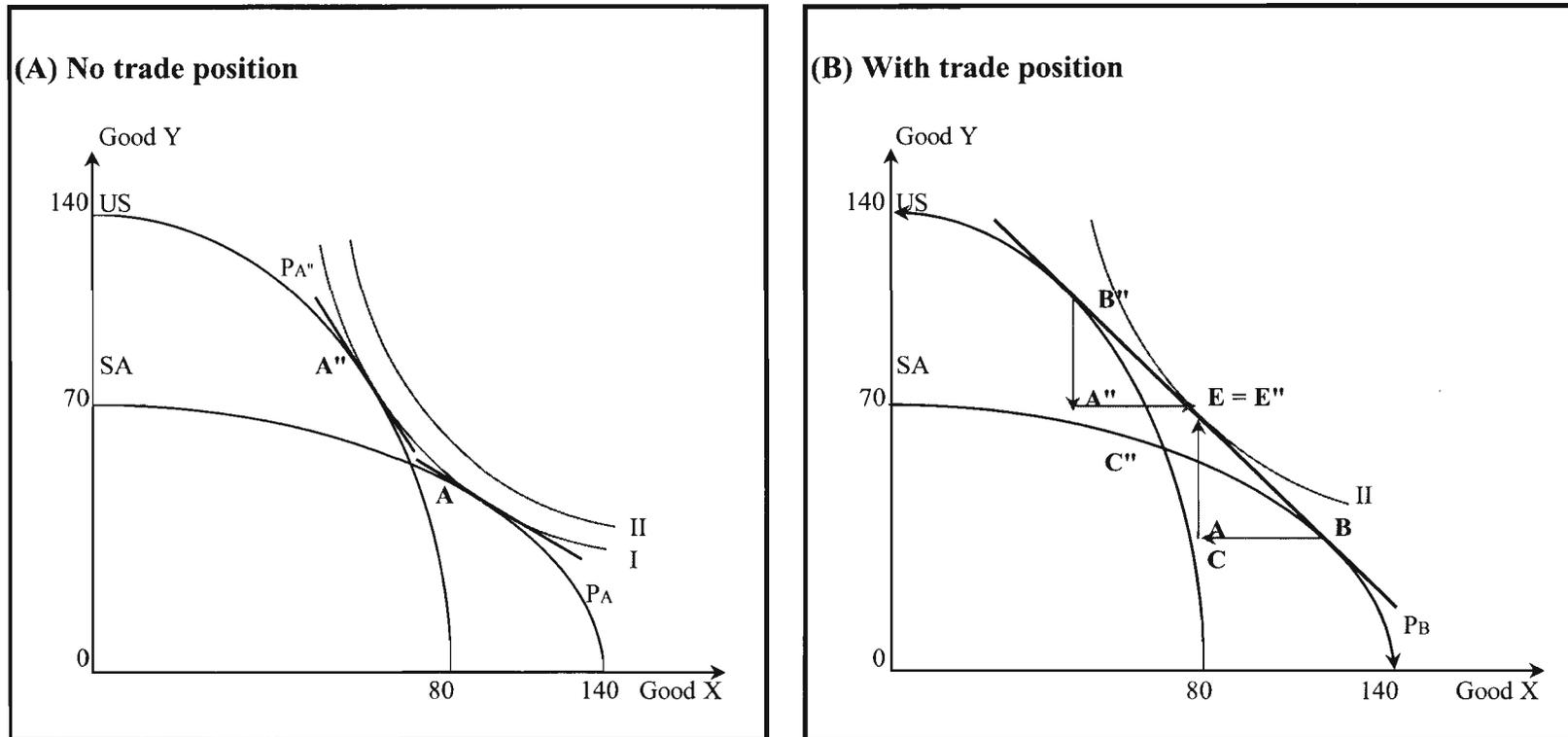
⁹ The average cost is the cost per unit of output.

its imports (Bhagwati 1972: 1054; Holden 1983: 248). The assumption of identical tastes implies that in each country, the identical consumption (capital to labour) ratio must lie between the endowment (capital to labour) ratio. It follows then that in a capital abundant country, capital intensive goods comprise a larger proportion of exports than imports. Therefore, in a capital abundant country, all exports cannot be labour intensive relative to all imports. The difference in the comparative advantage between the two countries arises from the differences in the relative factor endowments and factor prices. Thus, the H-O theorem provides an explanation for comparative advantage rather than assuming such an advantage like the classical economists. According to Feenstra (2004: 1) and Jones and Neary (1984:14), a key attribute of the Ricardian model of trade is that it focuses on the differences in technology as a basis for trade. The H-O model however, focuses on relative factor endowment differences between countries as well as the difference between products in terms of the intensities to which these factors are used.

The Hecksher-Ohlin theorem can be explained with the aid of a diagram. In **Figure 2.2**, the two diagrams are drawn reflecting the production possibilities' frontiers of the two countries, United States (US) and South Africa (SA). Diagrams (A) and (B) show the no trade and with trade positions respectively. As mentioned in section 2.3.2, the production possibilities frontier reflects various combinations of two goods that can be produced with a fixed quantity of inputs (labour and capital). United States is the capital abundant country and produces the capital intensive commodity, Good Y (drawn on the y-axis in both diagrams). South Africa is the labour abundant country and produces the labour intensive commodity, Good X (drawn on the x-axis in both diagrams). The production frontier of South Africa is flatter and wider than the production frontier of the US. This indicates that South Africa can produce relatively more of Good X than Good Y.

Figure 2.2¹⁰: The Hecksher-Ohlin Model

(Salvatore 2001: 131)



¹⁰ Diagrams are not drawn to scale.

In Figure 2.2 diagram (A), based on the assumption of equal tastes, the two countries have the same indifference curves. Indifference curves show various combinations of two commodities that provide equal satisfaction to a country or group of individuals (Salvatore 2001: 62). A set of indifference curves makes up an indifference map. Indifference Curve I is common to both countries as it is tangent to South Africa's production frontier at point (A) and the United States production frontier at point (A"). In the absence of trade, the tangency at points (A) and (A") on indifference curve I represent the no trade equilibrium points of South Africa and the United States respectively. This is the highest point that either country can reach in the absence of trade. At the no trade equilibrium point (A), the relative commodity price in South Africa is P_A and at point (A") in the United States, the relative commodity price is $P_{A''}$. Since P_A is less than $P_{A''}$, South Africa has a comparative advantage in the production of Good X and the United States has a comparative advantage in the production of Good Y (Salvatore 2001: 132).

When trade opens, South Africa specialises in the production of Good X and the United States specialises in the production of Good Y. Figure 2.2 diagram (B) illustrates the trade position. The arrow on the production frontiers of the two countries indicates the direction of specialisation. Specialisation in production continues until South Africa reaches point (B) and the United States reaches point (B"). These are the points where the slope of the production possibilities frontier of both countries is tangent to the common relative price line P_B . The slope of the production possibilities frontier is referred to as the marginal rate of transformation, that is, the amount of one good that must be given up to produce an additional unit of another good. South Africa exports Good X in exchange for Good Y and consumes at point (E) on indifference curve II. Therefore, trade is represented by triangle BCE. Similarly, United States exports Good Y for Good X and consumes at point (E") and trade is represented by triangle B"C"E". South Africa's exports of Good X are equal to the United States' imports of Good X ($BC = C"E"$). Similarly, the United States' exports of Good Y are equal to South Africa's imports of Good Y ($B"C" = CE$).

If relative commodity prices are such that $P_X/P_Y > P_B$, South Africa wants to export more of Good X than the United States wants to import at the high relative price of Good X. Therefore, P_X/P_Y falls toward P_B . Similarly, if relative commodity prices are such that $P_X/P_Y < P_B$, South Africa wants to export less of Good X than United States wants to import at the low relative price of Good X. Therefore, P_X/P_Y rises toward P_B . An analogous explanation applies for Good Y. Point (E) includes more of Good Y and less of Good X than point (A), but South Africa still gains from trade since E is on the higher indifference curve II. Similarly, point (E") includes more of Good X and less of Good Y than at point (A"), but the United States still gains from trade as point (E") is on a higher indifference curve II.

The Hecksher-Ohlin theory can also be explained in terms of a general equilibrium framework, that is, in terms of economic forces jointly determining the prices of final goods (Salvatore 2001: 129). The demand for final goods is determined by tastes as well as by the distribution of income. The demand for final goods derives the demand for the factors of production required to produce them. Under perfect competition, this demand, together with the supply of factors of production determines the price of factors, which together with technology determines the price of final goods. The relative price difference of final goods between countries determines the comparative advantage as well as the pattern of trade. The H-O theorem focuses specifically on the difference in the physical supply of factors of production to explain the difference in relative product prices and the pattern of trade among countries, assuming equal tastes and technology. It is also the difference in the supply of factors of production that causes different relative factor prices in different countries. Using the same technology but different factor prices, results in different relative product prices among countries. Therefore, we can conclude that the difference in the relative supply of factors results in the difference in relative factor prices and product prices.

2.4.2 THE STOLPER-SAMUELSON THEOREM

The **Stolper-Samuelson theorem** states that an exogenous change that increases the relative price of a good increases the real return to the factor of production used

intensively in the production of that good and decreases the real return to the other factor of production in the long run (Feenstra 2004: 15; Pugel and Lindert 2000: 66). The Stolper-Samuelson theorem is derived from the Heckscher-Ohlin theorem and is based on the assumptions of: two factors of production, two goods and two countries (a 2 x 2 x 2 model); factors that are fully mobile nationally; perfect competition in all markets and constant returns to scale.

Slaughter (1998: 1453) claims that the Stolper-Samuelson theorem provides an explanation for international trade affecting the prices of products. The prices of goods affect the prices of factors. This in turn affects the relative demand for factors of production. The link between product prices and factor prices is maintained by 'zero profit conditions' (in equilibrium) which equates the price with the average cost, usually under conditions of perfect competition. The 'zero profit conditions' indicate that there is a systematic relationship between all the factor prices and product prices that the domestic producers face. We now go on to analyse the effects of a change in the price of Good X.

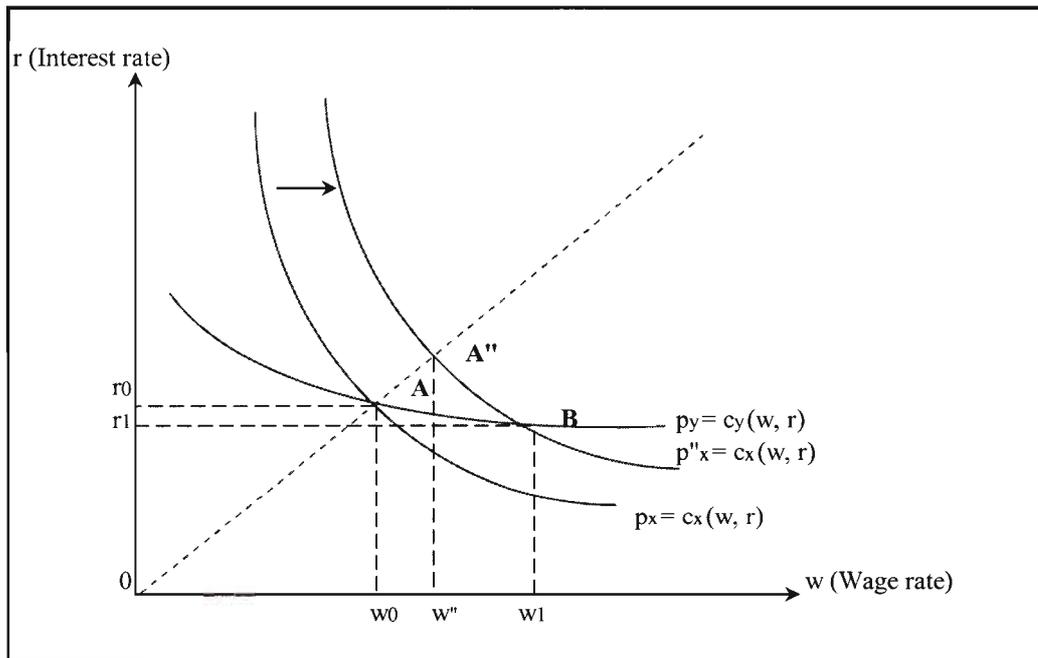
Figure 2.3 illustrates the Stolper-Samuelson theorem. The y-axis measures the cost of capital, which is the interest rate. The x-axis measures the cost of labour, which is, the real wage rate. The isocost curves show all combinations of capital and labour for a given total cost. In this figure, isocost curves represent the interest rate to wage rate (r/w) ratio. The initial factor price equilibrium (where profits equal zero) is at point (A) on isocost curve $p_x = c_x(w, r)$ in Industry X which is labour intensive. This correlates to interest rate r_0 and wage rate w_0 in the ratio r_0/w_0 . $p_x = c_x(w, r)$ represents the minimum cost of producing one unit of Good X. Since we assume constant returns to scale, the unit cost is equal to the marginal cost and the average cost.

If the United States (the capital abundant country) imposes an import tariff¹¹ on Good X (its labour intensive good), the price of Good X relative to the price of Good Y (P_x/P_y)

¹¹ An import tariff is a tax imposed on a good that a country imports. Chapter Three provides a detailed explanation for import tariffs and non-tariff barriers to trade.

risers for domestic consumers and producers. This increases the wage rate of labour. An increase in the wage in Industry X shifts the isocost curve to $p_y = c_y(w, r)$ establishing a new equilibrium at point (B) where the relative wage rate increases from w_0 to w_1 and the interest rate decreases from r_0 to r_1 . In Figure 2.3, we observe that the wage rate increases by more than the relative price of Good X in percentage terms from the ray drawn from the origin through point (A). If we move along the ray, increases in the price of Good X increases the wage rate and the interest rate in the same proportion. According to Feenstra (2004: 16), this is because the unit cost functions are homogeneous of degree one in factor prices.

Figure 2.3: The Stolper-Samuelson theorem
(Feenstra 2004: 16)



Still using Figure 2.3, at point (A'') on isocost curve $p''_x = c_x(w, r)$, the increase in the real wage exactly matches the percentage change in price, p_1 . Since $(w_1 - w_0) > (w'' - w_0)$, it is clear that the equilibrium wage increases by more than the increase in the price of labour. The percentage increase in the wage rate exceeds the percentage increase in the product price. In other words, increases in the relative wage rate increases the returns to

the factor of production, namely, labour, used intensively in the production of Good X by more than the increase in the product price. This result is therefore consistent with our statement of the Stolper-Samuelson theorem.

According to Fedderke, Shin and Vaze (2003: 2) and Mayer and Wood (2001: 6), the Stolper-Samuelson theorem explicitly holds in long run equilibrium. Application to the real world therefore requires careful consideration of the nature of the equilibrium relationship predicted by theory together with dynamic adjustments to equilibrium. This is useful in the analysis on the effects of globalisation and trade liberalisation on labour markets as examined in Chapter Five. The other supposition with respect to this theory is that the impact of trade liberalisation is uniform across all sectors in an economy (Mayer and Wood 2001: 6). However, Fedderke, Shin and Vaze (2003: 2) reveal that factors contributing to non-uniformity include the extent of trade liberalisation, the presence of non-tariff barriers, labour market institutional developments and the composition of trade between developed and developing countries. These factors play a role in determining the extent to which the Hecksher-Ohlin theory can predict the effects of globalisation and trade liberalisation. The non-uniformity aspect is important in our discussion of the effects of globalisation and trade liberalisation on South Africa as seen in Chapter Five and the experiences of other countries as depicted in Chapter Six, where it becomes evident that the impact of trade liberalisation differs across various sectors in the economy.

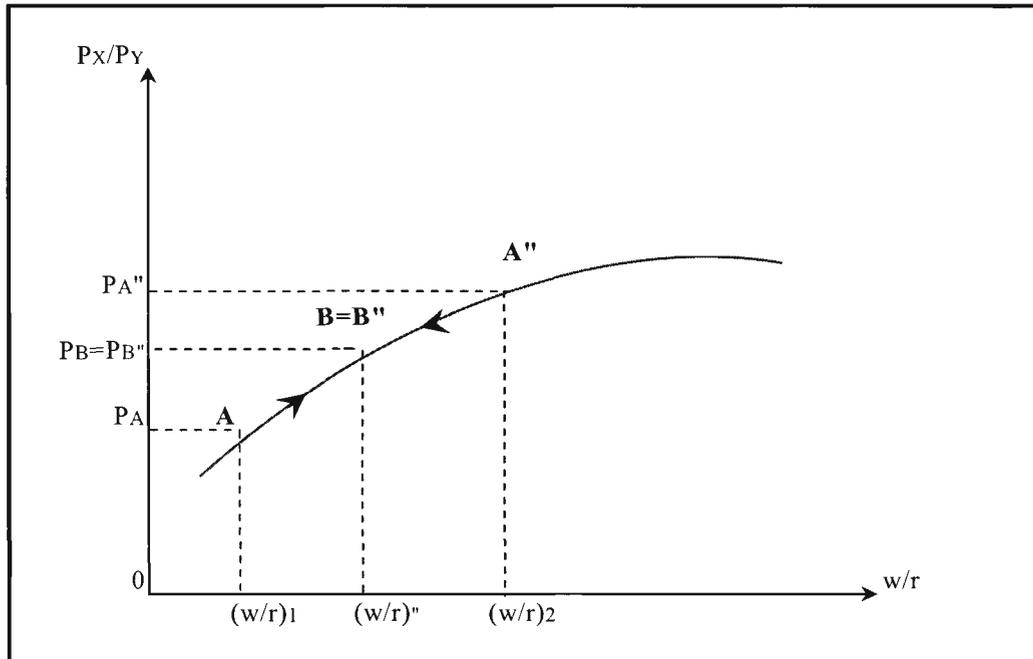
A trade-induced change in the price of a good that changes the real returns to a country's factor of production, changes the relative profit opportunities for price taking firms who shift their resources toward (away from) industries whose relative profitability have increased (decreased) (Slaughter 1998: 1454). The world demand increases (decreases) for goods that use the factors intensively in the now relatively profitable (unprofitable) industries. These shifts in the quantity demanded continue until zero profits are restored in all sectors. Trade affects relative factor prices by affecting the terms of trade. Thus, in accordance with the Stolper-Samuelson theorem, protection increases the returns to the scarce factors of production and free trade increases the returns to abundant factors of

production. Trade liberalisation (behaviour that makes trade policy more neutral *via* shifts from protected to freer trade) should result in developing countries (which are generally abundant in unskilled labour) experiencing increased returns to unskilled labour and a better distribution of income as the skilled wage premium is reduced. Similarly, in developed countries, returns to the abundant factor of production namely, capital and skilled labour should increase (Arbache *et al* 2004: F75). Leamer and Levinsohn (1995: 149) too, conclude that each factor of production supports either protectionism or free trade and this decision is independent of whether the industry produces a larger proportion of goods for the domestic market or for export. According to Slaughter (1998: 1454), the Stolper-Samuelson theorem implies that rising wage inequalities may be due to trade-induced increases in the price of skilled labour intensive products as opposed to unskilled labour intensive products. In following chapters, we will analyse the effects of trade liberalisation on the labour market in light of these outcomes, specifically in South Africa and generally in selected countries. We now go on to discuss the factor price equalisation or Hecksher-Ohlin-Samuelson (H-O-S) theorem.

2.4.3 THE FACTOR PRICE EQUALISATION OR HECKSHER-OHLIN-SAMUELSON (H-O-S) THEOREM

The **factor price equalisation theorem** states that if two countries have identical technologies, but different factor endowments, absolute and relative factor prices will be equalised when international trade occurs (Feenstra 2004: 13; Salvatore 2001: 133). This theorem is also referred to as the **Hecksher-Ohlin-Samuelson (H-O-S) theorem** and is effective when the Hecksher-Ohlin (H-O) theorem applies. Free trade yields the same wages of homogeneous labour (labour with the same level of training, skills and productivity) for all trading countries if the assumptions of the H-O theorem hold. Returns to homogeneous capital (capital with the same productivity and risk) will also be the same among all trading countries. We now go on to prove that trade equalises relative and absolute factor prices in the familiar example using United States and South Africa.

Figure 2.4: The Factor Price Equalisation (H-O-S) theorem
 (Salvatore 2001: 136)



The factor price equalisation theorem is graphically represented in **Figure 2.4**. This illustration is based on two goods (Good X and Good Y) and two countries (the United States and South Africa). All the assumptions of the Heckscher-Ohlin theorem are applicable. The relative price of Good X is measured on the y-axis (P_X/P_Y) and the relative price of labour is measured along the x-axis (w/r). Thus, the curve represents a one to one relationship between the product price (P_X/P_Y) and the factor price (w/r). In the absence of trade, South Africa produces at point (A) [where $w/r = (w/r)_1$ and $P_X/P_Y = P_A$]. The United States produces at point (A'') [where $w/r = (w/r)_2$ and $P_X/P_Y = P_{A''}$]. Since w/r is lower in South Africa than in the United States, P_A is lower than $P_{A''}$. Accordingly, South Africa has a comparative advantage in producing Good X.

With trade, as South Africa (the relatively labour abundant country) specialises in the production of Good X (the labour intensive good), the production of Good Y decreases and the demand for labour relative to capital increases. This results in w/r increasing

which causes P_X/P_Y to increase in South Africa. Similarly, in the United States (the relatively capital abundant country), as specialisation in the production of Good Y (the capital intensive good) increases, the demand for capital relative to labour increases. The w/r decreases (r/w increases) which causes P_X/P_Y to decrease (P_Y/P_X to increase). This process continues until point (B) = (B'') [where $w/r = (w/r)''$ and $P_B = P_B''$]. Therefore, P_X/P_Y becomes equal when trade opens and occurs only when w/r becomes equal in both countries. This holds as long as both countries continue producing both goods (Salvatore 2001: 137).

Our analysis of Figure 2.4 thus far, is in terms of the equalisation of *relative* factor prices. We now consider the equalisation of *absolute* factor prices. Equalisation of absolute factor prices describe international trade equalising the real wages for the same type of labour in the United States and South Africa and the real rate of interest for the same type of capital in both countries (Salvatore 2001: 137). Given that trade equalises relative factor prices; there is perfect competition in all product and factor markets; both countries utilise the same technology and are subject to constant returns to scale in the production of both goods, it follows that the opening of trade also equalises the absolute returns to homogeneous factors.

The following example summarises the factor price equalisation theorem. South Africa is the low wage, capital expensive country whereas the United States is the high wage, capital inexpensive country. Let us further assume that the relative price of Good X (the labour intensive good) is lower in South Africa than in the United States because the relative price of labour (the wage rate) is lower in South Africa. In South Africa, as specialisation in the production of Good X increases, the production of Good Y, the capital intensive good, decreases. The quantity of labour demanded increases causing real wages to rise and simultaneously, the quantity of capital demanded falls causing the interest rate to fall. In the United States, production is specialised in Good Y. The production of Good X falls as the quantity of labour demanded decreases (decreasing wages) while the quantity of capital demanded rises (increasing interest rates). International trade therefore decreases the pre-trade difference in wages and interest rates

between the two countries. Accordingly, it is clear that international trade decreases the international difference in the returns to homogeneous factors of production. As long as the relative factor prices differ, the relative prices of final goods will also differ and international trade will continue to rise. International trade continues until the relative prices of final goods are completely equalised which will result in equalised factor prices in the two countries (Salvatore 2001: 135-136).

Ethier (1974: 205) correctly points out that if trading countries possess similar factor endowments, trade acts as a substitute for the international mobility of factors of production in its effect on factor prices. However, if factor endowments are not similar, the factor prices cannot be equalised by trade irrespective of the actual pattern of specialisation. We also note that as the number of goods produced increases, the possibility of factor price equalisation increases (Ethier 1984: 142). The scope of this study does not extend a detailed analysis of the Heckscher-Ohlin theory to incorporate a number of goods¹². The next section goes on to examine growth in a single factor of production in the Rybczynski theorem.

2.5 THE RYBCZYNSKI THEOREM

The **Rybczynski theorem** illustrates that in a two good, constant product price world, growth in one of a country's factors of production (with the other factor unchanged) increases the output of the good that uses the growing factor intensively whilst the output of the other good decreases (Pugel and Lindert 2000: 84).

Salvatore (2001: 208) advocates that in order for commodity prices to remain constant when growth in one factor occurs, factor prices (that is the wage rate and the interest rate) must remain constant. He goes on to state that factor prices are only constant if the capital to labour ratio and the productivity of capital and labour remain constant in the production of both goods. If we assume growth in the supply of labour only, the output of

¹² We briefly cite evidence on the Heckscher-Ohlin-Vanek (H-O-V) model in section 2.6.2 which incorporates many factors and many goods. In section 2.7, we examine the specific factors model that effectively explains trade with three factors and two goods.

Good Y (the capital intensive good) must fall as this is the only way to employ the increase in the quantity of labour supplied and leave the capital to labour ratio unchanged in the production of both goods. The reduction in the output of Good Y releases sufficient capital and a little labour to absorb the increase in the quantity of labour supplied in the production of Good X (the labour intensive good). Therefore, the output of Good X increases while the output of Good Y decreases at constant product prices.

A fall in the quantity of labour supplied decreases the output of the labour intensive good and increases the output of the capital intensive good (Chen 1995: 278). Therefore, in developing countries, particularly South Africa, where there is an abundant and growing supply of labour, production should comprise of a larger bundle of labour intensive goods. Jones and Neary (1984: 17) maintain that if there is a constant capital to labour ratio in each production sector, there will be a similar pattern of output changes. We now examine growth in one factor of production.

Figure 2.5: The Rybczynski theorem
(Salvatore 2001: 209)

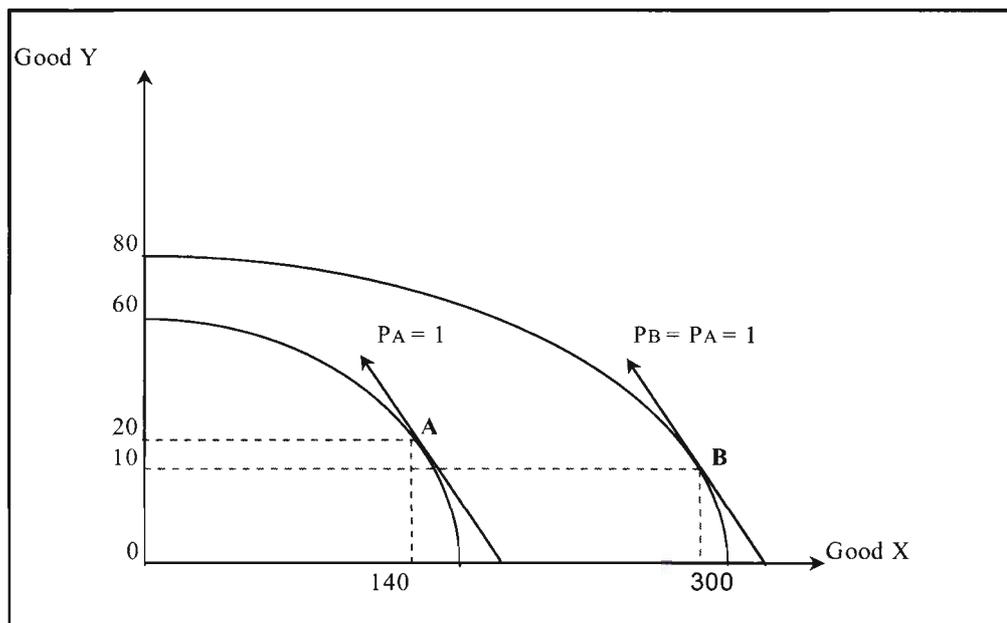


Figure 2.5 illustrates the Rybczynski theorem using a single country, South Africa and growth in a single factor of production, labour. Good Y is drawn on the y-axis and Good X is drawn on the x-axis. The production possibilities frontiers are drawn to represent the before, and after effects of doubling the labour factor of production. In the presence of trade, but before growth, South Africa produces at point (A) where $P_X/P_Y = P_A = 1$, Good X = 140 and Good Y = 20.

When only labour doubles with $P_X/P_Y = P_A = 1$, South Africa now produces at point (B) where Good X = 300 and Good Y = 10 on an expanded production frontier. The output of Good X more than doubles and the output of Good Y decreases as predicted by the Rybczynski theorem. Of significance is that the doubling of labour and transferring some labour and capital from the production of Good Y more than doubles the output of Good X. This increase in output of Good X by a greater proportion than the increase in labour is referred to as the magnification effect (Salvatore 2001: 208).

An important element for the issue of growth in a factor of production is the effect of technical progress on the relative factor prices. Technical progress effectively reduces the amount of labour and capital required to produce any given level of output, shifts the production possibilities frontier outward and tends to increase a country's welfare. Salvatore (2001: 210) maintains that neutral technical progress increases the productivity of labour and capital in the same proportion. Capital-saving technical progress refers to the productivity of labour increasing proportionately more than the productivity of capital. Labour is substituted for capital in production and the labour to capital ratio increases with an unchanged wage to interest rate ratio (that is, with unchanged relative factor prices). With more productive labour, it is possible to produce the same level of output with less capital and labour. Similarly, labour-saving technical progress refers to increasing the productivity of capital proportionately more than the productivity of labour. Substituting capital for labour in production increases the capital to labour ratio with unchanged relative factor prices. This is also an important consideration when the two inputs are skilled and unskilled labour. Jones (2003: 11) asserts that a corollary of the Stolper-Samuelson theorem is that if technical progress occurs in an economy where

commodity prices are given, the real wage rate of unskilled labour increases only if that sector is unskilled labour intensive.

We conclude this section by summarising the neoclassical theorems of international trade. The Heckscher-Ohlin (H-O) theorem predicts that a country will produce and export goods that use a higher proportion of its relatively abundant and cheap factor intensively and goods requiring a higher proportion of its scarce and expensive factor of production will be imported. The Stolper-Samuelson theorem is derived from the Heckscher-Ohlin (H-O) theorem and states that an exogenous change that increases the relative price of a good increases the real return to the factor of production used intensively in the production of that good and decreases the real return to the other factor of production in the long run. When the Heckscher-Ohlin (H-O) theorem applies, the factor price equalisation theorem postulates that if two countries have identical technologies, but different factor endowments, absolute and relative factor prices will be equalised when international trade occurs. Shifting the focus to growth, the Rybczynski theorem asserts that in a two good, constant product price world, growth in one of a country's factors of production (with the other factor unchanged) increases the output of the good that uses the growing factor intensively while the output of the other good falls.

2.5.1 FACTOR INTENSITY REVERSAL

Factor intensity reversal occurs when the same good is the labour intensive good in the labour abundant country and the capital intensive good in the capital abundant country (Salvatore 2001: 148). The Heckscher-Ohlin (H-O) theorem and the factor price equalisation (H-O-S) theorem do not hold in the presence of factor intensity reversal. The H-O theorem fails in predicting the pattern of trade as it would predict that both countries would export the same homogeneous good. The difference in relative and absolute wages could increase, decrease or remain unchanged with international trade and therefore the factor price equalisation (H-O-S) theorem does not hold.

Factor intensity reversal is more likely to occur the larger is the difference in the elasticity of substitution of labour for capital in production in the production of two

goods. The elasticity of substitution refers to the degree of substitution of one factor for another factor of production, as the relative price of the latter factor decreases. We use the familiar example of the United States and South Africa to explain a large elasticity of substitution of labour for capital. South Africa will produce Good X using labour intensive methods, as real wages are low. The United States also produces Good X, but using capital intensive methods because the real wages are high. For Good Y, although the relative factor prices differ substantially in both countries, these countries will be forced to use similar methods to produce this good as the elasticity of substitution of labour for capital is low. Good X is therefore the labour intensive good in South Africa and the capital intensive good in the United States. Studies conducted by Minhas (in 1962), Leontief (in 1964) and Ball (in 1966) confirm that factor intensity reversal is however not very prevalent in the real world.

2.6 EMPIRICAL TESTS OF THE HECKSHER-OHLIN (H-O) THEORY

In this section, we review research evidence arising from tests on the Hecksher-Ohlin (H-O) theory. The Leontief Paradox is discussed first followed by results from other empirical tests. This section concludes with a brief overview of the relevance of the Hecksher-Ohlin (H-O) theory to South Africa.

2.6.1 THE LEONTIEF PARADOX

In 1951, Wassily Leontief conducted tests on the Hecksher-Ohlin (H-O) theory using United States data for 1947. Leontief anticipated that since the United States was the most capital abundant country in the world, capital intensive goods would be exported and labour intensive goods would be imported (Caves and Jones 1977: 129; Salvatore 2001: 143). Leontief estimated the capital to labour ratio for import substitutes (that is, goods produced both locally and abroad due to incomplete specialisation) instead of actual imports, as foreign data was unavailable. Although import substitutes would be more capital intensive than actual imports (due to capital being relatively cheaper in the United States than abroad), Leontief expected that the United States import substitutes should be less capital intensive than exports if the H-O theory is valid.

However, contrary to the H-O theory, the United States was exporting labour intensive goods and importing capital intensive goods. This result was popularised as the **Leontief Paradox**. Possible explanations for this pattern include that 1947 was not a representative year as labour may have been more productive than capital in addition to it being a period too close to World War II. The use of a two factor (labour and capital) model was inadequate as important factors such as natural resources were excluded. Tariff protection on United States labour intensive industries decreased labour intensive imports and increased the domestic production of import substitutes. Finally, only physical capital (machinery) was considered in calculations, thereby excluding human capital (education and training) from calculations (Feenstra 2004: 37).

Leontief repeated the study in 1956 and similar results were found. In 1956, Kravis found that the higher wages in the United States reflected greater productivity and human capital in exports than in import substitutes. In 1966, Keesing established that the United States was much more skill intensive than other industrialised countries. Contrary to these studies, Kenen in 1965, by including natural resources and human capital into tests of the H-O theory, eliminated the Leontief Paradox. Leamer in 1987 also eliminated the Paradox by comparing the capital to labour ratio in production *versus* consumption as opposed to imports *versus* exports. These results were further confirmed by later studies (as highlighted in Salvatore 2001: 146). The conflicting results suggest that the H-O theory is useful in explaining international trade in raw material, agricultural goods and labour intensive production (largely trade between developed and developing countries) as well as the effects of international trade, especially in the distribution of income (Harkness 1978: 784; Salvatore 2001: 148).

2.6.2 OTHER TESTS AND EVIDENCE

Harkness (1978: 787) emphasises that when the H-O theory is extended to more than two factors (discussed in section 2.7) and more than two goods, the commodity composition of trade cannot be expressed in terms of factor intensities only. This is due to the inability to attain a unique ranking of technologies based on relative factor intensities. Therefore, factor prices may not be equalised in the many factors, many goods model.

A model extending the H-O theory to incorporate many factors and many goods is the Hecksher-Ohlin-Vanek (H-O-V) model. According to Bowen, Leamer and Sveikauskas (1987: 791), the H-O-V model equates the factors of production comprising net exports to a country's excess supplies of factor endowments. Feenstra (2004: 46) cites partial tests performed by Leamer (in 1984) on the H-O-V model that displays Rybczynski theorem characteristics. Increases in the capital endowments and unskilled labour are associated with increases in the net exports of manufactured goods. Increases in land and skilled labour endowments (as land favours agriculture over manufacturing and skilled labour favours non-traded services over manufacturing) are however associated with a decreases in the net exports of manufactured goods. The results obtained in the model by Bowen, Leamer and Sveikauskas (1987: 793) show that the H-O-V relationship between factor content and factor supplies is not exact as the hypothesis favours neutral technological differences across countries.

In an empirical model, Harrigan (1997: 476-491) jointly estimates the impact of different technologies and different factor supplies on international specialisation and trade. He believes that technological differences are important in determining specialisation as well as determining the location of production and cannot be explained by factor supplies alone. Increased relative output cannot necessarily be associated with technical advantage as the Rybczynski effects of differences in relative factor endowments may affect endowments in the opposite direction. The model confirms the existence of large technological differences and is in line with the theory that supports the Ricardian theory of comparative advantage. In addition, factor endowments are found to have a large impact on output shares. The results are therefore consistent with the neoclassical explanation of trade. Davis *et al* (1997:421) focus on determining the location of production and the pattern of absorption as opposed to the pattern of trade using the H-O model. They find that the model performs well in predicting Japanese regional patterns of production¹³.

¹³ The experiences of Japan are highlighted in Chapter Six.

2.6.2.1 TESTS AND EVIDENCE: SOUTH AFRICA IN PERSPECTIVE

Ariovich (1979: 190-196; 1980: 213) calculates South Africa's comparative advantage by measuring countries' export shares in the relevant foreign market. A greater export share for a particular good in the relevant foreign market indicates that South Africa has a comparative advantage and is internationally competitive in the production of that particular good. The average export shares for the years 1973-1975 reveal that South Africa's international competitiveness is acquired from natural resources (which are non-competing factors as they are available in either one or a few countries only) as well as from the capital intensive manufacturing sector. Low export shares are obtained in the textiles, fabrics and other labour intensive industries. Since most of South Africa's exports are destined for developed countries, the expected result is production that is largely labour intensive. Ariovich (1979: 195) concludes that a case of the Leontief Paradox in reverse is applicable to South Africa (that is, a relatively labour intensive country exporting capital intensive products). If however, industrial exports, which are capital intensive, require a large proportion of raw materials, then capital intensity accompanies international competitiveness as opposed to being the cause of it.

Alleyne and Subramanian (2001: 18) using 1997 data, present more recent evidence on the factor intensity of South Africa's trade. The authors find that "South Africa is revealed through its trade pattern to be relatively capital abundant and a net exporter of capital intensive goods. Surprisingly, this result is particularly strong in South Africa's trade with high-income countries, which appears to contradict the Hecksher-Ohlin-Samuelson (H-O-S) theorem. That is, despite South Africa being more well endowed with the resource labour (relative to capital), when compared with its high-income-trading partners, this physical labour abundance has not translated into a lower price of labour (relative to capital) in South Africa and has thus not resulted in a comparative advantage in the production and export of labour intensive goods". These results are consistent with our findings in Chapter Five section 5.3.

In terms of skilled labour *versus* unskilled labour intensity, Alleyne and Subramanian (2001: 16) compare net trade and consumption in labour services. The results of this test suggest that South Africa is more endowed with unskilled labour since the skilled to unskilled labour ratio is greater for net trade than for consumption. We elaborate on this evidence in Chapter Five, specifically section 5.3.1 which provides an overview of the South African labour market.

Holden (1983: 248-251) provides a simplified theoretical model to show that a positive relationship between export shares and capital does not invalidate the model that a labour abundant country will export labour intensive goods in exchange for capital intensive goods. For South Africa, the results from this model reflect that competitive exports have a lower labour to capital ratio than competitive imports. Thus, Holden (1983: 251) concludes contrary to Ariovich (1979: 190-196; 1980: 213) that the Heckscher-Ohlin model is applicable for South Africa since industries with relatively high labour to capital ratios export labour intensive goods and industries with low labour to capital ratios import capital intensive goods.

Jonsson and Subramanian (2001: 219) examine the empirical relationship between trade and growth in South Africa, which reveals that trade liberalisation contributed largely to increasing long run growth potential through its positive effect on total factor productivity growth during the 1990s. This is reflected in an average price reduction of approximately 14 *per cent* in manufacturing as a result of the reduction of tariffs, translating into a higher total factor productivity growth of approximately 3 *per cent per annum*. The evidence further reveals surprisingly (and contrary to most evidence), that employment has fallen less in sectors where tariffs were more intensely reduced or abolished, namely, the footwear industry. The specific factors model, which follows in the next section, provides an explanation for the pattern of trade in the short run when factors are immobile or specific to an industry. The analysis modifies the (2 x 2) Heckscher-Ohlin model by incorporating a third factor of production.

2.7 THE SPECIFIC FACTORS MODEL

The **specific factors model**¹⁴ predicts that trade has an ambiguous effect on a country's mobile factors, benefits immobile factors that are specific to a country's export goods and harms the immobile factors that are specific to a country's import-competing goods (Salvatore 2001: 140). Specific factors of production are factors used in particular industries only and have a zero value in other industries. This model is a response to the assumption of perfect mobility in Hecksher-Ohlin model, which holds in the long run, but may not be applicable in the short run.

In 1971, Ronald Jones and Paul Samuelson developed a framework for a three factor, two good model (that is, a 3 x 2 model), assuming that two of these factors are specific to one sector. Contrary to the (2 x 2) model Hecksher-Ohlin model, factor intensities alone do not determine factor prices from the prices of goods. The specific factors model emphasises the importance of determining the relative supply of factors (Amano 1977: 131). An increase in the supply of specific capital at constant relative product prices increases output and employment in the industry that uses this factor intensively as well as increases output and employment in the other industry. The interest rate on capital in both industries falls and the real wage rate rises. An increase in the supply of labour at constant relative product prices increases output and employment. This change has the effect of increasing the interest rate on capital in both industries and reduces the real wage rate. In a three factor, two good model, where capital is the immobile specific factor and labour has perfect inter-industry mobility, an increase in the price of a good (Good X) with relative factor supplies unchanged has the effect of increasing the output, employment and real interest rate on capital in that industry. In the other industry, the real wage rate falls in terms of the good whose relative price has risen, but will increase in terms of the other good (Good Y).

We now proceed to illustrate the specific factors model with the aid of **Figure 2.6**. Here, South Africa is the labour abundant country where labour is mobile between industries

¹⁴ The specific factors model is also referred to as the Ricardo-Viner model (Feenstra 2004: 64).

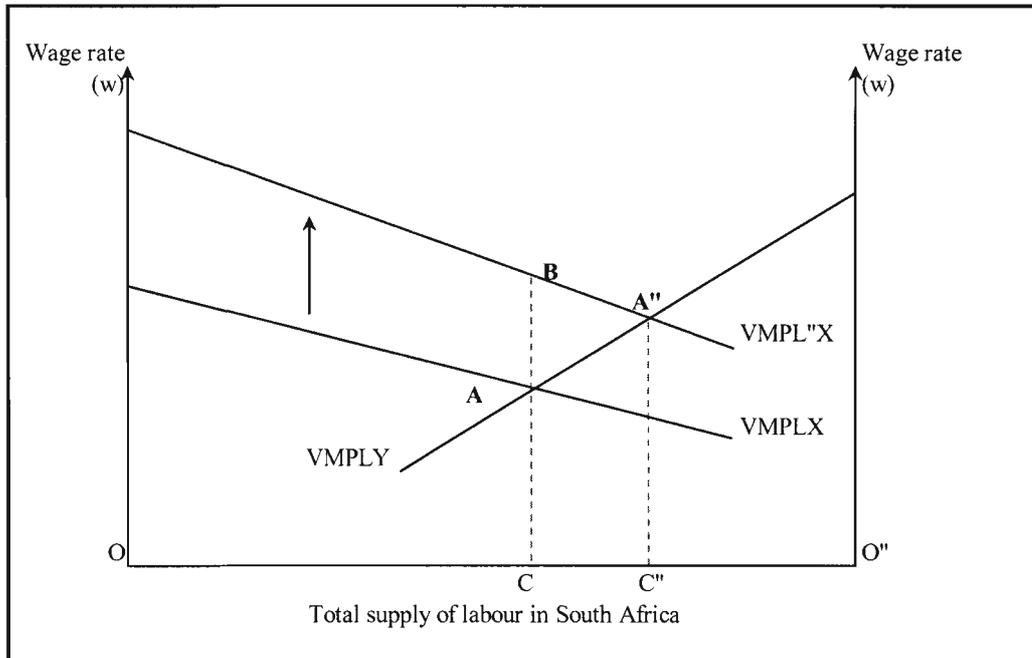
and capital is immobile. The x-axis measures the total supply of labour available to South Africa. The y-axis measures the wage rate. The value of marginal product of labour (VMPL) represents the rand value of marginal product of labour to society. The VMPLX curve reads from left to right and the VMPLY curve reads from right to left.

The equilibrium wage and the amount of labour employed in producing Good X and Good Y in South Africa is given by the intersection of the value of marginal product of labour¹⁵ in the production of Good X and Good Y [that is, at point (A) where $VMPLX = VMPLY$]. If a firm employs more labour with a given amount of capital, VMPL declines because of the law of diminishing returns, which states that as the use of an input increases with other inputs fixed, a point will arise where resulting additions to output decrease (Pindyck and Rubinfeld 1997: 183). Firms employ labour until the wage they pay equals the value of marginal product of labour ($w = VMPL$) to maximise profits.

¹⁵ $VMPLX = (P_X)(MPPL_X)$ and $VMPLY = (P_Y)(MPPL_Y)$ – Refer to Chapter Four section 4.3.1 for a full explanation of these terms.

Figure 2.6: The Specific Factors Model

(Salvatore 2001: 160)



In the absence of trade, the equilibrium wage rate is equal to vertical distance AC at the intersection of the VMPLX and VMPLY curves in Figure 2.6. Since labour is perfectly mobile, the wage rate is the same in the production of Good X and in the production of Good Y in South Africa. The production of Good X uses OC units of labour and the production of Good Y uses the remaining CO'' units of labour.

When trade opens, South Africa specialises in the production and export of Good X (the labour intensive good) and imports Good Y (the capital intensive good). The opening of trade increases the relative price of Good X (P_X/P_Y) and the nominal wage rate. Given that $VMPLX = (P_X)(MPPLX)$, the increase in P_X shifts the VMPLX curve upward proportionately by vertical distance AB to VMPL'X. The equilibrium wage rate increases less than proportionately from vertical distance AC to A''C''. Since labour is the mobile factor of production, CC'' units of labour shift from the production of Good Y to the production of Good X. The wage rate increases by less than the increase in the price of

Good X. Therefore, the wage falls in terms of producing Good X but rises in terms of producing Good Y (since the price of Good Y is unchanged).

Real wages (which are equal in the production of both goods) in South Africa decreases in terms of Good X and increases in terms of Good Y and is therefore ambiguous. This is because the increase in the relative price of Good X (P_X/P_Y) and the increase in the derived demand for labour is greater than the increase in the nominal wage rate. Therefore, the real wage rate falls in terms of Good X. Since the nominal wage rate increases, but the price for Good Y decreases, the real wage increases in terms of Good Y. The real wage and income falls for individuals consuming a larger proportion of Good X making them worse off while those consuming a larger proportion of Good Y are better off (Feenstra 2004: 74).

For the specific factor capital (not graphically represented), when trade opens, the real income of the immobile capital (which is South Africa's scarce factor of production) increases in the production Good X and decreases in the production of Good Y. The opening of trade does not cause any transfer of capital from the production of Good Y to the production of Good X. Since Good X has more labour to work with, the value of marginal product of capital ($VMPK_X$) and the interest rate (the price of capital) increases in terms of both Good X and Good Y. With more labour used with the given specific capital in the production of Good X, the real return on capital in the production of Good X increases. Since less labour is used with fixed capital in the production of Good Y, $VMPK_Y$ and the interest rate fall in terms of producing Good X and therefore in terms of producing Good Y as well. With less labour and the same amount of specific capital used in the production of Good Y, the real return on the specific capital used in the production of Good Y decreases.

The opening of trade has an ambiguous effect on the real wage and income of labour (South Africa's mobile factor), increases the real return on the specific capital used in the production of Good X (the export good) and reduces the real return on the other specific factor used in the production of Good Y (the import-competing good). According to

Salvatore (2001: 161), this is the short run effect with the specific factors model when capital is the specific (immobile) factor of production between two industries in a country.

Feenstra (2004: 64) maintains that when the specific factors model holds, the factor price equalisation (H-O-S) theorem does not hold. In contrast to the H-O-S theorem, real wages and interest rates in the specific factors model are now dependant on the overall capital to labour ratio and the relative prices of goods (Amano 1977: 134). Since the specific factor cannot shift between industries, the law of diminishing returns plays an important role in the specific factors model. The Stolper-Samuelson theorem is applicable because an increase in the price of a good increases the real return to the factor used abundantly in the production of that good while the real return to other factors falls. In the long run however, when all factors are mobile, the Hecksher-Ohlin-Samuelson (H-O-S) theory still holds true. The opening of trade increases the real returns of the factor used intensively in the South Africa's export sectors and decreases the real returns of the factor used intensively in South Africa's import-competing sectors (Salvatore 2001: 161).

Ruffin (2001: 446) expands the Hecksher-Ohlin theory by assuming that two types of labour with a Ricardian comparative advantage constitute one of the factors of production. A quasi-specific factor is one that has a positive value in another industry and can exit if economic returns fall or disappear. This is therefore the opposite of a specific factor, which is used in a particular industry only and has a zero value in any other industry. The introduction of the quasi-specific factors incorporates a minimum of three factors of production, that is, capital and the two types of quasi-specific labour. This differs from the H-O theory where we assume two factors of production. In the quasi-specific factors model, an increase in the relative price of a good increases the real wage of the type of labour with a comparative advantage in that sector, and decreases the real wage paid to the other type of labour (Ruffin 2001: 448). The ratio of the wages of the two types of labour, namely, skilled and unskilled differs in all national markets and remains unexplained by the H-O theory. In industries that display a comparative

advantage in skilled labour, relative wages change only temporarily when there are changes in relative commodity prices.

Continuing with the relevance of the specific factors model to traditional international trade theory, Ford (1969: 129) reveals that the specific factors model is more consistent with Ricardo's theory of comparative advantage than with the Hecksher-Ohlin theory. Ruffin (2001: 457-458) also presents a case where he shows that the Rybczynski theorem holds if the Stolper-Samuelson theorem applies. In his quasi-specific model, growth in the supply of one type of labour increases the production of the good in which that type of labour has a comparative advantage. Contrary to this, in South Africa, growth in the supply of unskilled labour has not increased the production of goods using this factor intensively. This finding is accentuated in Chapters Three, Five and Seven respectively.

In this section, we examine the specific factors model, which predicts that trade has an ambiguous effect on a country's mobile factors, benefits immobile factors that are specific to a country's export goods and harms the immobile factors that are specific to a country's import-competing goods. Chapter Five links international trade theory to the South African labour market where it becomes evident from the outcomes of all five theorems that the factor most adversely affected by globalisation and trade liberalisation is unskilled labour.

In the next section, we highlight the role of the new theories of trade in explaining a portion of trade, which the Hecksher-Ohlin (H-O) theory is poor at predicting. Mayer and Wood (2001: 6) corroborate that the H-O theory is useful in explaining some features of the pattern of trade. This is more so in the variation among countries' composition of exports in terms of the share of manufactured products as well as processed and unprocessed primary products. It is also successful in predicting North-South trade. The North refers to developed countries that are abundant in skilled labour, therefore exporting skill intensive products and the South refers to developing countries that are abundant in unskilled labour therefore exporting unskilled-labour intensive goods.

2.8 THE NEW THEORIES OF INTERNATIONAL TRADE

Many of the assumptions that form the basis of the Hecksher-Ohlin (H-O) theory do not explain international trade in the real world. Consequently, this leaves much of the current international trade (based on imperfect competition, economies of scale and the introduction of new technology) unexplained. Relaxing some of the assumptions requires new trade theories to explain that part of trade which the H-O theory does not explain (Salvatore 2001: 172). Staiger (1988: 132) maintains that although the H-O theory is not very valid in the real world, it remains important as it generally predicts the pattern of trade from relative factor endowments accurately. Mayer and Wood (2001: 6) advocate that efficiencies among countries are uneven among goods. A country that is efficient in the production of a good will produce and export that good regardless of whether or not the combination of resource inputs give the production of that good a comparative advantage. This section examines economies of scale (by relaxing the assumption of constant returns to scale), followed by imperfect competition (relaxing the assumption of perfect competition). The analysis of new trade theories is concluded by a discussion of changes in technology over time (relaxing the assumption of the use of the same technology in production in both countries).

Alam (1995: 367) and Roberts (2000: 612) find that models incorporating the new theories of trade may require government intervention in trade agreements. However, selecting particular industries to protect will prove to be a difficult task. New trade theories are more relevant to developing countries because their domestic markets are small, industries are more concentrated and are characterised by the existence of market failures.

2.8.1 TRADE BASED ON ECONOMIES OF SCALE OR INCREASING RETURNS TO SCALE

The Hecksher-Ohlin theory describes the pattern of trade assuming constant returns to scale. New trade theories explain trade with increasing returns to scale, which allows for specialisation and leads to increased productivity. **Economies of scale** or **increasing returns to scale** arise when output increases proportionately more than the increase in

inputs or factors of production (Pugel and Lindert 2000: 103). In other words, if all inputs are doubled, output is more than doubled. As a result, the average cost of producing each unit of output decreases and savings are acquired *via* the increase in quantities produced. Salvatore (2001: 174) strongly maintains that increasing returns to scale usually occur at a larger scale of operation where there exists the possibility for a greater division of labour and specialisation.

Increasing returns to scale are internal to the firm because as the firm's output increases, the average costs of production decrease. If the firm's average costs decrease as industry output increases, these are referred to as external economies (Salvatore 2001: 175). Antweiler and Trefler (2002: 99) examine the extent of increasing returns to scale in the context of a general equilibrium model of international trade. This study reveals that the presence of internal returns to scale will result in a less than unity elasticity of the industry's total costs. New international economies of scale require firms to constantly search for cheaper inputs and overseas production in order to remain competitive. Continuous learning and searching are essential under these dynamic theories (Olofin 2002: 306). Mayer and Wood (2001: 6) maintain that economies of scale play a role in explaining the large volume of trade that occurs in countries with similar resources as well as in explaining the intricate details of the composition of trade.

Product differentiation refers to products that consumers view as close but not perfect substitutes for each other. This pertains to international trade exchange of different products produced by different manufacturers in the same industry or product group (Pugel and Lindert 2000: 102; Salvatore 2001: 177). In the case of differentiated products produced under economies of scale, pre-trade relative commodity prices may not accurately predict trade patterns because all nations can take advantage of scale economies to the same extent. The H-O theory suggests that pre-trade prices predict the pattern of trade relatively well. Lawrence and Spiller (1983: 64) however maintain that even in the presence of economies of scale, pre-trade prices are useful in predicting the direction of trade. Helpman (1981: 306) suggests that if differentiated products are produced with a homothetic production function, and consumers spend a fixed budget on

each good, relative factor returns can be used to predict the intra-industry pattern of trade. The country with the lower wage-rental ratio will be the net exporter of labour intensive goods and the country with the higher wage-rental ratio will be the net exporter of capital intensive goods. However, due to country size affecting pre-trade relative commodity prices, these prices cannot be used to predict the intra-industry pattern of trade. A larger country can take better advantage of economies of scale, which results in relatively lower prices of manufactured products (Helpman 1981: 328). Markusen and Melvin (1981: 450) construct a model showing that differences in country size determine the direction of trade, which in turn determines factor price differences and limits the possible distribution of the gains from trade. It is shown in the model that only a small country may lose from trade.

In their model, Markusen and Melvin (1981: 452) dismiss the factor price equalisation (H-O-S) theorem. The price of the factor used intensively in the good produced with increasing returns to scale will be relatively high in a large country irrespective of the country's equilibrium specialisation or diversification. It follows then that the price of the factor used intensively in the production of the good in the home country will also be higher in other countries. The opposite outcome occurs in the H-O-S theorem when production is specialised.

The model by Markusen and Melvin (1981: 452) also differs from the H-O model where the factor endowments provide the basis for trade. This model assumes that if perfectly mobile factors of production exist, equilibrium will determine which country is relatively well endowed in terms of the factor that is used intensively in the production of the exported good. According to Rauch (1989: 360), in a two-country model where one good exhibits international increasing returns to scale and the other good exhibits constant returns to scale, the pattern of trade is determined by comparative advantage, irrespective of country size.

2.8.2 TRADE BASED ON IMPERFECT COMPETITION

The H-O theory assumes perfect competition in commodity and factor markets. In order to benefit from increasing returns to scale, countries do not have to be identical and either country can specialise in the production of either good. If the range of output is large, a single producer for products with no close substitutes will capture the market and the resulting market structure will be a **monopoly**. Alternatively, if there are a few producers, the resulting market structure will be an **oligopoly** (Salvatore 2001: 175). According to Brander (1981: 7), when the market structure is imperfectly competitive, the firm equates marginal revenue to marginal cost¹⁶. Pre-trade prices under oligopoly are higher than costs. If each firm has a smaller share of the foreign market than of the domestic market, marginal revenue in the foreign market can exceed marginal revenue in the domestic market even if the price is the same in both markets. In the Ricardian model with perfect competition, gains from trade arise since imports can be purchased at lower prices while the exports are sold at the same price in terms of relative wages. Ruffin (2003: 578-582) states that if an oligopoly exists for imports and exports, the export price may also decrease. If oligopolies are strong, workers may gain more from trade, but the economy as a whole gains less from trade than under perfect competition. If oligopolies are weak, the gains from trade are similar to that of perfect competition. The main role of an oligopoly in international trade is to decrease the volume of trade.

Helpman (1981: 320) and Krugman (1980: 952-958) concur that trade occurs in the presence of increasing returns as differentiated goods are produced in different countries. Just as firms differentiate their products and all products demanded, so too, will two firms never seek to produce the same variety of a product due to specialisation. Similarly, two countries will not produce the same differentiated product. Each country will be a net exporter of goods in the industry for which there is a larger demand for its goods. Brander (1981: 1-7) on the other hand suggests that two-way trade in identical products (also referred to as cross hauling) can occur and improve welfare of the two countries engaged in trade. This is substantiated by a model in a Cournot setting where each firm maximises profit assuming that the output of the other firm remains the same in each

¹⁶ Imperfect competition is examined in detail in Chapter Four.

market. Each country produces exactly the same commodity and exports to each other with transport costs resulting in a loss. The total consumption for each country can be attained at a lower total cost if each firm produces only for the home market. Markusen (1981: 532) demonstrates that if two countries that are identical in all aspects engage in trade, bilateral welfare gains from trade occur. This is based on a (2 x 2 x 2) model where the same industry has monopoly power in each country and the monopolist displays Cournot-Nash¹⁷ characteristics and increasing returns to scale when trade opens.

2.8.2.1 INTRA-INDUSTRY TRADE (IIT)

Much of world trade today comprises of **intra-industry trade**, that is, trade in similar or differentiated products in the same industry as opposed to **inter-industry trade**, which refers to trade in totally different products. The H-O theory predicts inter-industry trade patterns. Using the familiar H-O theorem example in section 2.4.1, if there are different varieties of Good X and Good Y, that is, these goods are differentiated, South Africa will still be the net exporter of Good X (inter-industry trade based on comparative advantage). However, South Africa will also import some varieties of Good X and export some varieties of Good Y (intra-industry trade based on product differentiation and economies of scale) (Salvatore 2001: 183). If products are homogeneous, there is only inter-industry trade, but if products are differentiated, there is inter-industry and intra-industry trade.

Salvatore (2001: 177) concurs with Krugman (1980: 952) and Lawrence and Spiller (1983: 63) when they states that producing and trading a few varieties and styles of a single good results in low unit costs, increased product specialisation, increased consumer choice and lower product prices. Consequently, intra-industry trade allows industries to take advantage of economies of scale. The H-O theory is based on comparative advantage or factor endowment differences, whereas intra-industry trade is based on product differentiation and economies of scale. Petersson (2005: 788) and Pugel and Lindert (2000: 100) show that intra-industry trade (matching imports to

¹⁷ Cournot-Nash equilibrium is defined as a set of strategies where each firm correctly assumes the quantity that its competitors' will produce (given all other firms' strategies) and maximises its profit accordingly (Pindyck and Rubinfeld 1997: 441-443). Hence, no firm has any incentive to change its behaviour.

exports) is that part of total trade that is not inter-industry trade and can be calculated as an index:

$$\text{Intra-industry trade (IIT) share} = 1 - [\text{sum of } |X-M| / \text{sum of } X+M],$$

where X and M represent the exports and imports of each industry respectively. The absolute value of $|X-M|$ refers to that portion of trade that is inter-industry trade. Intra-industry trade is equal to 1 minus the inter-industry portion of total trade. The intra-industry trade share is a number between 0 and 1 if total trade includes both inter and intra-industry trade. If all trade comprises inter-industry trade, the IIT share will be 0. Similarly, if all trade is intra-industry trade, then the IIT share will be 1.

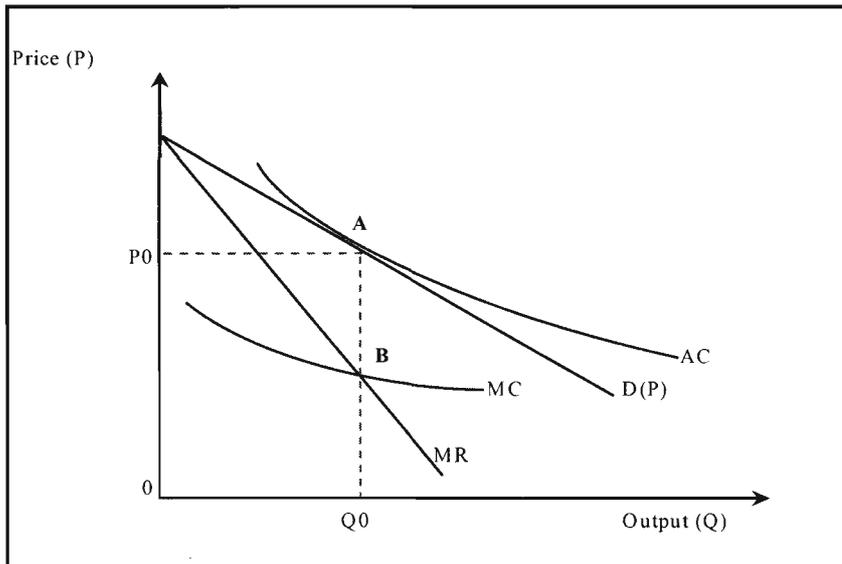
In the presence of monopolistic competition, factor endowments can predict the pattern of inter-industry trade of a differentiated product that exhibits economies of scale. Capital rich countries will be net exporters of capital intensive goods, labour rich countries will be net exporters of labour intensive goods and differentiated products will be traded by all countries (Helpman 1981: 306).

Figure 2.7 illustrates production and pricing under monopolistic competition¹⁸. Here, the firm faces demand curve $D(P)$ for the differentiated products that it sells. The demand curve is elastic as many other firms sell similar products. An elastic demand curve implies that a small change in the price of the product results in a large change in the firm's sales.

¹⁸ For a more detailed explanation on the effects of a monopoly, refer to section 4.4.1 in Chapter Four.

Figure 2.7: Production and pricing under monopolistic competition

(Salvatore 2001: 182)



Under monopolistic competition, firms are predominantly selling a differentiated product. All firms have the same price selling price although their product is differentiated. In Figure 2.7, because the firm (the monopolist) has to lower the price on all units of the good if it wants to increase sales, the firm's marginal revenue (MR) curve lies below the demand curve. Since the firm only produces one or a few varieties of a product, the firm is subject to increasing returns to scale (as discussed in section 2.8.1). The firm's average cost (AC) curve is therefore downward sloping, which means that the average cost decreases as output increases. The firm's marginal cost (MC) curve is below the AC curve because for average cost to decrease, the marginal cost must be lower than the average cost.

The firm's optimum level of output is Q_0 units as given by point (B) where $MR = MC$. At output levels less than Q_0 units, $MR > MC$ and it pays for the firm to expand output. Similarly, at output levels greater than Q_0 units, $MR < MC$ and it pays for the firm to reduce output. At the output level of Q_0 units, the firm charges price P_0 corresponding to point (A) on the $D(P)$ curve. As the firm earns profits, more firms are attracted to the

industry in the long run. The firm's demand $D(P)$ curve is tangent to its AC curve so that $P = AC = P_0$ at output Q_0 . Accordingly, point (A) represents the firm's breakeven point, that is, where the firm earns only a normal return on investment in the long run.

According to Melvin and Warne (1973: 118), in a monopoly situation, the factors of production are paid their marginal revenue product (MRP) rather than their value of marginal product (VMP)¹⁹. The excess of revenue over factor costs represents profits to the firm. In a monopoly, there is also no freedom of entry as there is under perfect competition. Moreover, in perfectly competitive markets, demand and supply are independent and jointly determine prices and outputs. In a monopoly, although demand is independent of supply, producers require information about demand to make decisions on output and pricing. Finally, in a monopoly, when trade opens, the country with a comparative advantage in the good with the lower price elasticity gains from trade, whilst the country with a comparative advantage in the good with the higher price elasticity loses from trade.

An important difference between intra-industry trade and inter-industry trade (as predicted by the H-O theory) is that with intra-industry trade, all factors gain as opposed to with inter-industry trade in the H-O theory, which predicts that the returns to the country's scarce factor of production will be lower with trade (Menon 1994: 32). In accordance with the H-O theory, if the difference among factor endowments are larger (namely, between developed and developing countries), trade based on comparative advantage will be higher. However, where there are economies of similar size and proportions (such as industrialised countries), intra-industry trade will be higher (Helpman 1981: 337). Markusen (1981: 549) finds that with constant returns and countries of unequal size, at the Cournot-Nash equilibrium the outcome is that the larger country imports the monopolised good. The monopolist in the larger country may have to reduce production and possibly experience negative gains from trade. However, if the number of producers is proportional to the size of the country, then bilateral gains from trade are assured. In the unequal country size case with constant returns and identical

¹⁹ These terms are defined in Chapter Four.

factor endowments, at the Cournot-Nash equilibrium, the price of the factor used intensively in production of the monopolised good is relatively higher in the small country. Factor mobility can therefore increase the volume of trade as inflows of the factor used intensively in the production of each country's exported good occur. This is contrary to factor price equalisation (H-O-S) theorem where trade in goods are effectively perfect substitutes for trade in factors since this theory postulates that trade in goods has the ability to equalise factor prices (Feenstra 2004: 13). A lucrative attribute of intra-industry trade is that firms have incentive to invest in research and development that can result in further profitability.

The H-O theory assumes that relative pre-trade prices can predict the pattern of trade. However, with trade based on differentiated products, pre-trade prices may not predict trade pattern because all countries are able to take advantage of economies of scale and it is possible that the smaller country will be stronger than the larger country. Jones and Neary (1984: 31) assert that the classical economists only focus on trade of products at the final level. In the real world, multi-level trade exists. This refers to trade at various stages of production, such as, international mobility of factors of production (capital and labour) or natural resources, trade of intermediate products or trade in technical knowledge. This type of trade occurs simultaneously as opposed to replacing trade in final level goods. The pre-trade prices may no longer predict the pattern of trade in final goods as the H-O theory predicts. A cut-off point is determined after the raw material is allocated for the good in the home country and depends on the technological differences between countries as well as relative country size. Once exported, only labour is required to complete the final good in the foreign country. Thus, labour abundant countries may tend to specialise in the latter stages of the production of final goods. Amiti (2000: 300) reveals that where the traditional theory predicts that trade liberalisation would decrease the production of intermediate goods and increase the production of final goods, new trade theories predict that production of both intermediate and final goods will increase. We review trade at various stages of production in the section on the rise of multi-national corporations (MNCs) in Chapter Five section 5.2.2.

Rauch (1989: 359) shows that national increasing returns to scale occur due to larger industries having larger economies of specialisation in the provision of intermediate inputs and these increasing returns are exported to smaller countries. However, where world aggregate industry output generates positive externalities instead of domestic aggregate industry output, a case of international increasing returns to scale arises where country size does not predict trade patterns.

The pattern of minimising production costs based on comparative advantage (that is, each country trading in that part of a product in which it has a comparative advantage) can be viewed as an extension of the H-O theory incorporating modern trade patterns. Salvatore (2001: 179) highlights that different countries producing and exporting various components of a single good can increase employment opportunities in developing countries.

According to Petersson (2002: 240), there are adjustment costs associated with trade expansion *via* inter-industry trade. These include welfare costs (due to unemployment as a result of increased imports as well as costs arising from switching factors of production) and costs related to changes in incomes and production across countries. The extent of costs depends on the extent of inter-industry *versus* intra-industry trade (Menon 1994: 32). Intra-industry trade however, is argued to have low adjustment costs as capital and labour are likely to adjust more easily and therefore promotes integration and further trade liberalisation. In addition, intra-industry trade results in balanced trade at industry level, which contributes to balanced trade at national level. Petersson (2002: 241) maintains that costs are lower as firms are exposed to a larger market, which enables them to enjoy longer production runs and larger gains from trade. The level of imports increase which makes it possible to satisfy consumers demand for variety.

Parr (2000: 297) examines South African manufacturing for the period 1993 to 1998 citing evidence which supports higher levels of intra-industry trade (as a portion of new trade). South Africa's manufactured exports in 1993 were R15.7 billion and manufactured imports were R45.1 billion. In 1998, manufactured exports rose to R42.2

billion and manufactured imports rose to R106 billion. South Africa however, experienced a trade deficit between 1993 and 1998 despite the percentage increase for manufactured exports being higher than that of manufactured imports.

2.8.3 TRADE BASED ON TECHNOLOGICAL DIFFERENCES

According to Salvatore (2001: 172), models incorporating differences and changes in technology are considered an extension to the H-O theory. Innovating firms and countries are given a temporary monopoly (*via* patents and copyrights) due to the basis of trade among industrialised countries being the introduction of new products and processes. This is referred to as the technology gap model and is flawed in that it fails to explain the size of technological gaps, how they arise and how they come to an end. We expand on these shortcomings in the latter part of this section. Moura Roque (1984: 377) reveals that placing emphasis on the ability to innovate due to inter-country or inter-industry differences results in a country's comparative advantage depending on the ability to exploit new technologies.

Observation of the **product cycle model**, which is an extension of the technological model, indicates that a product goes through five stages and moves from technology-rich to technology-poor countries over time. *Initially*, the product is produced and consumed in the innovating country, the production of which usually requires highly skilled labour. In *Stage Two*, the home country has a monopoly and there is a demand for the product both locally and abroad. In *Stage Three*, the imitating country begins production, which now requires less skilled labour. Consequently, comparative advantage is shifted from highly industrialised to less developed countries and is dynamic as opposed to the H-O model where it is static. In *Stage Four*, production in the innovating country decreases and finally in *Stage Five*, production in the innovating country decreases further and may collapse. The product life cycle ends after technological diffusion, product standardisation and lower costs are experienced abroad (Salvatore 2000:187). According to Arbache *et al* (2004: F76), developing countries may tend to import rather than produce new technology due to the large amounts of foreign direct investment they receive. This is likely to be skill-biased as the technology is created in industrialised

countries and will increase the demand for skilled labour, which is the scarce factor of production in less developed and developing countries.

Jones and Neary (1984: 42) show that a shortcoming of the technological gap model is that although it provides an explanation for trade from industrialised countries to less developed countries; it does not provide an explanation for either the level or the rate of improvement of technology in industrialised countries. Deardorff (1984: 494) finds that the technology gap model fails to provide an explanation for why an innovation after being discovered is not shifted to a least cost location by the innovating firm. He cites evidence revealing that a possible reason is that in addition to providing a service in the home market, the innovating country will benefit from consumer feedback in the industry where the new requirements of consumers first make themselves known.

In this section, we examine the new theories of international trade. Continuous learning and searching are requirements of the new dynamic theories of trade. These theories broadly encompass trade based on three economic elements. Trade based on economies of scale or increasing returns to scale allows for specialisation and leads to increased productivity. Trade based on imperfect competition incorporating intra-industry trade is examined because much of world trade today comprises of intra-industry trade where all factors gain as opposed to the Hecksher-Ohlin theory that predicts that the returns to the country's scarce factor of production will be lower with trade. Lastly, this section provides an overview of trade based on technological differences with specific reference to the product cycle model.

2.9 CONCLUSION

This chapter examines the traditional and new theories of international trade. We begin with an overview of mercantilism, which postulates that each country gains from trade at the expense of other countries. Mercantilism strongly supports protectionism. The classical economists' theories in response to mercantilism include Adam Smith's theory of absolute advantage and David Ricardo's theory of comparative advantage, which highlight the benefits of free trade for two or more countries. The theory of absolute

advantage however only explains a very small portion of trade today. In section 2.4, the Hecksher-Ohlin (H-O) theory provides answers to the determination of comparative advantage (factor endowments) as well as hypothesises the effects of trade on earnings, factors of production and other aspects not resolved by the classical economists. The chapter continues with an analysis of the Stolper-Samuelson theorem, the factor price equalisation theorem and the Rybczynski theorem respectively. Our analysis also highlights empirical evidence on the Hecksher-Ohlin theory by Leontief using United States data as well as tests for South Africa in particular, which impart conflicting results. Section 2.7 studies the specific factors model, which is a modified version of the Hecksher-Ohlin theory in the short run.

Many of the assumptions forming the basis of the Hecksher-Ohlin theory do not explain international trade patterns in the real world. This leaves much of the trends in current international trade unexplained. Relaxing some of the assumptions of the Hecksher-Ohlin theory requires new trade theories to explain that part of trade that the Hecksher-Ohlin theory does not explain. The new trade theories include trade based on imperfect competition, largely encompassing intra-industry trade with product differentiation, economies of scale and the introduction of new technology. Upon examining the new trade theories, we conclude that the Hecksher-Ohlin theory and the new theories of international trade are complementary in nature. Each theory explains a portion of international trade that is unexplained by the other.

The theorems analysed in sections 2.4 to 2.6 are however explicitly significant as they represent the foundations of international trade theory. Throughout this study, we examine the outcomes of globalisation and trade liberalisation on the labour market in terms of the predictions of these theorems. In Chapter Five, we specifically analyse the outcomes of globalisation and trade liberalisation (examined in Chapter Three) on the South African labour market in terms of the predictions of the Hecksher-Ohlin (H-O) theorem, the Stolper-Samuelson theorem, the factor price equalisation (H-O-S) theorem, the Rybczynski theorem and the specific factors model.

CHAPTER THREE

INTERNATIONAL TRADE POLICY AND THE OUTCOMES OF TRADE LIBERALISATION

*“Change is avalanching upon our heads, and most people are grotesquely
unprepared to cope with it”*

A Toffler

3.1 INTRODUCTION

Chapter Two examines the net gains from free trade (that is, trade in the absence of barriers allowing countries to produce according to their respective comparative advantages) in comparison to the no trade position. In this chapter, we examine the effects of trade barriers to international trade. Trade barriers refer to the imposition of restrictions to free trade in a country and are collectively referred to as trade policies. Trade barriers discriminate against foreign firms in favour of domestic firms. Government policies, restrictions on imports, other trade policies and transport costs between various countries influence the pattern of trade (Mayer and Wood 1995: 6). This chapter begins with the analyses of the various types of trade restrictions and concludes with the recent trends in international trade policy. Since this study pertains to South Africa, which is a small open economy, section 3.2 focuses on the partial equilibrium analysis of tariff and non-tariff barriers to free trade specifically for the small country case. We complete a general equilibrium analysis for tariffs specifically as tariffs represent the most significant barrier to trade. Section 3.3 examines the reasons for protection. This is followed by section 3.4 where the various forms of economic integration are discussed. An overview of trade liberalisation is presented in section 3.5. This section includes a brief historical background of the import substitution industrialisation (ISI) programmes that were popular prior to the 1980s.

Section 3.6 examines trade agreements and negotiations, drawing specific attention to the Uruguay Round of trade negotiations and unresolved issues at this Round. The rounds of

trade negotiations prior to the Uruguay Round are mentioned briefly. Section 3.6.4 reviews the post-Uruguay Round trade agreements. We conclude this chapter with a discussion of the effects of trade liberalisation in South Africa in section 3.7 as well as regional integration in Southern Africa in section 3.8. This chapter provides the background on trade policy, specifically trade liberalisation, which we develop in Chapters Five through to Seven in terms of its effects on the South African labour market.

3.2 THE ANALYSIS OF TARIFF AND NON-TARIFF BARRIERS TO TRADE

The objective of this section is to provide an overview of the important types of trade restrictions and analyse their effects on net national welfare. An understanding of these restrictions is important as they play a key role in international trade and will be referred to in subsequent sections. Since this study pertains to South Africa, which is a small developing country, the partial equilibrium effects of trade restrictions are analysed (using demand and supply curves) for a small country case.

At the outset, section 3.2.1 examines the effects of imposing a tariff. The analysis of a tariff is in terms of the *ad valorem* tariff, which is a percentage of the estimated market value of goods when they reach the importing country. Other types of tariffs include specific tariffs which are a fixed sum per unit of the traded good and compound tariffs which is a combination of *ad valorem* tariffs and specific tariffs (Salvatore 2001: 244). Next, we examine the important non-tariff barriers to trade. Section 3.2.2 examines the effects of imposing of an import quota. We provide the different methods of allocating import quotas and their respective outcomes. Finally, section 3.2.3 examines the effects of imposing of an export subsidy. The gains and losses of imposing these respective trade restrictions on domestic consumers, domestic producers, government and the small country as a whole are analysed.

3.2.1 THE ANALYSIS OF AN IMPORT TARIFF

The most important type of trade restriction is a tariff. An **import tariff** is a tax imposed on a good that a country imports whereas an **export tariff** is a tax imposed on a good that a country exports (Salvatore 2001: 243). This chapter and the study as a whole concentrates on the import tariff. A tariff redistributes well-being from domestic consumers, to producers and the government. The tariff is a source of revenue for the importing country's government.

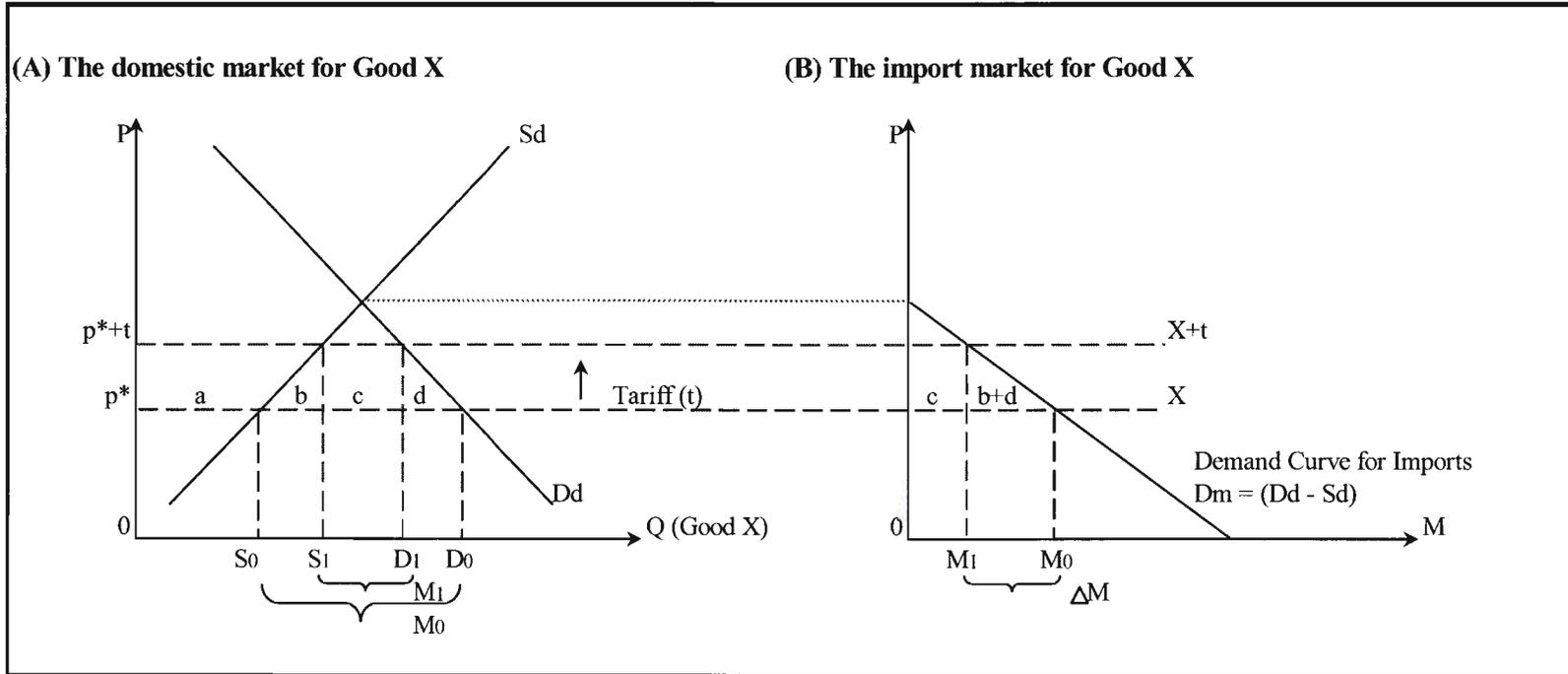
The welfare effects of an import tariff in a small country

The imposition of an import tariff in a small country does not affect prices in the world market because the small country is a price-taker. This means that since the small country sells a small proportion of total output in the world market, the prices of its imports and exports are fixed in terms of foreign currencies in large world markets (Pugel and Lindert 2000: 662). A small country's decisions therefore do not influence the world market price. When an import tariff is imposed, the domestic price of the imported good increases by the full amount of the import tariff for both the individual producers and the consumers of a small country. However, for the small country as a whole, the price of the good for which the tariff is imposed remains constant since the government collects the revenue from the tariff (Salvatore 2001: 255).

The effects of an import tariff in a small country are explained using **Figure 3.1**. There is a single good, Good X produced in a perfectly competitive market.

Figure 3.1²⁰: The partial equilibrium effects of an import tariff in a small country

(Feenstra 2004: 217; Pugel and Lindert 2000: 130)



²⁰ Diagrams (A) and (B) in this figure are not drawn to scale.

In **Figure 3.1** diagram (A), the domestic demand curve (D_d) is downward sloping because as the price of Good X rises, the domestic quantity demanded for Good X decreases. The domestic supply or marginal cost curve (S_d) is upward sloping because as the price of Good X rises, so too, does the domestic quantity supplied of Good X rise. We begin at the free trade position where the domestic quantity demanded is D_0 and the domestic quantity supplied is S_0 at the initial world price p^* . The demand for Good X in the world import market is represented by the import demand curve (D_m) in diagram (B). This corresponds to the difference between the domestic demand (D_d) and the domestic supply (S_d) schedules in diagram (A). The constant world price, p^* represents the horizontal export supply curve (X) in diagram (B). The difference between the domestic quantity demanded (D_0) and the domestic quantity supplied (S_0) in diagram (A) is the imported quantity of Good X. This corresponds to a quantity of M_0 imports demanded in diagram (B). The export supply curve (X) intersects the import demand curve (D_m) at the equilibrium level of imports M_0 and price p^* .

When the small country imposes an import tariff of (t) on Good X, the export supply curve shifts upward from X to $(X + t)$ in diagram (B). This results in a new equilibrium price of $p = (p^* + t)$. The domestic price therefore increases by the full amount of the tariff. In diagram (A), it can be noted that the effect of the import tariff is a reduced domestic quantity demanded of $(D_0 - D_1)$ units and an increased domestic quantity supplied of $(S_1 - S_0)$ units. This corresponds to a reduced quantity of M_1 imports demanded in diagram (B) where the export supply $(X + t)$ and import demand (D_m) schedules intersect at the new equilibrium price $(p^* + t)$.

Returning to Figure 3.1 diagram (A), area (d) represents the loss to consumers of $[1/2(D_0 - D_1)(t)]$ for the quantity $(D_0 - D_1)$ units of Good X no longer demanded at the higher price of $p = p^* + t$. The tariff discourages consumers from purchasing Good X as it now costs $(p^* + t)$ for both domestic output and imports. Area (d) is referred to as the **consumption effect**. Since no one gains what consumers lose in area (d), this area is referred to as a deadweight loss and represents the *first* inefficiency caused by a tariff.

In Figure 3.1 diagram (A), area (b) represents the increase in domestic production of $[1/2(S_1 - S_0)(t)]$ for the extra $(S_1 - S_0)$ units of Good X produced at price $(p^* + t)$. Area (b) is the welfare loss of consumers having to purchase the more expensive domestic production of Good X rather than the former cheaper imports. Due to the assumption of an upward sloping supply curve, additional units of Good X cost more to produce when the price increases from p^* to $(p^* + t)$. This is because the marginal cost of producing each unit of Good X increases along the domestic supply curve. The domestic cost of producing Good X, $p = (p^* + t)$ is now greater than p^* , the price at which Good X is available abroad. The extra cost associated with the shift to more expensive domestic production is referred to as the **production effect**. Area (b) represents a *second* deadweight loss, as it is the area for which consumers pay, but neither domestic producers nor government gains.

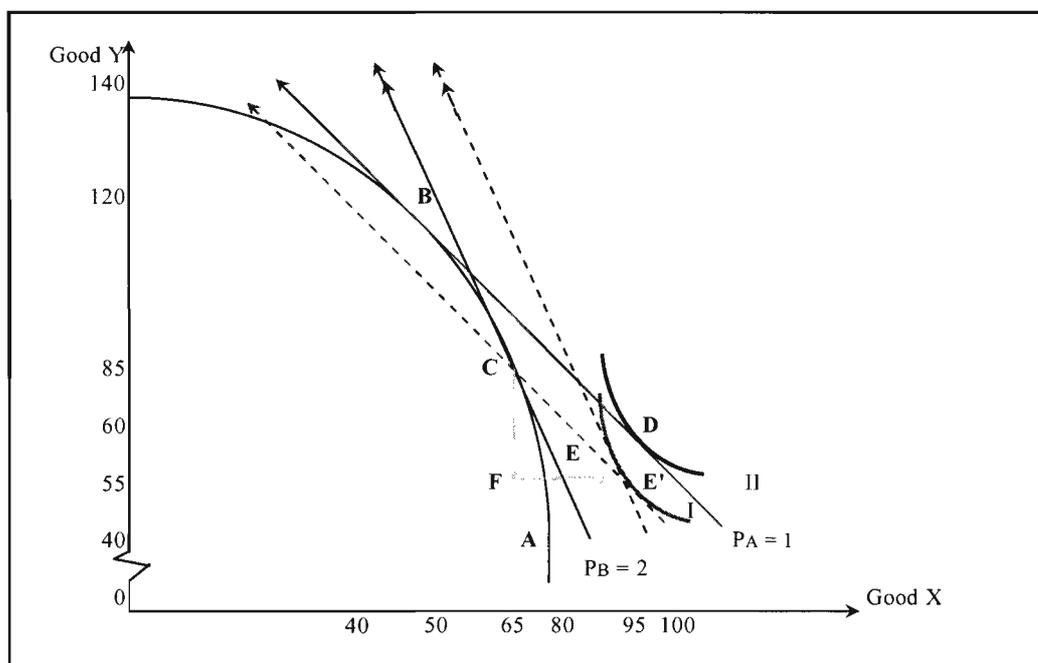
The **one-rand-one-vote measure** yardstick states that every rand of gain or loss is just as important as every other rand of gain or loss irrespective of who gains or loses. If this yardstick is applied, the importing country as well as the world as a whole is worse off when an import tariff is imposed (Pugel and Lindert 2000: 127). Thus, in Figure 3.1 diagram (A), the consumers loss, area $(a + b + c + d)$ is exactly offset rand for rand by the producers gain, area (a) and the government collecting area (c) as revenue. Area $(b + d)$ represents the net welfare loss of imposing an import tariff in a small country. These effects can be summarised as follows:

<u>Summary of the effects of an import tariff in a small country</u>		
[As illustrated in Figure 3.1 diagram (A)]		
Consumer surplus loss	:	Area $(a + b + c + d)$
Producer surplus gain	:	Area (a)
<u>Government collects the tariff as revenue</u>	:	<u>Area (c)</u>
Net national loss with an import tariff	:	Area $(b + d)$.

We now proceed to examine the general equilibrium effects of an import tariff in a small country with the aid of **Figure 3.2**. We draw on the case of the United States and South

Africa. United States is the capital abundant country specialising in the production of the capital intensive good, Good Y. The United States exports Good Y in exchange for imports of Good X from South Africa.

Figure 3.2²¹: The general equilibrium effects of an import tariff in a small country
(Salvatore 2001: 257)



In Figure 3.2, we begin by assuming that the price line $P_X/P_Y = 1$ on the world market (not shown) and that the United States is too small to affect world prices. With free trade the United States produces at point (B), where it exchanges 60 Good Y for 60 Good X²² with South Africa and consumes at point (D) on indifference curve II. These points correspond to the points of tangency on price line $P_A = 1$ in the United States.

²¹ Figure 3.2 is not drawn to scale.

²² Good X = Production – Consumption = 100 – 40 = 60

Good Y = Production – Consumption = 120 – 60 = 60

If the United States imposes a 100 *per cent ad valorem* tariff on imports of Good X, the relative price of Good X increases to $P_X/P_Y = 2$ for domestic producers and consumers, but remains at $P_X/P_Y = 1$ on the world market. The relative price of Good X also remains at $P_X/P_Y = 1$ for the United States as a whole because the country itself collects the tariff. At $P_X/P_Y = 2$, domestic producers produce at point (C), where price line $PB = 2$ is tangent to the United States production possibilities frontier. Comparing point (B) to point (C), the United States produces more of importable Good X and less of exportable Good Y at point (C) after the tariff is imposed than under free trade at point (B). For exports of CF (30 Good Y), the United States demands imports of FE' (30 Good X)²³. FE (15 Good X)²⁴ goes directly to the United States' consumers and EE' (the remaining 15 Good X)²⁵ is collected by the government in the form of the 100 *per cent* import tariff on Good X.

Still using Figure 3.2, we observe that indifference curve I is tangent to the dashed line parallel to $PB = 2$ because individual consumers in the United States face the tariff inclusive price of $P_X/P_Y = 2$. Since the government collects and redistributes the tariff in the form of either public consumption, tax relief, or both, indifference curve I must also be on the dashed line parallel to $PA = 1$ because the United States as a whole still faces the world price of $P_X/P_Y = 1$. The new consumption point is (E'), at the intersection of the two dashed lines. The angle between the two dashed lines (equal to the angle between price lines $PA = 1$ and $PB = 2$) is equal to the tariff rate of a 100 *per cent*. With production at point (C) and consumption at point (E'), the United States exports 30 Good Y for 30 Good X after imposing the tariff. Specialisation in production, consumption and the gains from trade are therefore lower in comparison to the exchange of 60 Good Y for 60 Good X under free trade (Salvatore 2001: 256). It is therefore evident, as with the partial

²³ Good X = Production – Consumption = 95 – 65 = 30

Good Y = Production – Consumption = 85 – 55 = 30

²⁴ Good X = Production – Consumption = 80 – 65 = 15

²⁵ Good X = Production – Consumption = 95 – 80 = 15

equilibrium analysis of a tariff, that the net effect of imposing a tariff is a reduction in welfare.

From trade theory in Chapter Two, the factor price equalisation (H-O-S) theorem (section 2.4.3) predicts that imposing a tariff in the capital intensive industry causes a decrease in the real wage rate. For a small country like South Africa, the specific factors model (section 2.7) on the other hand predicts that imposing a tariff in the capital intensive industry causes an increase in the real wage rate provided that the specific capital in the protected industry has perfect international mobility (Amano 1977: 138).

Although tariffs symbolise the most significant barriers to trade, trade in the global market is also subject to non-tariff barriers. Popular examples of these are import quotas, export subsidies and voluntary export restraints (VERs). Sections 3.2.2 and 3.2.3 analyse the import quota and export subsidy respectively.

3.2.2 NON-TARIFF BARRIERS TO TRADE

This section focuses on the two most important non-tariff barriers to trade. We analyse the effects of imposing an import quota and an export subsidy in a small country and compare the outcomes to the free trade position.

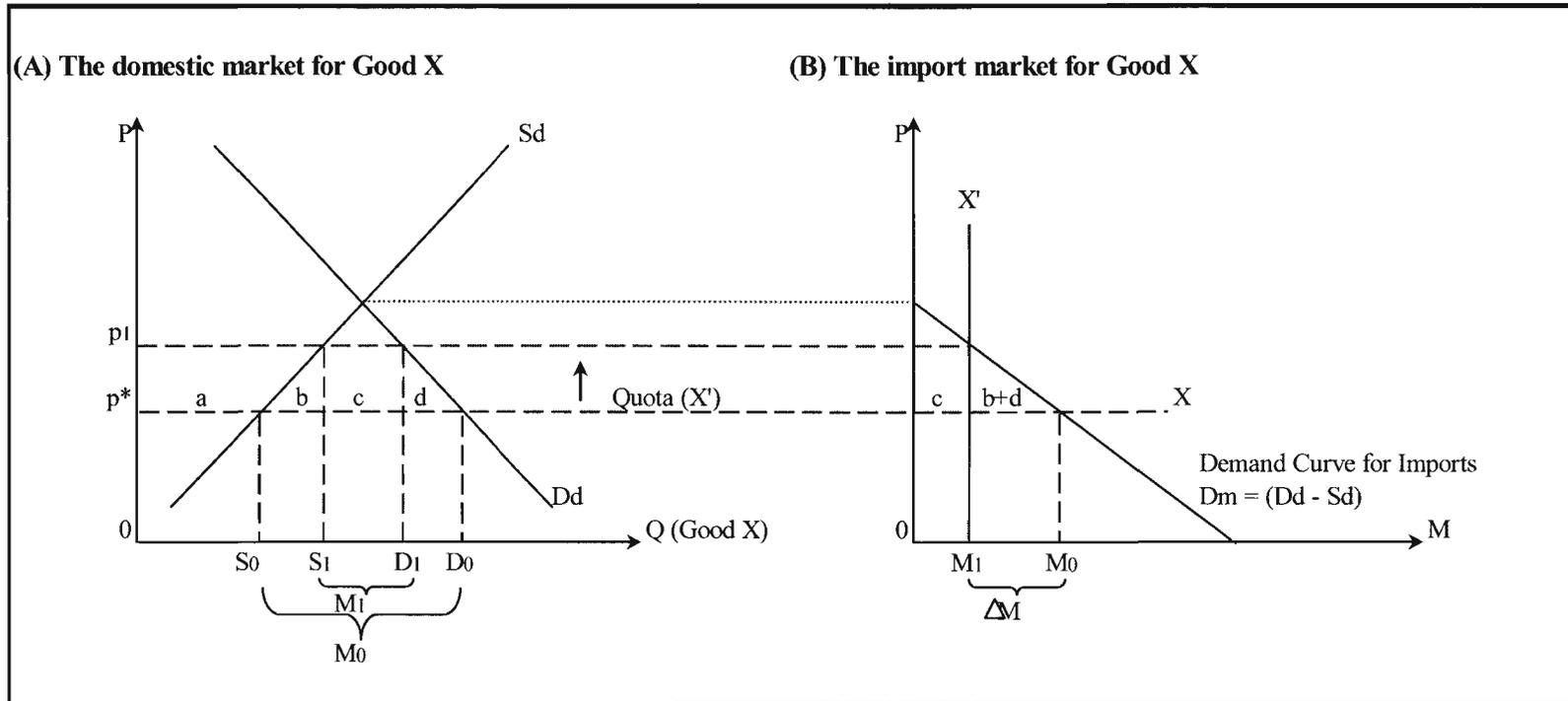
3.2.2.1 THE ANALYSIS OF AN IMPORT QUOTA

The quota is the most important non-tariff barrier to trade and refers to a direct restriction on the quantity of imports (**import quotas**) or exports (**export quotas**) allowed into a country. In this section, we concentrate on the import quota. The import quota can be used for the upgrade of products over a period. This is possible by increasing the quality and the price of goods protected by the quota limit. The quota is also useful in preventing retaliation from foreign countries and is likely to be used when domestic industries have a high requirement for protection.

The welfare effects of an import quota in a small country

Figure 3.3 illustrates the welfare effects of imposing an import quota in a small country where the market is perfectly competitive (that is, there are many buyers and sellers in the market and no single buyer or seller can affect the market price significantly). In diagram (A), (Dd) represents the domestic demand curve and (Sd) represents the domestic supply curve respectively. Under free trade conditions, the domestic quantity demanded is D_0 units and the domestic quantity supplied is S_0 units at the initial price p^* . In diagram (A), the quantity imported is D_0 minus S_0 . This is shown as a single value M_0 , equal to $(D_0 - S_0)$ in diagram (B). The import demand curve D_m in diagram (B) is drawn together with the horizontal export supply curve X and these schedules intersect at the equilibrium level of imports M_0 and world price p^* . The export supply curve (X) is horizontal because at p^* , any quantity of Good X above S_0 is available for import.

Figure 3.3²⁶: The partial equilibrium effects of an import quota in a small country
 (Feenstra 2004: 256)



²⁶ Diagrams (A) and (B) in this figure are not drawn to scale.

When the import quota (X') is imposed, the import quantity of Good X cannot exceed the quantity specified by the quota limit. In Figure 3.3 diagram (B), the imposition of an import quota establishes a vertical export supply curve (X'). The export supply curve (X') intersects the import demand curve D_m at price p_1 and quantity M_1 units. In diagram (A), at price p_1 , there is an increased quantity supplied of $(S_1 - S_0)$ units and a reduced quantity demanded of $(D_0 - D_1)$ units.

An important point to note, is that if the government imposed an equivalent tariff of $t \equiv (p_1 - p^*)$ there would be an equivalent effect on price, consumption and production (Bhagwati 1965: 53). Therefore, for each import quota, there is an equivalent tariff. According to Krueger (1984: 533), with quotas (unless changed by authorities), domestic prices change in response to shifts in domestic demand and supply. Quotas represent a different rate of nominal protection over time as world prices are not reflected in the domestic market. With tariffs however, (unless changed), domestic prices tend to change in response to changes in world prices.

In Figure 3.3 diagram (A), the consumer's loss, area $(a + b + c + d)$ is exactly offset and for and by the producer's gain, area (a) and rents earned in area (c) . Area $(b + d)$ represents the net welfare loss of imposing an import quota in a small country. Since area (c) represents the difference between the domestic price p_1 and the world price p^* , firms in the country importing Good X can collect pure profits or rents equal to area $[M_1 (p_1 - p^*)]$. If an equivalent tariff is imposed, the government collects area (c) as revenue. These effects can be summarised as follows:

Summary of the effects of an import quota in a small country

[As illustrated in Figure 3.3 diagram (A)]

Consumer surplus loss	:	Area $(a + b + c + d)$
Producer surplus gain	:	Area (a)
Rents/Revenue earned	:	Area (c)
Net national loss with an import quota	:	Area $(b + d)$.

Feenstra (2004: 256) identifies the following four possible methods and related outcomes from allocating quota rents:

- (1) The quota licences are given to the domestic firms. The quotas can be allocated *via* fixed favouritism. Government can assign fixed shares to firms without competition, applications or negotiations (Pugel and Lindert 2000: 146). A common method is to give fixed licence shares to established firms in the same proportion of total imports that they had prior to the quota being imposed. In Figure 3.3 diagram (A), the domestic firm imports Good X at world price p^* and sells them domestically at p_1 . The difference between world price p^* and domestic price p_1 , multiplied by the quantity imported, is the rent that domestic firms earn. The rent is represented by area (c) in diagram (A). The net national loss with the quota is the same as that of an equivalent tariff. We summarise the effects as follows:

<u>Summary of the effects of an import quota in a small country (Allocation Outcome 1)</u>		
[As illustrated in Figure 3.3 diagram (A)]		
Consumer surplus loss	:	Area (a + b + c + d)
<u>Producer surplus gain</u>	:	<u>Area (a + c)</u>
Net national loss with an import quota	:	Area (b + d).

- (2) Domestic firms are given the quota licences, but these firms use inefficient methods, namely, resource-using methods or lobbying with government officials to obtain the licences. An example of such an inefficiency is if licences are allocated based on a previous year's production, more final goods will be produced than can be sold in order to obtain a quota licence for the imported input. Krueger (1984: 535) advocates that this results in the accumulation of excess capacity as the existing capacity is not fully utilised. In this case, resources are used in order to obtain the rent represented by area (c) in Figure 3.3 diagram (A). It is possible that the value of the resources used is greater than the value of area (c). Another example is the first come, first serve method of distributing import licences where the time spent standing in queues for an import quota

licence could be spent on activities that are more productive. Pugel and Lindert (2000: 147) reveal that this is the most costly method of administering an import quota system. For this outcome, the net national loss can be greater than that of an equivalent tariff and is summarised as follows:

<u>Summary of the effects of an import quota in a small country (Allocation Outcome 2)</u>		
[As illustrated in Figure 3.3 diagram (A)]		
Consumers surplus loss	:	Area (a + b + c + d)
<u>Producer surplus gain</u>	:	<u>Area (a)</u>
Net national loss with an import quota	:	Area (b + c + d).

- (3) The government of the importing country can auction import licences. A revenue maximising government ensures that the proceeds from the auction are equal to the value of the rents earned by domestic firms equal to area (c) in Figure 3.3 diagram (A). The net national loss with a quota is the same as that of an equivalent tariff. We can summarise this outcome as follows:

<u>Summary of the effects of an import quota in a small country (Allocation Outcome 3)</u>		
[As illustrated in Figure 3.3 diagram (A)]		
Consumer surplus loss	:	Area (a + b + c + d)
Producer surplus gain	:	Area (a)
<u>Auction revenue collected by government</u>	:	<u>Area (c)</u>
Net national loss with an import quota	:	Area (b + d).

- (4) The government of an importing country can authorise the implementation of a quota to be applied by the government of the exporting country giving rise to a quantity of M_1 imports in Figure 3.3 diagram (B) of our analysis. This is generally referred to as a voluntary export restraint (VER) because the exporting country allocates the quota among its own producers of the exported good. Pugel and Lindert (2000: 147) define a VER as an arrangement where the government of the importing country forces foreign exporters to ‘voluntarily’ reduce exports

into the importing country. Salvatore (2001: 285) maintains that the successful implementation of a VER has all the economic effects of an equivalent import quota, except that they are administered by the exporting country. The revenue effects or rents are therefore captured by the exporting country. Area (c) is no longer available to the domestic government. VERs are likely to be less effective than import quotas in limiting imports as exporting countries are usually reluctant to decrease their exports. The net national loss when the exporting country imposes a quota can be greater than that of an equivalent tariff, as the domestic government does not capture the rent [area (c)]. This outcome is summarised as follows:

<u>Summary of the effects of an import quota in a small country (Allocation Outcome 4)</u>		
[As illustrated in Figure 3.3 diagram (A)]		
Consumer surplus loss	:	Area (a + b + c + d)
Producer surplus gain	:	Area (a)
Net national loss with a VER	:	Area (b + c + d).

Greenaway and Milner (1993: 27) and Pugel and Lindert (2000: 145) agree that an import quota will be more costly than an equivalent tariff if the quota creates a domestic monopoly (that is, a single supplier in the domestic market). With the quota, a dominant domestic firm can increase its price [above p_1 in Figure 3.3 diagram (A)] to a greater extent than with a tariff, as it is aware that competing imports cannot exceed the quota quantity. The dominant firm can therefore obtain monopoly profits *via* the higher prices. The higher price charged by the monopolist results in lower output and increased social losses than would have been the case for an equivalent tariff at the same level of imports. For the equivalent tariff however, the dominant domestic firm faces an elastic import-competing supply curve at the world price plus the tariff, and cannot obtain much monopoly power. It follows then that quotas can change the market structure and firm behaviour *via* methods that tariffs cannot.

In allocation option (3) above, the quotas can be allocated to a large number of holders (a perfectly competitive market) or to the single highest bid in the market (a monopoly). Bhagwati (1965: 58) examines the effects of a monopoly in domestic production with perfectly competitive supply from abroad and perfect competition among quota holders. With a tariff, an increase in the domestic quantity supplied decreases both the domestic price and the quantity of imports into the country. The increase in the domestic quantity supplied arises partly due to the reduction of imports. However, with an import quota, imports are not reduced and the full volume of the increase in the domestic quantity supplied must arise from the increased quantity demanded. Therefore, under tariffs there will be higher levels of output and lower domestic prices than would be under a quota at the same level of imports.

Greenaway and Milner (1993: 27) cite a further non-equivalence between tariffs and quotas. If an expanded market shifts the domestic demand curve (Dd) upwards, the additional demand will have to be supplied by domestic production as opposed to more efficient foreign production. This results in a larger deadweight loss of areas (b + d). Quotas are therefore considered less efficient protection instruments than tariffs.

3.2.2.2 THE ANALYSIS OF AN EXPORT SUBSIDY

According to Salvatore (2001: 290), an **export subsidy** refers to either direct payments or the granting of tax relief and subsidised loans to a country's exporters or potential exporters. An export subsidy also refers to low interest loans to foreign buyers to stimulate a country's exports. In terms of social welfare, export subsidies are deemed 'in national interest' only if the revenue cost is less than the net change in producer surplus plus consumer surplus (Feenstra 2004: 281). The revenue cost must therefore be less than the increase in profits experienced by the industries receiving the export subsidies. We will see that this does not occur in the small country case with perfect competition.

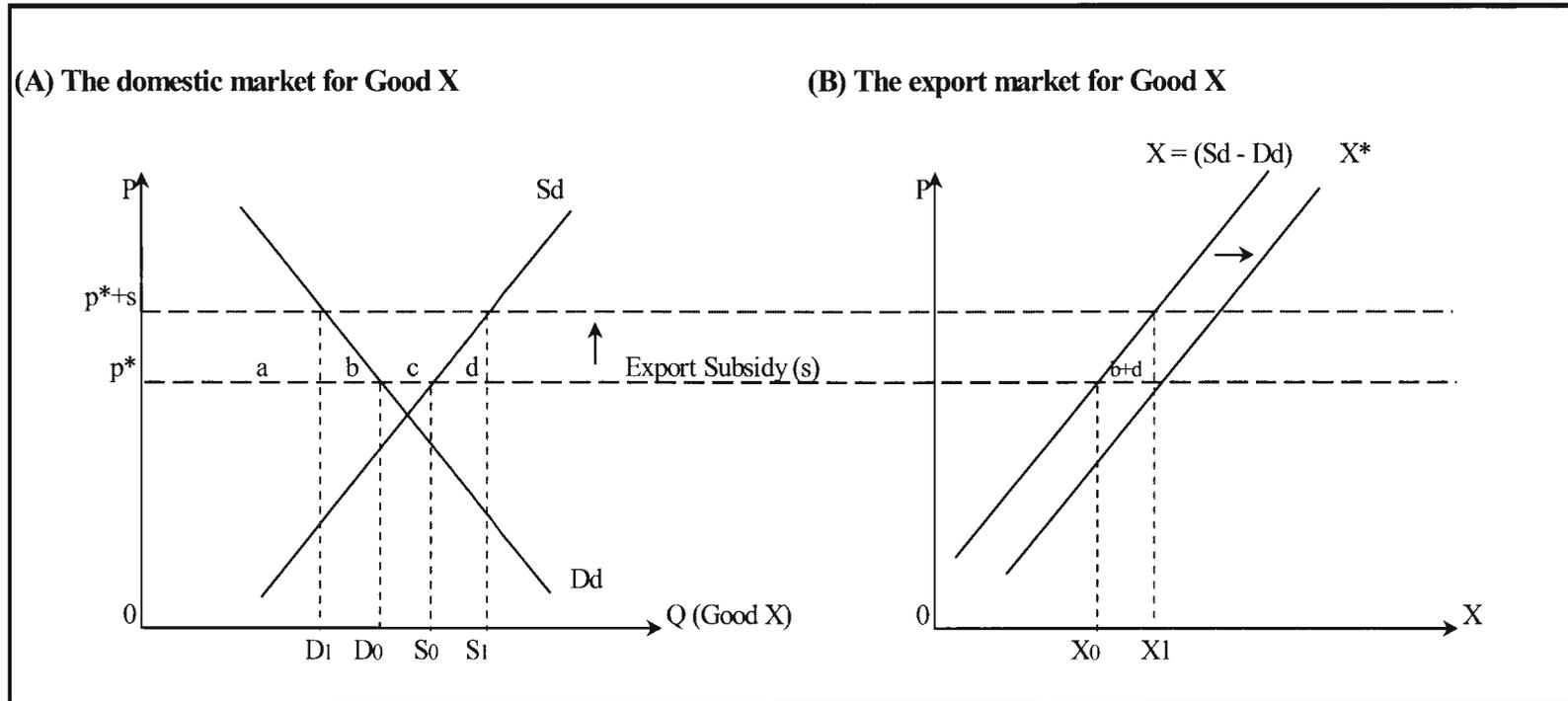
The welfare effects of an export subsidy in a small country

Figure 3.4 illustrates the welfare effects of imposing an export subsidy in a small country where the market is perfectly competitive. In diagram (A), the domestic demand (Dd) and

domestic supply (S_d) curves are drawn at the constant world price of p^* . Under free trade, the domestic quantity demanded is D_0 units and the domestic quantity supplied is S_0 units. This results in the quantity $X_0 = (S_0 - D_0)$ units being exported as shown in diagram (B). The price, p^* establishes the horizontal import demand curve which intersects the export supply curve X at equilibrium level of exports, X_0 .

Figure 3.4²⁷: The partial equilibrium effects of an export subsidy in a small country

(Feenstra 2004: 282)



²⁷ Diagrams (A) and (B) in this figure are not drawn to scale.

If firms in the domestic industry are given a subsidy of (s) rands per unit of Good X exported, the domestic industry will earn $p = (p^* + s)$ in Figure 3.4 diagram (A) on all exported quantities of Good X. The domestic price increases to $(p^* + s)$ because the domestic industry will not sell at home for less than this price. In diagram (A), at the higher price $(p^* + s)$, the domestic quantity demanded decreases from D_0 to D_1 and the domestic quantity supplied increases from S_0 to S_1 . Moving to diagram (B), this results in an increase in the export supply from X_0 to $X_1 = (S_1 - D_1)$ units. Diagram (B) thus reflects the corresponding rightward shift in the domestic export supply curve where at the same international price of p^* , exports increase from X_0 to X_1 . The downward shift of the export supply curve from X to X^* is equivalent to the amount of the export subsidy (s). The welfare effects of imposing an export subsidy can be summarised as follows:

<u>Summary of the effects of an export subsidy in a small country</u>		
[As illustrated in Figure 3.4 diagram (A)]		
Consumer surplus loss	:	Area (a + b)
Producer surplus gain	:	Area (a + b + c)
Export subsidy cost	:	Area (b + c + d)
Net national loss with an export subsidy	:	Area (b + d).

The gains are matched with equivalent losses and this produces an overall loss of area (b + d). In diagrams (A) and (B), this loss is not drawn to the same scale. At the beginning of this analysis, we establish that an export subsidy is only ‘in national interest’ if the revenue cost of the subsidy is less than the net change in producer plus consumer surplus. Since area (b + d) represents a deadweight loss, it is not in ‘national interest’ to impose an export subsidy in a small country.

Section 3.2 uses demand and supply curves to examine the net effects on welfare of imposing different types of trade restrictions. The imposition of a tariff in a small country results in a net welfare loss for the country as a whole. We determine this net welfare loss by matching the losses of domestic consumers (due to the relative price increase after the

imposition of a tariff) with the gains of domestic producers (receiving the higher prices) and government (collecting the revenue from the tariff).

The analysis of imposing an import quota in a small country is the similar to that of imposing an equivalent tariff. However, rents can accrue to domestic producers or revenue can accrue to the government thereby resulting in inefficiencies. This depends on the method used to allocate import quotas and these allocations determine whether the net losses are the same as an equivalent quota or greater. The import quota can be more costly to consumers than an equivalent tariff because a dominant domestic producer can increase its price to a larger extent than with an equivalent tariff and earn monopoly profits. This is because competing imports cannot exceed the quota limit. If the demand curve shifts upwards, the deadweight loss of the import quota increases as the higher demand will have to be domestically supplied rather than imported from efficient foreign firms. Finally, we examine the effects of imposing an export subsidy to stimulate a small country's exports. This also increases the relative price of the good. The losses are matched with equivalent gains and the overall result is a loss in net welfare.

In this section, the analyses of the barriers to trade reveal they result in a net loss that is a deadweight loss for the country as a whole, seeing as these losses are not gains to anyone else. This deadweight loss represents the inefficiency of imposing trade restrictions. Although we have examined these trade policy instruments individually as alternatives, developing countries use a combination determined by the country's strategy of import protection or export promotion. This complicates policy assessment and makes policy measurement difficult.

3.3 REASONS FOR PROTECTION

We have seen in section 3.2 that trade restrictions result in a decrease in net welfare. Increasing the prices of goods benefits domestic producers and government while domestic consumers and usually the country as a whole are worse off. This section examines four main reasons why industries require protection even though imposing barriers to trade results in a net welfare loss for the country as a whole. We also discuss

possible alternatives to using trade policies that alter relative prices and domestic consumption.

One of the most common and valid reasons for protection is the **infant industry argument**. This argument states that a country may have a potential comparative advantage in the production of goods, but due to lack of expertise and initial low levels of output, the industry will not be set-up. Even if the industry is set-up, it may not be able to compete with firms that are already successfully established (Salvatore 2001: 296). Under these circumstances, temporary trade restrictions are justified during the 'infancy' stage and can be removed when the industry can meet foreign competition, attain economies of scale and achieve its long run potential comparative advantage (Krueger 1984: 522). Once the industry is established, the returns should be high enough to offset the higher prices that the domestic consumers paid during the infant industry stage. Since protection in developing countries has continued for long periods, the infant-industry argument is not justifiable as a reason for protection in these countries. Krueger (1984: 525) supports this statement by referring to the example of Turkey cited in Krueger and Tuncer (1983) where there is lack of evidence to substantiate that more protected industries experienced higher rates of lower costs than less protected industries.

The infant industry argument is more relevant for developing countries (where capital markets do not function properly) than industrialised countries. Identifying the industries that require protection is however difficult. In addition, removing protection once it has been implemented on industries is not easy. Krueger (1984: 523) and Salvatore (2001: 296) agree that a direct production subsidy is more suitable to stimulate the infant industry rather than imposing trade restrictions. A purely domestic distortion (such as an infant industry) should be rectified by a purely domestic policy instead of trade policies that distort relative prices and domestic consumption (Bhagwati 2001: 23).

Pugel and Lindert (2000: 173) cite the **dying industry argument** as another reason for protection. The dying industry argument refers to saving dying industries from import competition and includes the same aspects discussed in the infant industry argument, but

on the grounds of saving a dying industry. Feenstra (2004: 241) suggests that decreases in import prices can cause firms to shut down. The behaviour where foreign exporters anticipate that lowering their export prices will result in firms in the domestic country closing down is referred to as predatory dumping. The dying industry argument usually suggests that if an industry shuts down, jobs are lost and the labour associated with this industry cannot be easily relocated. However, a valid argument is that although higher levels of production and increased employment are encouraged, it should not be at the expense of imports. A better solution is to utilise domestic policies instead of imposing barriers to trade as discussed in the infant industry argument. The provision of adjustment assistance in the form of government financial aid to relocate labour as well as provide workers with the necessary skills to find employment in other sectors is an option (Pugel and Lindert 2000: 175). This and other options for sustained as well as higher employment levels are discussed in Chapters Five and Seven.

The **developing government argument** is an argument for protection in less developed countries (LDCs) that are characterised by low living standards and high levels of domestic distortions. Since the government is unable to adequately supply public goods and services, the tariff is justified as a source of revenue for the government. Pugel and Lindert (2000: 176) reveal that approximately a quarter of the revenue of low-income countries comprise of revenue from customs duties. There is therefore a high level of dependence on the revenue from customs duties as opposed to higher income countries.

A final argument for protection is the **national defence argument**. This argument postulates that barriers to trade assist a country in accumulating stocks and creating the capacity to produce goods that would be required in a military emergency. However, it would be more advantageous to purchase goods inexpensively from the cheapest foreign supplier and store them for a military emergency instead of imposing trade barriers and producing them expensively at home. In this case, as well, direct production subsidies will be a better alternative than tariff protection (Pugel and Lindert 2000: 177; Salvatore 2001: 297).

In this section, we see that the infant industry argument is the most popular reason for requiring protection *via* trade restrictions. Tariffs and other trade policies are used in the early stages of industry development when other markets, for example capital markets, are not performing well. The dying industry argument justifies the imposition of tariffs to prevent an industry from shutting down due to high levels of import competition. The third reason for protection is that developing governments in less developed countries require tariffs as a source of revenue. The final reason is the national defence argument. Here, tariffs are imposed to create the capacity to produce and accumulate stocks in preparation for a military emergency. A country can import these goods inexpensively from abroad. The conclusion drawn from these arguments is that since these are domestic distortions, whatever trade policies can do for the industry, domestic policies can do better. Accordingly, it can be noted that just as there are valid arguments for protection, so too, are the availability of appropriate alternatives.

3.4 DIFFERENT FORMS OF ECONOMIC INTEGRATION

Section 3.2 analyses trade barriers irrespective of the countries' of origin of imports or the destination countries for exports. Much of world trade today comprises of discrimination against some countries *via* existing trade barriers. Economic integration or economic blocs refer to the commercial policy of reducing or eliminating barriers only among countries joining in trade agreements (which therefore discriminates among countries not joining). Lipsey (1960: 496) maintains that product discrimination arises when different import rates are levied on different goods. Country discrimination arises when the same good faces different import rates (varying on the country of origin). The countries entering into trade agreements will experience lower barriers to mutual trade while maintaining higher trade barriers with outside countries.

Economic integration is sometimes referred to as regional integration or regionalism. These terms are used interchangeably in this study. Regional integration imposes costs on non-members even if external levels of protection do not rise. This arises because non-members become less competitive as they continue to pay tariffs while competing producers from member countries are exempt (Hoekeman and Schiff 2002: 548). Gibb

(1997: 3) views regionalism as an attempt by countries to control at regional level economic aspects that they failed to control at national and multilateral levels. Thus, regionalism can be regarded as a policy that enables countries to regain control over the macroeconomic management of their economies. Based on this interpretation, regionalism is a new form of international regulation used to accommodate the conflicting requirements of flexibility. An example of this type of conflict is increasing the mobility of factors of production while at the same time limiting the threat of foreign competition. There are various forms of economic integration ranging from preferential trade agreements to free trade areas, customs unions, common markets and economic unions (Salvatore 2001: 327). This section discusses these forms of economic integration and their impact on member and non-member countries. Section 3.4.3 provides a detailed explanation of the effects of forming a customs union, which is one of the more popular forms of integration.

According to the OECD (2006:1), trade between developing countries²⁸ offers scope for specialisation and efficiency gains. Trade liberalisation between Sub-Saharan African countries and Asia plus Sub-Saharan Africa and Latin America are noteworthy examples. It is estimated that China gained twice as much from trade liberalisation with Latin America. Chapter Six reviews these and other country specific experiences.

3.4.1 PREFERENTIAL TRADE AGREEMENTS (PTAs)

Preferential trade agreements allow lower barriers to trade with participating member countries compared to trade with non-member countries. This is the least advanced form of economic integration.

3.4.2 FREE TRADE AREAS (FTAs)

Free trade areas (FTAs) arise when all trade barriers with member countries are removed, but each country maintains its own trade barriers with non-member countries (Hoekeman and Schiff 2002: 548). According to Feenstra (2004: 196), since each member country maintains its own trade barriers with outside countries, these outside countries are likely

²⁸ Trade between developing countries is also referred to as South-South trade.

to export their goods to the lowest tariff member country within the free trade area. These goods will be shipped duty-free to member countries in the FTA who maintain higher trade barriers with outside countries. This reduces revenue accruing to the higher tariff member countries while the exporting country benefits by paying lower tariffs and violates Pareto optimality. A Pareto optimal situation exists when goods in a country cannot be reallocated to make that country better off without making other countries worse off. There are rules of origin that aim to prevent the occurrence of trade deflection, which can arise when two FTA members charge different tariff rates. Rules of origin refer to procedures and provisions which determine the country of origin of a good to ensure that free trade agreements only benefit participating member countries (Garay and Cornejo 2002: 114). Kose and Riezman (2000: 628) and Yi (2000: 343) agree that free trade areas can make non-member countries better off because member countries of the FTA do not utilise their joint power to change the terms of trade (that is, prices of exports relative to prices of imports).

Baldwin and Venables (1995: 1636) refer to the occurrence of hub and spoke FTAs (a country entering into multiple trade agreements without addressing the trade barriers agreed to with other countries in prior agreements). Under conditions of perfect competition, the benefits of the hub are greater than those experienced by the spokes. This can be explained using an example where South Africa is the hub and Botswana and Mauritius are the spokes. The formation of a free trade area will divert trade away from Botswana and Mauritius towards South Africa. As more countries are added to the FTA, each spoke increases trade creation to the hub. The welfare of existing spoke economies depends on whether the exports of the new spokes are complements or substitutes to those goods produced by the initial members. If new members' exports are substitutes, the initial members will be worse off depending on the degree of preference for their goods in the hub. If new members' exports comprise of complementary goods, the initial members will experience gains.

Popular examples of free trade areas include the North American Free Trade Area (NAFTA), the *Mercado Común del Sur* or Southern Common Market (MERCOSUR)

and the EU-SA FTA. NAFTA was established in 1994 and includes the United States, Canada and Mexico. MERCOSUR was established in 1991 and comprises of Argentina, Brazil, Paraguay and Uruguay. We discuss the European Union-South African Free Trade Area (EU-SA FTA) in section 3.8.2. The corollaries of NAFTA and MERCOSUR are discussed in Chapter Six.

3.4.3 CUSTOMS UNIONS (CUs)

The formation of a customs union removes all trade barriers with member countries (as does the free trade area) as well as synchronises trade policies toward the rest of the world. Trade policy synchronisation usually takes the form of common tariff rates against exports from the rest of the world. Lipsey (1960: 496) defines the theory of customs unions as that part of tariff theory that examines the effects of geographically discriminatory changes in trade barriers. The theory of customs unions focuses on the gains and losses of welfare arising from specialisation in production. This specialisation is based on comparative advantage in the traditional trade theory.

An example of a customs union is the European Union (EU), which was formed in 1995 and includes West Germany, France, Italy, Belgium, the Netherlands and Luxembourg and others. Another example is MERCOSUR, which became a customs union in 1995. Chile and Bolivia joined MERCOSUR in 1996. South Africa is member of the South African Customs Union (SACU). We consider the South African Customs Union in section 3.8.3.

According to Lipsey (1957: 40), the formation of a customs union results in the removal of trade barriers on imports from member countries, which changes the relative prices of goods of member countries in the domestic market. These price changes can change the world location of production (the production effect) and have a corresponding effect on the location of world consumption (the consumption effect). Even if world production is fixed (absence of the production effect), the changes in relative prices in the domestic markets will change consumption patterns (resulting in a consumption effect). The union members' are likely to increase consumption of each other's goods and decrease the

quantity imported from the rest of the world. This outcome is referred to as the inter-country substitution effect, substituting goods from union members' for goods from the outside world (Lipsey 1960: 501). Inter-product substitution refers to substituting one product for another because of the relative price shift arising from the customs union. Either type of substitution results in changes in production and consumption. Lipsey (1957: 41) therefore emphasises the importance of both the effects of cost and location of world production and consumption.

Customs unions are either trade creating or trade diverting. The welfare effects of these two scenarios are explained with the aid of **Figure 3.5**. The export supply curves in both diagrams are assumed to be inelastic. This simplifies the diagrams and allows the basic points to be clearly illustrated. There is a single good in the market, Good X. South Africa (SA) is the home country. Botswana is a member country of the customs union with South Africa where trade barriers are eliminated. Mauritius is the outside country with which trade barriers are maintained.

Before we go on to discuss Figure 3.5, we briefly mention the three possible outcomes between the domestic country (South Africa) and the member country (Botswana) arising from the formation of a customs union. *Firstly*, if neither South Africa nor Botswana produces Good X, the elimination of trade barriers between South Africa and Botswana has no effect on the pattern of trade for Good X. Both countries will continue to import Good X from the cheapest foreign supplier. *Secondly*, if South Africa produces Good X under tariff protection and Botswana is a non-producer, then South Africa's tariff is sufficient to eliminate competition from the cheapest possible source. If the union adopts this tariff on Good X, it will be high enough to secure Botswana's market for South Africa's inefficient industry. This is the trade diversion scenario. *Thirdly*, if both countries are producing Good X inefficiently under tariff protection, the union removes tariffs between South Africa and Botswana and ensures that the less inefficient of the two countries continues producing this good. This is the trade creation scenario [Lipsey (1960: 498) citing Viner (1950)]. In our analysis, we assume that South Africa is not producing Good X. This is contrary to the above three scenarios where the first assumes

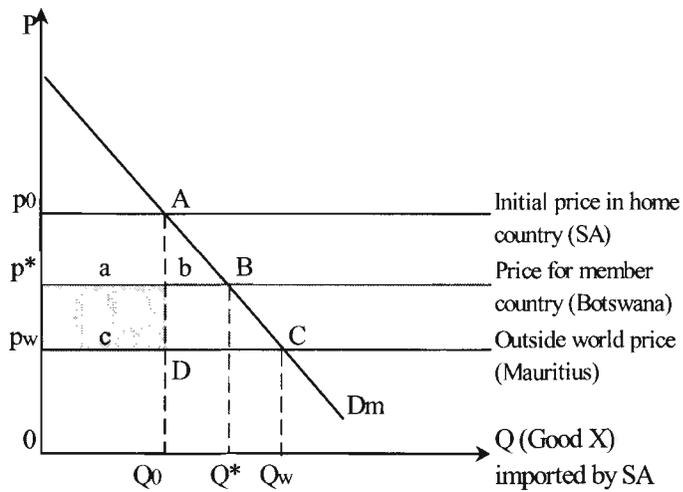
that neither the home nor the member country produces Good X and the latter two assume that the home country also produces Good X.

This section wishes to show two effects. *First*, using Figure 3.5 diagram (A) that forming a customs union is costly as too much trade is diverted from lower cost to higher cost suppliers. *Second*, using diagram (B), that the benefits of trade creation are larger than the losses of trade diversion.

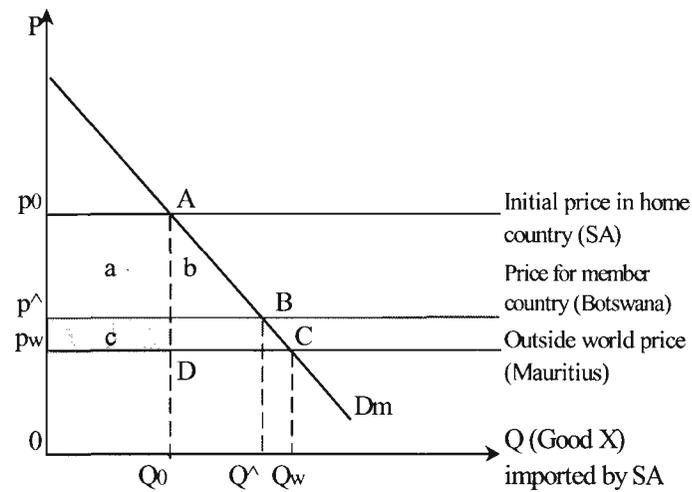
Figure 3.5: The effects of a trade diverting *versus* a trade creating customs union

(Pugel and Lindert 2000: 217)

(A) Trade diversion dominates trade creation resulting in a net loss.



(B) Trade creation dominates trade diversion resulting in a net gain.



Before we examine each of these scenarios, some introductory comments are needed. In both the diagrams in Figure 3.5, South Africa can purchase Good X at world price p_w from Mauritius in the absence of a tariff. Alternatively, South Africa can purchase Good X from Botswana at price, p^* in diagram (A) or p^\wedge in diagram (B), which is more expensive ($p^* > p_w$ and $p^\wedge > p_w$) than obtaining Good X from Mauritius. Point (C) represents the free trade position where South Africa obtains all imports of Good X from Mauritius and none from Botswana. At point (C) in both diagrams, the quantity of Good X demanded is Q_w at price p_w .

To examine these two scenarios, let us begin at point (A) in both diagrams in Figure 3.5. Point (A) represents the initial price in the home country inclusive of the tariff. We will assume that the tariff (t) is equal to $(p_0 - p_w)$ rands per unit of Good X. The South African government therefore collects tariff revenues equal to area $[Q_0 (p_0 - p_w)]$. South Africa does not purchase Good X from Botswana as it costs $[p^* + (p_0 - p_w)]$. This latter price must be above p_0 and thus consumers would rather import from Mauritius.

When South Africa joins the customs union, all tariffs on goods from countries within the customs union (specifically Botswana) are removed while maintaining the same old tariffs on goods from countries outside the customs union (specifically Mauritius). Purchasing Good X from Botswana costs p^* in South Africa and the price of Good X from Mauritius remains at p_0 as they still incur the tariff. Due to the decrease in price of the imported Good X in South Africa, the quantity purchased increases to Q^* at point (B) in diagram (A) and Q^\wedge at point (B) in diagram (B). South Africa will now only purchase Good X from Botswana. South African purchasers of Good X therefore gain area $(a + b)$ in consumer surplus in both diagrams. The South African government however loses tax revenue equal to areas $(a + c)$. As area (a) in both diagrams of Figure 3.5 is a gain and a loss, it is imperative to only consider areas (b) and (c) in the welfare analysis. The welfare effects of the gain of area (b) and the loss of area (c) can be analysed as follows:

- **Trade creation** occurs when some domestic production in a member country of the customs union is replaced by lower cost imports from another member

country in the union (Salvatore 2001: 329). This represents the net volume of new trade as a result of forming the customs union. According to Carim (1997: 337), trade creation is measured by increases in intra regional trade. This is due to lower relative prices because of eliminated tariffs among member countries. The welfare of member countries increases due to greater specialisation in production (based on comparative advantage) after the formation of the customs union. A trade creating customs union increases the welfare of non-member countries as the increased income due to greater production specialisation is used to obtain more imports from outside countries. Thirlwall (2000: 131) views the gains from trade creation as static. This means that since there are no further reallocations once the trade barriers are removed, the static gains from trade creation is exhausted. Static gains arise because countries are differently endowed with resources which results in the opportunity cost (opportunities foregone as resources are not put to their highest value use) of production varying from country to country. Dynamic gains from trade on the other hand shift countries' production possibilities curves²⁹ outward in response to increased investment, increased productivity based on scale economies and learning by doing which is funded mainly by foreign direct investment. The welfare gain as a result of trade creation is represented by area (b) in both the diagrams in Figure 3.5.

- **Trade diversion** occurs when higher cost producers who experience an advantage only due to the formation of the customs union replace lower cost producers (from outside the union) (Lipsey 1960: 497). Trade diversion reduces welfare as it shifts production away from more efficient producers in the outside countries to less efficient producers in the customs union moving production away from comparative advantage. Carim (1997: 337) finds that trade diversion does not change the total volume of an individual country's imports or displaces regional production. It does however change the geographic composition of imports as imports are substituted from the initial low cost producer (whose relative price is

²⁹ Production possibilities curves show all possibilities of output that an economy can produce with fully employed resources and maximum productivity as defined in Chapter Two.

unchanged) to the new producer (whose price is lower because of eliminated tariffs). Trade diversion can also result in the misallocation of resources. An example is if scarce resources are reallocated to higher cost production within regional agreements, real income and welfare within the region will be lower than before the customs union was formed. These losses may however be outweighed by dynamic increases in production, consumption and investment in the long run. The welfare loss from trade as a result of trade diversion is represented by area (c) in both the diagrams in Figure 3.5.

Lipsey (1957: 43) and Michaely (1965: 579) show with the aid of a two-good model that trade diversion can result in increases in welfare for the country whose imports the customs union diverts as well as for the world as a whole. When the trade-diverting customs union is formed, the consumers in the domestic country (South Africa) will purchase from the high cost producers in the customs union. A larger quantity of goods will now have to be exported in order to obtain the more expensive imports. Since the formation of the union eliminated the difference between domestic and international prices, South African consumers have to adjust their purchases to the domestic price ratio, which is the rate that Good X can be substituted for another good, Good Y. The welfare effect is the net effect of the increase and decrease in welfare. Lipsey (1957: 46) concludes that since every consumer moves to a higher indifference curve³⁰, a trade diverting customs union therefore results in gains and increases in welfare for South Africa and the world as a whole.

In Figure 3.5 diagram (A), the net effect on welfare is negative because trade diversion dominates trade creation. Although the quantity of imports increases from Q_0 to Q^* , it diverts Q_0 imports from the cheapest supplier, Mauritius to the member country Botswana which results in the extra cost, area (c). The loss in area (c) exceeds the gain in area (b).

³⁰ Indifference curves represent the different combinations of two goods that provide the same level of satisfaction as defined in Chapter Two.

In Figure 3.5 diagram (B), the net effect on welfare is positive because trade creation dominates trade diversion. When the customs union is formed, Botswana is the lowest cost supplier in the customs union. If Botswana supplies Good X as cheaply as Mauritius, trade diversion away from Mauritius to Botswana is minimal. The quantity of imports due to the removal of tariffs on Botswana results in an increase from Q_0 to Q^{\wedge} imports. Q_0 imports are diverted away from the cheapest supplier, Mauritius, but the gain in area (b) exceeds the loss in area (c).

Trade creation is more likely to occur if:

- there are higher cost differences between the home and member countries in the customs union. This occurs when high tariffs are present before the formation of the union;
- there are smaller cost differences between the member countries in the customs union compared to countries outside the customs union. This means that the costs somewhere within the customs union are just as low as costs in the outside world;
- the import demand is more elastic (that is, the import demand is more responsive to changes in the price level);
- there is a large degree of similarity between the categories of goods produced in both the countries under tariff protection. In Figure 3.4, if both South Africa and Botswana produce Good X under tariff protection, the removal of tariffs arising from the customs union will shift production to the more efficient of the two countries.
- in the case where only some of the tariffs are to be eliminated, welfare is more likely to increase if these tariffs are reduced as opposed to being eliminated;
- purchases of domestically produced goods exceed purchases of goods imported from the outside world. This implies the importance of the relationship between imports from the outside world and the purchases of domestic goods; and
- domestic country's volume of international trade is given, a larger proportion of trade with the domestic country's customs union member than with the outside world is likely to result in welfare gains.

(Lipsey 1960: 499, 507-508; Pugel and Lindert 2000: 218).

Trade diversion is more likely to arise if:

- import demand is inelastic, that is, import demand is unresponsive to changes in the price level, and
- there are high costs experienced by all the countries in the customs union.

Customs unions require joint decision making which results in those countries engaging in trade agreements losing sovereignty when participating in multilateral trade negotiations and when implementing protection measures. This may result in member countries ending up with external trade barriers that are not nationally optimal. An example is if member countries in the customs union cannot avoid some costs of trade diversion by reducing external tariffs. This is due to the common external tariff and is a possible explanation for much of world economic integration taking the form of free trade areas as opposed to customs unions (Baldwin and Venables 1995: 1635).

There are however two benefits of joint decision-making. The *first* is that there is no incentive for the member countries of a customs union to compete for tariff revenue as would be the case if an FTA were formed. Goods with low tariffs attract imports of that good into the domestic country and increase revenue for the country's government. The *second* benefit is that an import tariff, if set by one country and decreases the world price will affect all the countries in the FTA and the gains or losses depend on whether the countries import or export that particular good. This is not the case in the customs union due to the common external tariff. Baldwin and Venables (1995: 1635) suggest that if the countries in the customs union have similar external trade patterns, then the gains from a customs union's joint welfare maximising external tariff are likely to be higher than those gains from tariffs set by the FTA. This is because of no revenue competition and the common impact of world price changes with a customs union.

Kose and Riezman (2000: 628) find that free trade areas (FTAs) are superior to customs unions because in the FTA, both members and non-members experience welfare gains whereas with the customs union, member countries gain and non-member countries lose, but since the gains exceed the losses, the result is a net increase in world welfare. Their

study is based on an improvement in the terms of trade of member and non-member countries in the FTA and a reduction in terms of trade for the non-member countries in the customs union. They also note that the member countries of customs unions experience larger gains than the member countries in FTAs. These results are contrary to Krueger (1997) as cited in Kose and Riezman (2000: 619) who concludes that in terms of welfare, trade-creating customs unions are superior to free trade areas. This conclusion is arrived at based on a FTA resulting in more trade diversion than a customs union due to FTAs requiring a selection of rules of origin.

3.4.4 THE COMMON MARKET

The common market form of economic integration goes beyond the customs union. In addition to the removal of trade barriers from member countries as well as trade policy synchronisation, there is free mobility of factors of production (capital and labour) among member countries within the common market. The European Union (EU) achieved common market status at the end of 1993.

In Africa, the Common Market for Eastern and Southern African States (COMESA) was established at the end of 1994 (Lewis 2001: 51). According to Hoekeman and Schiff (2002: 548) the countries forming COMESA are Angola, Burundi, Comoros, Djibouti, Egypt, Ethiopia, Kenya, Lesotho, Malawi, Mauritius, Mozambique, Rwanda, Somalia, Sudan, Swaziland, Uganda, Zambia and Zimbabwe. These countries agreed to abide by some founding principles, including establishing a common market with a common external tariff and advancing transport cooperation and investment policies that promote communication, agriculture, industry and education. Holden (1998: 462) reveals that by 1998, tariffs for certain goods within COMESA were reduced by an average of 60 *per cent*. Lewis (2001: 51) indicates that various aspects of COMESA overlap with trade liberalisation aspects of the SADC.

3.4.5 THE ECONOMIC UNION (EU)

The economic union is the most advanced type of economic integration. The economic union goes further than the common market. In addition to removing all trade barriers on

member countries, allowing free mobility of capital and labour among member countries and trade policy synchronisation, the economic union also harmonises the monetary, fiscal and tax policies of member countries (Salvatore 2001: 327-328). An ideal example of an economic union is the European Union. Another example is the United States, which accomplished full economic and monetary union status.

This section focuses on the various degrees of economic integration. We begin by providing a brief discussion of preferential trade agreements, common markets and economic unions. The popular forms of integration, free trade areas and customs unions are discussed in more detail. With the exception of preferential trade agreements, a common feature of economic integration is eliminating all trade barriers among member countries after the formation of the respective form of integration.

Customs unions are more advanced than free trade areas as the member countries maintain common external tariffs with outside countries whereas with free trade areas, each member country maintains its own trade barriers with outside countries. Free trade areas can result in situations that are not Pareto optimal as outside countries can export to lowest tariff countries in the free trade area and ship the goods with zero tariffs to the respective member countries.

A customs union is trade creating if its formation creates a large proportion of low cost trade. In this case, the effect on welfare is positive as the gains from trade in the customs union exceed the losses. A trade diverting customs union occurs when the formation of a customs union results in too much trade from high cost producers within the union replacing low cost producers from outside the union. In this case, the effect on welfare is negative as the gains from trade in the customs union are lower than the losses. In the long run, these losses may however be outweighed by dynamic increases in production, consumption and investment.

This section concludes with the most advanced form of economic integration, the economic union, which removes all trade barriers on its member countries, allows free

mobility of capital and labour among member countries, establishes common external tariffs and harmonises the monetary, fiscal and tax policies of member countries.

3.5 AN OVERVIEW OF TRADE LIBERALISATION

This section provides a brief overview of trade liberalisation and globalisation. We focus on the effects of trade liberalisation in general and the effects of trade liberalisation on employment in particular. The effects of trade liberalisation on poverty are also noted. This section concludes with a discussion of import substitution industrialisation (ISI) programmes that were popular in the years subsequent to World War II.

Trade liberalisation refers to activities that make trade policy more neutral. Trade liberalisation occurs when countries reduce or eliminate trade restrictions resulting in a shift from protectionism to freer trade (Bell 1997: 71). In the past two decades, the extent of trade liberalisation in developing countries has increased substantially. One of the reasons for rapid trade liberalisation is that free trade is associated with increased growth. Mohr (2000: 45) indicates that the rate of economic growth is usually measured in terms of the rate of growth in real gross domestic product (GDP) at constant prices³¹. The real gross domestic product (GDP) is defined as the total value of all final goods and services produced for a country in a specified period (usually a year) (Mankiw 2003: 94). GDP is denoted as Y and is divided into four components; consumption (C), investment (I), government purchases (G) and net exports (X)³². This is one of the most important indicators of performance in the economy. Since most developing countries experience high unemployment, increased growth is seen as a tool to reduce or alleviate

³¹ Nominal GDP, on the other hand, refers to the production of goods and services valued at current prices (Mankiw 2003: 100).

³² Consumption refers to spending by households on goods and services. Investment is the purchase of goods and services that will be used in the future to produce more goods and services, that is, the sum of capital equipment, inventories and other structures. Government purchases relate to spending on goods and services by local, state and federal governments. Net exports equal the purchases of domestically produced goods by foreigners (exports) less the domestic purchases of foreign goods (imports) (Mankiw 2003: 97-98).

unemployment. The expanded definition of unemployment as per Barker (1999: 172) refers to persons who are without work, currently available for work and have the desire to take up employment. Chapter Four section 4.5 defines and provides reasons for unemployment.

According to El Toukhy (1998: 465), globalisation is described as increased international trade, finance, information and culture in a single integrated world market. This study focuses specifically on the relationship between a rise in international trade policies (*via* the reduction or removal of trade barriers) and employment. Holden and Holden (1981: 235) suggest the existence of three levels of relationships between trade policies and employment. The *first* relates to a trade strategy that increases growth in an economy due to more efficient resource allocations. The increased growth results in higher employment. The *second* relates to the choice of trade policy and the composition of output. If a larger proportion of gross national product (GNP) is created in labour intensive industries because of a particular trade policy, the demand for labour in that particular industry will rise. The gross national product (GNP) refers to the income of all permanent residents of a country. GNP is calculated by deducting income of foreign earned factors of production for a particular country (primary income to the rest of the world) as well as the specific country's factors of production in the rest of the world (primary income from the rest of the world) from GDP (Mohr 2000: 35). The *third* relates to the relationship between the trade policy, the choice of factors of production and consequently the choice of production technique.

Chaudhuri (2003: 412) proposes that in the absence of tariff protection, increases in capital inflows increase welfare. The output composition of the economy also changes. The capital intensive formal sectors and the informal manufacturing sectors that produce non-traded intermediaries for the formal sector expand whereas the agricultural informal sectors contract due to the Rybczynski effect as explained in Chapter Two section 2.5. In the presence of labour market distortions, just as the output composition changes, so too, is labour reallocated among the various sectors in the economy. This affects the aggregate income of workers. If the labour reallocation effect outweighs the output effect, then the

inflow of foreign capital is welfare improving. Welfare improves as the efficiency of production increase.

According to Thirlwall (2000: 130), trade liberalisation results in a large increase in the growth of world trade relative to world output (GDP). The volume of world trade has increased sixteen times at a rate of approximately *7 per cent per annum* whereas world output (GDP) has only increased five times. Countries that have liberalised their trade policies tend to experience the fastest growth rates of exports and GDP. A country's extent of growth depends on the supply and demand characteristics of goods produced and traded, domestic economic policies pursued and the trade policies adopted.

A significant feature of developing countries is that they have a comparative advantage in labour intensive goods and services, agriculture and manufacturing. The volume of exports for developing countries as a whole only increased by *5 per cent* since 1950. This is because a large portion of production and exports of developing countries comprises of primary commodities and low-value added manufactured goods that have a relatively low-income elasticity of demand in world markets. Developing countries import capital intensive goods and services (which include investment and intermediate goods). The effects of trade liberalisation in other countries is discussed in Chapter Six and the effects of trade liberalisation in South Africa in particular is examined in Chapters Five and Seven respectively.

Holden and Holden (1981: 233) cite Bhagwati (1978) who defines a free trade regime as a situation where the ratio of the effective exchange rate of exports relative to imports is unity. A ratio of less than one indicates an import substituting trade regime and a ratio greater than one indicates an export promoting trade regime. The effective exchange rate for imports is defined as the number of units of local currency paid for one dollar of international transaction added to the value of import barriers to trade (including surcharges). The effective exchange rate for exports is defined as the number of units of local currency received for one dollar of international transaction added to the value of export barriers to trade. Firms and consumers bear the cost of import substitution whereas

the central government bears the costs of export promotion. In practice however, Bhagwati has classified a ratio of unity as export promoting.

Winters (2002: 28) finds that trade liberalisation increases growth, which assists in reducing poverty. The removal of trade barriers results in some groups gaining at the expense of others. An example is liberalising a country's import sector. Lower prices result in increased domestic production and real income is redistributed from producers to consumers in the form of lower prices. In addition, factors used intensively in the production of these goods will gain while factors not used intensively will lose. In section 3.2.1, we discussed tariffs as a source of revenue for government. A concern with respect to reducing trade barriers is that since revenue accruing to the government is either reduced or eliminated, the effects on the poor are likely to be negative. Winters (2002: 29) maintains that the effect on expenditure to the poor if revenue to the government is reduced or eliminated remains a policy decision. If non-tariff barriers are converted to tariff barriers, these will however increase the levels of revenue accruing to the government. Therefore, if trade liberalisation is accompanied by policies that ensure markets continue to function and develop, the effects on aggregate income and poverty alleviation are likely to be positive.

According to Krueger (1998: 1513) and Holden and Holden (1981: 232) the years subsequent to World War II were characterised by many developing countries implementing import substitution industrialisation (ISI) programmes to create employment. Import substitution industrialisation involves replacing industrial goods with domestically produced goods (Salvatore 2001: 379). Trade policy was therefore formulated accordingly, with many sectors of the economy being granted high levels of protection. ISI was an attempt by developing countries to shift production for export purposes away from primary commodities. The strong support for ISI programmes was due to the belief that these programmes would result in increased economic growth and developing countries would benefit from industrialisation by producing domestically only instead of importing goods. In addition, ISI either protected infant industries or stimulated them with tariffs.

Scheepers (1982: 15) suggests that import substitution begins with light consumer goods and then proceeds to include intermediate and capital goods based on comparative advantage. In the initial stages of import substitution, imports as a percentage of gross domestic product (GDP) decreases. However, as import substitution penetrates the durable consumer goods, heavier intermediate and capital goods industries, imports as a percentage of gross domestic product (GDP) tend to increase. Once the export sector regains increased growth, there is no clear trend as to whether imports are increasing or decreasing as a percentage of GDP.

The utilisation of import substitution strategies resulted in export earnings growing relatively slowly as new resources were directed into import substitution industries (Krueger 1984: 530). The profitability of exports decreased due to investment and development plans creating inflationary pressures at fixed exchange rates. The demand for foreign exchange also increased due to high import intensive investment programmes as well as the import-competing industry being more import-using than expected. Import-competing industries refer to domestic industries that are competing in the world market for the production of the same or similar good. Countries were forced to change their trade and payment policies due to periodic foreign exchange crises. This resulted in increased levels of investment and imports followed by slow rates of growth.

Business Africa (2005: 8-9) maintains that the reduction of trade barriers in developed countries will not suffice to stimulate export-led industrial expansion in Africa. Investment in infrastructure as well as government policies focusing on eliminating barriers that grow and expand small businesses will complement trade liberalisation. These aspects are incorporated into lessons for South Africa in Chapter Seven.

Asian exporters indicate that bureaucracy tends to be a bottleneck as customs and trade regulations are still obstacles to trade. Landlocked countries require exports be cleared at road or rail border posts where the administration is slower than in countries where exports are cleared at the port itself. Chaudhuri (2005: 422) suggests the possibility of liberalisation not providing substantial gains because economies have attempted freeing

their economies at a rapid pace without pre-calculating the possible outcomes. In Chapter Six, which reviews the experiences of selected countries, we indicate similar results for Africa and Sub-Saharan Africa.

This section examines trade liberalisation, which is a shift from protected to freer trade requiring member countries to reduce or eliminate trade barriers. The most important benefit from trade liberalisation is increased growth, which is a tool to reduce or alleviate unemployment as well as poverty. In the period prior to the 1980s, developing countries, in the belief that it would increase economic growth and employment, implemented import substitution industrialisation (ISI) programmes. These ISI programmes were abandoned as they resulted in slow rates of growth despite the fact that imports and investment levels increased.

3.6 TRADE AGREEMENTS AND TRADE NEGOTIATIONS

This section examines international trade agreements, which countries participating in trade liberalisation are required to abide by. Section 3.6.1 takes a closer look at the General Agreement on Tariffs and Trade (GATT). In section 3.6.2, we examine the Uruguay Round of trade negotiations. Section 3.6.3 focuses on unresolved issues at the Uruguay Round and section 3.6.4 concludes with a look at further rounds of trade negotiations.

3.6.1 A CLOSER LOOK AT THE GENERAL AGREEMENT ON TARIFFS AND TRADE (GATT)

Trade agreements comprise of three main factors. The *first* is substantive obligations that pertain to the removal or elimination of trade barriers as well as other commitments. The *second* is agreed exceptions to these substantive obligations such as, escape clauses or antidumping duties. The *third* refers to procedures necessary to enforce obligations as well as dispute resolution facilities to resolve problems (Staiger 1995: 1499). These factors (*via* mutual trade agreements between countries) reduce the ability of an individual country to intervene in trade. The extent of the success of agreements however depends on the strength of the third factor, that is, the enforcement procedures in place.

The General Agreement on Tariffs and Trade (GATT), which was established in 1947 operated as a framework for multilaterally agreed rules governing the trade behaviour of countries, as a forum for trade negotiations and as an international court for trade dispute resolution among countries (El Toukhy 1998: 466). According to Dunkley (2000: 9), multilateral trade negotiations refer to trade liberalisation as well as trading rules arising from worldwide negotiations. There were seven rounds of GATT trade negotiations. These were Geneva (1947); Annecy (1949); Torquay (1951); the Geneva-Dillon Round (1960-1961); the Geneva-Kennedy Round (1964-1967); the Geneva-Tokyo Round (1973-1979) and the Uruguay Round (1986-1993) respectively (El Toukhy 1998: 467). Staiger (1995: 1505) affirms that world tariffs since the GATT have been reduced by 90 *per cent*. The world average *ad valorem* tariff rate in 1947 of 40 *per cent* was reduced to 4 *per cent* in 1994.

In recent years, in addition to tariff reductions, there are increased exceptions to trade agreements as well as problems experienced in implementing agreements. Economic integration (discussed in section 3.4) is an example of such an exception, where exceptions to the Most Favoured Nation (MFN) principle by countries wanting to liberalise trade more rapidly than multilateral trade agreements results in the formation of a number of free trade areas and customs unions. The MFN principle states that no member country may discriminate among goods and services provided from other member countries. Thus, a reduction or elimination of tariffs granted to one country must apply to all member countries (Bhagwati 2004: 154). There are exceptions for dumping which refers to exporting goods at a price below the selling price of comparable goods in the exporter's domestic market or below the cost of production. Antidumping duties can be imposed when foreign countries are guilty of dumping. In addition, countervailing duties can be used to counteract foreign government subsidies. Antidumping and countervailing duties are referred to as unfair trade laws. Krueger (1999: 912-913) and Staiger (1995: 1542) assert that there are no general prohibitions in the GATT against dumping and the only prohibition against export subsidies is for export subsidies on non-primary products for developed countries. The authors further add that since private firms and not government is the source of dumping, it is beyond the scope of traditional

government obligations under GATT. In order to prevent the misuse of antidumping and countervailing duties, the GATT does however provide conditions under which these practices should be imposed.

3.6.2 THE URUGUAY ROUND OF TRADE NEGOTIATIONS

The Uruguay Round of multilateral trade negotiations began in Uruguay in September 1986 and ended in December 1993. The signing of the Marrakech Agreement in April 1994 concluded this round of trade negotiations. The agreement came into effect on 1 January 2005.

The Uruguay Round of trade agreements replaces the General Agreement on Tariffs and Trade (GATT) with the World Trade Organisation (WTO) to administer the agreements of the Round with respect to industrial and agricultural products. The WTO also administers the General Agreement on Trade in Services (GATS) and the Trade Related Aspects of Intellectual Property Rights (TRIPs) (Hoekeman 2002: 41). Pugel and Lindert (2000: 141) find that an advantage of the replacement of the GATT with the WTO is that the dispute resolution procedure of the WTO is stronger than that of the GATT therefore facilitating a faster response in resolving disputes with respect to dumping (Salvatore 2001: 309). The GATT was relatively flexible which allowed countries significant opportunities to break specific rules. The WTO members meet every two years as opposed to under GATT where trade negotiations were held less frequently.

According to Hoekeman (2002: 47), the functions of the WTO are to provide a forum for international implementation and cooperation for multilateral trade agreements, provide a forum for trade negotiations, administer a dispute resolution system, exercise external transparency and cooperate with the World Bank and the International Monetary Fund (IMF) to reach greater consistency in global economic policymaking. These functions include creating codes of conduct (that is, specific legal obligations regulating trade policy arising from trade negotiations) for member countries' governments. The WTO is a virtual trade policy market where countries come together to exchange market access

commitments on a mutual basis. However, since the medium of exchange in the trade policy market is not money, WTO negotiations tend to be a complex procedure.

There are five important pre-1994 GATT and WTO principles (Hoekeman 2002: 42-44). They are non-discrimination, reciprocity, binding and enforceable commitments, transparency, and safety mechanisms. A brief explanation of each of these principles follows:

- **Non-discrimination**

The two elements of non-discrimination are the most favoured nation (MFN) and national treatment principle. The MFN principle defined in section 3.6.1 postulates that the reduction or elimination of tariffs granted to one country must be applied to all member countries (El Toukhy 1998: 469; Staiger 1995: 1502). Although the MFN principle applies unreservedly, exceptions are made for preferential trade agreements, free trade areas and customs unions. Thus, the MFN principle removes the incentive for importers and consumers to use the lowest cost foreign supplier. Hoekeman (2002: 42) states that national treatment ensures that trade liberalisation agreements are not counteracted by imposing domestic taxes or similar policy instruments. National treatment means that foreign goods (once they have satisfied border requirements) must still be subject to taxes and other regulations that are not less favourable than those applicable to similar domestically produced goods.

- **Reciprocity**

Reciprocity reflects the need to reduce the free rider problem (that may occur due to the MFN principle) as well as obtain the benefits of trade liberalisation *via* better access to foreign markets. In the context of trade agreements, free riders refer to non-member countries that benefit from third countries joining in trade agreements. Although the benefits of trade liberalisation are likely to exceed the costs, which are concentrated in specific industries, detecting the sector specific export gains is useful in the political case for trade liberalisation. Reciprocity also

ensures that the gains from multilateral negotiations are greater than the gains from unilateral negotiations (that is, a single country reducing trade barriers).

- **Binding and enforceable commitments**

There are a number of GATT/WTO rules that have to be enforced in order for the gains from trade liberalisation to materialise. There are WTO articles that represent non-discrimination (incorporating the MFN and national treatment principles) which ensure that market access commitments are implemented and maintained. In addition, other GATT articles play a supporting function. Tariff commitments entered into during multilateral trade negotiations are listed on schedules establishing 'ceiling bindings'. The 'ceiling bindings' ensure that members do not increase tariffs without negotiating compensation with the producers of the goods and the MFN principle ensures that the compensation extends to all members. There are also articles to ensure that once member countries enter into tariff commitments, they do not falter by applying non-tariff measures of protection. Small member countries are likely to benefit from a rule based international system like the WTO because it reduces bilateral pressure from larger trading powers to change policies not to their satisfaction.

- **Transparency**

In order for commitments to be enforced, information retained by members of the WTO on trade policies must be readily available. WTO agreements must aid communication between members on necessary issues. In order to arrive at internal transparency, the WTO members' must periodically publish their trade policies, which enable trade decisions to be reviewed as well as notifies others of changes in trade policy. External transparency includes periodic country specific trade policy reviews by the WTO, which facilitate multilateral surveillance. The benefits of transparency include: a reduction of pressure on the dispute settlement system as the dispute can be discussed directly with the appropriate WTO members and reduction of uncertainty (associated with reduced levels of

investment and growth rates as well as shifts in resources toward non-tradables) linked to trade policy.

- **Safety mechanisms**

The safety principle in the WTO enables governments of member countries to limit trade. The provisions for limitations are to use trade to achieve non-economic objectives (such as protecting public health or import-competing industries), to ensure 'fair competition' (namely by imposing antidumping or countervailing duties on imports) and finally for economic reasons (such as balance of payments problems or to protect infant industries).

The specific objectives of the Uruguay Round include:

- Establishing rules for the checking of protection measures;
- Discussing services, agricultural and foreign investments;
- Negotiating international rules for the protection of intellectual property rights; and
- Improving dispute settlement mechanisms *via* compliance with GATT/WTO rules as well as timelier decision-making.

(Salvatore 2001: 309).

Tariffs on most steel products, pharmaceuticals, wood and wood products, and construction machinery have been eliminated. Many agricultural quotas and non-trade barriers have been replaced with tariffs, which will be easier to liberalise in future international trade negotiations. According to Amjadi and Yeats (1998: 391), agricultural trade barriers received attention for the first time in GATT trade negotiations at the Uruguay Round. Bhagwati (2001: 25) contributes that in addition to lowering and eliminating protection measures on agriculture, countries should seek other policies that would directly subsidise agriculture in an efficient method. Developing countries agreed to decrease tariffs on agriculture by 24 *per cent* over a ten-year period. The agreement however includes a measure of protection whereby a country can impose a duty on a good if the price decreases or the volume of imports increases by a specified amount.

African countries are likely to experience increased exports as well as decreased levels of price instability in the international markets for agricultural goods as a result of the Uruguay Round (Amjadi and Yeats 1998: 392).

Domestic content requirements refer to rules specifying that a good produced in a country must possess a certain amount of domestic value in terms of inputs. This means that wages or a certain proportion of material or parts must be obtained locally. Agreements on domestic content requirements are now stricter in terms of countries trying to limit imports using this rule (Pugel and Lindert 2000:140). Investment measures such as domestic content requirements and foreign exchange balancing (limiting imports of inputs to a certain percentage of their exports) can result in developing countries losing important policy options. The agreement also provides for the protection of trademarks, copyrights and patents for a twenty year period which will allow for freer trade as other countries would not be allowed to copy an invention without the relevant licence (Salvatore 2001: 309).

Expectations of the Uruguay Round include increases in world trade and more efficient use of factors of production namely, capital and labour. Dunkley (2000: 142) strongly feels that trade theory models overstate the benefits of free trade. There are a few reasons in support of this statement. *Firstly*, economies that are relatively inelastic are unlikely to reap the economic benefits of free trade. *Secondly*, the assumption of full employment does not apply, as the labour displaced because of trade liberalisation may not necessarily find employment with a similar wage rate and capital with similar investment and returns. *Thirdly*, imperfect competition and economies of scale models may not be appropriate, as international agricultural and resource markets are likely to be competitive. Finally, models assuming that investment cannot cross national boundaries are not applicable because investment can shift in response to trade liberalisation.

Industrialised countries agreed to decrease domestic production subsidies by 20 *per cent*, export subsidies by 36 *per cent* and the volume of subsidised exports by 21 *per cent* over a six-year period. Developing countries agreed on making lesser restrictions to trade

(Pugel and Lindert 2001: 141). El Toukhy (1998: 482) reveals that less developed countries are free to use different types of measures to promote trade and economic development and are thus likely to experience larger gains from trade liberalisation. Simultaneously, due to a lack of institutional, productive and human capital resources, these countries will experience difficulties in obtaining the benefits of free trade.

3.6.3 UNRESOLVED ISSUES AT THE URUGUAY ROUND

The Uruguay Round provided a framework for further rounds of trade liberalisation in the services sectors as indicated in the General Agreement on Trade in Services (GATS). Hodge (2002: 221) points out that there are four modes of supplying services trade. *Firstly*, cross-border trade refers to electronic or physical transactions across borders, for example, air transport and financial trading. *Secondly*, consumption abroad pertains to moving consumers abroad for the purposes of tourism or education. *Thirdly*, commercial presence involves direct investment for the delivery of services, such as, electricity. *Lastly*, the presence of natural persons requires the producer to temporarily move to provide services, namely, business consulting.

McCulloch (2001: 236) cites the main principle of the GATS as non-discrimination. The GATS applies specifically to sectors on government lists. These lists allow countries to specify limitations on market access and national treatment across all sectors of supply. In developing countries, services liberalisation has a positive effect on merchandise exports *via* cheaper transport, communication and financial infrastructure. The OECD (2006: 5) emphasises the importance of services where manufacturing is large-scale requiring specialised labour and many intermediate inputs and raw materials from geographically distant small-scale suppliers.

The General Agreement on Trade in Services (GATS) promotes liberalisation whereas TRIPs (Trade related aspects of Intellectual Property Rights) and TRIMs (Trade related Investment Measures) have focused on regulating trade (Wilkinson (1999: 166-167). An important aspect of the GATS is that exemptions are based on the most favoured nation (MFN) principle. The purpose of TRIPs is to endorse and safeguard intellectual property

rights. The purpose of TRIMs is to move investment from capital rich to capital poor countries. Regulating capital will only create a better environment for trade as opposed to increasing the volume or value of trade. Some firms will not be able to absorb new technologies over others with intellectual property rights due to the TRIPs. This will reduce the adoption of new technologies in developing countries (Khor 2001: 43). Developed countries were required to implement the TRIPs agreement within a year whereas developing and transition economies were granted five years and LDCs eleven years. Protection for high-tech sectors in developing countries that previously did not receive protection was deferred to 2005 (McCulloch 2001: 216). If the TRIPs Agreement increases production, and disseminates technology based products in developing countries then, employment and incomes are likely to increase, effectively reducing poverty (McCulloch 2001: 223).

The costs of barriers to trade in services are difficult to estimate as most countries supply little information on their barriers. In addition, barriers tend to be country and sector specific as service markets tend to imperfectly competitive. According to McCulloch (2001: 233), the benefits of liberalising services includes providing services that are more efficient, increasing networks and infrastructure that result in lower production costs as well as enables the implementation of more efficient production techniques. There will also be greater ability of the country to absorb foreign direct investment (FDI), improved technology transfers, new products introduced as well as higher quality products at lower prices. These benefits are likely to increase economic growth and alleviate poverty.

Another aspect that has not received adequate attention is the link between labour protection and trade. This link would allow recognition of the basic standards of labour in exporting countries as well as conform to the International Labour Organisation (ILO) standards (Ghose 2000b: 281; Wilkinson 1999: 182). Other factors of production, namely, capital and land have received more attention than labour. Kohler and O' Bruce Brand (2002: 935) maintain that although the ILO has stipulations with respect to labour standards, it does not have the capacity to enforce them. The key to improving international labour standards is for developing economies to adopt and implement

regulations that have acquired international agreement. This will also assist in alleviating poverty and increasing economic efficiency.

It is evident from Khor (2001: 9) that certain sectors in developed countries (namely, agriculture, textiles and some manufactured products) still have high tariffs. Developing countries however have a comparative advantage in producing goods in these sectors. Since a large portion of developed countries' trade comprises exports of raw material and imports of manufactured goods, this necessitates addressing the high tariffs in future rounds of trade negotiations. The terms of trade also decreased in many developing countries and since GDP comprised of increased trade, income losses increased subsequent to the Uruguay Round.

The issue of implementation is an area that has received much attention following the Uruguay Round of trade negotiations. The WTO (2001:1) finds that insufficient or lack of financial, human and institutional resources has restricted governments in implementing highly complex Uruguay Round Agreements. Some developing countries have not experienced the expected benefits (mostly in terms of export and income gains) from the Uruguay Round and certain aspects of agreements have to be re-examined (Khor 2001: 1; Laird 2002: 42; Stokes 2003: 2892). According to Das (2003: 20), the gains of the multilateral trade negotiations were unevenly distributed and some least developed countries (LDCs) did not experience any increase in exports. Country specific experiences are discussed in Chapter Six. Khor (2001: 50) suggests that the WTO should reduce the pressure on developing countries to further increase trade liberalisation and there should be more flexibility for developing countries to implement measures from the Uruguay Round. There should be no pressure to introduce new issues at further rounds of trade negotiations until the unresolved issues from the Uruguay Round have received adequate attention.

3.6.4 FURTHER ROUNDS OF TRADE NEGOTIATIONS

The WTO held five Ministerial conferences after the Uruguay Round of trade negotiations. These were held in Singapore (in December 1996), Geneva (in May 1998),

Seattle (between November and December 1999), Cancun (in September 2003) and Doha (commenced in November 2001 and concluded in July 2006) (Das 2003: 3; Kohler and O' Bruce Brand 2002: 932). The latter three rounds are discussed in this section.

3.6.4.1 THE SEATTLE ROUND

The Seattle Round was held from the 27th of November 1999 to the 3rd of December 1999 (Bhagwati 2001: 15). This round of trade negotiations was a failure as it was marked by protests and reflected poor leadership and organisation by Bill Clinton (the President of the United States of America during the period). It also signified the inability to begin a new round of multilateral negotiations post-Uruguay Round (Bhagwati 2004: 54). According to Khor (2001: 38), multilateral trade negotiations should be approached in terms of the development and interests of developing countries. Developing countries are more concerned with the implementation from previous rounds rather than looking at newer issues (such as investment, competition policy and government procurement) or negotiating new agreements from developed countries.

3.6.4.2 THE FALL OF CANCUN

Trade negotiations were held in Cancun, Mexico in September 2003 between a group of twenty-two developing countries, the United States and Europe. Khor (2003: 25) indicates that issues discussed at Cancun included issues from the Singapore Round, namely, agreements on investment, trade and competition policy, and government procurement. Furthermore, the developing countries demands for the United States and Europe to lower agricultural subsidies was a key issue. The United States and Europe refused to reduce subsidies and consequentially developing countries refused to decrease barriers to investment which resulted in the break down of the Cancun Round (Kurlantzick 2003: 22). Stokes (2003: 2891) expresses the failure as “a culture clash between rich and poor countries over experiencing the benefits as well as remedying the inequities of globalisation”.

Robertson (2006: 37) reveals that the European Union, Japan, United States and other countries seek to incorporate agreements that increase competition in member countries.

This can be facilitated by removing measures restricting non-residents' ability to compete in other countries' private and public sectors and to invest as well as set up residence in another country. OECD countries that exhibited barriers to competition were forced to withdraw their proposals. Robertson (2006: 37) further adds that bilateral free trade areas (FTAs) facilitate the removal of the barriers to competition while agricultural protection and discrimination safeguards remain in place to satisfy domestic lobbies.

Bhagwati (2004: 53) however views Cancun as a stepping-stone for the success of the future of the Doha Round. Richie and Dawkins (2003) and Das (2003: 17) also believe that this Round proved the worth of developing nations and can lead to fairer trade and increased benefits in future rounds of trade negotiations.

3.6.4.3 THE DOHA DEVELOPMENT AGENDA

The Doha Round, also referred to as the Doha Development Agenda commenced in November 2001. According to Das (2003: 4) and Francois, van Meijl and van Togerem (2005: 352), the focus of this Round is on growth and development. The specific areas that received attention are agriculture, industrial tariffs, services, intellectual property, dispute settlement, antidumping policies, non-agricultural goods, investment, competition policy and the implementation of Uruguay Round Agreements (Mahmood 2005: 1). The anticipated completion of the Doha Round was January 2005, but lasted much longer after the 'failure' of talks in Cancun.

Hoekeman and Schiff (2002: 548) indicate that the Doha Development Agenda of 2001 embarked on negotiations on the rules applying to regionalism. These include technical trade policy measures, such as rules of origin and procedures used to ascertain whether regional integration agreements satisfy WTO rules. Trade facilitation also receives much attention in this Round. Trade facilitation is defined as technical assistance that improves customs administration and business regulations efficiency in the handling of imports and exports (Robertson 2006: 35). This is required because inefficiencies and corruption hamper trade in many developing countries.

Mahmood (2005: 1) states that developing countries anticipate high tariffs and tariff escalation to be addressed in the Doha Round. These aspects have been limiting developing countries from obtaining a larger portion of the export market share in the world market in general and in developed countries in particular. In order for trade liberalisation to be successful and each member to be a net beneficiary of trade negotiations, there must be inter-country compromises and trade-offs. Participating developing countries in particular need to thoroughly understand the contribution that trade liberalisation makes to the achievement of their national objectives of economic growth and poverty reduction (Stern 2002: xi). This will allow developing countries to utilise international negotiations to improve terms of trade and access to export markets. These improvements will allow developing countries to implement domestic policy reforms that will enhance living standards and decrease poverty. The failure of talks in Cancun supports the assumption that successful negotiations require cooperation between developing and developed countries. Developing and developed countries will experience benefits that facilitate development and reduction of poverty if this Round is successfully concluded (OECD 2006: 1).

Francois, van Meijl and van Togerem (2005: 353) claim that developing countries are likely to experience larger gains from agricultural liberalisation if developing and developed countries embark on liberalisation simultaneously. Developing country South-South trade is likely to decrease because of trade diversion. This arises because the existing pattern of global trade barriers already diverts trade from South-South to North-South exchanges as trade barriers in the North have fallen substantially since the initial 1947 GATT negotiations. The European Union refuses to negotiate further until other offers are submitted to liberalise trade in services and tariffs on manufactured goods. This is in the light of the G20 emerging economies (which include Brazil, China, India and South Africa) and the United States agreeing that agriculture should be of principal focus. The G90 developing countries also have their own agenda and continue “exploiting public sympathy to sustain their demands for special treatment” (Robertson 2006: 25).

Three agreements were accomplished at a meeting held in Hong Kong in December 2005. The *first* is to eliminate export subsidies on agricultural produce by 2013. The *second* is to provide duty free and quota free access for exports from 50 less developed countries (LDCs) in 97 *per cent* of import lines by OECD governments by 2008. The *final* agreement is to provide aid to facilitate trade by poor countries so that they can take advantage of reductions in trade barriers. Robertson (2006: 35) indicates that the Doha Development Agenda grants one-sided concessions to developing countries³³. This allows compensation for outstanding advantages that the OECD countries enjoy from product discrimination, which disadvantages developing countries

The Economist (2006a: 65) and Limão and Olarreaga (2006: 218) concur that the Doha Round highlights the possibility of preferential trade liberalisation provided to small and poor developing countries slowing down multilateral trade liberalisation by the large developed countries providing them. There are two ways that preference erosion affects the Doha Round. *Firstly*, preference beneficiaries oppose MFN liberalisation by countries that grant preferences. *Secondly*, developed countries may want to maintain the preferences that they provide because they can be used as a side payment for cooperation on non-trade issues, such as, labour and environmental standards, intellectual property protection, drug enforcement and immigration. In this respect, preferential trade agreements, although desirable to policymakers, are deemed a ‘stumbling block’ to multilateral trade liberalisation because unilateral preferences that large countries utilise can result in them maintaining higher multilateral tariffs even if preferences are extended to small countries. This can however be rectified *via* an import subsidy (Limão and Olarreaga 2006: 220).

The 24th of July 2006 signalled the end of an unsuccessful round of trade negotiations at the Doha Round. The Economist (2006a: 65) states that there is no date set to resume negotiations. Trade negotiations have been unsuccessful due to failure of negotiators to compromise. The United States wants to reduce tariffs since trade theory suggests that more open markets are beneficial in alleviating poverty. Since the United States trade

³³ This means that the GATT principle of reciprocity is set aside for developing countries.

barriers are already low, the onus is on the European Union to reduce barriers on farm goods and industrial products. However, emerging economies want lower tariffs and fewer subsidies in rich countries, but are reluctant to reduce their own barriers. Jagdish Bhagwati maintains that a compromise at the Doha Round is better than no deal at all (The Economist 2006a: 66).

Section 3.6 discusses trade negotiations, trade agreements and the authorities governing these negotiations and agreements. In 1994, the WTO replaced the GATT as stipulated by the Uruguay Round of trade negotiations. We examine the five principles of the GATT/WTO, which are essential to successfully enforce trade agreements. Although the Uruguay Round has resulted in some gains, the most common problem is that since developing countries lack institutional, productive and human capital resources, these countries are experiencing difficulties in realising the benefits from freer trade. We also discuss trade negotiations subsequent to the Uruguay Round. These include the Seattle, Cancun and Doha Rounds respectively. Developing countries are more concerned with the implementation from the Uruguay Round rather than looking at newer issues or negotiating new agreements from developed countries. We can conclude that successful negotiations require cooperation between developing and developed countries.

3.7 THE EFFECTS OF TRADE LIBERALISATION IN SOUTH AFRICA

South Africa is a small open developing economy. This means that South Africa sells a small proportion of total output in the world market and the prices of its imports and exports are fixed in terms of foreign currencies in large world markets. Jenkins and Thomas (2000: 43) define an open economy as one where the sum of exports and imports as a proportion of GDP is greater than or equal to 1. Fedderke, Shin and Vaze (2003: 3) consider South Africa a middle-income country that possesses characteristics of developed and developing countries. The Stolper-Samuelson theorem as examined in Chapter Two section 2.4.2 is therefore less conclusive with respect to the effects of increased openness. According to Holden and Holden (1981: 233), some of the barriers to trade that South Africa previously imposed include import tariffs for import control and

import surcharges, export subsidies, tax concessions on export turnover, rebates of import duties on imported inputs as well as tax concessions. Protection for domestic production had the effect of making exports, rather than imports, more attractive for the South African economy.

Tariffs for most of South Africa's imports have either been simplified or reduced and trade related measures which contravened the WTO have been abolished (Roberts 2000: 607). The South African government is committed to trade reform and tariff liberalisation has been greater than set out by the GATT. South Africa has reduced its tariff lines from eighty, to six percentage categories. The number of tariff lines is to be further reduced from approximately ten thousand to six thousand lines (Bell 1997: 74; Tsikata 1999: 27). South Africa agreed to reduce tariffs by 33 *per cent* as well as simplify tariff percentages and rationalise tariff lines. The requirement that export subsidies must also be phased out effectively eliminates the General Export Incentive Scheme (GEIS). The GEIS was part of an export-oriented policy in the 1990s (Gibb 1997: 8). Amjadi and Yeats (1995: 391) maintain that the agreement on voluntary export restraints indicates that VERs are to be eliminated by the end of 2005. This however is insignificant in South Africa as well as other African countries. Much of South Africa's reduction in trade barriers has been unilateral (that is, a single country reducing trade barriers) as opposed to multilateral. A Tariff Rationalisation Process (TRP) was also introduced with the objective of achieving *ad valorem* rates of 30 *per cent* on final products, 20 *per cent* on intermediate goods and 10 *per cent* on primary goods (Holden 2001: 712).

Bell (1997: 78) suggests the anticipation of the change in political regime in 1994 as a reason for rapid trade liberalisation as liberalisation decreases government's ability to intervene in industrial development. Roberts (2000: 607) and Tsikata (1999: i) concur that the key reason for rapid trade liberalisation is that it plays an important role in stimulating growth, creating international competitiveness and enhancing employment.

Other reasons for South Africa as well as other developing countries implementing rapid trade liberalisation and export promotion include:

- dynamic efficiency gains from free trade (as resources are reallocated to purposes that are more productive). Countries will produce and export according to their comparative advantage. In the long run, resources must be allocated from previously protected sectors to export producing sectors;
- higher levels of savings and investment which result in dynamic gains;
- increased competition specialisation (increased static allocation efficiency), augmented access to foreign markets and increased consumption, that is, market access gains;
- access to superior information and technology as well as the speed with which this information and technology is transmitted across national boundaries;
- reduced transport and communication costs in the private sector; and
- the ability to exploit economies of scale in a larger market as well as increased product diversity.

(Coetzee and Gwarada 1997: 166-169; Edwards and Golub 2003: 1323; Holden and Holden 1981: 234; Jonsson and Subramanian 2001: 198-199; Loots 2002: 1; Petersson 2002: 230; Roberts 2000: 609).

One of the adjustment costs associated with liberalisation of trade in services is that certain categories of labour will be at a disadvantage. Hodge (2002: 234) finds that the liberalisation of financial services in South Africa leads to an increasing demand for higher skilled workers, which increases employment and the wage premium. Lower skilled workers therefore face job losses.

In concluding this section, we note that according to the African Economic Outlook (2005-2006: 467), South Africa *via* the SACU concluded a preferential trade agreement with MERCOSUR in December 2004. Similar negotiations with India and in time with China are imminent (Edwards 2005: 756; Holden 2001: 721).

3.8 REGIONAL INTEGRATION IN SOUTHERN AFRICA

One of the recent economic trends in terms of trade liberalisation is the increase in regional integration agreements. Carim (1997: 334) suggests that the evidence relating to whether regional trade agreements complement or undermine a multilateral trading system is inconclusive. Hodge (2002: 224) finds that South Africa exploits its comparative advantage in services relative to its less-developed neighbours. South Africa exports a full range of financial and business services to the Southern African region. This allows South Africa to maintain a positive trade balance on its services account.

Most governments in Southern Africa are increasingly supporting economic cooperation to promote economic development. Gibb (1997: 4) suggests that the most important benefits of regionalism are in:

- increasing scale economies to promote more efficient use of factors of production (labour, capital and land);
- promoting regional competition and innovation;
- providing incentives to increase investment and productivity;
- instituting conflict management; and
- enhancing bargaining in international markets.

Regional economic integration is economically beneficial if trade creation prevails over trade diversion. This is likely to occur if trade among participating countries comprises a large proportion of overall trade. Trade diversion is unlikely to occur for a small developing country like South Africa because imports comprise largely of inputs and final goods, irrespective of the level of protection (Carim 1997: 337).

3.8.1 THE SOUTH AFRICAN DEVELOPMENT COMMITTEE (SADC)

According to Petersson (2002: 245) and Carim (1997: 334), South Africa experienced increased trade *via* the South African Development Committee (SADC). The member countries include Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, Swaziland, Tanzania, Zambia and Zimbabwe. South Africa joined the agreement in 1994 (Hoekeman and Schiff 2002: 549). Holden (1998: 461) states that Mauritius joined the

SADC in 1995 and Congo and the Seychelles joined in 1997. Some of the objectives set by the SADC in 1995 included eliminating trade barriers within two years, creating a common market as well as creating a common currency by the year 2000 (Gibb 1997: 10). South Africa has a higher level of GDP and exports than that of the rest of the SADC countries. In the SADC, South Africa is the most developed country and its exports to the SADC region comprise a higher proportion of manufactured goods (machinery, motor vehicles and plastics). South Africa's exports to the rest of the world comprise a higher proportion of natural resource goods, namely, gold, iron and steel products. The other countries exports of manufactured goods comprise approximately 10 *per cent* of total SADC exports and comprises mainly of clothing, textiles as well as natural resource goods. According to Holden (1998: 467), South Africa retains a large trade surplus with the rest of the SADC countries and levies lower tariffs on imports to the rest of the world than the other SADC countries.

Jenkins, Leape and Thomas (2000: 6) indicate that the SADC trade protocol further develops its economic integration by implementing a free trade area (FTA). Discussions are currently underway with respect to the viability of this option. The anticipated result is that approximately 90 *per cent* of intra-regional trade will be free. Initially, the smaller SADC countries will enjoy quicker access to the South African and South African Customs Union (SACU)³⁴ market. This increased access to the South African market will accelerate the long-term positive effects of the FTA in terms of the growth of the export sector. In addition, the increased access will delay the short-term adverse effects with respect to customs revenue and the import substitution sectors.

3.8.2 THE EUROPEAN UNION-SOUTH AFRICAN FREE TRADE AREA (EU-SA FTA)

South Africa also increased trade with the European Union *via* the European Union-South African free trade area (EU-SA FTA). Gibb (2003: 899) confirms that as of the 1st of January 2000, the Trade, Development and Cooperation Agreement (TDCA) governs

³⁴ Section 3.8.3 provides an overview of the SACU.

the EU-SA FTA. The EU³⁵ is required to decrease and eliminate tariffs on a higher percentage of currently traded goods (95 *per cent* over ten years) than South Africa (86 *per cent* over twelve years). In addition, 62 *per cent* of South Africa's agricultural exports to the EU will enter duty free and 12 *per cent* will be subject to tariffs. Intra-industry trade increased at a faster rate than inter-industry trade. This expansion of trade (particularly for differentiated and scale-intensive industries)³⁶ is due to an increase in product variety, product differentiation as well as an increase in technological differentiation arising from innovations which results in improved products at all price/quality ranges. Petersson (2002: 244) states that average duties against imports from the rest of Southern Africa is 17.6 *per cent* and average duties of imports to the rest of Southern Africa is 6 *per cent*.

Wakeford (2002: 99) finds that the EU-SA FTA benefits South Africa through diminishing barriers to trade; forging strategic long-term trading, economic and technological links between South Africa and the European Union; encouraging trade links with South Africa's most important trading partners, securing a long-term reciprocal relationship, principally for industrial products which will form the basis of future South African growth and the provision of open-ended assistance for development cooperation and permitting a greater degree of South African involvement in programme implementation.

3.8.3 THE SOUTH AFRICAN CUSTOMS UNION (SACU)

The South African Customs Union (SACU) was formed in 1910. The agreement was renegotiated in 1969 and again in 1990. Holden (2001: 721) reveals that the SACU is the longest existing customs union in the world and its member countries include South Africa, Botswana, Lesotho, Namibia and Swaziland. The latter four countries are referred

³⁵ The European Union represents the world's largest and most dynamic economic and trading bloc (Wakeford 2000: 99).

³⁶ Differentiated industries: measuring equipment, machinery (including electrical) and other chemicals.
Scale-intensive industries: paper and paper products, printing and publishing, industrial chemicals, rubber products, plastic products, basic iron and steel, motor vehicles and other transport equipment.

to as the BLNS countries. There are no barriers to trade among these member countries. According to Gibb (1997: 6), the role of the SACU is to ensure economic development in the customs union area as a whole, ensure that less advanced members of the union in particular reap benefits and diversify their economies, and above all provide every member equitable benefits from trade with other member and non-member countries.

There is a common external tariff levied on all imports into the SACU. The excise taxes between the member countries and revenue from the common external import tariff form a common revenue pool that is administered by the South African Reserve Bank (SARB). The common revenue pool is apportioned using a revenue sharing formula. The pool is *firstly* divided according to the annual imports, production and consumption of duty paid goods. *Secondly*, a compensation or stabilisation factor is added to the first criteria in favour of the BLNS countries when payments are not equal to 20 *per cent* of their duty paid imports and production. South Africa's share is the amount remaining in the revenue pool after the BLNS countries have been allocated their respective shares (Gibb 1997: 6). Roberts (2000: 620) maintains that growth in the South African Customs Union (SACU) exports has increased within sub-sectors, mostly in the area of machinery. However, the shift within segments has not increased employment in South Africa as discussed in Chapters Five and Seven respectively.

Since customs unions can be trade creating or trade diverting (as defined in section 3.4), Gibb (1997: 2) asserts that regionalism is likely to both maintain and damage the multilateral free trade system. The common revenue pool (from a revenue sharing formula) provides compensation for the costs of trade diversion imposed on the BLNS countries, loss of fiscal discretion and polarisation of economic development towards South Africa (due to inequalities among member states). In 1992, revenue from the revenue pool accounted for between 11-20 *per cent* of GDP and between 22-47 *per cent* of government revenue for the BLNS countries. South Africa's residual share of the revenue pool has been decreasing due to the compensatory revenue payments. On the other hand, the BLNS countries believe that the revenue sharing pool does not adequately compensate their losses arising from trade diversion. Gibb (1997: 8) emphasises that the

increasing share of the common revenue pool accruing to the BLNS countries must be evaluated against the benefits that South Africa attains from the customs union. One of the largest benefits that South Africa obtains by being a member of the SACU is that the BLNS countries provide a captive market for its internationally uncompetitive exports (that is, trade diversion). In 1994, South Africa's exports to the SACU were R13.8 billion whereas imports only comprised R3.4 billion, which resulted in a trade surplus of R10.4 billion. **Table 3.1** concludes this section by summarising trade liberalisation developments in South Africa since 1994.

Table 3.1: Trade liberalisation in South Africa since 1994
(Edwards 2005: 756)

Year	Trade Liberalisation
1994	In September, import surcharges were abolished for capital and intermediate goods.
1994	South Africa's GATT offer in the Uruguay Round incorporated the following: (a) binding approximately 98 <i>per cent</i> of all tariff lines at the Harmonised System (HS) eight-digit level as against 18 <i>per cent</i> before the Round; (b) reducing the number of tariff lines to six: 0, 5, 10, 15, 20 and 30 <i>per cent</i> respectively; (c) rationalising the over 12,000 tariff lines; (d) converting quantitative restrictions (QRs) on agricultural products to tariffs; (e) special provisions, for example, extending the adjustment period and increasing the maximum tariff rates for textiles, clothing and the motor industry; (f) an agreement to phase out the General Export Incentive Scheme (GEIS); and (g) adoption of anti-dumping and countervailing duties legislation.
1995	In October, remaining import surcharges were abolished.
1995	Payments under GEIS became taxable and the range of eligible products was reduced.
1994-1997	Agricultural marketing and control boards established under the Agricultural Marketing Act of 1968 were deregulated. Import control on agricultural products were removed.
1996	New tariff rationalisation process (TRP) constructed. Tariff lines to be reduced. Formula and specific duties to be converted into <i>ad valorem</i> rates. Imports that have no 'suitable substitutes' to be duty free. <i>Ad valorem</i> rates of 30 <i>per cent</i> on final products, 20 <i>per cent</i> on intermediate products and 10 <i>per cent</i> on primary products are generally not to be exceeded. GEIS limited to manufacturing products.
1996	In August, the SADC Free Trade Protocol was signed (implemented in September 2000).
1997	In July, export subsidies provided under GEIS were terminated.
2000	In January, the EU-SA Trade, Development and Cooperation Agreement (TDCA) was implemented.
2000	Under the African Growth and Opportunity Act (AGOA), certain products received preferential access to the United States.
2002	In October, the SACU Agreement introduces a new institutional structure, a dispute settlement mechanism, the requirement to have common policies on industrial development, agriculture, competition and unfair trade practices and a new system regarding the common revenue pool and sharing formula.
2004	Preferential trade agreement signed between SACU and MERCOSUR.

3.8.4 OTHER ASPECTS OF SOUTH AFRICA'S EXPERIENCES WITH REGIONAL INTEGRATION

It is debatable as to what is South Africa's scarce and abundant factor. One might think South Africa's abundant factor of production is unskilled labour. However, this section shows that there is evidence, that the path of trade especially, after liberalisation suggesting South Africa's exports are capital and skill intensive. Our imports save on our scarce factor, labour. According to Moura Roque (1984: 386), South Africa's comparative disadvantage lies in products that require higher technological influences as well as research and development. Although net exports (total exports less total imports) of products comprising a large proportion of natural resources increased as a result of trade liberalisation, there was a decrease in the net export of labour intensive products and job creation in the manufacturing sector has not increased (Kohler and O' Bruce Brand 2002: 949). Edwards and Golub (2004: 1324) find that South Africa's increases in export growth are not as substantial as expected. Although output increased by 2.8 *per cent per annum*, between 1992 to 1997, employment comprising mostly low or unskilled workers decreased by 1.7 *per cent per annum* (Roberts 2000: 608). In addition, trade liberalisation can result in higher unemployment in the presence of rigid real wages. High labour costs in South Africa relative to other countries also contribute to the negative adjustment to trade liberalisation and competitiveness. These aspects will be examined in detail in Chapters Five and Seven respectively.

Contrary to the Hecksher-Ohlin-Samuelson (H-O-S) theory discussed in Chapter Two section 2.4.3, trade liberalisation in developing countries (normally characterised by an abundance of unskilled labour) has resulted in increased returns to higher education. This is an occurrence similar to some developed countries and therefore questions the short-term validity of traditional trade theory (Arbache *et al* 2004: F74). Petersson (2002: 249) suggests that this inconsistency with traditional theory implies that labour is a competitive factor in both developing countries (South Africa) and industrialised countries (the European Union). Labour intensive industries are however characterised by high development costs due to economies of scale, which may be a contributing factor to the decrease in employment in these industries. Also, in South Africa, labour as

conventionally understood, may be the scarce factor. In the short run, South Africa's pattern of trade is more consistent with the specific factors model as discussed in Chapter Two, section 2.7. The specific factors model predicts for South Africa that trade will benefit the immobile factor (capital) that is specific to the country's export sectors and harm the immobile factor (unskilled labour) that is specific to the country's import-competing sector.

Table 3.2 reflects the growth rate of imports and exports in the periods before and after the Uruguay Round of trade agreements. The period 1995-1999 is the period after the Uruguay Round and reflects increased exports and decreased imports. There are two significant changes. The *first* is the increase of exports to the EU because of the EU-SA FTA. The growth rate of South Africa's exports to the EU was 11.20 *per cent* before the Uruguay Round and increased by 12.50 percentage points to 23.70 *per cent* in the period after the Uruguay Round. The *second* is the decrease of imports from the other SADC member countries. South Africa's imports from the SADC in the period prior to the Uruguay Round reflected a growth rate of 38.10 *per cent*. The growth rate decreased by 26.80 percentage points to 11.30 *per cent* in the period following the Uruguay Round.

According to Tsikata (1999: 20), South Africa's share of exports increased and became more diversified. In other words, export performance was much greater in the post-Uruguay Round period. The contributing sectors were chemicals, metals and metal products, machinery, motor vehicles and paper. The sectors that did not contribute to export growth were footwear, clothing, textiles and food. This could be due partly to the textiles and clothing industries being given a twelve-year as opposed to five-year adjustment period as well as a maximum tariff of 45 *per cent* instead of 30 *per cent* (Bell 1997: 74; Laird 2002: 43).

Table 3.2: Growth rates of South Africa's exports and imports (1991-1999) and trade distribution with major groups of trading partners (1991, 1994 and 1999)

(Petersson 2002: 244)

	Total Trade		Trade with EU		Trade with SADC		Trade with ROW	
	Export	Import	Export	Import	Export	Import	Export	Import
Growth rate (1991 - 1994)	14.90	18.40	11.20	19.30	17.10	38.10	16.30	17.10
Growth rate (1995 - 1999)	19.90	13.60	23.70	12.40	18.00	11.30	18.40	15.00
Share of Total (1991)	100.00	100.00	31.30	49.00	16.00	0.80	52.70	50.20
Share of Total (1994)	100.00	100.00	28.40	50.10	16.90	1.30	54.70	48.60
Share of Total (1999)	100.00	100.00	33.20	47.40	15.60	1.20	51.20	51.40

Figure 3.6: Growth rates of exports of goods and services
 (Edwards and Golub 2004:1324)

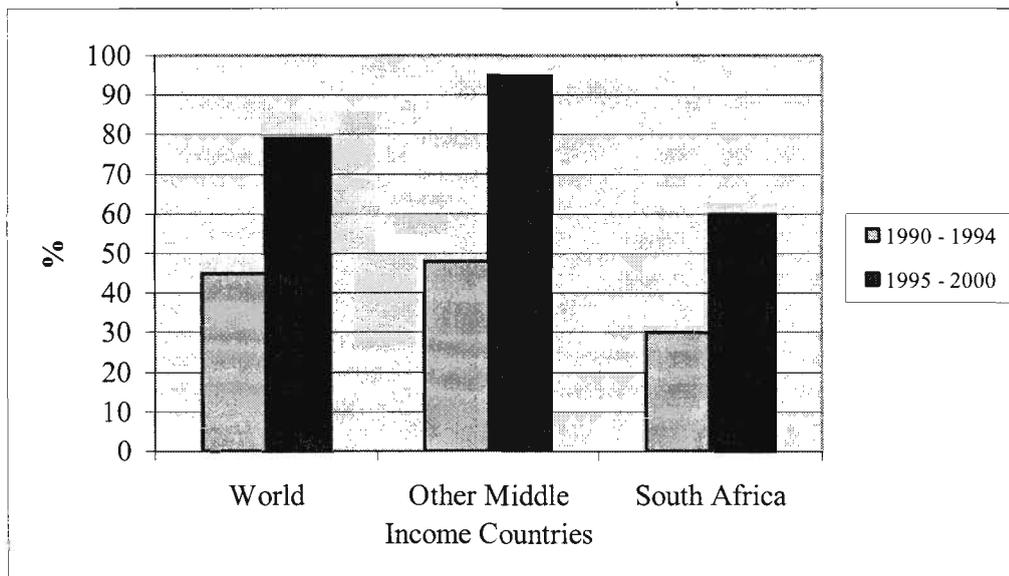


Figure 3.6 represents the growth rates of exported goods and services in the pre- and post-trade liberalisation periods. The pre- and post-trade liberalisation periods refer specifically to the years before, and after the Uruguay Round of trade negotiations. The post-trade liberalisation period represents increased growth for South Africa, middle-income countries and the world as a whole. In the period, 1990-1994, South Africa's exports grew by 1-2 *per cent per annum* whereas in the period 1995-2000, exports grew by 6 *per cent per annum*. However, this is still lower in comparison to some developing and newly industrialised countries that experience export growth rates of between 10-15 *per cent per annum* (Edwards and Golub 2004: 1325).

Figure 3.7: Share of manufactured exports as a percentage of total merchandise exports

(Edwards and Golub 2004:1325)

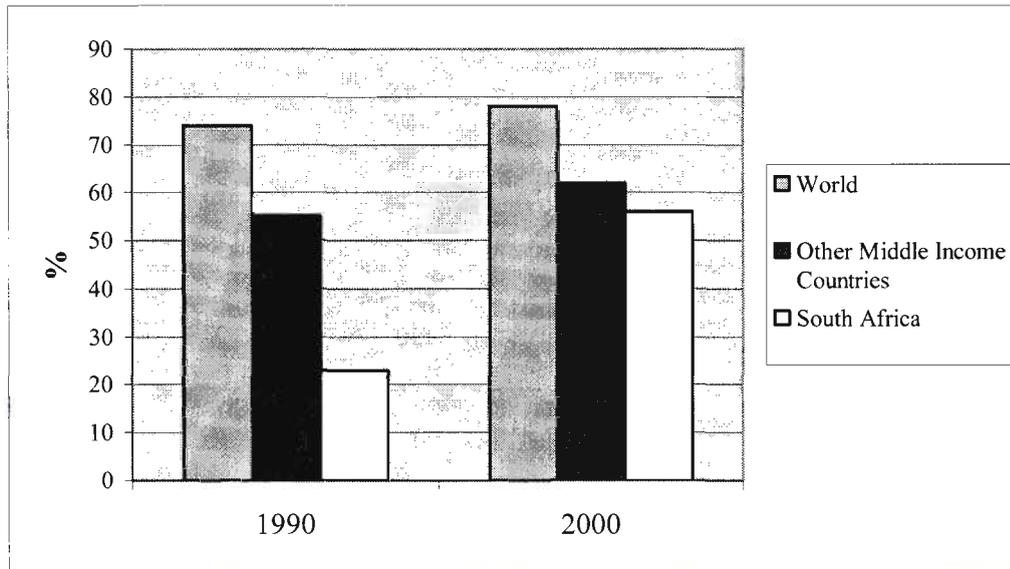


Figure 3.7 illustrates the share of manufactured exports as a percentage of total merchandise exports for South Africa, other middle-income countries and the world as a whole. Edwards and Golub (2004: 1325) emphasise that increases in manufactured exports reflect positively for economic development. There were increases for all three countries in the 2000s as compared to the 1990s. South Africa's share of manufactured exports is still however, below other middle-income countries and the rest of the world. This is due partly to increases in foreign direct investment not being as large as those inflows experienced by other countries.

Due to low tariffs on most capital and intermediate goods, South Africa experienced increased exports in the categories of machinery and capital equipment. This represents an increase in the capital intensity of the economy rather than an increase in the labour intensity, which is normally associated with a labour resource abundant country and is thus inconsistent with South Africa's resource endowment. According to Alleyne and Subramanian (2001: 23) and Barker (1999: 93), reasons for South Africa's capital

intensity include low cost of capital due to negative interest rates; increased imported capital equipment due to kind tax concessions on certain investments; administrative and legislative controls making the cost of unskilled labour high as well as union power which discouraged the use of unskilled labour. Roberts (2000: 631) states that the use of government intervention to decrease the cost of capital to minerals and other resources further contributes to higher capital intensity. Since other countries with high levels of unskilled labour experience larger labour intensive exports, it follows that South Africa is not using its comparative advantage effectively (Tsikata 1999: 25). In addition to technology, natural resources as well as the human capital intensive sectors experienced increases in employment while unskilled labour experienced decreases (Holden 2001: 715).

According to Edwards and Golub (2004: 1328), relative unit labour costs (that is, the ratio of wages to productivity) are a measure of international competitiveness. High relative unit labour costs when trading with other developing countries provides a possible explanation for South Africa's export led growth with other middle-income countries as well as the high levels of unemployment. Although, both factors are important in determining trade, real wages are more important in determining trade than productivity.

In 1996, when South Africa experienced a real depreciation in terms of the exchange rate, competitiveness against Asian countries increased, but decreased after an appreciation of the Rand after 1997 (Tsikata 1999: 31). A depreciation of the rand refers to an increase in the domestic price of foreign currency and an appreciation of the rand refers to a decrease in the domestic price of foreign currency. The external shock of the 20 *per cent* depreciation that occurred during February and July 1996, almost a year after trade liberalisation began in January 1995 increased costs for both consumers (*via* higher inflation³⁷) and producers who depend on imported goods. Coetzee and Gwarada (1997: 166) argue that trade liberalisation must be sustained over the long-term despite short-term external macroeconomic developments such as depreciation.

³⁷ Mohr (2000: 95) defines inflation as a sustained increase in the general price level.

The OECD (2006: 1) maintains that trade liberalisation generates more gains for developing countries than any other area of international cooperation or development assistance. Edwards (2005: 773) concludes that although there are significant reductions in protection, further progress can be made. Tariff protection in South Africa dropped by 4.9 *per cent* between the 1993-1995 and 2002-2004 period, which is not at a significantly faster pace than the average for other lower middle-income countries. Clothing, textiles, footwear and tobacco sectors are still subject to high nominal and effective protection.

3.9 CONCLUSION

This chapter examines the effects of barriers to free trade in section 3.2 for a small developing country like South Africa. The main conclusion from analysing the effects of imposing a tariff, an import quota and an export subsidy respectively, is that these barriers to trade result in a net welfare loss to consumers in particular and the country as a whole. The common reasons for requiring these measures of protection as discussed in section 3.3 is to provide revenue for developing governments and to protect infant as well as dying industries.

Popular forms of economic integration are free trade areas and customs unions. Section 3.4 discusses these and other forms of economic integration. The chapter provides an overview of trade liberalisation followed by discussions of the Uruguay Round of trade negotiations. Since developing countries lack institutional, productive and human capital resources, implementation of the Uruguay Round of trade agreements has not been fully completed and developing countries have not experienced the maximum benefits of trade liberalisation. Hence, developing countries are likely to be reluctant to pursue new issues at future rounds of trade negotiations when previously agreed decisions have not been implemented.

For South Africa in particular, section 3.7 reveals that tariffs on most imports have either been reduced or simplified. According to Coetzee and Gwarada (1997: 166), trade liberalisation must be sustained over the long-term despite short-term external macroeconomic developments such as depreciation. Although South Africa experienced

increased levels of trade *via* the SACU and the EU-SA FTA (examined in section 3.8), employment for one of South Africa's factors of production, unskilled labour has not increased. This outcome is examined in detail in Chapters Five (the effects of trade liberalisation on the South African labour market in terms of trade theory) and Seven respectively (policy prescriptions for South Africa largely concentrating on reducing the unemployment of unskilled labour).

CHAPTER FOUR

LABOUR MARKET THEORY, AN OVERVIEW OF UNEMPLOYMENT AND LABOUR MARKET POLICIES

“God gives every bird it’s food, but He does not throw it in the nest.”

ANONYMOUS

4.1 INTRODUCTION

This chapter examines labour market theory, provides a brief overview of unemployment and considers labour market policies. Section 4.2 begins with an overview of the labour market where we identify the unique characteristics of labour markets that are not present in product markets. The analysis of the demand for, and the supply of, labour in a perfectly competitive market follows. Our analysis represents the short run where capital is the fixed factor of production and labour is the variable factor of production. This study will not examine the long run. The labour demand and the labour supply functions illustrate the labour market and the intersection of these two functions determines the equilibrium level of employment and real wages. The analysis of the labour market is then extended to imperfect competition, that is, monopoly and monopsony in product markets respectively and entails a detailed discussion of the bilateral monopoly model. Section 4.5 considers the definition of unemployment and identifies the various types of unemployment. This section concludes with a brief overview of the reasons for unemployment.

In section 4.6, we examine labour market policies that are categorised as either active or passive labour market policies. The theory of human capital and human capital investment in South Africa is examined in section 4.7 as this investment increases the quality and productivity of labour available in the labour force. The objective of this

chapter is to set the scene for Chapter Five where the theory and policy are linked specifically to developments in the South African labour market.

4.2 AN OVERVIEW OF THE LABOUR MARKET

The labour market is the term used to describe the context within which buyers and sellers come together to determine the price and allocation of labour services (Elliot 1991: 4). The buyers are the employers, the sellers are the workers and there is no single market or clearing house for the labour that is exchanged. Barker (1999: 13) points out two economic functions of the labour market. *Firstly*, the labour market allocates human resources among different sectors, enterprises, locations and occupations. *Secondly*, the labour market distributes incomes and rewards to employees. The labour market is characterised by the same principles of demand and supply as product markets, but displays a few unique characteristics. These characteristics are discussed below and draws on Barker (1999: 2) and Cahuc and Zylberberg (2004: 173).

- Since the employee is a human being as opposed to a product, the principles of equity and humaneness are applicable. Equity is not necessarily guaranteed in the contract between an employer and an employee because the employer tends to usually have a stronger bargaining power. Legislation therefore acknowledges the rights of employees to form trade unions that facilitate more equal bargaining with employers. Elliot (1991: 187) asserts that the trade union's primary effect on the labour market is to change the nature of, and conditions under which labour is supplied.
- The relationship between the employer and employee for the duration of the period of employment is contractual. This differs from the purchase of a good because the services that an employee provides and the actual employee cannot be physically separated when the employer purchases the services of the employee. Another type of contract is an internal labour market that arises when formal rules and procedures regulate the employment relationship within the firm.

- Products in product markets are largely standardised. Employees on the other hand are characterised by diversity, personality differences and skill changes over time.
- The price of labour is a complex issue in comparison to that of the price of products. The price of labour is determined by the employment package as well as personal taxation, inflation and social security contributions borne by either the employer, employee or both. There are also costs of other factors of production and economic elements that determine possible earnings for the firm, such as, labour force performance.

At the outset, attention is drawn to the price of labour, which is the wage rate. There is a differentiation between the nominal and real wage rate. As highlighted by Ehrenberg and Smith (2003: 523), nominal wages refers to the money wages that are paid to individuals. Real wages on the other hand are nominal wages divided by an index of prices. As prices increase, real wages decrease accordingly. Real wages also decrease when increases in nominal wages are less than increases in prices. **In this chapter, our analysis consistently refers to real wages with the exception of the analysis of imperfectly competitive markets.**

So far, we have pointed out the unique characteristics of the labour market plus drawn attention to the difference in nominal and real wages. This provides a basis to analyse the demand for, and the supply of, labour in a perfectly competitive market.

4.3 THE ANALYSIS OF LABOUR DEMAND AND LABOUR SUPPLY IN A PERFECTLY COMPETITIVE MARKET

In this section, the assumptions of a perfectly competitive labour market are noted. The assumptions are:

- Employers have full information on the real wage rates paid by other employers. Employees have full and perfect knowledge of jobs available and wage rates in the market;

- Employers and employees decisions are rational. This means that employer's decisions take into account their need to maximise profits and employees' decisions take into account real wage rates;
- Employers and employees are real wage takers, that is, each employer/employee (organisation) represents a small proportion of the total market and therefore their decisions will not impact the market as a whole;
- Employees are perfectly mobile between positions, organisations and regional locations; and
- Organisations competing to employ individuals with identical and comparable skills behave in a perfectly competitive manner.

(Barker 1999: 14).

4.3.1 THE DEMAND FOR LABOUR IN A PERFECTLY COMPETITIVE MARKET

We examine the firm's profit maximising demand for labour when the input and product markets are competitive and the firm's technology is given. The firm is the basic decision making unit that determines the demand for labour (Fleisher and Kniesner 1984: 45). In the short run, capital is the fixed factor of production and labour is the variable factor of production that is selected to maximise profits. We assume that the firm's capital inputs are constant as it facilitates easier illustration of the firm's output, which determines the amount of labour required.

The **demand for labour** is a derived demand. This means that the demand for labour is dependent on the demand for the output produced by this labour. The output produced by the labour, the real wage and the marginal productivity of each employee are important factors influencing the demand for labour³⁸. The output elasticity of demand for labour (that is, the sensitivity of demand for labour to changes in output) is consequently an important consideration when analysing the demand for labour (McCulloch 2001: 120). In sectors that are highly labour intensive, a reduced demand for labour, which if proportionate to changes in output will result in more workers losing their jobs than in

³⁸ We refer these aspects again in the latter part of section 4.3.3.

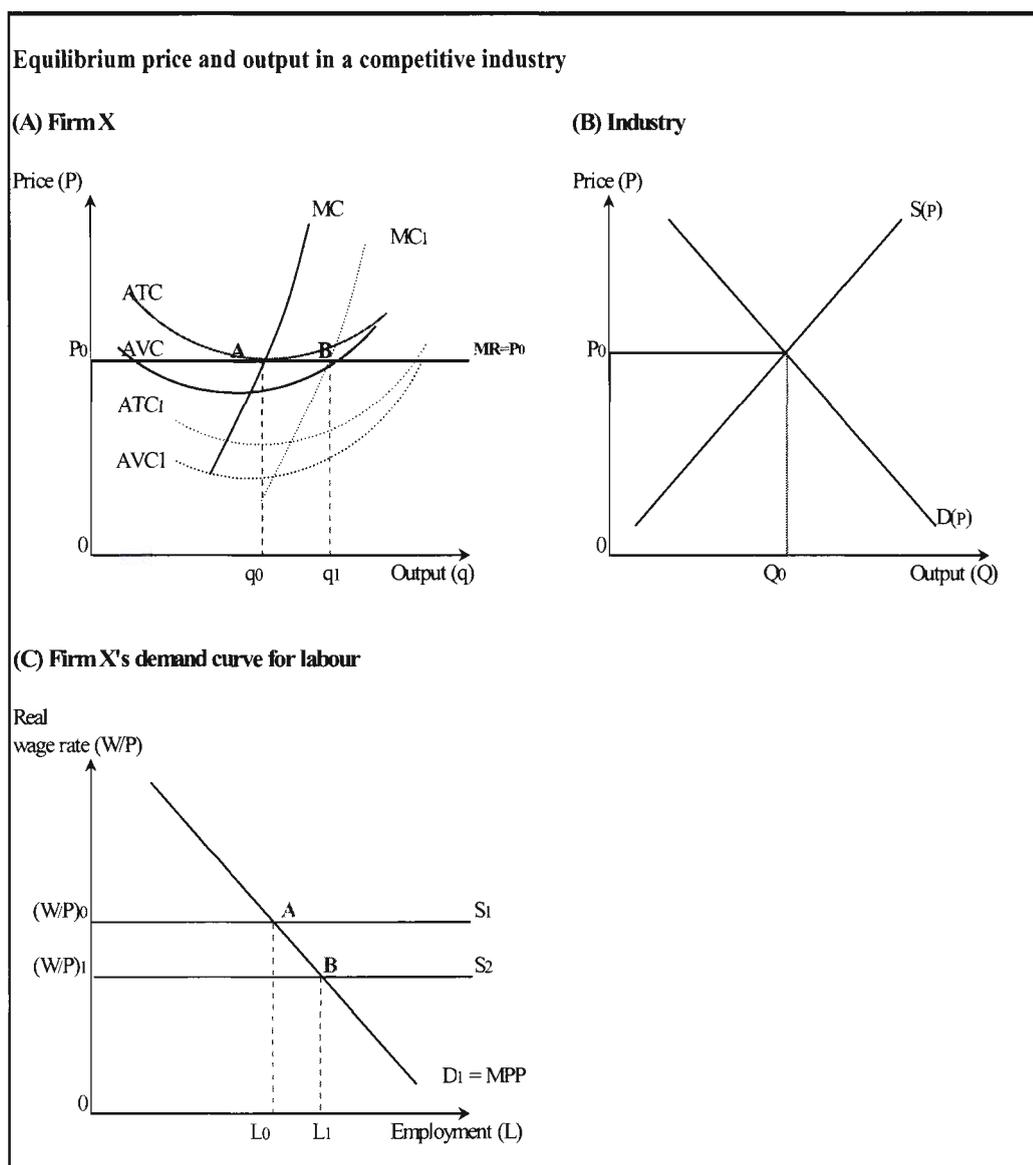
less labour intensive sectors. Alternatively, we can say, the greater the price elasticity of output demand, the greater the elasticity of demand for labour (McConnell, Brue and Macpherson 2003: 146).

Figure 4.1 derives the demand for labour in a perfectly competitive market. In diagram (B), the industry supply $S(P)$ and industry demand $D(P)$ curves are drawn. The intersection of these curves determines the industry equilibrium price P_0 and quantity Q_0 respectively. Figure 4.1 diagram (A) represents Firm X, one of many in the industry that accepts the industry price P_0 as given (because it is a price taker) and selects its profit maximising output. Diagram (A) therefore illustrates the firm's profit maximisation decision. The firm's average total cost (ATC), average variable cost (AVC) and marginal cost (MC) curves are drawn so that profit maximisation can be easily viewed. The ATC curve is the sum of the average variable and average fixed costs curves. Since the average fixed cost (AFC) curve (not drawn in diagram) decreases at all points, the vertical distance between the ATC and the AVC curves decreases as output increases (Pindyck and Rubinfeld 1997: 214). The AVC curve attains its minimum point at a lower output level than the ATC curve. Since the ATC curve is always greater than the AVC curve and the MC curve is rising, the minimum point of the ATC curve lies above and to the right of the AVC curve. The firm will not produce any output if the price is less than minimum AVC.

Still using Figure 4.1 diagram (A), we assume that the firm's average variable cost (AVC) curve comprises of labour costs only. The real wage rate (W/P) is the price per unit of labour. The firm's AVC curve is defined as the real wage rate multiplied by the quantity of labour used in production (Fleisher and Kniesner 1984: 48). The firm's marginal cost is the change in variable cost associated with producing an additional unit of output and is also referred to as the marginal input of labour. The marginal cost (MC) of an additional employee is the real wage rate (W/P) and the marginal revenue (MR) from selling an additional unit is the product price (P). Initially, profit is maximised at point (A) in diagram (A) at output q_0 and price P_0 where $MC = MR$. At point (A), firms are earning a normal rate of return. There are no excess profits. Firm X's price, P_0 where

MC = MR in diagram (A) corresponds to industry output Q_0 in diagram (B). Fleisher and Kniesner (1984: 46) point out that marginal revenue is the equilibrium market price for a competitive price-taking firm, that is, $MR = P_0$. Therefore, it follows that $MC = MR = P_0$.

Figure 4.1: The demand for labour when capital is fixed³⁹
(Fleisher and Kniesner 1984: 47-49)



³⁹ Diagrams A – C in this figure are not drawn to scale.

As indicated at the outset, Firm X is a price taker in both the input and output markets and thus accepts the industry price as given. A reduction in Firm X's costs from a reduction in the nominal wage decreases both the marginal and average costs thereby shifting these curves downward from MC, AVC and ATC to MC₁, AVC₁ and ATC₁ respectively in Figure 4.1 diagram (A). Firm X (and indeed all firms) therefore earns excess profit by increasing output from q₀ to q₁ units. P₀ is now equal to MC₁ at a higher output of q₁ units. Economic profit is therefore maximised where MC₁ = MR = P₀.

Figure 4.1 diagram (C) summarises the effects of Firm X's adjustments in terms of its demand curve for labour, D₁. The downward slope of the labour demand curve is explained in terms of marginal revenue product (MRP) since it is assumed that the firm's objective is to maximise profits. MRP is the change in total revenue that arises when an additional worker is employed. Under perfect competition, MR = P. Marginal revenue product (MRP) is also equal to the value of marginal product (VMP). The value of marginal product (VMP) is defined as the marginal physical product (MPP) multiplied by the price (P), that is, the real value of the marginal product of labour to society. Marginal physical product (MPP) is the additional unit of labour employed multiplied by the change in physical product produced by that extra unit.

If we assume that all workers in a specific labour market have equal skills and increases in revenue (MRP) are reduced as more workers are employed, this means that each additional worker benefits the firm to a lesser extent than the previous worker (Barker 1999: 17). Accordingly, as MRP increases the quantity of labour demanded decreases. As we are showing the real wage in Figure 4.1 diagram (C), the firm's demand curve is equal to the MPP. If the real wage falls, the MPP of the last worker is higher than the marginal cost. Consequently, the firm hires additional workers until MPP is again equal to the now lower real wage. As each additional worker produces less at the margin, this means that labour demand curve D₁ is downward sloping. In other words, the firm as a profit maximiser will increase employment of labour when the contribution of an additional unit of labour to its revenues (MRP) exceeds the increase in costs (MC) from employing that unit of labour.

In diagram (C), the demand curve D_1 is drawn together with supply curve S_1 . In diagram (A), Firm X maximises its profit by producing a quantity of q_0 output at price P_0 . This corresponds to point (A) where $MC = MR = P_0$. In order to produce output q_0 , the firm demands L_0 workers at initial wage rate $(W/P)_0$. This establishes equilibrium at the intersection of labour supply curve S_1 and labour demand curve D_1 corresponding to Point (A) in diagram (C). When the supply of labour decreases, the supply curve shifts downward to supply curve S_2 and the real wage rate decreases from $(W/P)_0$ to $(W/P)_1$. Firm X now maximises its profits by increasing the quantity of output produced to q_1 units [in diagram (A)] at point (B). The labour input increases to L_1 employees [in diagram (C)] and establishes a new equilibrium position at point (B). The excess profits consistent with point (B) in diagram (A) attract new firms to the industry. Output increases and price falls. As the price falls, the real wage rises until $(W/P)_0$. Employment in the industry has risen as we have more firms employing at least L_0 workers. The marginal revenue product of labour (MRP) decreases with the increased labour input: it is just the new firms that have the declining productivity. In the long run, an increase in the new firms' inputs must be accompanied by an increase in output. Under perfect competition, entry continues until the price has fallen sufficiently to remove the excess profits consistent with point (B) in diagram (A) in response to a change in the nominal wage rate. The industry output will therefore increase correspondingly at the lower output price.

The analysis of the demand for labour in a perfectly competitive market is complete. The supply of labour in a perfectly competitive market will now be examined.

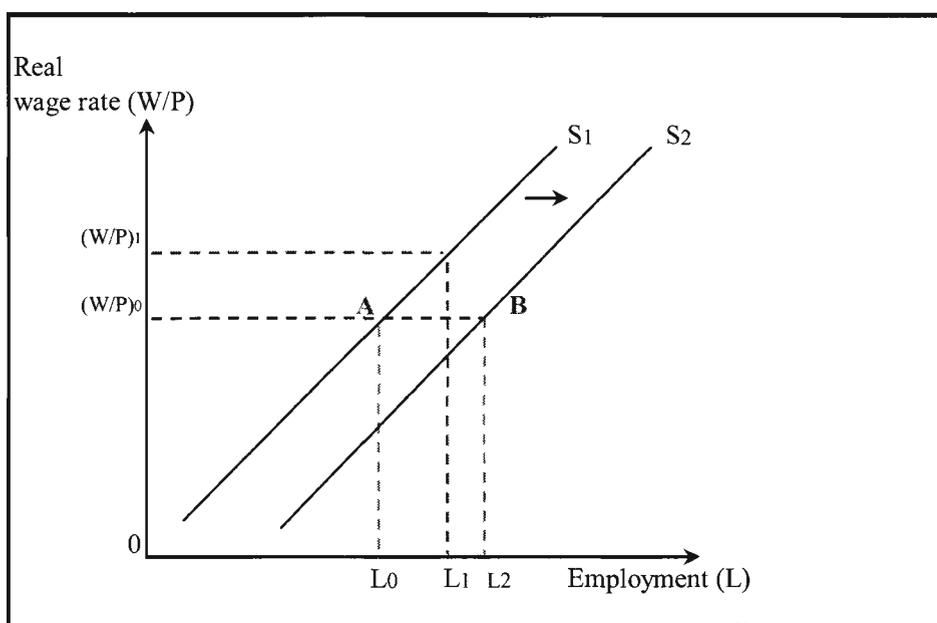
4.3.2 THE SUPPLY OF LABOUR IN A PERFECTLY COMPETITIVE MARKET

Elliot (1991: 25) defines the **supply of labour** as the supply of the factor of production that arises from the activity of individuals. The supply of labour affects the welfare of individuals in two ways. *Firstly*, labour supply decisions in conjunction with labour demand affects the amount of goods and services available for consumption at any given

time. *Secondly*, in addition to labour time, leisure also affects the welfare of individuals (Fallon and Verry 1988: 1).

Figure 4.2 examines the effects of labour market supply in a perfectly competitive market. The real wage rate is drawn on y-axis and the level of employment on the x-axis. The labour supply curve S_1 is positively sloping because as the wage rate increases, so too, does the number of workers supplying their services. The theory of labour supply is based on a model of employees having a choice to either be employed (earning an income) or enjoy leisure time (Cahuc and Zylberberg 2004: 5). Leisure is defined as time not spent working and is assumed to be a normal good. As income increases, the consumption of leisure increases resulting in a lower quantity of labour supplied. Since leisure time is sacrificed when employees are working, wages is the compensation. The supply of labour is therefore not a function of wages only. Cahuc and Zylberberg (2004: 6) point out that the income of an individual comprises of wage earning and non-wage earning activities (namely, leisure activities outside the labour market, such as investment income, transfers and gains from illegal activities).

Figure 4.2: The supply of labour
(Barker 1999: 15)



The initial wage rate is $(W/P)_0$ with a labour supply of L_0 workers at Point (A) in Figure 4.2. If the wage rate increases from $(W/P)_0$ to $(W/P)_1$, the quantity of labour supplied increases to L_1 remaining on curve S_1 . If the supply of labour shifts due to exogenous factors, for example, an increase in women in the labour force or an increase in immigration, the supply curve as a whole shifts outward to supply curve S_2 . The supply of labour increases from L_0 to L_2 workers at real wage rate $(W/P)_0$. Hence, at point (B) in Figure 4.2, there is an increased supply of $(L_2 - L_0)$ workers at the initial wage rate $(W/P)_0$.

The quantity of goods that consumers exchange for additional hours of leisure so that their satisfaction remains unchanged is referred to as their marginal rate of substitution between consumption and leisure. In other words, the marginal rate of substitution indicates the relative intensity of consumers' satisfactions (Elliot 1991: 28). We assume that individuals sacrifice less consumption for additional hours of leisure. Therefore, when the amount of time spent on leisure increases, the marginal rate of substitution between consumption and leisure decreases.

The higher is the level of leisure sacrificed, the higher are the wages required as an incentive for employment. An increase in income changes an individual's tastes between leisure plus goods and services. If we assume that low-income individuals have a low marginal rate of substitution between leisure plus goods and services, then increases in the nominal wage rate at low-income levels can increase the number of hours of work (Elliot 1991: 45). The point where the higher wage does not serve as incentive to reduce leisure time is referred to as the backward bending portion of the supply curve. This is not reflected in Figure 4.2 as the labour supply curves are drawn for the labour market as a whole.

The properties of labour supply of an individual arise from a combination of an income and a substitution effect. The substitution effect arises when an increase in wages increases labour supply and reduces leisure. This represents work being substituted for leisure. Elliot (1991: 42) describes the substitution effect as an individual's response to a

change in the relative price of leisure holding constant the individual's real income. An increase in the real wage rate increases the price (opportunity cost) of leisure. Since income is constant, the individual will now choose less leisure and supply more hours of work. Accordingly, there is a positive relationship between the wage rate and the number of hours of work. The substitution effect of a real wage increase is therefore positive.

The income effect has the opposite effect when compared to the substitution effect. As real wages increase the supply of labour decreases. The income effect describes an individual's response to a change in real income when the real wage rate changes, holding constant the change in the relative price of leisure (Elliot 1991: 43). Increases in real income increase an individual's utility and can be spent on additional hours of leisure and/or the purchase of additional goods and services. As long as leisure is a normal good, increased income will always be spent on more leisure, but one cannot determine the size of these additional purchases of leisure. The income effect of a wage increase on work is negative as reduced levels of income result in fewer hours of work. The substitution effect tends to dominate labour supply at low-income levels whereas the income effect tends to dominate labour supply at high-income levels. Labour supply increases when the substitution effect outweighs the income effect and *vice versa*. This implies that labour supply increases with real wages at low wage levels.

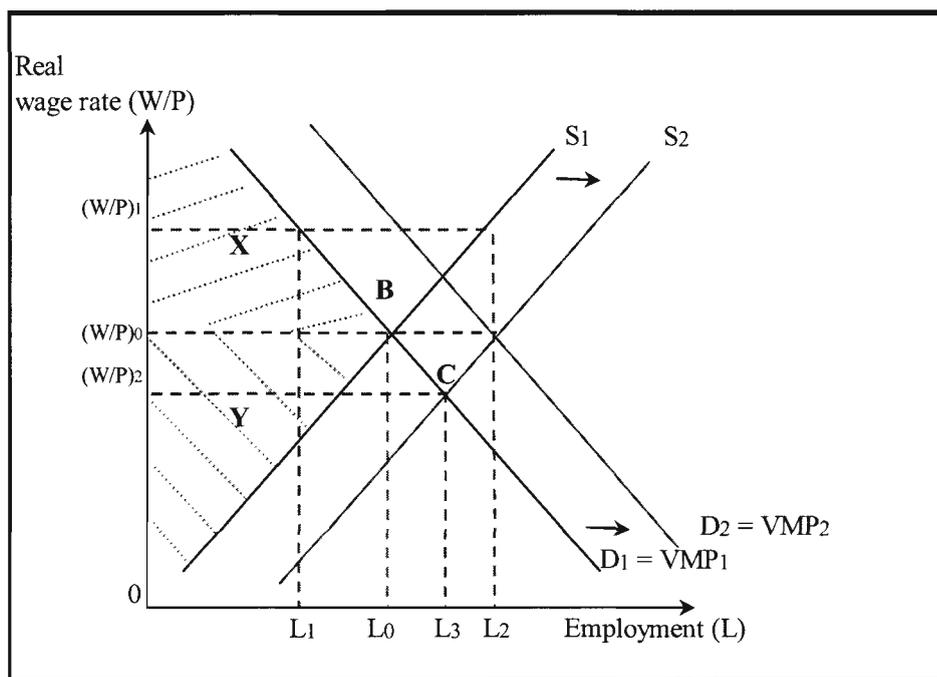
We proceed to observe the combined effects of demand and supply in the labour market in section 4.3.3. The equilibrium real wage rate and quantity of labour is determined as well as the changes that occur to re-establish equilibrium when there is excess demand or excess supply in the labour market.

4.3.3 LABOUR MARKET EQUILIBRIUM

In sections 4.3.1 and 4.3.2, we examine the demand for, and the supply of, labour respectively. In this section, with the aid of **Figure 4.3** we combine the labour demand curve D1 with the labour supply curve S1. At the point of intersection of these two curves [point (B)], the demand for labour is equal to the supply of labour and this is referred to as the **equilibrium** or **market clearing level** (Barker 1999:19). At real wage rate $(W/P)_0$

there are L_0 workers employed. At wage rates higher than $(W/P)_0$, there is an excess supply of labour. This is illustrated in Figure 4.3 where at wage rate $(W/P)_1$, there is a quantity of L_2 workers supplied and a quantity of L_1 workers demanded indicating an excess supply of (L_2-L_1) workers. Many individuals seeking employment will be willing to accept employment at a lower wage rate and employers are likely to employ more workers. As a result, both wages and the excess supply of labour will decrease restoring the initial equilibrium at point (B). Similarly, if there is an undersupply of workers, employers will increase the wage rate to the equilibrium wage rate.

Figure 4.3: Demand and supply equilibrium in the labour market
(Barker 1999: 19-20; Borjas 2005: 164)



..... **Area X** = Producer Surplus
 **Area Y** = Worker Surplus

Figure 4.3 also reflects the effects of exogenous changes in the labour market. If there is an increase of women in the labour force or an increase in immigration, the supply of labour increases accordingly. The labour supply curve shifts outward from S_1 to S_2 . The

extent of the excess supply of labour is $(L_2 - L_0)$ workers. Barker (1999: 20) maintains that workers will bid down wages and decrease the excess supply of labour. The lower wages encourage employers to hire more workers, which increases the quantity of labour demanded. This establishes a new equilibrium at point (C) in Figure 4.3. At point (C), the wage rate is $(W/P)_2$ and L_3 workers are employed. We can therefore conclude that in perfectly competitive markets, labour markets move toward equilibrium *via* the real wage mechanism. Similarly, (for D_1 and S_1) at the real wage rate $(W/P)_2$, there is an excess demand for employees. The employees will bid up wages thereby increasing the quantity of labour supplied until equilibrium is re-established at point (B).

Figure 4.3 is also used to illustrate benefits accruing to the national economy when employees and employers trade off in the labour market. As per Borjas (2005: 165), the total revenue accruing to the employer is calculated by adding together the value of the marginal product (VMP) of all employees up to L_0 employees to arrive at the total product produced by all employees in competitive equilibrium. Since the labour demand curve provides the value of marginal product (VMP), the area under the labour demand curve and above the real wage rate $(W/P)_0$ represents the producer surplus. Shaded area X (using D_1 and S_1) represents this producer surplus.

Similarly, the labour supply curve shows the real wage required as an incentive for employees in the labour market to work additional hours. Borjas (2005: 165) adds that the height of the labour supply curve at any point measures the value of marginal worker's time spent on non-working activities. The gains that accrue to employees is the difference between the real wage rate and the value of non-working activities, which is the area above the labour supply curve and below the real wage rate. Shaded area Y (using D_1 and S_1) represents this worker surplus. The total gain from trade accruing to the national economy is given by the sum of the producer and worker surplus, that is, areas $(X + Y)$ in Figure 4.3. These gains are maximised in the competitive market and are referred to as an efficient allocation of labour resources.

Unemployment arises when the supply of labour is in excess of the demand for labour. Some of the determinants of the demand for labour, which play a role in alleviating unemployment are noted. Factors that increase the demand for labour (that is, factors that shift the demand curve to the right) include increases in the product price, which increases the marginal revenue product (MRP) of labour and thereby increases the demand for labour. An increase in productivity increases the demand for labour (if the higher productivity does not result in an offsetting decrease in the product price). An increase in the number of employers (assuming that the employment of this specific type of labour by other firms is unchanged) increases the demand for labour. If resources are gross complements⁴⁰ (that is, the output effect is greater than the substitution effect), a decrease in the price of the substitute in production increases the demand for labour. If resources are gross substitutes⁴¹ (that is, the substitution effect outweighs the output effect), an increase in the price of the substitute in production increases the demand for labour. A fall in the price of a gross complement in production (that is, there is no substitution effect) also increases the demand for labour (McConnell, Brue and Macpherson 2003: 171).

In concluding this section, two important characteristics need to be highlighted with respect to the equilibrium function of the labour market (Siebert 1997: 44). The *first* characteristic is the responsiveness of labour demand to the real wage. This refers to the employment response to the wage rate or the wage elasticity of labour demand. The wage elasticity of labour demand is an indicator of the effectiveness of the wage restraint (real wage) in creating new jobs. Elliot (1991: 243) and McConnell, Brue and Macpherson (2003: 146-147) note three determinants of the wage elasticity of demand for labour. *Firstly*, the wage elasticity of demand for labour will be higher if the price elasticity of demand for the final product that the labour produces is higher since the demand for

⁴⁰ Gross complements are inputs for which if the price of one (capital) increases, the demand for the other (labour) falls.

⁴¹ Gross substitutes are inputs for which if the price of one (capital) increases, the demand for the other (labour) rises (McConnell, Brue and Macpherson 2003: 150).

labour is a derived demand. A fall in the wage rate reduces the cost of producing the product. This decreases the price of the product and increases the quantity demanded. The higher is the elasticity of product demand, the larger will be the increase in the quantity demanded and requires a larger increase in the quantity of labour demanded to produce the extra output. *Secondly*, the more easily can other factors of production be substituted for labour; the more elastic will be the demand for labour. If technology allows for other factors (namely, capital) to be readily substitutable for labour, a small increase in the wage rate will require other factors to be substituted and employment will fall. *Finally*, the larger is the share of labour in the total costs, the greater is the elasticity of demand for labour (*ceteris paribus*). If labour costs comprise a substantial proportion of total production costs, an increase in the wage rate will increase the product price, reduce sales and output and eventually reduce employment.

The *second* characteristic relating to the equilibrium function of the labour market as pointed out by Siebert (1997: 44) is the responsiveness of the wage rate to unemployment, that is, the unemployment elasticity of the wage rate. The unemployment elasticity of the wage rate is an indicator of the extent to which employees and trade unions will exercise their wage restraint in the face of unemployment. We examine the effects of the trade union in the bilateral monopoly model in section 4.4.3 and again in Chapter Five section 5.3.2.1. In this section, we set the foundation by examining the perfectly competitive market. We can now extend the labour market analysis to imperfect competition.

4.4 EXTENDING THE ANALYSIS TO IMPERFECT COMPETITION

In this section, we examine the effects of the monopoly and the monopsony respectively as these models provide the background for the bilateral monopoly model. We establish that the monopoly and monopsony play a contributory role to unemployment as they employ fewer employees than perfectly competitive firms. Lane (1995) asserts that imperfect product markets strengthen real wage rigidities in the labour market. We then go on to examine the combined effects of the monopolist and the monopsonist in the bilateral monopoly model. The analysis in this section is in terms of nominal wages.

4.4.1 MONOPOLY

According to Elliot (1991: 224) and Fallon and Verry (1988: 88), analysing a firm that is a monopolist in the product market means that the firm is no longer a price taker. The **monopolist** is the only seller in the product market. The firm remains perfectly competitive in its labour market. The firm's short run demand curves for output and labour under monopoly are illustrated in **Figure 4.4**.

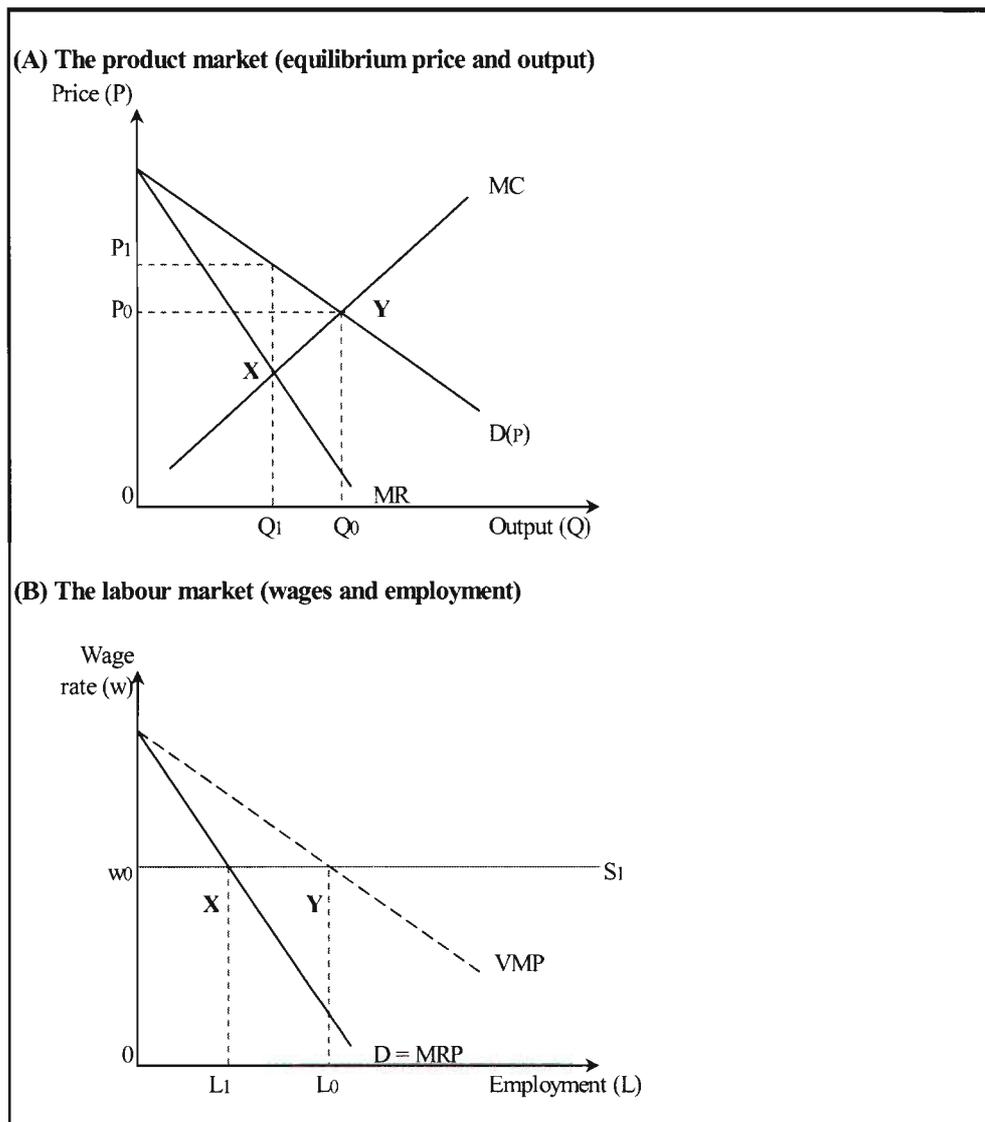
Figure 4.4 diagram (A) illustrates the relationship between price and output. Diagram (B) represents the relationship between wages and employment in the labour market. For a monopolist, marginal revenue is less than the product price ($MR < P$). In diagram (A), the monopolist faces a downward-sloping demand curve for its output. The marginal revenue of selling an additional unit of output is not equal to output price because the output price decreases as the monopolist increases production. If the monopolist is to sell the additional output produced, the firm employing an additional unit of labour must decrease the price of all units of its output. Therefore, marginal revenue is less than the price charged for the last unit and further decreases as the monopolist attempts to sell more output. The marginal revenue (MR) curve lies below the demand curve in diagram (A) because the elasticity of demand for output (or the percentage change in quantity demanded for a given percentage change in price) is negative because the monopolist's demand curve is downward sloping. Conversely, the perfectly competitive firm faces a perfectly elastic demand curve. The elasticity of output demand is infinite, therefore $MR = P$ (Borjas 2005: 199).

The monopolist produces up to the point where marginal revenue equals marginal cost of production at point (X) in diagram (A). In diagram (B), the firm will increase employment of labour up to the point where the cost of an additional unit of labour services equals the addition to total revenue generated by its employment. At point (X) in diagram (A), the monopolist produces Q_1 units of output at price P_1 as this is the point on the demand curve indicating the price that consumers are forced to pay for Q_1 units of output. Point (X) in diagram (B) represents the intersection of the labour demand and labour supply curves. For simplicity, we have assumed an elastic supply of labour curve, S_1 .

Figure 4.4: Monopoly in the Product Market⁴²

The firm's short run equilibrium

(Borjas 2005: 199-200; Sapsford and Tzannatos 1993: 118)



Under monopoly, MRP is equal to marginal physical product (MPP) multiplied by marginal revenue (MR) and not price (P) as in perfect competition. Sapsford and Tzannatos (1993: 119) affirm that the monopolist employs labour in the perfectly

⁴² Diagrams A and B in this figure are not drawn to scale.

competitive labour market up to the point where the wage rate (or the cost of an additional unit of labour) equals the firm's marginal revenue product (MRP) (or the addition to total revenue generated by the employment of the additional unit of labour). Hence, the short run labour demand curve is its MRP schedule for labour, but the value of marginal product (VMP) exceeds the MRP at each level of employment since at each level of sales, the firm's product price is greater than its marginal revenue as reflected in diagram (B). In this diagram, the firm's short run demand curve D is more steeply sloped than the VMP curve given that in the product market in diagram (A), the MR curve slopes downward more steeply than the firm's demand curve. At wage rate w_0 , the monopolist can employ as much labour as he desires because his decisions affect prices in the output market only. The profit maximising monopolist employs L_1 workers where the wage rate, w_0 equals the MRP.

We can note some clear distinctions between perfect competition and the monopoly. In the monopolist case, the firm faces a downward sloping demand curve for its output even if no other firm changes its wages. This is contrary to perfect competition where the firm experiences a downward sloping curve for its output as other firms in the industry react in an identical manner to a given wage change. Under perfect competition, the firm faces a perfectly elastic demand curve for its product and marginal revenue equals price ($MR = P$) whereas for the monopolist marginal revenue must be less than the product price ($MR < P$) to maximise profits. The monopolist produces less output at a higher price compared to firms in the perfectly competitive market. In a perfectly competitive market, point (Y) in Figure 4.4 diagram (A) represents equilibrium where Q_0 units of output are sold at price P_0 . The monopolist also employs fewer employees (L_1) than firms in the perfectly competitive market that employ L_0 employees at wage rate w_0 in diagram (B). This corresponds to point (Y) where the real wage equals the VMP. According to McConnell, Brue and Macpherson (2003: 146), the monopolist's product demand curve is less elastic than the perfectly competitive firm since $MR < P$. Consequently, the demand for labour is also less elastic than in the perfectly competitive firm.

In Chapter Five section 5.3.2.1, we note that a monopoly contributes to inflexibility in the labour market. Since the product demand and the derived demand for labour thereof are less elastic than in perfectly competitive markets, the monopoly is less responsive to changes arising from globalisation and trade liberalisation. So far, we have examined the effects of a monopoly, compared this market structure to the perfectly competitive market and noted the differences. We can now move on to the other imperfectly competitive market structure, which is the monopsony.

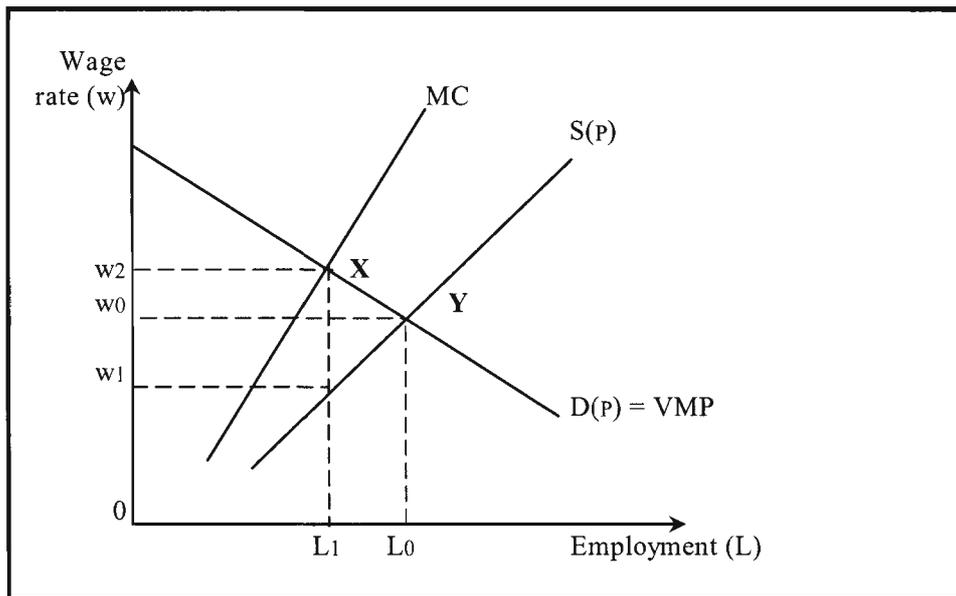
4.4.2 MONOPSONY

In this section, we examine the case of the non-discriminating **monopsonist** (the only purchaser in the product market). This means that the monopsonist pays all the employees the same wage irrespective of the employees' reservation wage. The reservation wage can be described as that wage that makes the employee indifferent between working and non-working activities (Borjas 2005: 41). We use **Figure 4.5** to illustrate the effects of a monopsony. The supply curve no longer gives the marginal cost of employment since the monopsonist has to increase the wages of all its employees when hiring an additional employee. The marginal cost (MC) curve lies above and to the left of the labour supply curve. The MC curve is upward sloping because wages increase as the monopsonist employs more employees. Furthermore, the marginal cost increases at a faster rate than the wage given that the marginal cost is not only that of employing an additional employee, but an increase in the wages of all employees proportionally. The monopsonist maximises profits by employing labour up to point (X) where $MC = MRP = VMP$ and L_1 employees are employed at wage w_2 . If the monopsonist employs less than L_1 employees, the VMP is greater than the MC and the firm will have to hire more employees. Alternatively, if more than L_1 employees are employed, the VMP is less than the MC and some employees will have to be laid off.

Figure 4.5: Monopsony in the Product Market

The employer's short run equilibrium

(Borjas 2005: 195; McConnell, Brue and Macpherson 2003: 182)



The monopsonist employs fewer employees than employers in the perfectly competitive market. In the perfectly competitive market, equilibrium is established at point (Y) in Figure 4.5 where L_0 employees are employed at wage w_0 . Persistent vacancies are interpreted as measuring excess demand assuming the MRP (VMP) curve is downward sloping. Excess demand persists since the labour supply curve to the firm slopes upward (Boal and Ransom 1997: 97). Since there is underemployment in a monopsony, the allocation of resources is not efficient. Borjas (2005: 196) further contributes that the monopsonistic wage, w_1 is less than the perfectly competitive wage w_0 as well as less than the employees' VMP. Effectively, employees are paid less than their VMP.

In sections 4.4.1 and 4.4.2, we examine the monopoly and monopsony respectively. In the next section, we combine the effects of the monopoly and monopsony in an analysis of the bilateral monopoly model.

4.4.3 THE BILATERAL MONOPOLY MODEL

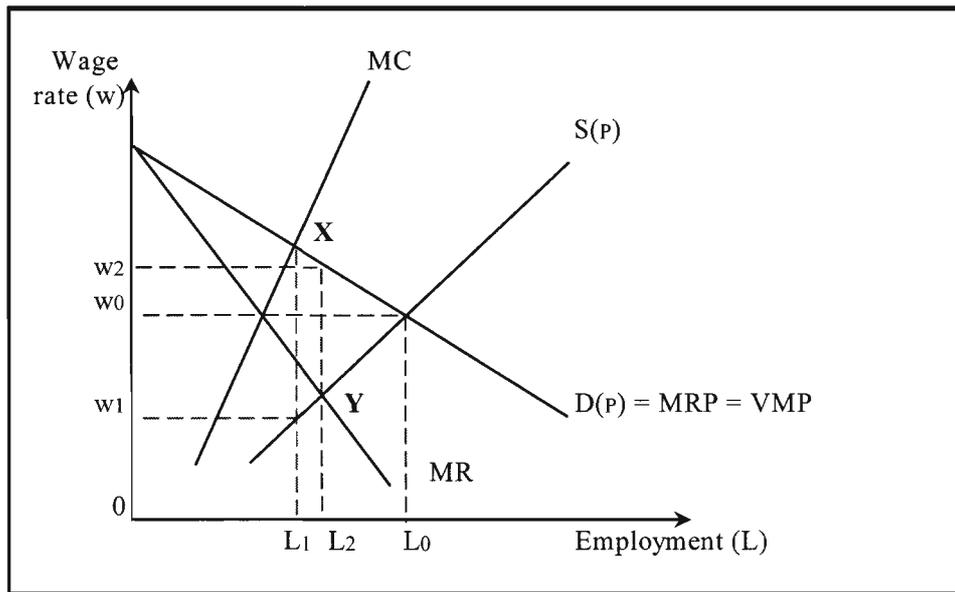
The bilateral monopoly⁴³ is a model postulating imperfect competition in both the goods and the labour markets, such that both workers' (represented by a trade union) and employers have some degree of monopoly power. In other words, there is a monopsonist purchaser of labour facing a monopolistic supplier (namely, a trade union that has singular control over the supply of a specific type of labour) (Booth 1995: 80; Hieser 1970: 55). If there is a deadlock between employers and employees (represented by trade unions), the high cost is that unutilised labour is lost completely as opposed to unsold products which lose their carrying costs only and increase stock levels. If the firm dismisses employees, these employees incur costs of moving to a new job, lose specific training investments as well as face the possibility of unemployment (Booth 1995: 120). Hieser (1970: 55) further adds that high wages are associated with strong trade union bargaining power and *vice versa*. Whether it is the wages or the bargaining power that is the controlling factor is subject to controversy.

Sapsford and Tzannatos (1993: 286) identify wage determination in the presence of trade unions as a particular case of bilateral monopoly, which is illustrated in **Figure 4.6**. The union is the monopoly seller of labour and the employer is the monopsonistic purchaser of labour.

⁴³ We examine the bilateral monopoly model as it is relevant to imperfect competition, significant trade union presence and unemployment in the South African economy.

Figure 4.6: The bilateral monopoly model

(Sapsford and Tzannatos 1993: 286)



In Figure 4.6, we first consider the employer who is the monopsonistic purchaser of labour facing an upward sloping labour supply curve, $S(P)$ and will only purchase more hours of labour at a lower wage. The monopsonist's objective is to maximise profits. This is achieved where the marginal cost (MC) curve equals the marginal revenue product (MRP) curve [as represented by point X]. The monopsonist attempts to employ L_1 units of labour, which is associated with wage rate w_1 .

We now consider the trade union that is the monopolist. The union monopoly analogy refers to the view that the union is a monopoly seller of labour services and its behaviour is therefore analogous to the monopolist in the product market (Booth 1995: 97). The union monopoly analogy assumes that the trade union maximises profits where marginal costs (the supply price) equals marginal revenue from the sale of its members' labour services. Since the union does not produce the labour services of its members' (but acts as their agent), the union unlike the firm does not incur production costs (Sapsford and Tzannatos 1993: 269). The labour supply function $S(P)$, is therefore not the marginal cost function of the trade union. $S(P)$ represents members' work-leisure preferences at various wage rates. The trade union attempts to maximise economic rent, that is, the surplus of its

members' total wage income over and above the total of their individual marginal supply prices or their transfer earnings. Elliot (1991: 362) points out that the union (on behalf of its members'), equates the MC of the extra hours as given by the S(P) curve to the MR schedule. Applying this to Figure 4.6, the trade union's objective will be to equate marginal revenue (MR) from selling its members' labour to the price at which its members' supply their labour. It follows then that the trade union seeks L_2 units of labour to be employed at wage rate w_2 as represented by point (Y). The firm has to pay higher wages if it requires more hours of labour because the employee is the only supplier of the labour that the firm wishes to purchase.

According to Sapsford and Tzannatos (1993: 287), the bilateral monopoly model proposes that the employer attempts to restrict employment below the competitive level, L_0 in Figure 4.6 in order to maximise profits. This has the effect of increasing unemployment. The union also attempts to restrict the sale of its members' labour services in order to maximise the collective rent of its membership. The union differs from the firm in that the firm's profits are distributed among the partners or shareholders and individual members' incomes are also maximised, whereas the union's profits accrue directly to the individual members' (Hieser 1970: 58).

A shortcoming of the bilateral monopoly model is that it cannot provide a unique prediction of the wage settlement and level of employment that will be established. Still using Figure 4.6, the competitive wage w_0 lies between the union and the employer's required real wage levels and is therefore indeterminate. The model only offers a range within which an outcome can be expected to lie. The union seeks wage rate w_2 and L_2 units of labour whereas the employer seeks wage rate w_1 and L_1 units of labour. The actual wage rate lies between w_1 and w_2 , the actual number of employees between L_1 and L_2 , and is determined by a process of collective bargaining that occurs between the employees (as represented by the union) and the employer. Elliot (1991: 363) indicates that the outcome of the wage rate reflects the bargaining strength of the union and the employer. This bargaining also provides the possibility of the wage above the

competitive market equilibrium level, that is, greater than w_0 but less than w_2 , which contributes to unemployment.

The costs of the bargaining process may exceed the benefits in terms of resources consumed directly and indirectly as well as the opportunity cost of the time spent on bargaining. Elliot (1991: 364-365) specifies that the bargaining process may encourage some inflexibility from the labour force whereby labour contracts specifying contingencies can be revised at a later stage. This encourages inflexible arrangements that can be subsequently accepted in the bargaining process in exchange for concessions by the other party. However, if there are workplace rules to determine outcomes, the costs of the bargaining process can be reduced. These are rules governed by fairness and can take the form of implicit contracts. Implicit contracts specify the wages of employees and the number of hours of work depending on the particular perception of fairness that influences employee behaviour. Borjas (2005: 505) contributes that these contracts are valid even if not represented by a formal institution like a union.

We highlight the example of imperfect competition since trade unions tend to achieve better results in imperfectly competitive industries rather than in perfectly competitive industries. If the market was perfectly competitive, the firm will not survive paying higher wages to its employees than its competitors are paying to non-union workers. The union then will not have a wage advantage, as this requires a higher average cost of production than the market determined product price and therefore results in an economic loss. This also justifies unions organising employees in entire industries as opposed to in individual firms. There is also evidence to substantiate that trade unions may not be solely responsible for higher wages. Discrimination based on gender where men are more highly paid than women and highly capital intensive industries requiring skilled labour commanding higher wages are also contributory factors to wages above the perfectly competitive market clearing level (McConnell, Brue and Macpherson 2003: 343-344).

We have completed our analysis of the labour market equilibrium under perfect and imperfect competition and noted the employment requirements of the firm as a profit

maximiser. When the supply of labour exceeds the demand for labour, the wage is above the competitive level, and a situation of unemployment arises. We drew attention to imperfectly competitive markets that set a market wage rate and level of employment that is lower than that set in perfectly competitive markets. Furthermore, in the bilateral monopoly model, the wage rate and level of employment can be determined within a range. The upper limit of this range is a real wage that is above the competitive equilibrium level, thereby contributing to unemployment. The next section defines and highlights the various forms of unemployment.

4.5 THE DEFINITION AND TYPES OF UNEMPLOYMENT

Economic theory predicts that an excess supply of a good decreases the price of this good. A price decrease increases the quantity demanded, reduces the quantity supplied and over a period of time, the market mechanism eliminates the excess supply of the good. In the labour market, the price of labour, that is, the wage not adjusting to clear labour markets results in unemployment. This section briefly describes unemployment as well as examines the various types of unemployment. In South Africa, there is an expanded and a strict definition of unemployment, which we discuss in turn. We then go on to examine the four types of unemployment. These are structural, frictional, cyclical and seasonal unemployment.

4.5.1 THE DEFINITION OF UNEMPLOYMENT

According to Barker (1999: 172), the **expanded definition of unemployment** refers to individuals in the economically active population who are without work, currently available for work and have the desire to take up employment. The term economically active population (EAP) is synonymous with the labour force and refers to persons over the age of fifteen years who provide their labour for the production of economic goods and services, irrespective of whether they are formally employed, informally employed, self-employed, employers or unemployed persons willing to work. The **strict or official definition** incorporates the expanded definition and includes the additional criteria of an individual taking active steps to find employment. The exact unemployment figure is debatable due to the existence of the expanded and strict definitions of unemployment

(Teal 2000: 12). Kingdon and Knight (2005: 10) note that for South Africa, the expanded definition is a more accurate reflection of unemployment since individuals who do not take active steps to find employment because they are discouraged as well as constrained in terms of poverty, are not classed as unemployed.

The above definitions relate to involuntary unemployment. Involuntary unemployment describes individuals in the economically active population willing to work at prevailing real wage levels, but unable to find employment. This type of unemployment is largely the focus of this study. Voluntary unemployment on the other hand refers to individuals in the economically active population who are without work and do not have the desire to take up employment at present (Sapsford and Tzannatos 1993: 385). A reason for voluntary unemployment may be to continue searching for employment that is more desirable and offering a better package than those jobs currently available.

4.5.2 TYPES OF UNEMPLOYMENT

We now go on to describe the types of unemployment. The four types of unemployment are structural, frictional, cyclical and seasonal unemployment. **Structural unemployment** refers to the overall inability of the economy to provide employment for the full labour force due to long-term imbalances in labour demand and supply. South Africa is characterised largely by structural unemployment because even during periods of high economic growth there are insufficient job opportunities to absorb the existing unemployed as well as new entrants into the labour markets.

Frictional unemployment occurs because of the normal turnover that occurs in any economy and the time lags associated with the re-employment of labour. There are always new entrants into the labour market as well as individuals moving between jobs. Accordingly, at any point in time, there are unemployed individuals and vacancies that these individuals can fill, but it usually takes time for job seekers to find and fill these vacancies. Thus, it follows that the matching of unfilled vacancies to unemployed individuals is not an instantaneous process (Sapsford and Tzannatos 1993: 387). Barker (1999: 165) maintains that the duration of frictional unemployment is relatively short-

term and can be further reduced through labour market information and placement services enabling job seekers to find vacancies more quickly and efficiently.

According to Barker (1999: 165), **cyclical unemployment** occurs during recessionary periods when aggregate demand for output (and therefore the demand for labour) is low and real wages are downwardly inflexible. This type of unemployment is due to fluctuations in the business cycle (Ehrenberg and Smith 2003: 522). Cyclical unemployment is referred to as demand-deficient unemployment as it is linked with the lack of aggregate demand. Recessionary periods are characterised by few or no jobs as well as retrenchments. Once the economy experiences a boom, the cyclically unemployed individuals find employment again. The distinction between structural and cyclical unemployment is therefore ambiguous (Sapsford and Tzannatos 1993: 387).

Finally, the last type of unemployment is **seasonal unemployment**. Seasonal unemployment arises because of the annual fluctuations in the economy that are perceived to be normal. Seasonal employees or the seasonally unemployed are those individuals that work during peak periods when there is high economic activity in certain sectors and are unemployed during off-peak periods when there is lower economic activity in these sectors. As a result, Barker (1999: 166) and Ehrenberg and Smith (2003: 529) indicate that these fluctuations can be anticipated as they follow a systematic pattern annually. The agricultural sector is characteristic of this type of unemployment.

The classification of unemployment into the above four types implies that different policy responses (discussed in the next section) are required to alleviate the different types of unemployment. Cyclical unemployment is classified as demand-deficient unemployment whereas structural, frictional and seasonal unemployment are referred to as non-demand-deficient unemployment. Sapsford and Tzannatos (1993: 391) maintain that since structural unemployment arises because workers are neither geographically nor occupationally perfectly mobile, this type of unemployment can be reduced by labour and regional policies. These types of policies are designed to assist workers in obtaining the skills required for vacancies in the form of retraining programmes, improving geographic

mobility *via* financial assistance towards relocation expenses and assistance in finding accommodation as well as financial incentives through grants and tax concessions.

Frictional unemployment is due to the match between job vacancies and the unemployed not being instantaneous. This type of unemployment can be reduced (but not eliminated) by increasing the flow of information about job vacancies. The result is that time spent on job search will be reduced. Advertising vacancies and counselling unemployed are examples of such policy measures (Sapsford and Tzannatos 1993: 390). In section 4.6, we examine active and passive labour market policies and their role in alleviating unemployment.

4.5.3 A BRIEF OVERVIEW OF THE REASONS FOR UNEMPLOYMENT

The main reasons for unemployment according to Barker (1999: 166), are rapid growth of the labour force, increased capital intensity of the economy and inflexible labour markets. Further reasons include the lack of education, the skill mismatch between employees and employers and the geographical mismatch between the location of job vacancies and the location of job seekers (van der Linde 2000: 699). Structural unemployment in South Africa is examined in further detail in Chapter Five with specific focus on labour market flexibility.

Lane (1995) identifies rigid real wages as a cause of unemployment. This relates to real wage rates fixed above the market clearing level. There are two possible reasons⁴⁴ for the real wage rate fixed above the market clearing level. The *first* is that pressure from trade unions may not allow firms to adjust wages downward, thereby increasing unemployment. Employees, as represented by trade unions bargain with employers for higher wages. Nickell (1997: 72) adds that high trade union activity together with collective wage bargaining and the lack of co-ordination between unions and employers in the wage bargaining process contribute to higher unemployment levels. Our analysis of the monopoly and monopsony reveals that these market structures contribute to

⁴⁴ We examine further reasons in the Chapter Five section 5.3 on the links to unemployment in South Africa.

unemployment in that firms that are imperfectly competitive employ fewer employees than firms that are perfectly competitive. The determination of wages in the bilateral monopoly model is examined in section 4.4.3 and reflects the reduction in the quantity of labour demanded together with the possibility of high non-clearing market equilibrium wages.

The *second* reason identified by Lane (1995) for real wage rates fixed above the market clearing level is that employers retain high wages rates in order to achieve efficiency gains for the firm⁴⁵. This means that firms sustain high wages as it provides benefits in terms of reducing total labour costs for the firm. By linking productivity to real wages, firms are able to improve performance by compensating employees with higher real wages. The setting of this high real wage deals with shirking and discourages employees from being unproductive, reduces employees resigning as well as decreases the costs associated with training.

Nickell (1997: 72) and Rocheteau (2006: 3) further draw attention to high unemployment arising from generous unemployment benefits. These unemployment benefits continue indefinitely accompanied by little or no pressure for the unemployed to seek employment and low levels of intervention to increase the willingness and ability of the unemployed to work. Unemployment benefits are passive labour market policies, which are analysed in section 4.6.2. In addition, high overall taxes and/or high minimum wages for young employees with high payroll taxes also aggravates unemployment.

This section defines and classifies unemployment into the various types. We then provide a brief overview of the reasons for unemployment. In the next section, we go on to examine the labour market policies that are required to address unemployment.

⁴⁵ Efficiency wages are examined in Chapter Five section 5.3.2.3.

4.6 LABOUR MARKET POLICIES

Labour market policies are classified as either active or passive. The objective of **active labour market policies** is to improve the situation for employment and wages of the unemployed and disadvantaged population in general (*via* wage subsidies, training programmes and other policy instruments). Active labour market policies are supply side instruments that support an effective aggregate supply of labour thereby reducing wage pressures and the natural rate of unemployment (Fraser 1999: 154). Sapsford and Tzannatos (1993: 369) explain the natural rate of unemployment as that rate of unemployment that is consistent with the level of aggregate demand where there is no pressure on the rate of inflation. At the natural rate of unemployment, labour demand and labour supply (as functions of the real wage) are in equilibrium. There are a number of factors determining the natural rate of unemployment. These are the extent to which the geographical distribution of the unemployed matches that of job vacancies, the efficiency of labour market institutions and the way in which the skills mix required to fill vacancies is matched by that of the unemployed. The objective of **passive labour market policies** is to increase the welfare of the unemployed and disadvantaged population (*via* benefits) without automatically pursuing an outcome for their placement in the labour market (Cahuc and Zylberberg 2004: 636-637). We examine active labour market policies in detail and passive labour market policies in brief.

4.6.1 ACTIVE LABOUR MARKET POLICIES

The Organisation for Economic Cooperation and Development (OECD) classifies active employment policies as those policies incorporating public employment services, labour market training, employment programmes for the disabled and subsidised employment. Jackman and Layard (1980: 340) agree that wage subsidies, public employment policies and training tend to improve the efficiency of the economy, more so in an economy where wages are rigid. We now discuss each of these characteristics in turn.

Public employment services or job search assistance attempts to reduce job search costs by promoting matches between firms with vacant jobs and persons seeking employment. These can include assistance with resumes as well as support in obtaining appropriate

training. Gomme (1998: 21) presents evidence indicating that the payoff to increased search intensity by the unemployed depends on the search intensity of firms. If firms are not hiring, there is little benefit in the unemployed searching intensively for jobs. If the unemployed perceive firms to be hiring intensively, they will search intensively as the chances of finding a firm that offers an acceptable wage are higher. Similarly, if firms perceive the unemployed to be searching intensively, this is an ideal time for them (firms) to attempt to increase their demand for employees. High search intensity on both sides' results in lower levels of unemployment as the unemployed will be successful in finding suitable jobs.

Labour market training increases employability of the concerned individuals as well as increases individuals' productivity *via* increasing their stock of skills. Labour market training can be broken down into training for the unemployed, training for employees threatened with job loss as well as training for employed individuals. Teal (2000: 5) adds that in addition to formal education, there are two other sources of imparting skills. These are training provided for employees by their organisations and skills gained *via* on-the-job experience. The most prevalent form training is classroom training comprising of courses or temporary placements by specialised institutions rather than in firms. Youth employment and training measures are for both the unemployed and the disadvantaged. There is also aid *via* apprenticeships and other general forms of youth training. Apprenticeships include both classroom training and on-the-job training. On-the-job training programmes offer an employer incentive by means of a subsidy to offer training to disadvantaged employees for a specific period. The apprentice can then be hired on a permanent basis.

Kraft (1998: 786) explains that government financed training is required to address insufficient skills because firms are not willing to finance general qualifications. Firms tend only to pay part expenditures for employees to develop firm specific skills. Other reasons for government-financed training are imperfect capital markets, imperfect information and positive externalities. Positive externalities in training exist as other workers' chances of employment are increased by higher qualifications. In section 4.7.1,

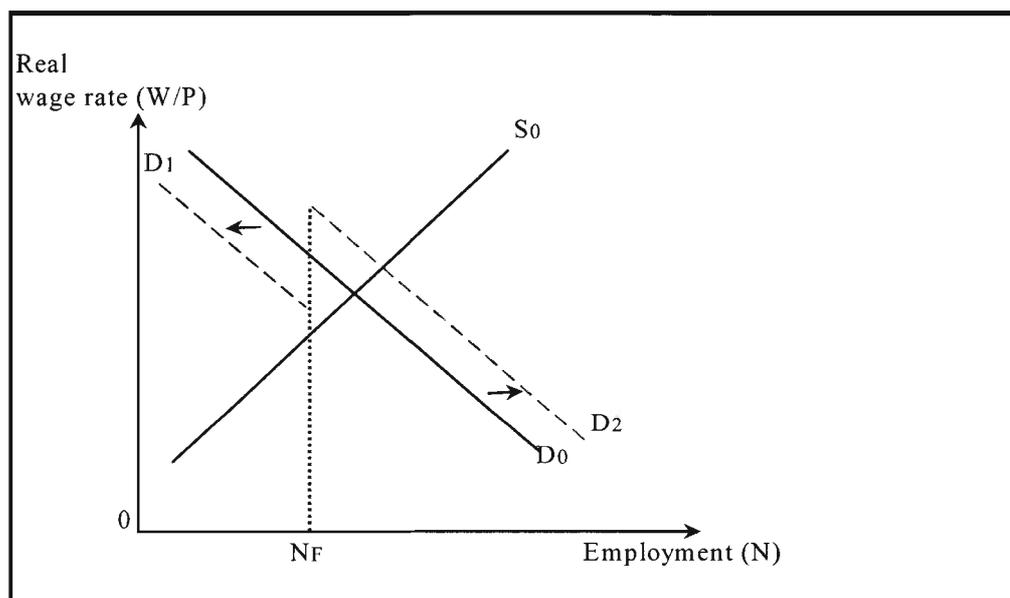
we examine the differences between general and specific training. Active labour market policies also incorporate employment programmes for the disabled. These strategies comprise of professional rehabilitation and job creation specifically for the disabled (Cahuc and Zylberberg 2004: 637-639).

We now consider subsidised employment as an active labour market policy instrument. Cahuc and Zylberberg (2004: 637-639) highlight three forms of subsidised employment. *Firstly*, subsidies for private sector employment generally take the form of temporary or permanent transfers to organisations that employ members of particular groups. *Secondly*, assisting the unemployed in launching new enterprises by providing unemployment benefits that subsidise unemployed individuals willing to attempt self-employment. The *third* form of subsidisation is direct job creation in the public sector or in non-profit organisations, by providing training to individuals with little or no work experience that belong to economically disadvantaged groups. This usually takes the form of temporary employment.

The purpose of wage subsidies is to decrease the marginal cost of labour and increase employment (Kraft 1998: 783). However, if organisations use cheaper labour without altering employment, certain individuals may become redundant because of these subsidies. In this particular instance, labour market policy is disadvantageous as there are expenditure and human capital losses due to dismissals of previously employed persons. Another disadvantage of subsidisation programmes is that they tend to provide an incentive for firms to dismiss unsubsidised employees and employ subsidised employees. Total employment will then be unchanged if subsidised labour is below the total demand for a particular group of employees. If skilled and unskilled workers are complementary as opposed to substitutes, both groups are likely to benefit from a subsidisation programme that is Pareto optimal. Pareto optimality exists when no person can be made better off without making someone worse off (Cahuc and Zylberberg 2004: 637-639; Fraser 1999: 152-153).

We use **Figure 4.7** to illustrate the effect of partial subsidisation of employment. The real wage rate (W/P) is drawn on the y-axis and the number of individuals employed (N) is drawn on the x-axis. The initial demand curve is D_0 and the initial supply curve is S_0 . NF represents a fixed number of workers and the employment of workers above NF , that is, $(N - NF)$ is subsidised. We make this assumption, as the purpose of subsidisation is to support particular groups only. Tax revenues (t) on all workers finance these employment subsidies (s). The firm is then reimbursed with the subsidy. With partial subsidisation, tax revenues $[N(W/P)(t)]$ are equal to subsidies paid out $[(N - NF)(W/P)(s)]$ if the system is self-financing and government redistribution activities do not exhaust these resources. The marginal cost of labour is $(W/P)(1 + t) - (W/P)(s)$ and is smaller than the real wage, (W/P) for $t < s$ or $NF > 0$.

Figure 4.7: Active labour market policy: The effect of partial subsidisation of employment (Kraft 1998: 785)



Still using **Figure 4.7**, under partial subsidisation, employment is more expensive for the first NF workers, as these workers are not subsidised. The marginal labour costs to the firm are therefore higher. The initial labour demand curve, D_0 shifts to the left to demand curve D_1 as the firm reduces its demand for labour (as the firm is taxed). Once the firm exceeds the NF level, employment becomes cheaper for $N > NF$ workers. These workers

are subsidised and the firm is reimbursed for the wages that it pays to $(N - NF)$ workers. The firm increases its demand for labour and this is represented by an outward shift of the labour demand curve to D_2 . Kraft (1998: 785) suggests that a shortcoming of the above analysis is that it is not evident who pays the taxes and specifically whose employment is subsidised. If wages and labour supply are partially flexible, government selects special groups for employment subsidisation and the total impact depends on the elasticity of supply. Depending on whether the substitution or income effect of labour supply (as discussed in section 4.3.2) dominates, the individuals taxed will adjust their labour supply accordingly. Generally, the taxed individuals fall into the higher-income category whereas the subsidised individuals fall into the lower-income category. If firms were at NF , then D_2 is the pertinent demand curve and employment rises if S_0 is not inelastic as shown.

Kraft (1998: 785) finds that general subsidisation has no effect as wages are increased by the employment tax rate (t) and decreased by the subsidy (s) , that is, $[N(W/P)(t) - N(W/P)(s)] = 0$. This system is referred to as self-financing. The marginal labour cost is $(W/P)(1 + t) - (W/P)(s)$, which reduces to the real wage rate (W/P) as a result of self-financing. Just as the wage is increased by the tax rate, so too, is it decreased by the subsidy.

According to Fraser (1999: 153) and Standing, Sender and Weeks (1996: 3), demand side policies (wage subsidies and public employment) face the following potential problems in attempting net job creation:

- Deadweight loss effects that are created aside from active labour market policies (that is subsidising employment that would have occurred anyway);
- Substitution effects occur when participants of active labour market policies are substituted for other unemployed persons in search for jobs; and
- Displacement effects when active labour market policies reduce jobs in organisations that were competitively disadvantaged with respect to other organisations that benefited from policy supported jobs.

The South African government's Reconstruction and Development Programme (RDP) *via* public works programmes (PWPs) embodies active labour market policies. Simkins (2004: 266) finds that public works programmes are advantageous in that they offer work experience opportunities that facilitate the development of small, medium and micro enterprises (SMMEs). Kingdon and Knight (2005: 28) however cite evidence indicating that public works programmes have limited capabilities in addressing unemployment and poverty in South Africa. The youth, older women and women-headed households in rural areas (that comprise a large proportion of the labour force in these areas) are not targeted when attempting to increase labour market performance and furthermore the tools used for targeting are inadequate. A further drawback is that public works programmes are based on the implicit assumption that unemployment is of a short-term duration rather than a persistent problem that affects South Africa. We now go on to examine passive labour market policies.

4.6.2 PASSIVE LABOUR MARKET POLICIES

The OECD classification of passive employment policies incorporates unemployment insurance or benefits that insure employees against the risk of unemployment. Passive employment policies also support early retirement for reasons related to the labour market (Cahuc and Zylberberg 2004: 637-639).

Kraft (1998: 784) and Mortensen and Pissarides (1999: 243) concur with Nickell (1997: 72 and Rocheteau (2006: 3) that generous unemployment benefits tend to discourage the unemployed to search for employment consequently increasing voluntary unemployment. As long as leisure is valued as a normal good and working has a negative impact on utility, increasing unemployment benefits is proposed to have the effect of increasing unemployment. However, in terms of this view relating to labour supply decisions, wage flexibility determines the effect on total unemployment. If wages are flexible, the effective labour supply function shifts inwards with an unchanged labour demand function and employment falls while unemployment benefits increase. If total labour supply (that is, those persons employed and those in search of employment) is inflexible, unemployment will increase. Kraft (1998: 784) asserts that if wages are fixed and above

the market clearing level, an increase in unemployment benefits depends on whether the shift in the effective labour supply curve is sufficient to clear involuntary unemployment.

Unemployment benefits in the form of unemployment insurance as well as aggressive employment protection legislation also contribute to unemployment. The justification for these policies is that high unemployment insurance protects the standards of living for those that are unemployed and high employment protection protects the jobs of those employed, but discourages firms from hiring new workers. Unfortunately, the economic consequences are large considering that welfare benefits discourage the search process by decreasing incentives to find employment and affects job creation unfavourably by increasing real wages. Mortensen and Pissarides (1999: 244) assert that average unemployment increases in response to skill-biased technological changes when unemployment insurance and employment protection are higher. Both unemployment insurance and employment protection reduce the incentives to create jobs, whereas only employment protection reduces the incentive to destroy jobs. The net effect of these two policies on average unemployment is however ambiguous.

Unemployment insurance negatively influences job creation by increasing real wage rates whereas job security increases firing costs as well as reduces incentives to create new jobs in response to changing technology. Unemployment insurance increases the unemployment rates of all skill levels, but is anticipated to increase the unemployment rate of unskilled workers relatively more than that of skilled workers. This is because the benefit levels of unemployment insurance are likely to be closer to unskilled productivity levels as well as because of unemployment insurance negatively affecting job creation (Mortensen and Pissarides 1999: 243).

Employment protection on the other hand decreases unemployment rates in general, but decreases the unemployment of unskilled workers by less than that of skilled workers. This is because an employment protection policy is reflected in a higher implicit tax on firing and it is likely to be the skilled workers that are protected. Lane (1995) maintains that the labour market can be classified as inflexible because labour demand cannot

automatically react to changes in the real wage or labour supply when employment protection legislation influences the hiring decision.

According to Gaston and Nelson (2004: 781), trade liberalisation reduces import tariffs and export subsidies and in so doing increases international competition. If international competition decreases prices and increases unemployment, then unemployment benefits tend to be higher depending on the extent, if any, to which tariff revenues fund unemployment benefits. If the unionised sector is protected and all tariff revenues were used to fund unemployment benefits, trade liberalisation will effectively reduce these benefits. If on the other hand, the union does not form part of the protected sector, trade liberalisation will increase unemployment benefits. Just as unemployment benefits increase, so too, will the taxes that fund these benefits increase.

Kletzer (2004: 741) highlights wage insurance programmes to alleviate earnings losses of those workers displaced in the import-competing sector. These programmes are designed to compensate workers for a fraction of their weekly earnings loss. The payments begin when the worker has succeeded in finding full-time employment and continue as long as the wage from the new job is lower than the wage from the old job. However, during the eligibility period, the wage insurance programme tends to reduce workers' incentives to search for higher paying employment. This programme reduces the number of workers receiving unemployment insurance.

In South Africa, apprenticeships for young school leavers has not been very successful as these individuals have to compete for places in training programmes with older experienced individuals who are more likely to obtain a job after training (Kraak 2004: 27). A further approach in addressing unemployment is that government has shifted from passive to active labour market policies. Training officials in government are now required to assess skill needs and employment growth trends in their respective regions annually with the aid of scientific research techniques and active employer networking. There is an annual provincial placement plan (specifying target sectors, occupations and skill requirements) that uses the skill needs analysis to determine the areas of focus for

the year. This has increased the number of individuals trained from 66,475 in 1997 under the old system to 81,752 in 1999 under the new system.

Kraft (1998: 792) concludes that active labour market policies have a positive effect on employment whereas passive labour market policies have a negative effect on unemployment. Where job subsidies, educational qualifications and training increase the total number of jobs, unemployment assistance and benefits have the opposite effect. It is therefore clear that active labour market policies play a key role in alleviating unemployment. In section 4.7, we proceed to examine investment in human capital, which is classified as an active policy instrument. Moving on to Chapter Five section 5.4, we focus largely on labour market flexibility, which is an increasingly important active labour market policy in response to globalisation and trade liberalisation. In Chapter Seven, we examine labour market policies to alleviate unemployment in South Africa.

4.7 THE THEORY OF HUMAN CAPITAL

In many developing countries, there is an oversupply of unskilled workers and an undersupply of skilled workers. These are the two types of the specific factor of production labour, which we discuss in Chapter Two section 2.7. The original insight in this thesis is to recognise that South Africa is possibly different from the usual developing country case. In our application of the theory covered in Chapter Two, we are going to differentiate between an ‘abundance of labour’ and a scarcity of unskilled or near-skilled workers. For historic and other reasons, there is a vast amount of the resource labour in South Africa (with substantial unemployment) but an insufficient amount of it has been given (*via* secondary schooling) even the most rudimentary of skills to be thought of as unskilled labour. Despite this, there has been an overinvestment in human capital in other sectors (*via* a perverse tertiary education system coupled with the impact of unionisation) making for a relative abundance of highly skilled labour. The upshot of this is that our scarce factor is paradoxically unskilled labour.

The provision of adequate education and training is an essential requirement to augment the abundant resource labour. Education enables individuals to accumulate human capital

thereby increasing their stock of knowledge. Cahuc and Zylberberg (2004: 64) maintain that there is a positive correlation between higher levels of education and increased performance in the labour market. Borjas (2004: 951) reveals that in South Africa during the period 1995-2002, 64 *per cent* of tertiary graduates, 35 *per cent* of matriculated individuals and 14 *per cent* of individuals with an incomplete secondary education were successful in finding employment. During this period, economic growth therefore disproportionately created employment for educated individuals. Although economic growth is a necessary condition for employment growth, it is an inadequate condition for employment growth that is at the same rate as the rate of growth in the labour force.

The theory of human capital postulates that education and training is an investment producing income immediately (in terms of status) and in the future (monetary reward *via* higher earnings). Human capital can therefore be considered as an asset whereby the financial returns on investment in education and training must be compared with the return on non-human financial assets. Education and training increases an individual's productivity, which in turn increases wages of that particular individual (Kletzer 2004: 745). This however is only valid if wages reflect differences in productivity. The measurement of changes in productivity resulting from education and training tends to be complex. Cahuc and Zylberberg (2004: 70) and McConnell, Brue and Macpherson (2003: 111) distinguish between general training, which improves workers productivity for all types of jobs and specific training, which improves workers productivity for a single type of job.

4.7.1 GENERAL AND SPECIFIC TRAINING

In the **general training** period, the real wage equals the worker's initial marginal product less the training costs. In the post-general training period, the worker's value of marginal product (VMP) increases in all firms. As a result, all firms are willing to pay a wage equal to the increased VMP. Since there is no training in this period, the cost of hiring a worker is the real wage rate. The firm that provided the training must either increase the worker's wage to the increased VMP or lose the worker (Borjas 2005: 268). Thus, during the training period, the worker accepts a lower wage and in the post-training period earns

the returns by receiving a wage that equals the post-training VMP. If a firm pays for training and does not increase the post-training real wage rate, that firm will have an oversupply of trainees as well as a number of employees that resign in the post-training period. This is the worst scenario as the firm incurs all the costs and none of the benefits. The profit maximising firm will lower real wages due to the oversupply of trainees, thereby transferring training costs to employees. In order to attain higher wages, employees may have to play two employers against each other.

Borjas (2005: 269) indicates that with **specific training**, the training is linked explicitly to the firm. The real wage that other firms are willing to pay is independent of the specific training and is therefore the same for the worker as that in the pre-training period. The firm can pay for the training and collect the returns by not changing the real wage in the post-specific training period. The firm gains as the worker's VMP exceeds the real wage. If however, the worker resigns, the firm incurs losses. The worker would only invest in specific training if there is a guarantee that he will not be fired in the post-training period. It is common practice for the firm and the employee to share the costs as this eliminates the possibility of job separation in the post-training period. Workers are paid less than their VMP during the training period as they bear part of the costs. During the post-training period, they are paid less than their VMP in the firm that provided the training, but more than their marginal product in other firms.

According to Barker (1999: 210) and Cahuc and Zylberberg (2004: 91), the net return to education and training is derived by taking into account both the costs and benefits of education and training. Examples of direct costs are tuition and other fees incurred by the employer, employee or both. Examples of indirect costs are wages sacrificed during the period of education and training. The benefits of education and training are increased productivity, which benefits the employer to a large extent and higher wages for the individual after the period of education and training (depending on the type of training). The rate of return of education and training can therefore be either a private rate calculated for the individual or a public rate when taking into account the benefits of

education and training for economic growth. In the next section, we examine the extent of human capital investment in South Africa.

4.7.2 HUMAN CAPITAL INVESTMENT IN SOUTH AFRICA

Teal (2000: 2-3) reveals that the rate of investment in human capital in South Africa is relatively high and similar to that of Asia. He adds that the level of capital stock is also an important factor influencing growth rates due *firstly* to the occurrence of externalities and *secondly* to skilled labour being complementary to high-tech capital. Elliot (1991: 154) emphasises that all other things being equal, the returns from investing in human capital (individuals) must not be lower than the returns from investing in physical capital (machinery). The returns from investing in human capital in South Africa are low and decreasing relative to the returns from investing in physical capital (Teal 2000: 10). A possible reason is that low physical capital investment has resulted in smaller shifts in labour demand than the rapid growth in the population has resulted in shifts in labour supply. High returns from investing in physical capital will stimulate growth in South Africa as well as other African countries.

Kraak (2004: 14) maintains that in South Africa, in the period 1970-2000, the increase in primary education can be attributed to increases in public schooling, which largely benefited the African population, resulting in growth of 154 *per cent* over this period. The increase in secondary schooling was also significant, from 21 *per cent* in 1975 to 90 *per cent* in 1997. Rapid growth in higher education was also noted. Enrolments to higher institutions almost doubled from 340,000 in 1988 to 611,000 in 2000. Despite the increase in education at all levels, there is still a significant amount of unemployment in South Africa.

Table 4.1⁴⁶: Unemployment Rates by Education Level (1995 and 2002)

(Bhorat 2004: 957)

Education Level	1995	2002	Change	% Change in Rate of Unemployment
No Schooling	33.12	32.30	-0.82	-2%
Primary Education	35.49	41.38	5.89	17%
Incomplete Secondary Education	33.85	48.39	14.54	43%
Matric	25.28	39.51	14.23	56%
Tertiary [Refer to notes (b) & (c) below]	6.44	15.37	8.93	139%
Total	29.24	39.51	10.27	35%

⁴⁶ (a) October Household Survey 1995 and Labour Force Survey 2002 (Bhorat 2004: 957).

(b) The 1995 tertiary figure refers to individuals with a Grade 11 or lower and a diploma/certificate as well as individuals with a grade 12 and a diploma/certificate/degree.

(c) The 2002 tertiary figure includes individuals in (b) above as well as individuals with postgraduate degrees/diplomas.

(d) Standard Errors are corrected for according to frequency weights, the primary sampling unit and sampling stratification (Bhorat 2004: 957).

(e) The columns for change and percentage change in rate of unemployment are the author's additions.

Table 4.1 represents unemployment rates by educational level. Unemployment for all educational levels, with the exception of no schooling has increased. Unemployment levels grew by 56 *per cent* for unemployed individuals with a matric level of education and by 139 *per cent* for those individuals with tertiary qualifications. This is evident in the matric unemployment rates, which rose from 25.28 *per cent* in 1995 to 39.51 *per cent* in 2002, and tertiary unemployment rates, which rose from 6.44 *per cent* in 1995 to 15.37 *per cent* in 2002. The high matric unemployment rates can be attributed to the low labour absorption capacity of the economy (Bhorat 2004: 957; Kraak 2004: 24). These individuals are likely to experience lesser opportunities of either pre-employment training or being absorbed into the informal sector.

The high tertiary unemployment rates cannot be easily explained as there has been skill-biased employment shifts in the long run. Bhorat (2004: 960) identifies most unemployed tertiary degrees in the fields of education, training and development and is a result of public sector restructuring. This is followed closely by unemployed individuals with degrees in business, commerce and management studies as well as health sciences and social services. This highlights the importance of tertiary institutions producing skills that match current demand trends in the economy. Dréze and Sneessens (1997: 256) cite evidence suggesting that “skilled and educated workers who do not find jobs at their own level accept jobs below their qualification, for which somehow they receive priority. This aggravates the difficulties encountered by less skilled workers: eventually, most of the unemployment becomes concentrated among unskilled workers, at the bottom of the ladder, where the possibility of work below qualification hardly exists”.

According to Gunter and van der Hoeven (2004: 31), investing in education and training as well as upgrading policies and institutions managing innovation are the most valuable policy options for globalisation. Since globalisation has resulted in larger structural unemployment rather than frictional unemployment, targeted training for the unemployed is required as this allows employees the flexibility to switch to jobs that are in greater demand. We emphasise the importance of training in South Africa in Chapter Seven sections 7.4 and 7.5.

4.8 CONCLUSION

This chapter begins with an overview of the labour market. Unique characteristics of the labour market include a contractual relationship between the employer and employee as well as the complexity of the price of labour. In section 4.3, we examine labour demand and labour supply in a perfectly competitive market respectively and the equilibrium position thereof. When the supply of labour exceeds the demand for labour, the real wage is above the competitive level, and a situation of unemployment arises.

We then extend the analysis to imperfect competition and examine the bilateral monopoly model in detail. The bilateral monopoly model is relevant to South Africa given that the labour market is characterised by a high trade union presence. It is evident from our analysis in section 4.4 that imperfectly competitive markets contribute to unemployment in two aspects. *Firstly*, the monopolist and the monopsonist employ fewer workers than the perfectly competitive firm. *Secondly*, in the bilateral monopoly model, we note that trade union presence allows the possibility of the real wage lying above the perfectly competitive market equilibrium level (the analysis of which we extend to the South African labour market in Chapter Five section 5.3.2). We define unemployment in terms of the strict and expanded definitions and section 4.5.2 identifies four principal types of unemployment: structural, frictional, cyclical and seasonal. Next, we provide a brief overview of the reasons for unemployment, which include higher capital intensity, skill mismatch in the economy as well as rigid real wages and inflexible labour markets. Unemployment in South Africa is considered extensively in Chapters Five and Seven respectively.

Section 4.6 examines active and passive labour market policies. The objective of active policies is to improve the situation for employment and wages of the unemployed and disadvantaged population in general. The objective of passive policies on the other hand, is to increase the welfare of the unemployed and disadvantaged population without automatically pursuing an outcome for their placement in the labour market. The theory of human capital in section 4.7 highlights the importance of education and training for individuals to increase their stock of skills. Both the employer (in terms of higher

productivity) and the employee (in terms of higher wages after the period of education of training) benefit from this human capital investment. Accordingly, it is clear that unemployment cannot be alleviated purely by achieving higher economic growth (as reaffirmed in Chapter Seven in policies to alleviate unemployment in South Africa). The supply side skills must be addressed with the intention of eliminating the mismatch between workers available for employment and existing vacancies.

CHAPTER FIVE

GLOBALISATION, TRADE LIBERALISATION AND DEVELOPMENTS IN SOUTH AFRICA

“Don’t learn the tricks of the trade – learn the trade.”

ANONYMOUS

5.1 INTRODUCTION

Chapters Two and Three analyse international trade theory and policy respectively. In Chapter Four, we examine labour market theory, unemployment and labour market policies that effectively alleviate unemployment. In this chapter, the South African labour market is evaluated *vis-à-vis* the analyses of former chapters. We begin with a review of the effects of globalisation and trade liberalisation on the labour market in section 5.2. Next, we consider developments in the South African labour market. Section 5.3.2 contributes to the current debate concerning the reasons for unemployment and concentrates on linking some of the causes of unemployment to the South African labour market. We highlight the role of the bilateral monopoly in Chapter Four section 4.4.3 in unemployment. We then address the lack of human capital and rising levels of trade liberalisation as contributory factors to unskilled unemployment. Section 5.3.2.6 correlates international trade theory [the Hecksher-Ohlin (H-O) theorem, the Stolper-Samuelson theorem, the factor price equalisation (H-O-S) theorem, the Rybczynski theorem and the specific factors model] in Chapter Two and trade policy (in the form of trade liberalisation) in Chapter Three to the South African labour market. Here, we reveal that the predictions of the H-O theorem for South Africa are inaccurate and instead that this country, paradoxically for historic reasons, has developed an abundance of skilled labour and a relative shortage of unskilled (near-skilled) labour making the latter the scarce factor.

Section 5.4 discusses labour market flexibility, which is an increasingly important feature of labour markets. Labour market flexibility is an example of an active labour market policy instrument used to improve the functioning and outcome of labour market processes (Barker 1999: 13). The extent of labour market flexibility in South Africa is examined in section 5.4.3 and section 5.5 concludes this chapter with an overview of initiatives to address unemployment. We resume the discussion of current initiatives together with further policy prescriptions to alleviate unemployment in Chapter Seven.

5.2 GLOBALISATION, TRADE LIBERALISATION AND THE LABOUR MARKET

Globalisation and trade liberalisation has increased the openness of the economy in recent years and plays a progressively more important role in the labour market. Increased openness enables faster growth as developing countries are able to access capital equipment and other immediate inputs that would otherwise be exceptionally expensive. Downes, Gomez and Gunderson (2004: 141) and Jenkins (2006: 188) succinctly state that greater openness intensifies international competitiveness thereby forcing firms to behave more efficiently. This section begins with the definition of globalisation, then examines the rise of multinational corporations (MNCs) globally and concludes with a general overview of globalisation and trade liberalisation.

5.2.1 THE DEFINITION OF GLOBALISATION

According to Gunter and van der Hoeven (2004: 7), globalisation refers to the gradual integration of economies and societies. This integration arises due to new technologies, new economic relationships linked to national and international policies of governments, international organisations, business and labour. Globalisation is divided into two categories. The *first* relates to changes in trade, investment, technology, cross-border production systems, information flows and communication. This change is irreversible. The *second* category relates to increased homogenisation of policies and institutions across the world, for example trade liberalisation. This occurs due to policy changes and is avoidable. Since the objective of trade liberalisation is to remove or reduce anti-export

bias associated with protection against firms, this type of trade reform allows a country to achieve economies of scale *via* exporting as well as increases access to international developments in technology (Roberts and Thoburn 2004: 125).

5.2.2 THE RISE OF MULTI-NATIONAL CORPORATIONS (MNCs)

Accompanying globalisation has been the rise of multi-national corporations (MNCs) (Downes, Gomez and Gunderson 2004: 142). MNCs have divisions located in various countries where the production of intermediate products is more profitable. These divisions can be partly or fully owned by the MNC. Due to numerous mergers and acquisitions over the past two decades that resulted in the formation of powerful MNCs, these MNCs now account for more than two-thirds of world trade, more so in the trade of technologically advanced products. Gunter and van der Hoeven (2004: 17) indicate that MNCs base their decisions on the location of production, the most competitive combination of labour, technology, structural advantages and the business environment (taking into consideration the effects of low taxes on profit and political stability). Faria and Yildiz (2005: 44) reveal that mergers and acquisitions play an important role for foreign direct investment (FDI) between developed countries. In the 1990s, high-income and middle-income countries experienced vast amounts of competitive pressure to lower labour costs and taxes. The shift of manufacturing production from industrialised to developing countries caused large volumes of structural unemployment in the affected industries in industrialised countries. This increased the pressure for unemployment insurance. However, since lower tariffs result in lower revenues, governments were forced to reduce expenditure in the social sector.

Faria and Yildiz (2005: 57) indicate that the indirect employment and wage effects of the fall in the price of tradable goods depends on the price elasticity of demand of the tradable and non-tradable goods as well as the share of tradable intermediate goods in the total cost of production of non-tradable goods. If the demand for tradable goods is inelastic accompanied with labour and tradable intermediate goods that are

complements⁴⁷ in production, the impact of trade liberalisation on employment is positive.

Globalisation also results in increased competition between developing countries when setting up new production plants. This increased competition tends to be in the form of export processing zones (EPZs) and concessions, which include tax concessions and public provision of infrastructure for MNCs (Gunter and van der Hoeven 2004: 18). Large-scale structural changes lead to high levels of structural unemployment. Although countries that attract large-scale MNC investment compensate some of these unemployment costs at national level *via* job creation, the existing labour force experiences wage or job reductions.

In our analysis of the demand for labour in Chapter Four, we specify that the demand for labour is derived from the demand for products produced and is therefore affected by the product market conditions under which the products are sold. In the case of brand name MNCs, the theory works in reverse. Brand name MNCs place much focus on their public image in the global product market. This means that if MNCs exploit workers, it will have undesirable consequences for its reputation. It is therefore partly the demand for products that is derived from the demand for labour and is therefore affected by the labour market conditions under which the product is produced (Downes, Gomez and Gunderson 2004: 143). This implies that MNCs are more likely to improve wages and working conditions in the home country and less willing to operate low wage and poor working conditions ‘sweatshops’ abroad.

Carmody (2002: 263) cites examples of some South African companies that have liberalised their main business groups. These include Anglo-American, South African Breweries (SAB), Billiton, Old Mutual and Dimension Data. In recent years, these companies have shifted their primary stock market listings and head offices to London to access cheaper capital as well as facilitate their foreign expansion. Anglo-American in its first year (1999-2000) as a London listed company reported a 24 *per cent* increase in its

⁴⁷ Gross complements are defined in Chapter Four section 4.3.3.

profits. This was due largely to the appreciation in the dollar-rand exchange rate⁴⁸. In section 5.2.3, we focus specifically on the effects of globalisation and trade liberalisation on the labour market.

5.2.3 THE EFFECTS OF GLOBALISATION AND TRADE LIBERALISATION ON THE LABOUR MARKET

McCulloch (2001: 119) finds that when trade liberalisation increases profitability and decreases costs, the demand for labour tends to increase accordingly. In import-competing sectors however, the reduced demand for output reduces the demand for labour given that the demand for labour is a derived demand as analysed in section 4.3.1. Lee (1996: 487) expresses concern that low skilled work in industrialised countries is 'exported' to low wage countries *via* relocation. Hence, the reduced demand for low skilled workers in industrialised countries highlights the effects of increased import competition (Bhagwati 2004: 123; Wood 1995: 58). This outcome in developed countries is consistent with the Hecksher-Ohlin (H-O) theory and the specific factors model as examined in Chapter Two section 2.4. If we consider skilled and unskilled labour as two types of a factor of production and capital as the other factor as postulated by the specific factors model, developed countries reflect a comparative advantage in skilled labour and capital as these represent their abundant factors of production. Developing countries on the other hand reflect a comparative advantage in unskilled labour, as they are relatively abundant in this factor (Fedderke, Shin and Vaze 2003: 4). The removal of trade barriers in any country therefore has the impact of strengthening their respective comparative advantages and increasing inequalities within the labour market (Fischer 2003: 10).

⁴⁸ The currency in which commodities are traded is the dollar. An appreciation in the currency refers to an increase in the exchange rate (Mohr 2000: 148). This means that fewer dollars are required to purchase one unit of another currency (the rand).

Trade liberalisation increases openness to the world economy⁴⁹ and enhances resource allocation. Haltiwanger *et al* (2004: 191) maintain that both workers and employers in transition incur costs and the gains from trade depend on these adjustment costs. Reallocating resources is a key feature in realising the welfare gains from trade liberalisation. If the benefit from higher productivity exceeds the costs arising from factor redeployment, the net result is a gain in welfare. Thus, inefficient firms in import-competing industries are likely to experience lower productivity and may be forced to close down all production facilities. On the other hand, increased openness also increases opportunities for new business ventures *via* links into foreign markets.

Grossman and Rossi-Hansberg (2006: 3) however maintain that outsourcing production abroad, the term used synonymously for offshoring has resulted in low-skill wages not falling as much as anticipated in the United States given the combined forces of terms of trade movement and total factor productivity improvement⁵⁰. Outsourcing jobs abroad increases productivity and profits and allows firms to increase employment and wages in the home country for the work that cannot be easily outsourced abroad. However, due to a larger labour force as well as cheaper labour intensive goods imported from low-wage countries like Korea, China, Taiwan and India, most countries, including South Africa are still experiencing difficulties in increasing employment and wages. In 2005, imports to the United States from Korea comprised 58 *per cent* of total US imports.

Due to the lower costs that are associated with low wage countries, industrialised countries are also concerned that there will be larger outflows of foreign direct investment to low wage economies. This will reduce jobs further as the compensatory effects *via* increased imports of intermediate and capital goods and the return flow of profits will be low. Industrialised countries benefit from trade with low wage economies

⁴⁹ The world economy refers to the external economy that comprises of money and information as well as trade and investment divisions. These divisions are rapidly integrating into one transaction (Drucker 1994: 99).

⁵⁰ Grossman and Rossi-Hansberg (2006: 31) strongly maintain that a more thorough empirical study must be performed to further support this finding.

via the increased export of skill intensive, intermediate and capital goods. Edwards (2004: 57) cites evidence from Feenstra (1995) which indicates that outsourcing by developed countries may increase the relative demand for skilled labour in the developing country to which the production is transferred. This negatively affects employment in the developing country, which has a comparative advantage in unskilled labour but may benefit a developing country with a relative abundance of skilled labour. Foreign ownership⁵¹ benefits the developing country as it is exposed to markets that it would have otherwise been denied access to, were it not for globalisation. Feenstra (1998: 41) advocates that outsourcing has a qualitatively similar effect on reducing the demand for unskilled relative to skilled labour as does skill-biased technological change.

Kletzer (2004: 737) reveals that workers that are re-employed after being displaced by import-competing industries' experience earnings losses of approximately 13 *per cent*. However older, less formally educated and lesser skilled workers are likely to experience earnings losses in excess of 30 *per cent*. Moore and Ranjan (2005: 392) summarise that globalisation increases the price of skilled intermediate products and decreases the price of unskilled intermediate products. This therefore results in a fall in unemployment in the skilled sector and a rise in unemployment in the unskilled sector. The skilled real wages rise and the unskilled real wages fall. Alternatively, it can be said that the rate of unemployment in the import-competing sectors rises and falls in the export sectors as a result of globalisation.

Gaston and Nelson (2004: 772) highlight an indirect effect of globalisation as that on trade unions. The authors assert that increased competition *via* globalisation reduces post-globalisation bargaining, even if there is no change in the relative bargaining power of trade unions. In addition, if the elasticity of demand for labour increases, higher levels of imports, outsourcing and foreign direct investment have the effect of directly reducing the market power of trade unions. According to Jenkins (2006: 189), increased openness increases the elasticity of demand for labour. By investing abroad or importing goods that are produced by foreign labour, employers and final consumers indirectly substitute

⁵¹ These firms have at least 10 *per cent* foreign ownership (Edwards 2004: 57).

foreign workers for domestic workers. The size of trade unions may also decrease as the returns to union membership fall, further reducing their bargaining power. This makes it difficult for workers to achieve higher labour standards and benefits as it is more difficult to pass the costs of better working conditions to employers. In section 5.2.3.1, we emphasise some of the more significant outcomes and conclusions of globalisation, trade liberalisation and the labour market relating to this study.

5.2.3.1 PRIME OBSERVATIONS: GLOBALISATION, TRADE LIBERALISATION AND THE LABOUR MARKET

Ghose (2000a) and (2000b: 287) cites evidence indicating that trade liberalisation is one of the larger forces resulting in growing inequalities between skilled and unskilled workers in industrialised countries. This skill gap has increased since the latter 1970s, the same period that has seen the lowering and eliminating of barriers to international trade. The production of goods that are unskilled labour intensive has shifted from industrialised to developing countries resulting in a reduced demand for unskilled labour in industrialised countries. The reduced demand takes the form of either lower wages of unskilled labour or in the presence of wage rigidities, a higher unemployment rate of unskilled workers or both (Kletzer 2004: 740).

In developing countries, job losses in uncompetitive industries occur immediately while there is a time lag for job creation to occur in the new competitive industries due to insufficient investment in organisations, bottlenecks in infrastructure and lack of skilled labour (Lee 1996: 489). A further point to note is that although the benefits of trade liberalisation are positive, the transition costs are high accompanied by increased wage and income inequality. This is contrary to the Heckscher-Ohlin-Samuelson (H-O-S) model (examined in Chapter Two) which predicts that trade liberalisation should increase the relative wages of low skilled workers and decrease wage inequalities in low wage countries. Lee (1996: 490) indicates that developing countries in Latin America are experiencing rising wage inequalities, which benefit skilled workers to the detriment of

unskilled workers⁵². He further adds that these inequalities may relate more so to changes in the countries domestic policies as opposed to trade liberalisation. Another possible explanation is that middle income countries, like South Africa where wage inequalities have increased may actually now be endowed with skilled labour, even if this skilled labour endowment is below that of industrialised countries. Their exports require labour that is more skilled and consequently, trade liberalisation increases the demand for skilled workers, resulting in higher inequalities. On the contrary, Fedderke, Shin and Vaze (2003: 25) find that trade has a positive impact on the use of labour relative to capital and unskilled labour relative to skilled labour in manufacturing. The authors suggest that it may in fact be the inaccurate pricing of labour that plays a significant role in unemployment.

Edwards (2004: 50-51) reveals results from two surveys that indicate that in South Africa, higher levels of import competition negatively affect larger firms as opposed to smaller firms. Higher unemployment of unskilled labour specifically, has occurred despite the improved export growth and export competitiveness arising from trade liberalisation. Approximately 40 *per cent* of the large exporters also experience significant increases in competitiveness as a result of trade liberalisation. This can however be attributed to export-orientated firms restructuring production and employment to increase labour productivity and export competitiveness. Although the surveys do not reveal the relationship between competitiveness and unemployment, they do highlight that firms supplying the export market tend to reduce total employment more than firms supplying the domestic market only.

On the whole, Ghose (2000b: 288) claims that there is no consensus with respect to changes in trade patterns explaining labour market developments. This is due to disagreement on the methodology used in empirical tests on the effects of trade on the labour market, available estimates showing the effects of trade on labour to be small as well as the observed movements in relative prices do not indicate that trade is a

⁵² We discuss the Latin American experience and specifically highlight rising inequalities in Chapter Six section 6.3.

significant cause of labour market changes. Borhat and Cassim (2004: 22), Dunne and Edwards (2006: 9), Edwards (2001: 43), Holden (2001: 715) and Gaston and Nelson (2004: 771) concur that trade liberalisation does not play a significant role in short-term job losses and job creation. Low levels of domestic demand, skills shortages and skill-biased technological change are more closely linked causal factors of unemployment.

According to Lee (1996: 491-492) globalisation increases global competition which in turn increases pressures to reduce world wages and labour standards. Increased competition results in cost minimisation strategies that impact negatively on wages and employment conditions in organisations. Jenkins (2006: 190), Lane (1995) and Roberts and Thoburn (2004: 137) maintain that globalisation and trade liberalisation are not primary causes of unemployment. It is the failure of economies to adjust to these changes and labour market distortions, which have altered employment thereby generating unemployment. Bettio and Rosenberg (1999: 271), Friedrich *et al* (1998: 504) and Valverde *et al* (1997: 597) agree that flexible work practices (accompanying growth and employment) have become increasingly important in firms' attempts to become more competitive. We examine labour market flexibility in considerable detail in section 5.4.

5.3 DEVELOPMENTS IN THE SOUTH AFRICAN LABOUR MARKET

This study pertains specifically to developments in the South African labour market. We begin this section with an overview of unemployment in South Africa. The links to unemployment are then summarised followed by a correlation of international trade theory and the South African labour market.

5.3.1 AN OVERVIEW OF THE SOUTH AFRICAN LABOUR MARKET

One of South Africa's most important problems is the high rate of unemployment. The Report of the Presidential Commission to Investigate Labour Market Policy (June 1996: 1) states that the objectives of the South African government include eliminating poverty *via* job creation, achieving better remuneration for poor employees as well as eliminating

discrimination together with race and gender based inequalities (thereby enabling equal access to employment for all individuals). The South African government is committed to halving unemployment by 2014. These objectives require growth in GNP per capita and GDP⁵³. Unemployment is still increasing even though there is a positive relationship between GDP and employment. This is due to the relatively slower rate of GDP growth (in comparison to other developing countries, namely China and India as highlighted in section 5.3.2.5) as well as the increase in the number of individuals searching for employment (the growth of the labour force). We draw attention to these contributory factors to unemployment in section 5.3.2.

Low skilled labour absorption must increase and so too must the skills base (Mayer and Altman 2005: 48; van der Linde 2000: 697). Increasing labour absorption depends on the expansion of both higher value traded sectors and low productivity non-traded sub-sectors. Mayer and Altman (2005: 45) cite the principal cause of unemployment in South Africa as the increased capital intensity of the economy. This is consistent with the Heckscher-Ohlin model examined in Chapter Two and the view taken in this thesis that although South Africa has a vast resource of labour, there is a relative shortage of moderately skilled labour. This explains why unskilled labour intensive exports decreased by 2.1 percentage points (from 8.9 *per cent* to 6.8 *per cent*) of total exports in the period 1992-1999 and human capital intensive sectors increased by 9 percentage points (from 49.5 *per cent* to 58.5 *per cent*) in the same period⁵⁴. **Unskilled labour intensive industries** comprise of textiles; wearing apparel; footwear; wood; furniture; fixtures primarily of metal; plastic products; glass and glass products; cutlery, hand tools and general hardware; electronic and communication components; ship building and repairs plus transport equipment. **Skilled labour intensive industries** include paper and paper products (excluding pulp, paper and paperboard); printing and publishing; chemical products; rubber; iron and steel basic industries; fabricated metal products; radio, television and communication products; electrical appliances and housewares; railroad

⁵³ The gross national product (GNP) refers to the income of all permanent residents of the country (Mohr 2000: 35). GDP is defined in Chapter Three (section 3.5).

⁵⁴ This is the latest data available in the literature.

equipment and bicycles; watches, clocks and jewelry (Tsikata 1999: 67-68). South Africa has a high share of exports using skilled labour and a low and decreasing share of exports using unskilled labour. This pattern is also consistent with the specific factors model analysed in Chapter Two section 2.7.

Employment increased from 9.6 million in 1995 to 11.2 million in 2002 (Bhorat 2004: 945). South Africa created 1.6 million jobs during this period as per the expanded definition of unemployment. In the same period, there were approximately 5 million new entrants into the labour market, thus resulting in 3.4 million individuals (some of which were first time entrants into the labour market) jobless since 1995. Mayer and Altman (2005: 42) establish that in percentage terms, this translates to 30.5 *per cent* of the South African population being unemployed in 2002 as per the strict or official definition of unemployment. **Table 5.1** shows the unemployment percentages for the period 1994 to 2002.

Table 5.1⁵⁵: Unemployment percentage (1994 - 2002)
(Mayer and Altman 2005: 43)

	1994	1995	1996	1997	1998	1999	2000	2001	2002
Strict definition	20.0	16.9	19.3	21.0	25.2	23.3	25.8	29.5	30.5
Expanded definition	28.6	26.5	34.9	38.9	37.5	36.2	35.9	41.5	41.8

The unemployment percentages reveal that South Africa's employment growth is insufficient relative to the growth in the labour force. Bhorat (2004: 948) finds that over the period 1995-2002, there was an annualised mean of 2.8 *per cent* for economic growth and 2.1 *per cent per annum* for employment growth. Although employment grew at a slower rate than economic growth, this comparison reveals a less ascetic picture of

⁵⁵ (a) The source of the 1994 – 1999 figures is the October Household Survey.

(b) The source of the 2000 – 2002 figures is the Labour Force Survey. (Mayer and Altman 2005: 43).

employment expansion than is often indicated. Mayer and Altman (2005: 43) further add that according to the September 2002 Labour Force Survey, 75 *per cent* of the unemployed population in 2002 comprise of individuals less than 35 years of age. In addition, the proportion of individuals employed in low, medium and high skilled jobs from 1997 to 2002 indicates that contrary to most evidence, more low skill and less high skill jobs were created during this period. However, this could also be indicative of the fact that there are a limited number of high skill individuals available to fill vacancies and lesser skilled individuals may be successful in filling these vacancies.

Bhorat (2004: 953-955) provides evidence indicating that in South Africa, at sectoral level, there are declining proportions of unskilled workers and higher shares of semi-skilled and skilled workers. Table 5.2 highlights the changing nature of employment by the three skills categories at sectoral level. In the period 1995-2002, the proportion of skilled workers in manufacturing employment rose by 4 percentage points, semi-skilled rose by 1 percentage point while that of unskilled workers fell by 4 percentage points representing a shift away from unskilled toward skilled workers. In this period, the total share of unskilled workers in the labour force fell by 4 percentage points (from 31 *per cent* in 1995 to 27 *per cent* in 2002). The total share of semi-skilled and skilled employment both increased by 2 percentage points. This reinforces our original insight that unskilled labour (near-skilled) is possibly the scarce resource in South Africa.

Table 5.2: Share of employment by three skills categories and sector
Bhorat (2004: 954)

Sector	Year	Skilled	% Δ	Semi-skilled	% Δ	Unskilled	% Δ
Agriculture	1995	0.01		0.22		0.77	
	2002	0.01	0.00	0.56	0.34	0.43	-0.34
Mining and Quarrying	1995	0.04		0.77		0.19	
	2002	0.04	0.00	0.89	0.12	0.07	-0.12
Manufacturing	1995	0.06		0.74		0.19	
	2002	0.10	0.04	0.75	0.01	0.15	-0.04
Utilities	1995	0.06		0.79		0.13	
	2002	0.09	0.03	0.82	0.03	0.08	-0.05
Construction	1995	0.06		0.74		0.19	
	2002	0.06	0.00	0.74	0.00	0.20	0.01
Internal Trade	1995	0.14		0.66		0.20	
	2002	0.10	-0.04	0.60	-0.06	0.30	0.10
Transport and Communication	1995	0.15		0.73		0.11	
	2002	0.22	0.07	0.67	-0.06	0.11	0.00
Finance	1995	0.17		0.77		0.06	
	2002	0.25	0.08	0.67	-0.10	0.08	0.02
Community Services	1995	0.13		0.71		0.15	
	2002	0.19	0.06	0.70	-0.01	0.11	-0.04
Private Households	1995	0.00		0.03		0.97	
	2002	0.00	0.00	0.16	0.13	0.84	-0.13
Unspecified	1995	0.07		0.35		0.17	
	2002	0.05	-0.02	0.17	-0.18	0.04	-0.13
Total	1995	0.09		0.59		0.31	
	2002	0.11	0.02	0.61	0.02	0.27	-0.04

Alleyne and Subramanian (2001: 16-22) estimate the capital to labour ratio and the skilled to unskilled ratio of exports and imports⁵⁶. The results indicate that South Africa's exports are relatively capital intensive (compared with both imports and domestic consumption) for trade with high, middle and low-income countries. This we see as consistent with the predictions of the Heckscher-Ohlin theorem. In terms of skill, the results highlighted in Chapter Two section 2.6.2.1, suggest that South Africa is more endowed with unskilled labour since the skilled-unskilled labour ratio is greater for net trade than for consumption. Disaggregated trade data⁵⁷ reveals that exports comprise a

⁵⁶ At the outset, Chapter Two section 2.6.2.1 presents tests and evidence for South Africa's trade. Alleyne and Subramanian (2001) present the most detailed full factor content analysis of South Africa (using 1997 data).

⁵⁷ South Africa is a net exporter of factor services to low-income countries, but a net importer from high-income countries. According to Alleyne and Subramanian (2001: 18), the appropriate test condition to determine factor abundance is different (comparing the factor intensity of net trade and consumption) to results revealed through disaggregated trade data. The conclusions are however similar.

lower skilled to unskilled labour ratio than imports for trade with high-income countries. The results for trade with medium-income countries are insignificant. In relation to its low-income partners, South Africa is a developing country abundant in skilled labour and exports skilled labour intensive goods.

Although South Africa has an ‘abundance of labour’, there is relative scarcity of unskilled or near-skilled workers. An insufficient amount of labour has been afforded the education to attain the basic skills to even be contemplated of as unskilled labour. However, there has been an overinvestment in human capital in other sectors (*via* a perverse tertiary education system coupled with the impact of unionisation) making for a relative abundance of highly skilled labour. Chapter Four section 4.7 reveals that in South Africa in the period 1995-2002, the highest proportion of individuals successful in finding employment were tertiary graduates. However, when skilled and educated workers do not find jobs at their own level, they accept jobs below their qualification, contributing to the difficulties encountered by less skilled workers.

In Chapter Six section 6.3.2, we note that middle-income countries (like South Africa) are now endowed with skilled labour by world standards, even though their skill endowment is still below that of industrialised countries. Their comparative advantage is therefore no longer in the production of exports manufactured by using unskilled (near-skilled) labour intensively. Trade liberalisation is increasing the demand for the ‘new’ abundant factor of production, that is, skilled labour. Our review of the literature therefore provides an ambiguous picture of the factor content in South Africa.

Fedderke, Shin and Vaze (2003: 2) add that the wages of skilled labour has also risen relative to unskilled labour. One of the reasons postulated for rising wage inequality is South Africa’s trade with less developed countries (*via* the SADC and the SACU as discussed in Chapter Three section 3.8) that are also abundantly endowed with unskilled labour. This result is consistent with the Stolper-Samuelson theorem (as described in Chapter Two section 2.4.2).

Roberts and Thoburn (2004: 126) examine the effects of globalisation on the South African textiles industry⁵⁸ as this is an industry most affected by increased import competition. In the 1990s, South Africa's nominal tariffs on textile products more than halved. Trade liberalisation requires firms to invest in machinery plus rationalise and restructure production in order to remain competitive. It also requires, where possible, that firms focus on niches in the market, in addition to producing differentiated products. Product differentiation is described in Chapter Two, section 2.8.2. Restructuring and upgrading requires capital, which can possibly be acquired *via* foreign direct investment (FDI). Commercial banks are hesitant to lend to this sector due to the vast number of industry closures. Many firms have been forced to close down parts of their business in cost cutting measures as they are unable to adopt beneficial strategies over and above experiencing a low level of domestic demand (Roberts and Thoburn 2004: 131). These drawbacks have resulted in substantial job losses. In terms of foreign investment, German investor Claas Daun (chairman of holding company KAP-Beteiligung AG, which is listed on the Frankfurt stock exchange) has shares in over fifty companies in textiles, clothing and footwear in South Africa. In addition, Taiwanese firms are also expanding in the clothing and textiles industries in South Africa, absorbing opportunities presented by the African Growth and Opportunity Act (AGOA).

The lack of adequately skilled workers is a problem that persists in South Africa, which policies aimed at reducing unemployment, must acknowledge and seek to address. The skills of the unemployed and the skills that tertiary institutions impart needs to be analysed in conjunction with the skill requirements of the economy. This will be a value-added contribution in understanding aspects that need to be developed to reduce and eliminate unemployment in South Africa (van der Linde 2000: 696).

According to the Global Policy Network and Economic Policy Institute (2005: 44), there is an increase in informal labour both in South Africa and internationally due to the lack of formal sector jobs. In most countries, the poor generally find employment in the informal sector that provides locally traded basic goods and services. McCulloch (2001:

⁵⁸ The contraction in the South African textiles industry is also highlighted in section 5.5.

121) postulates that paid employment in the informal sector can indicate the extent to which trade reform has been successful in producing employment gains. South Africa's informal sector is still relatively small in comparison to the informal sector of other middle-income and developing countries, such as those in Sub-Saharan Africa, Latin America and Asia (which we review in Chapter Six) (Kingdon and Knight 2005: 22).

A cause for concern is that the informal sector is associated with poor working conditions, poverty and low living standards in developing countries. In 2004, informal employment in South Africa comprised 22.5 *per cent* of total employment and represented a primary source of income for most informal sector employees. Kingdon (2005: 3) indicates that real wages in the informal sector fell by 7.8 *per cent* in the period 1997-2003. Furthermore, employees in the informal sector tend to have either no or low levels of education. In South Africa, 37 *per cent* of informal sector employees' have less than a grade six education and less than 4 *per cent* possess a diploma or higher degree. The informal sector is also characterised by longer working hours, lower wages and income and a lack of permanent formal employment benefits. According to Bhorat (2004: 952), although higher levels of output result in employment growth, the critical obstacle to long run sustainable employment is that the labour force does not possess adequate supply characteristics, namely, education and training. The Global Policy Network and Economic Policy Institute (2005: 44) further add that active labour market policies are required in South Africa since its informal sector comprises a high proportion of employment.

Mayer and Altman (2005: 34) also highlight the importance of the development of skills in addressing unemployment in addition to being a key factor that should be considered when expanding labour intensive industries. South Africa has the world's largest known reserves of gold (35 *per cent*), manganese (80 *per cent*), chromium (68 *per cent*), platinum group metals (PGMs) (56 *per cent*), vanadium (45 *per cent*) and aluminosilicates (37 *per cent*) (Schmidt-Whitley and Sutorius-Lavoie 2004: 22). Apart from oil, South Africa is self sufficient in most minerals. The mining industry is export orientated and approximately 90 *per cent* of the country's exports comprise of gold, diamonds, PGMs and coal. The benefits of an economy that exports minerals are not spread across

the country, thereby resulting in high levels of unemployment and inequality because other industries are capital intensive, and job creation is not a requirement of manufacturing development. As highlighted in section 5.2.3, reallocating resources is a significant feature in realising the welfare gains from trade liberalisation.

Schmidt-Whitley and Sutorius-Lavoie (2004: 22) reveal that the mining industry (which is largely labour intensive employing approximately 500,000 people directly and 150,000 indirectly) has been challenged by significant disruptive events, namely the strengthening of the rand in 2004. Despite the price of gold increasing by 15 *per cent* (in dollar terms) in 2003, revenues fell in rand terms due to the volatility of the South African currency. Smaller companies experience difficulties in raising capital and sourcing assets. This coupled with declining grades and increased depths of mining results in production costs rising while actual production is falling. The resultant effect for this export industry is that to reduce production costs, many companies had to retrench several thousand workers. In Chapter Seven section 7.2, we provide supporting evidence from the Labour Force Survey confirming that the second largest fall in employment is in the mining industry. The greatest reduction in employment in this sector was in 2004 (by 148,000 workers).

A higher level of foreign investment is often regarded as an instrument that boosts economic growth and employment. According to Carmody (2002: 259), trade liberalisation stimulates foreign direct investment as it enables easier access to imports as well as improves incentives to export. Based on the standard economic theory that marginal productivity of capital is higher in rich countries that have relatively higher capital to labour ratios, poor countries that have relatively lower ratios will borrow from these countries. In this way, the flow of funds from rich to poor countries should enhance the growth of poor countries. Prasad, Rajan and Subramanian (2006: 2) cite evidence for developing countries that paradoxically differs from this assumption. *Firstly*, there is a strong positive relationship between current account balances and growth in developing

countries like South Africa. The current account⁵⁹ of the balance of payments is a summary of the net amount of capital flows and domestic savings in relation to domestic investment. The current account deficit is therefore a measure of the net amount of capital flowing into South Africa or the excess of domestic investment over domestic savings. Even though there are opportunities for foreign investment and private consumption, growth in developing countries may be constrained by obstacles in the financial sector that make it possible for investment to be financed *via* domestically generated savings.

Prasad, Rajan and Subramanian (2006: 5) suggest that the *second* inconsistency in terms of the flow of funds relates to developing countries calculatedly choosing to utilise foreign capital in moderation in order to avoid overvalued exchange rates. This allows the manufacturing and tradable goods sector to remain competitive and in so doing, enhances growth. In other words, countries that have higher self-financing ratios grow faster than countries with lower ratios. The research also highlights that faster growing countries have better investment opportunities, generate more savings and therefore attract higher levels of foreign investment. According to Gilbert (2006: 2), Joseph Stiglitz⁶⁰ supports the view that money is flowing from the rich to the poor countries. This flow of funds must increase consistently and be invested in the necessary valued added sectors in the poorer countries.

On balance, the literature specifically in section 5.2.3.1 and in this section together with the empirical evidence for South Africa in Chapter Two section 2.6.2.1 supports the argument that although South Africa has an abundance of labour (with substantial unemployment), it may have a scarcity of unskilled or near-skilled workers. South Africa may actually now be endowed with skilled labour, even if this skilled labour endowment

⁵⁹ The current account records transactions in goods and services, factor or primary income and current transfers (Mohr 2000: 129).

In South Africa, the balance on the current account = merchandise and net gold exports + services and income receipts – merchandise imports – payments for services – income payments – current transfers (net receipts – net payments).

⁶⁰ 2001 Nobel Prize winner for economics and former World Bank chief economist.

is below that of developed countries. South Africa's exports require labour that is more skilled and consequently, trade liberalisation increases the demand for skilled workers, resulting in higher inequalities. Moreover, for historic and other reasons there has been an insufficient investment (*via* secondary schooling) to provide workers with the most elementary of skills to even be thought of as unskilled labour. We proceed to examine the causes of unemployment in the South African economy, which is an extension of our synopsis of the South African labour market in this section.

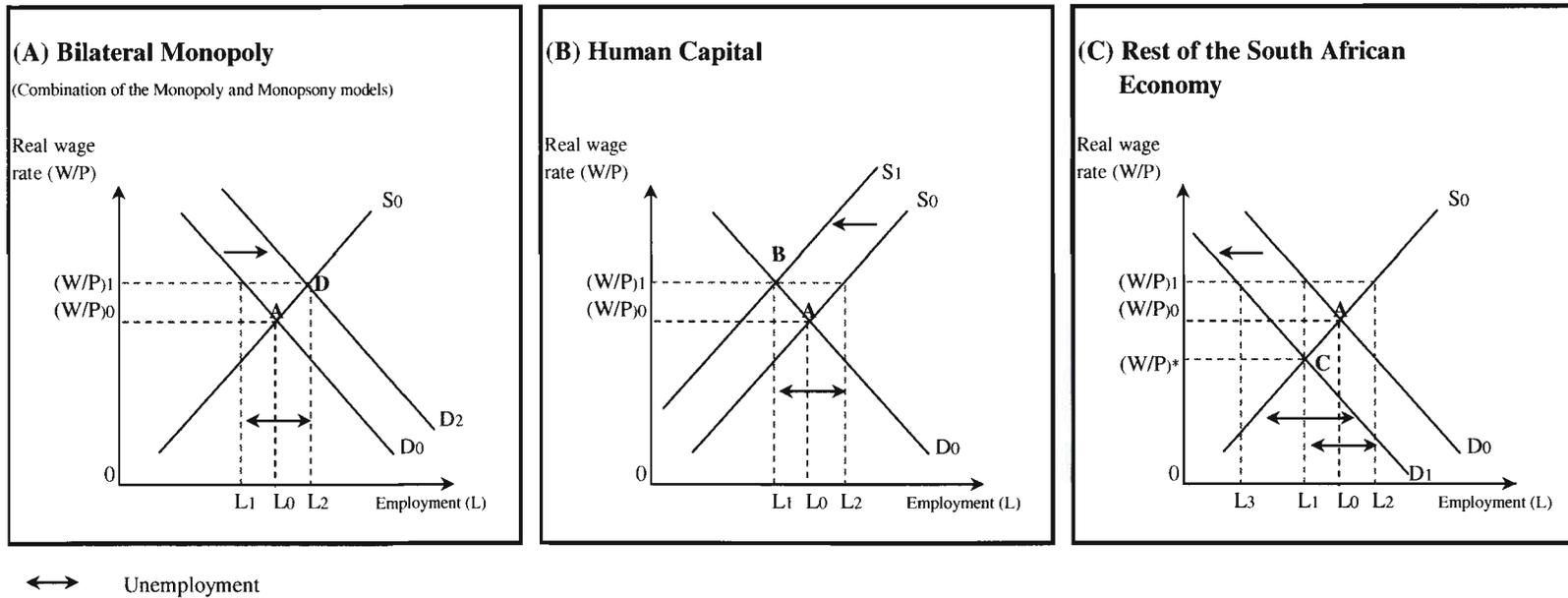
5.3.2 LINKING THE CAUSES OF UNEMPLOYMENT IN THE SOUTH AFRICAN ECONOMY

It is noted in Chapter Four, section 4.5.2 that South Africa is characterised largely by structural unemployment because even during periods of high economic growth there are insufficient job opportunities to absorb the existing unemployed and new entrants into the labour market. Just as unemployment is increasing, so too, are the real wages for those workers that are employed (Carmody 2002: 261). In this section, we concentrate on the causes of unemployment that are highlighted in previous sections of this plus preceding chapters and link them to the South African economy⁶¹. In **Figure 5.1**, we observe that rigidities in the labour market contribute to a real wage rate above the competitive market clearing level resulting in unemployment. Jenkins (2006: 187) asserts that if there are rigidities in the labour market, trade liberalisation affects quantities (unemployment levels) rather than prices (real wages). From our analysis of labour markets in Chapter Four, it is clear that changes in the demand for labour are reflected in changes in wage rates. Therefore, a central point of discussion in this section is on real wage rate above the market clearing level.

⁶¹ The linkages in this chapter relate largely to Chapter Two sections 2.4 (neoclassical theories of trade), 2.5 (the Rybczynski theorem), 2.6.2.1 (empirical evidence for South Africa) and 2.7 (the specific factors model); Chapter Three section 3.7 (the effects of trade liberalisation in South Africa); Chapter Four sections 4.4 (extending the analysis to imperfect competition), 4.6 (labour market policies) and 4.7 (the theory of human capital) and Chapter Five sections 5.2.3 (the effects of globalisation and trade liberalisation on the labour market) and 5.3.1 (an overview of the South African labour market).

We now propose to combine the analyses of previous chapters. Figure 5.1 **diagram (A)** combines the effects of a monopolist (trade union) and monopsonist (employer) in the bilateral monopoly model (as examined in Chapter Four section 4.4.3). **Diagram (B)** shows the effects of investment in human capital on unemployment, which is thoroughly analysed in Chapter Four, section 4.7 and search, which we identified in Chapter Four in the definition of unemployment as well as in the analysis of labour market policies (sections 4.5 and 4.6 respectively). The rest of the economy is covered in the third diagram. We also use **diagram (C)** to examine the role of lower levels of consumer spending in reducing the demand for labour. In all three diagrams, the real wage (W/P) is drawn on the y-axis and the level of employment (L) on the x-axis.

Figure 5.1: Linking the causes of unemployment to the South African Economy^{62 63}



⁶² These diagrams summarise the links of the various aspects of this study to unemployment.

The detailed analyses of the theories and models are completed in the respective sections in Chapters Two to Four as well as in this Chapter.

⁶³ Note that the full bilateral monopoly model is not drawn in diagram (A). We show the effects on real wage and employment in relation to the perfectly competitive model. Chapter Four section 4.4.3 examines the bilateral monopoly model in detail.

In each of the three diagrams, we have drawn the demand for labour (D_0) and supply of labour (S_0) curves as functions of the real wage. Starting with diagram (A), we begin at the full employment level. The market clearing equilibrium level of employment is established at the intersection of the D_0 and S_0 curves. In a fully flexible labour market, with no impediments, the real wage $(W/P)_0$ would be given by point (A) in each diagram where L_0 workers are employed. Our analysis relies on the rigidities in the wage bargaining process to suggest that a real wage is set above $(W/P)_0$ at $(W/P)_1$. This is shown in diagram (A). The real wage rate applies to the markets' shown in the other two diagrams. Bertola and Ichino (1995: 374) find that unemployed workers cannot participate in the wage bargaining process to accept lower wages than those paid to workers currently employed.

Since the unemployed cannot replace the employed workers and it is costly to get rid of the unionised workers who are employed, (L_2-L_1) employees in diagram (A) and the new entrants to the labour market are unemployed. The currently employed labour force [up to L_1 in diagram (A)] therefore has a higher bargaining power as it is costly for firms to substitute employed workers with unemployed workers (Bertola and Ichino 1995: 373). McConnell, Brue and Macpherson (2003: 572) maintain that this is an example of the *insider-outsider theory* that has emerged to explain downwardly rigid wages. The *insiders* are the employed workers that have some degree of market power and the *outsiders* are the unemployed that cannot bargain to reduce the existing wage to obtain employment. In the South African context, this study combines the analysis of the monopsony with costs of replacement to explain unemployment.

5.3.2.1 THE BILATERAL MONOPOLY MODEL

The **bilateral monopoly model** as analysed in Chapter Four, section 4.4.3 exhibits a certain degree of inflexibility in the labour market. The union is the monopoly seller of labour and the employer is the monopsonistic purchaser of this specific type of labour. This model is relevant to South Africa as trade unions play a significant role in obtaining higher wages for their members' while possibly reducing productive efficiency through restrictive practices (Gregg and Manning 1997: 397; Mahadea 2003: 33). The employee's

wage therefore lies between the union's and the employer's real wage levels. In **Figure 5.1 diagram (A)** on page 200, the union seeks to employ L_2 employees at wage rate $(W/P)_1$. This wage rate lies above the market clearing level. At this wage rate however, the quantity of labour demanded by the employer is only L_1 workers. This results in unemployment to the extent of (L_2-L_1) workers. The outcome of the wage rate effectively reflects the bargaining strength of the union and the employer and one consequence of this is some unemployment.

McConnell, Brue and Macpherson (2003: 346) add that the *spillover effect* of displacing (L_2-L_1) union workers in non-union markets results in lower non-union wages. This is based on the assumption that all or some of the unemployed workers find employment in the non-unionised sector. Consequently, the high wages in the unionised sector is accompanied by job losses which spillover into the non-unionised sector and reduce non-union wages (assuming that wages are downwardly flexible). This lower real wage is $(W/P)^*$ as reflected in diagram (C). However, other labour economists maintain that wages for any group of workers will be determined on the wages paid to comparable workers. Therefore, union and non-union wages will be positively linked. The increase in non-union wages that an employer offers in response to the threat of unionisation is referred as the *threat effect*. This will result in non-union wages lying between $(W/P)_0$ and $(W/P)_1$ in diagram (C).

According to Booth (1995: 99), the union sets wages so that the percentage increase in the member's utility (because of the percentage increase in wages) is exactly equal to the elasticity of labour demand. Since increases in wages reduce employment in the unionised sector, workers chances of unemployment are therefore higher. During the peak phase of the business cycle, an increase in the demand for goods increases the demand for labour. This is because the demand for labour is derived from the demand for output. This shifts the demand for labour curve to the right to D_2 in Figure 5.1 diagram (A) on page 200. A new level of equilibrium is established at higher real wage $(W/P)_1$ and employment level L_2 corresponding to point (D). If the elasticity of labour demand is unaffected, the union wage remains constant. Booth (1995: 99) adds that if wages are

rigid and there are fluctuations in the price of goods, these fluctuations result in all the adjustments occurring *via* employment. Schultz and Mwabu (1998: 701) add that reducing the union wages by half will have the effect of creating a 2 *per cent* increase in employment. This is effectively a redistribution of wages from high-income union workers to low income non-union workers.

Carmody (2002: 267) cites evidence revealing that one of the reasons that investment was discouraged in the past was due to the presence of conglomerates or MNCs (examined in section 5.2.2) monopolising markets. Globalisation has been successful to an extent whereby it increases foreign direct investment into export-oriented industries. However, where foreign direct investment takes the form of acquisitions, it does not have the effect of creating extensive employment.

Mittal Steel (SA)⁶⁴ maintains a dominant position (of 84 *per cent*) in integrated steel production in South Africa. Mittal has four major steel operations in South Africa and the core business is the production of flat and long steel products. Many producers are forced to either purchase from Mittal or import flat steel. This allows Mittal to charge higher prices in the domestic market than they would in the exported steel market. Mittal therefore justifies charging higher prices because of the higher demand for steel. Campbell and Hackett (2006: 38) reveal that this lack of competition is an area of concern for the Department of Trade and Industry (DTI) and the Accelerated and Shared Growth Initiative of South Africa (ASGISA) (as examined in section 5.5 and Chapter Seven section 7.4.2) as there is a need for investment in downstream industries that purchase from Mittal. These downstream industries are subject to excessively high prices, on average 50 *per cent* more from Mittal in the local market. Mittal's local price of flat steel varies in accordance with customer location as well as the use of the steel in the final product⁶⁵. The CEO of Mittal, Davinder Chugh further justifies the pricing in the context of agreements to stimulate exports. Chugh maintains that although downstream producers are dissatisfied with prices, they will not be able to compete with cheap

⁶⁴ Mittal Steel (SA) illustrates an example of a monopoly in the production of steel in South Africa.

⁶⁵ This is because there is no international price for steel as there is an international price for gold.

imports from China. Mittal has successfully entered into agreements to restrain cheap imports into South Africa.

Roberts (2004: 239) cites the example of Iscor where the domestic market is subject to price margins that are higher than that received for exported steel. This practice is referred to as import parity pricing⁶⁶. This offers scope for arbitrage (which we discuss in Chapter Two) as Iscor's customers from abroad have incentive to resell steel into the South African market. The arrangement with MacSteel International however ensures that this does not occur by segmenting the export market from the domestic market. While import parity pricing is rationalised as maximising returns from the local market to support operations as a whole, it is inefficient in terms of allocative and dynamic efficiency considerations. Since benefits are not transferred to low steel downstream producers, under-consumption and under-development arise in these industries. This results in downstream producers becoming uncompetitive and has negative repercussions for employment.

On 29 March 2006, the South African government removed the 5 *per cent* import tariff on certain carbon steel and stainless products (Cohen 2006). Government indicates that the abolition of the tariff (subject to antidumping conditions) will encourage the metals sector and has the potential to generate approximately 379,000 jobs by 2014 (Campbell and Hackett 2006: 38). These gains from free trade are consistent with our discussion in Chapters Two and Three where trade in the absence of barriers allows countries to produce according to their respective comparative advantage. Mittal steel disagrees with eliminating this measure of protection whereas others stakeholders believe that the abolition of the tariff will not make a considerable difference. The alternative to eliminating the tariff is a proposed ban on Mittal's exports of flat steel.

Another example of a monopoly that is significant in South Africa is that in the telecommunications market. For years, Telkom occupied a monopoly position in South

⁶⁶ Import parity pricing refers to pricing up to the equivalent cost to the domestic buyer of importing despite South African production being far in excess of domestic demand (Roberts 2004: 239).

Africa's fixed line telephone network. African Economic Outlook (2005-2006:469) reveals that there has been some success in increasing competition in the telecommunications market. In December 2005, after a three-year delay, the Independent Communications Authority of South Africa (ICASA) licensed a second national operator, which comprises a six-group coalition and includes Business (Nexus) Connexion and the Indian Group Tata. In Chapter Seven, section 7.4.3, we emphasise the development of Small, Medium and Micro Enterprises (SMMEs). The effect of increasing competition in the telecommunications market is more pronounced for SMMEs, as they are able to benefit from more services at lower prices. There is however concern that Telkom still maintains significant control over internet access in South Africa.

Chapter Four section 4.4.1 reveals that the demand for labour in a monopoly is less elastic than in perfectly competitive firms. Thus, a monopoly contributes to inflexibility in the labour market, as it is less responsive to changes arising from globalisation and trade liberalisation as highlighted in this section.

5.3.2.2 SKILLED LABOUR SHORTAGES

In our analysis of **human capital** in section 4.7, we highlight that there is undersupply of unskilled workers and an oversupply of skilled workers. The higher capital intensity of the economy as well as skill-biased technological change contributes to a higher demand for skilled workers. Eckel (2003: 12) affirms that an increase in the terms of trade as a result of trade liberalisation increases the skill premium and increases unemployment of unskilled workers. For South Africa, the Stolper-Samuelson theorem (which we elucidate in Chapter Two section 2.4.2) implies that free trade increases returns to the relatively abundant factors of production, namely skilled workers. Despite South Africa being abundant in the resource labour, more of that resource acquires high skills and human capital than acquires conventional or adequate skills. To present an opposing view, we also consider (and apply) the specific factors model of Chapter Two where globalisation and trade liberalisation benefits capital and skilled labour (the immobile factors in the short run). The immobile factor, unskilled labour that is specific to South Africa's import-competing sectors is adversely affected.

Investing in human capital has the effect of shifting the initial supply curve, S_0 to the left to S_1 in **Figure 5.1 diagram (B)** on page 200. This reduces the supply of unskilled labour. Thus, equilibrium is re-established at point (B) where there are L_1 skilled workers supplying their labour at real wage rate $(W/P)_1$. This results in a reduction of unemployment of (L_0-L_1) unskilled workers. South Africa therefore requires investment in human capital to make unskilled workers employable. Natrass (1997: 232) adds that acquiring knowledge increases the productivity of labour and capital over time. Therefore, investment in human capital has the effect of increasing firms' competitiveness.

In Chapter Two section 2.8, we indicate that new international economies of scale require firms to constantly search for cheaper inputs and overseas production in order to remain competitive. Our analysis largely focuses on capital and labour as the principal inputs to production. Olofin (2002: 306) concurs that continuous learning and searching are fundamental under these dynamic international trade theories.

Chapter Four section 4.6 focuses on labour market policies and emphasises the concept of search. Active employment policies in the form of public employment services or job search assistance attempt to reduce job search costs by promoting matches between firms with vacant jobs and persons seeking employment. Traca (2004: 113) asserts that educational qualifications play a role in reducing mobility costs. Mobility costs comprise of the search costs of finding a new job, possible geographical mobility costs, earnings loss associated with unemployment during the search period as well as depreciation of firm/industry specific human capital. In Figure 5.1 diagram (B), the shift to S_1 could be search costs making for unemployment of (L_2-L_1) . Passive employment policies in the form of generous unemployment benefits tend to discourage the unemployed from searching for employment and in so doing, increases voluntary unemployment (Kraft 1998: 784; Mortensen and Pissarides 1999: 243).

5.3.2.3 EFFICIENCY WAGES

Firms maintain real wages above the market clearing level because these higher wage rates enforce discipline as well as provide an incentive for workers to increase productivity. As a result, we also introduce **efficiency wages** into our model. According to Eckel (2003: 6), the efficiency wage theory asserts that there is a positive relationship between the wages paid and the rate of unemployment as well as workers' productivity. Lane (1995) adds that productivity is linked to paying higher real wages to improve performance. The efficiency wage refers to that wage where the marginal cost of increasing the wage exactly equals the marginal gain in the productivity of the firm's workers.

A profit maximising firm will set its wages to the efficiency wage regardless of the competitive wage determined by the market (Borjas 2005: 466). Efficiency wages however create an oversupply of workers. Firms will not want to reduce the profit maximising efficiency wage as it will reduce profits. Since there are no market pressures that force the efficiency wage downward to the market clearing competitive wage, efficiency wages generate some involuntary structural unemployment to the extent of (L2-L1) in **Figure 5.1 diagram (C)** on page 200.

Mahadea (2003: 33) emphasises that wage increases must not exceed productivity increases. This results in a non-Pareto optimal situation as some individuals experience gains at the expense of other individuals' losses. Higher wages are indicative of South Africa's shift away from a low productivity, labour intensive growth path. This again highlights inconsistency of South Africa's trade patterns with the traditional trade theory. Net suppliers lose from trade, but the political system is usually used to enforce compensation paid from the gains and still experience a net gain overall.

5.3.2.4 REDUCED CONSUMER SPENDING

Still using **Figure 5.1**, we can further show the effects of rigid wages in **diagram (C)**. If **consumer spending decreases in the economy** as a whole or in specific industries, this has the effect of decreasing economic growth (Nattrass 1997: 7). A decrease in consumer

spending decreases the quantity of goods and services demanded (and therefore decreases sales) (Mankiw 2003: 322). This results in lower profits for firms, decreasing investment and therefore declining national wealth. The reduction in consumer spending in the domestic industry is also indicative of increased spending on cheaper imports as a result of trade liberalisation. Firms react to lower levels of consumer spending by reducing their desired levels of employment. This is represented by a leftward shift of the demand for labour curve from D_0 to D_1 in diagram (C). At the prevailing wage rate $(W/P)_1$, employment decreases to L_3 resulting in an excess supply of labour. This results in cyclical or demand deficient unemployment to the extent of (L_2-L_3) workers.

According to Kaufman and Hotchkiss (2003: 706), if nominal wages are downwardly flexible, the excess supply of labour in the market should bid down nominal wages until a new equilibrium is established at $(W/P)^*$. The new market equilibrium is at point (C) in diagram (C) where there are L_1 workers employed at real wage rate $(W/P)^*$. If nominal wages are downwardly rigid, the unemployment of (L_2-L_3) workers would remain at real wage rate $(W/P)_1$. In addition, if nominal wages are flexible, but prices fall by an equal or greater amount, this can leave the real wage at the initial level $(W/P)_1$ or higher. It is however important to note that nominal wages are relatively inflexible downward due to the presence of trade unions and the threat effect (as highlighted in the bilateral monopoly model in section 5.3.2.1). In addition implicit contracts exist where there is an understanding that the firm will maintain the existing nominal wages as well as award increases in line with inflation except under severe economic conditions, such as impending bankruptcy (McConnell, Brue and Macpherson 2003: 572).

In 2005, South Africa experienced a 6.5 *per cent* increase in domestic demand, private consumption increased by 6 *per cent* and real growth in government increased by 7.8 *per cent*. This is due to real incomes of households increasing as a result of those workers benefiting from higher wages (African Economic Outlook 2005-2006: 464).

5.3.2.5 ECONOMIC GROWTH AND THE BUSINESS CYCLE

Fischer (2003: 12) cites evidence indicating that open economies grow by *2 per cent per annum* more than closed economies (*ceteris paribus*). Trade liberalisation is an important trade policy reform that has led to substantial growth. Although openness to the global economy is essential, it is not an adequate condition for sustained growth, which is required to alleviate unemployment.

African Economic Outlook (2005-2006: 461) and ASGI-SA: accelerated growth for all (2006) reveal that South Africa's economic growth as measured by the annual rate of increase in real gross domestic product (GDP) has been notable as it increased from *3 per cent* between 1994-2004 to *4.6 per cent* in 2005. The South African Reserve Bank (2006) indicates that this has been the strongest growth in South Africa since 1984. The South African economy is currently experiencing a peak in its business cycle. The economic expansion from 2004 to the first half of 2006 is part of a sustained and dynamic upswing that is the longest in South African business cycle history. Rocheteau (2006: 3) indicates that unemployment rates tend to be lower during peaks (or booms) in the business cycle, as businesses are more productive and demand more labour. Unemployment tends to be higher during troughs (or recessions) because businesses are performing poorly which necessitates reallocating workers and jobs and possibly closing down firms.

Rissman (1999: 21) emphasises that the business cycle is characterised by co-movements by various economic variables (namely, regional employment growth) that may not be directly observable. Haydam (1997: 167) adds that changes in GDP as a result of changes in aggregate demand contribute to changes in the business cycle. Aggregate demand refers to goods and services demanded in an economy at any given price level (Mankiw 2003: 321). Aggregate demand has four components, namely consumption, investment, government expenditure and net exports (Mohr 2000: 37; Ruiz-Nàpoles 2004: 105). In South Africa, the level of net exports (current account of the balance of payments) influences the economic fluctuations in the business cycle. Changes in the price of gold for example affect the inflow of money to the economy and therefore affect interest rates, income levels and domestic spending.

The higher rates of economic growth can be attributed to higher consumer spending, higher commodity prices, large capital inflows and higher asset prices. The industries contributing to higher growth are finance, property, business services, manufacturing, wholesale and retail trade, hotels and restaurants, transport, communication and construction (Statistics South Africa 2006). According to Borat and Cassim (2004: 10), factors that determine economic growth are changes in physical stock of capital (investment), accumulation of human capital and accumulation of technology as they contribute to increasing productivity in the economy.

African Economic Outlook (2005-2006: 462) concurs with Hirsch (2005: 238) that South Africa's economic growth has been lower and slower than that of other developing countries (namely, China and India) as well as newly industrialised Asian countries. The GDP growth rate in 2005 for China was 10.2 *per cent* and for India 9.2 *per cent*. In South Africa, the 2005 GDP growth rate was 4.6 *per cent*⁶⁷. Crime, corruption and instability in terms of policy uncertainty, high interest rates and other governance issues are deterrents to growth and investment in South Africa (Mahadea 2003: 37; Simkins 2004: 266). United Nations' statistics indicate that in 2000, South Africa recorded the highest rate of violent crimes (namely, murder). Borat and Cassim (2004: 28) identify three ways that crime negatively affects investment, efficiency and the level of skills. *Firstly*, crime increases general uncertainty in the economy as personal lives and poverty are at risk. *Secondly*, operational costs to firms are increased as capital spent on crime prevention can be deemed as a foregone resource, which consequently constrains growth. *Thirdly*, crime contributes to skilled individuals emigrating from South Africa. It is therefore difficult for an economy to grow without simultaneously addressing the high levels of crime. The GEAR strategy (described in section 5.5 plus Chapter Seven section 7.4.1) has been successful in lowering the cost of borrowing to the extent that investment rates improved, the risk premium decreased and interest rate and inflation levels dropped (Hirsch 2005: 241).

⁶⁷ The rate of unemployment in China and India is also lower than South Africa. In 2005, China and India's unemployment rates were 17 *per cent* and 8.9 *per cent* respectively. South Africa's unemployment rate in 2005 was 26.7 *per cent*.

African Economic Outlook (2005-2006: 462) and Nyanto (2006: 39) suggest that the higher rates of growth have not been successful in reducing unemployment. The poor performance can be attributed to the lack of domestic and foreign investment, deficient infrastructure, lack of competition and a relative shortage of skilled workers. The South African government does have initiatives, specifically ASGISA (discussed in section 5.5 and Chapter Seven 7.4.2 respectively), to address these impediments. Nyanto (2006: 39) adds that economic growth has benefited the wealthy and middle class with access to finance. We note in section 5.3.2.6 that South Africa's trade pattern combined with the Rybczynski theorem has not had the effect of increasing the production of unskilled labour intensive goods. The poor and unemployed are therefore not beneficiaries of the higher economic growth. Chapter Seven examines further policy prescriptions to address poor economic performance.

Although agriculture also grew, by 4.9 *per cent*, the strong rand and inadequate infrastructure resulted in products not being able to be exported. These factors affected both maize and South Africa's leading position in the export of off-season citrus fruits, wine as well as other agricultural products. Even though mining grew by 3.6 *per cent* in the first three-quarters of 2005, this was a result of rapid growth in all sub-sectors except gold. The gold price escalated and output fell by 12 *per cent* in the first nine months of 2005 due to the exhaustion of easily accessible ore and the effects of the strong rand. In this same period, manufacturing grew by 4.6 *per cent*. The automotive industry is also a cause for concern because when compared with other developing countries, this sector experiences low productivity and high labour costs which are partially offset by the low costs of electricity and raw materials as well as is protected by export subsidies and import tariffs (African Economic Outlook 2005-2006: 464).

If we relax the rigid assumptions, at a given real wage, low-productivity firms can increase their profits by employing fewer workers. Conversely, high-productivity firms can increase profits by increasing the number of workers that they employ. Bertola and Ichino (1995: 375) add that flexibility may not be an important determinant of employment at a given real wage, but is important in terms of how efficiently the labour

market operates. There are however costs associated with the transition phase from rigid to flexible labour.

5.3.2.6 CORRELATING INTERNATIONAL TRADE THEORY AND THE SOUTH AFRICAN LABOUR MARKET

This sub-section summarises the links of international trade theory examined in Chapter Two and trade policy in Chapter Three to the labour market analysis in Chapter Four and earlier sections of this chapter. The outcomes relate specifically to the South African experience. The analysis of the Heckscher-Ohlin, factor price equalisation (H-O-S) and specific factors theorems utilise the 3-diagram model in Figure 5.1 on page 200 to examine the labour effects. Separate diagrams (extrapolated from Figure 5.1) accompany the explanation of the Stolper-Samuelson and the Rybczynski theorems. For each theorem, we revisit the predictions of trade theory and in this context, we consider the effects of trade liberalisation on the South African labour market. We can assume that diagrams (A) and (B) in Figure 5.1 represent the skilled labour export sector in South Africa. Diagram (C) represents the unskilled labour import-competing sector. Our focus is therefore principally on the effects of trade liberalisation and globalisation on the factor of production labour.

In section 5.3.2.1, we reiterate the analysis of Chapter Four section 4.4.3 which argues, using the bilateral monopoly model, that the power of unions in South Africa is such that the nominal and real wage is above that consistent with a market clearing wage. In section 5.3.2.3, the idea of efficiency wages are examined, and concludes that higher real wages are linked to higher productivity. Therefore, we have two good reasons to assume that the real wage tends to lie above the market clearing equilibrium, taking the form of a premium above the conventional market equilibrium.

▪ **The Heckscher-Ohlin (H-O) theorem**

In Chapter Two section 2.4.1, *the Heckscher-Ohlin (H-O) theorem predicts that South Africa will produce and export goods that use a higher proportion of its relatively*

abundant factor (capital and human capital) intensively and goods requiring a higher proportion of its scarce factor of production (unskilled labour) will be imported.

We can use Figure 5.1 diagram (C) to show that South Africa's pattern of trade is structured according to empirical tests of the H-O theorem using South African data. Trade liberalisation should have the effect of increasing the production and export of goods using South Africa's abundant factor, unskilled labour intensively. Imports should then largely comprise of capital and human capital intensive goods. However, Chapter Two section 2.6.2.1 presents evidence that South Africa's exports are skill and capital intensive and imports use unskilled labour intensively. Edwards and Lawrence (2006: 54) maintain that South Africa developed a comparative advantage in capital intensive primary and manufactured goods due to its endowments in natural resource as well as the pattern of protection prior to the 1990s. Trade liberalisation in the 1990s and 2000s had the effect of increasing imports as well as exports *via* reduced input costs and the relative profitability of domestic sales. With this evidence and our original insight from Chapter Four section 4.7, we argue that the normative outcome of the H-O theorem for South Africa is incorrect and instead that this country, paradoxically for historic reasons, has an abundance of skilled labour and a relative shortage of unskilled (near-skilled) labour making the latter the scarce factor. Taking this finding at face value, we apply it to the combined diagrams (A), (B) and (C) in Figure 5.1 on page 200, where diagram (A) and (B) represent the production and export of goods that are skill intensive (earning a real wage above the competitive level) and capital intensive. In diagram (C) is the import-competing sector allied with unskilled labour. Our analysis begins with Figure 5.1, following the structure of section 5.3.2.1 and serves as our benchmark to provide an analysis of trade liberalisation and the labour market. This initial situation is consistent with the pattern of trade for a developed country and is independent of the resource pool from which labour is drawn.

- **The Stolper-Samuelson theorem**

The Stolper-Samuelson theorem is derived from the Hecksher-Ohlin (H-O) theorem and states for South Africa, that an exogenous change (trade liberalisation) that increases the

relative price of a good increases the real return to the factors of production (capital and human capital) used intensively in the production of that good. The real return to the other factor of production (unskilled labour) falls. (Chapter Two section 2.4.2).

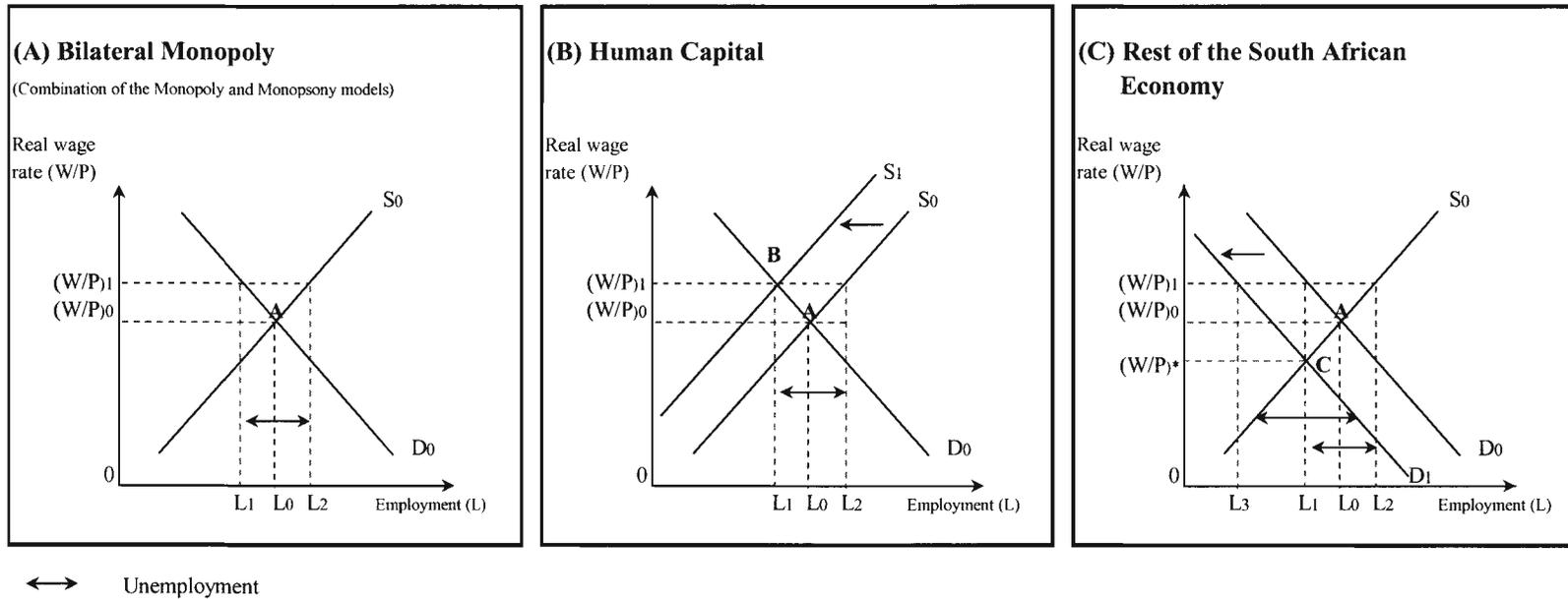
In South Africa, trade liberalisation *via* tariff reduction increases the prices of goods that use skilled labour and capital intensively. This increases the real returns to skilled labour (skilled wages) and capital (interest rate). The price of unskilled labour intensive imports to South Africa falls in response to the fall in the world prices of unskilled labour intensive goods. This means that it is cheaper to import goods rather than to produce them domestically as somewhat paradoxically we are trying to save on our scarce factor: near-skilled (unskilled labour). Thus, import-competing industries⁶⁸ in South Africa comprising of unskilled labour are the most adversely affected as the real returns to unskilled labour, that is, unskilled wages fall.

Using Figure 5.2 diagram (A) and (B), the initial equilibrium with trade liberalisation is at point (A) at real wage $(W/P)_0$ with employment level L_0 . Diagrams (A) and (B) represent the skilled labour export sector. Diagram (C) represents the unskilled labour import-competing sector. The higher real wage of skilled labour $(W/P)_1$ is consistent with section 5.3.2.2. At this real wage, the quantity of labour demanded is L_1 workers in all diagrams. This point is also consistent with higher capital intensity in the economy and therefore lowers the demand for unskilled labour in diagram (C). The excess supply of (L_2-L_1) workers still results in unemployment. In diagram (B), the supply of labour shifts from S_0 to S_1 and equilibrium is re-established at point (B) in diagram (B) as workers make investments in human capital as examined in Chapter Four section 4.7 and section 5.3.2.2 in this Chapter. In diagrams (A) and (B), there are demand shifts (which we do not show) that give a new higher real wage $(W/P)_1$, at which there is still likely to be unemployment relative to the market clearing equilibrium. The shift in the supply curve to the left and the higher real wage largely reflects the absorption of skilled relative to unskilled labour.

⁶⁸ Refer to sections 5.3.1 and 5.5 for current events in the South African textiles industry, which is an industry most harmed by import-competition.

This is consistent with Traca (2004: 123), who maintains that trade liberalisation decreases the real wage and welfare of unskilled labour [Figure 5.2 diagram (C)] in the import-competing sector and increases the real wage and welfare of skilled labour in the export sector [Figure 5.2 diagrams (A) and (B)]. This increases the wage-skill gap. Section 3.8.4 highlights reasons for the higher capital intensity in the economy contributing to higher returns to capital. According to Traca (2004: 132), in rigid labour markets trade liberalisation may reduce the wage-skill gap or increase it by less than under perfectly competitive markets and is less likely to reduce the real wages of the unskilled. Instead, trade liberalisation increases unskilled unemployment. This can be seen in Figure 5.2 diagram (C). At real wage $(W/P)_1$, a reduction in the demand for labour to D_1 , results in higher unemployment (L_2-L_3) .

Figure 5.2: The Stolper-Samuelson theorem and the South African labour market⁶⁹



⁶⁹ This diagram is extrapolated from Figure 5.1.

The Stolper-Samuelson theorem predicts that as industries substitute skilled labour for unskilled labour, the wages of the skilled rise and those of the near-skilled fall. The skilled labour intensive sector should therefore expand at the expense of the unskilled labour intensive sector. Oslington (2002: 196) however postulates that changes in world prices affect the labour market *via* skilled workers wages in the presence of hiring and firing costs. The higher relative prices of skilled labour intensive products, which South Africa is exporting improves the bargaining power of skilled workers allowing them to bid for higher wages. Under general equilibrium conditions, this will effectively reduce the quantity demanded for unskilled labour and if wages are rigid, increase unskilled unemployment thereby contributing to rising inequalities in South Africa. Oslington (2002: 197) further adds that the Stolper-Samuelson theorem is derived from a full employment model and cannot deal with simultaneous wage and unemployment changes. Different labour market institutions, such as, minimum wages (significant more so for unskilled labour) and hiring and firing costs (significant more so for skilled labour) also play a role in explaining the differences between countries.

▪ **The Factor Price Equalisation (H-O-S) theorem**

Chapter Two section 2.4.3 states that *when the Heckscher-Ohlin (H-O) theorem applies, the factor price equalisation (H-O-S) theorem postulates that if South Africa and its trading partners have identical technologies, but different factor endowments, absolute and relative factor prices will be equalised when international trade occurs.*

If we consider our example in Chapter Two section 2.4.3 summarising the factor price equalisation theorem, it is evident that since specialisation increases the production of skill intensive and capital intensive goods, the increase in the quantity of labour demanded in the production of these goods increases the real wage of skilled labour and the interest rate of capital. The real wage of unskilled labour falls. Since a similar pattern of trade occurs in developed countries, trade liberalisation does not equalise factor prices. Trade liberalisation may however reduce the pre-trade difference in wages and interest rates between South Africa and developed countries. The results of trade for South Africa

are consistent with the H-O-S theorem in that wage differentials are narrowed, which agrees with the effects of globalisation as suggested in section 5.2.1.

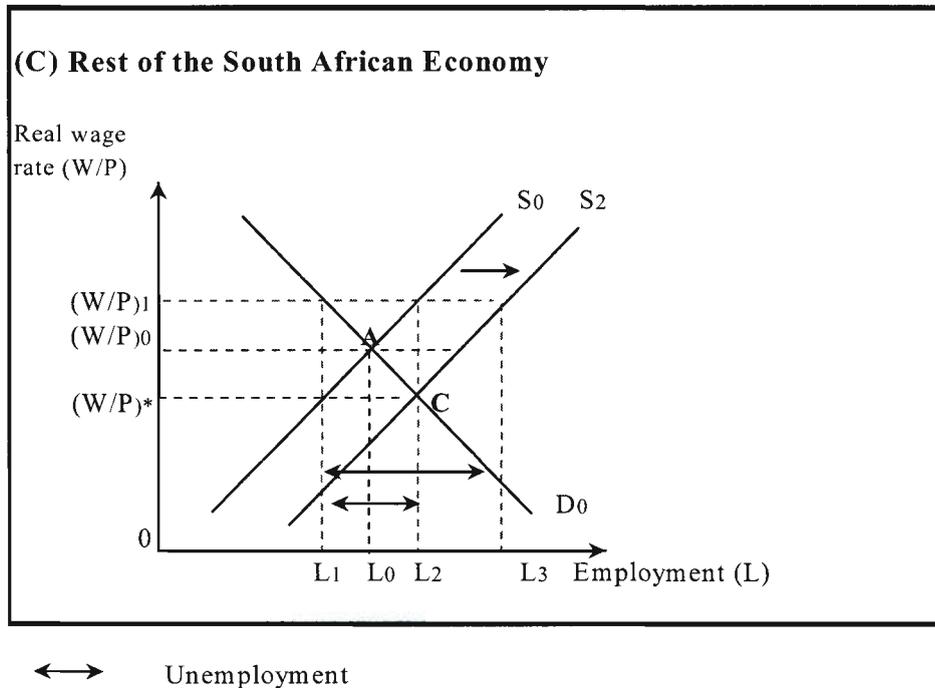
Our 3-diagram model in Figure 5.1 [specifically diagrams (A) and (B)] reflects the real wage above the perfectly competitive level, which largely accrues to skilled labour. There are two possible outcomes with trade liberalisation. If there is no change in domestic labour's bargaining power, the real wage $(W/P)_1$ premium and unemployment (L_2-L_1) in diagram (B) remains unchanged even though the market equilibrium wage falls to global levels. If there is a reduction in bargaining power, the real wage premium falls possibly to the now lower global market equilibrium and unemployment is eliminated for skilled (L_2-L_1) and unskilled workers.

▪ **The Rybczynski theorem**

In terms of growth of a single factor of production, Chapter Two section 2.5 examines *the Rybczynski theorem which predicts that in a two good, constant product price world, growth in one of South Africa's factors of production (unskilled labour) (with the other factor, skilled labour unchanged) increases the output of the good that uses the growing factor (unskilled labour) intensively. The output of the other good falls.*

We can show the effects of the Rybczynski theorem on the South African labour market using Figure 5.3 [extrapolated from Figure 5.1 diagram (C)]. Growth in the unskilled factor of production only has the effect of shifting the initial supply curve S_0 to S_2 . Equilibrium is re-established at point (C) corresponding to a real wage $(W/P)^*$ and a higher quantity of L_2 workers. This then corresponds to higher unemployment of (L_3-L_1) workers at the higher real wage $(W/P)_1$.

Figure 5.3: The Rybczynski theorem and the South African labour market⁷⁰



The Rybczynski theorem predicts that growth in unskilled labour in South Africa leaves the unskilled real wage unchanged. The real wage remains unchanged because the skilled labour premium $[(W/P)_1 - (W/P)_0 = (W/P)_0 - (W/P)^*]$ remains the same but gives a higher level of unemployment. Labour market integration would obviate these unemployment effects for the unskilled. Section 5.5 and Chapter Seven section 7.4.2 highlight ASGISA and JIPSA, which are programmes designed to develop suitably skilled labour in South Africa (amongst other objectives) to facilitate higher economic growth and development. ASGISA and JIPSA will have the effect of reducing the excess supply of unskilled labour.

In South Africa, growth in the supply of unskilled labour has not had the effect of increasing the output of unskilled labour intensive goods. This occurrence can be attributed to South Africa's pattern of trade (as highlighted in the preceding analysis of the Heckscher-Ohlin, Stolper-Samuelson and Heckscher-Ohlin-Samuelson theorems) as

⁷⁰ This diagram is extrapolated from Figure 5.1.

well as the country's inability to compete with the import-competing industries. We go on to examine the outcome of trade liberalisation on the South African labour market in terms of the predictions of the specific factors model.

▪ **The Specific Factors model**

The specific factors model in Chapter Two section 2.7 predicts that trade has an ambiguous effect on South Africa's mobile factors (skilled labour), benefits immobile factors (capital) that are specific to South Africa's export goods and harms the immobile factors (unskilled labour) that are specific to South Africa's import-competing goods in the short run.

The specific factors model is relatively precise in predicting South Africa's pattern of trade. In the short run, the specific factors of production that benefit from trade are skilled labour (for which the real wage effects are ambiguous) and capital. The specific factor of production most adversely affected is unskilled labour. This is reflected in our analysis of the bilateral monopoly model in section 5.3.2.1 using diagram (A), in skilled labour market shortages in section 5.3.2.2 using diagram (B) and in this section linking neoclassical theories of trade to the labour market. In Figure 5.1 diagram (C), we see that the effect on the rest of the economy is a reduction in the demand for unskilled labour and given the wage of $(W/P)_1$, this means higher unemployment for unskilled workers.

5.3.2.6.1 SUMMARY

We conclude this section by summarising the links of international trade theory to the South African labour market. The effect of trade liberalisation for skilled labour is a higher real wage (or reduction in unemployment) under the H-O-S theorem, and the same under the Stolper-Samuelson theorem, unchanged under the Rybczynski theorem and ambiguous for both real wages and unemployment in the specific factors model. For unskilled labour, the same outcome arises under all theorems, that is, a reduction in the real wage (or a rise in the unemployment). Although scarce unskilled labour is the factor most adversely affected by globalisation and trade liberalisation (factor price harmonisation), the result is still a net overall gain from trade as long as there is

redistribution of the gains in society. On balance, the evidence in this and preceding sections suggests that although South Africa has an abundance of the resource labour, it may paradoxically have a scarcity of unskilled or near-skilled workers.

It is noted that labour market inflexibility through the impact of diagram (B) in Figure 5.1 on the rest of the labour market serves to limit the beneficial effects of trade. We now examine the extent of labour market flexibility, specifically in the South African labour market and then briefly cite South African initiatives to alleviate unemployment. Chapter Seven expands on the current initiatives and provides further policy prescriptions for South Africa.

5.4 LABOUR MARKET FLEXIBILITY

We now examine labour market flexibility, which is an increasingly important phenomenon in the labour market. Labour market flexibility is an example of an active labour market policy instrument used to improve the functioning and outcome of labour market processes (Barker 1999: 13). Valverde, Tregaskis and Brewster (2000: 650) define labour market flexibility as a business objective used to respond rapidly and effectively to changes in demand *via* methods referred to as flexible working practices. Flexible work practices require management to ascertain and undertake realistic performance targeting. According to Tsikata (1999: 42), in terms of employment creation, flexibility is a valuable goal as it facilitates the efficient movement of resources and allows unskilled workers to find employment. The wide diversity of contract formats, time distribution, measuring and distributing variable pay does however create administrative complications for management. Flexibility benefits employees as it allows them to balance their work and non-work activities.

Flexible production is linked to new competitive conditions as a result of globalisation, a feature of which is disaggregating labour (Carnoy, Castells and Benner 1997: 27). Disaggregation shifts the locus of work organisation from permanent employment to flexible employment as per human capital portfolios. Flexible employees either shift between workplaces filling particular positions on demand or are self-employed. Carnoy,

Castells and Benner (1997: 30) quote Richard Belous's (1989) non-standard contract definition of contingent employees as temporary workers, part-time workers, self-employed and workers employed in business services. This however has other implications, for example, a self-employed individual may be a medical doctor who cannot find employment in a firm, but is flexible and not bound by the contractual arrangements of an employment contract. Consequently, Carnoy, Castells and Benner (1997: 31) suggest that the term flexible is more appropriate for employment under non-standard contracts and flexible labour for those employees employed under non-standard contracts or that are self-employed. Horwitz, Brosnan and Walsh (1998: 27) maintain that employers gain flexibility by reducing standard work and are able to avoid training costs as well as transfer economic risk to the labour force. Section 5.4.1 examines the various forms of labour market flexibility.

5.4.1 TYPES OF LABOUR MARKET FLEXIBILITY

Carnoy, Castells and Benner (1997: 31-32) and Elliot (1991: 306) summarise the primary forms of flexible employment as:

- flexibility in the level of real labour costs;
- individuals hired *via* temporary employment agencies;
- individuals hired directly by firms on a temporary, contract or project basis;
- part-time workers;
- certain categories of self-employed workers;
- individuals employed on an informal basis, such as, individuals doing home-based work; and
- certain categories of subcontracted labour where employment conditions are controlled by the firm controlling the contracting as opposed to being controlled by the subcontracted firm (direct employer).

As noted above, there are various forms of flexible work practices within firms. These forms can be classified into specific types of flexibility. The principal types of labour market flexibility are functional and numerical flexibility. Financial flexibility represents

a third type of flexibility. We proceed to examine the types of labour market flexibility in further detail.

5.4.1.1 FUNCTIONAL FLEXIBILITY

Functional or task flexibility refers to the adaptability and mobility of employees to complete a number of tasks *via* the possession of multi-skills and job rotation. Functional flexibility is also referred to as internal flexibility (Barker 1999: 31). Job rotation refers to altering the workplace by transferring employees between various areas of accountability. Consequently, functional flexibility requires individuals to be trained and obtain in-depth knowledge of various facets of the organisation. This type of flexibility can benefit both the employee in terms of job enrichment and the employer in terms of having a multi-skilled labour force that is adaptable to change. Friedrich *et al* (1998: 507) assert that job rotation can either be planned for the long-term in the form of trainee programmes as well as for the short-term in the form of employment of temporary staff. According to Valverde, Tregaskis and Brewster (2000: 652), functional flexibility allows for a lower number of hierarchical levels, which facilitates increased communication and quicker reaction time within the organisation.

Flexible working patterns have resulted in decreased trade union membership over the past few decades (Croucher and Brewster 1998: 443). Functional flexibility presents problems for unions that are organised in terms of occupational categories. Unions can however play a role in exceptional circumstances. A good example is where an employer delegates an above average workload to employees with either little or no training. Unions strongly support training and can motivate employers to provide programmes for employees to gain sufficient training. Working time flexibility creates problems for trade unions as the different times mean that there may not always be trade union representation. In addition, part-time employees are unlikely to want to pay a subscription for union representation as in addition to not seeing representatives often, the subscription even if reduced may be a large proportion of their wages. Croucher and Brewster (1998: 448) further add that unions are not often in a position to offer collective bargaining services for employees that are bound by contracts *via* agencies or

subcontracting as it is unclear with whom the union should be negotiating. The rise in non-standard employment also tends to reduce the wages of permanent employees as their bargaining position is weakened. Friedrich *et al* (1998: 509) conclude that functional flexibility is a component of a strategic orientated human resource programme in terms of its co-ordination and objective orientation. It is therefore less of a short-term economic and reactive instrument.

5.4.1.2 NUMERICAL FLEXIBILITY

Numerical flexibility is described as altering the size and structure of the labour force in response to changes in consumer demand (Horwitz and Franklin 1996: 5). Numerical flexibility is also referred to as external flexibility and is accomplished using various contracts as well as by varying working time. Numerical flexibility incorporates temporal flexibility, which refers to various patterns of work hours including part-time and temporary work. Horwitz and Franklin (1996: 5) state that flexi-time is the generic term for flexible scheduling which allows employees to work flexible hours within the constraints set by an employer. These contracts are easier and less costly to terminate than those of permanent employees. Employers also tend to use fixed term contracts as these allow the organisation to easily meet its demand as well as excludes the added expense of terminating the contract when the assignment is completed. This type of flexibility can increase profits as the hourly rate for temporary staff is generally lower than that paid to permanent staff. This is partly due to temporary employees not being paid fringe benefits.

Cohen and Haden (1978) in Horwitz and Franklin (1996: 9) define part-time employment as work in which an employee voluntarily works less than the current standard number of hours. The rise in part-time employment is linked to increased growth in services, overhead costs that are lower than that of full time employment as certain company contributions and benefits (medical aid, sick leave, pension and severance pay) are excluded, and finally the increased number of married women in the labour force. Job sharing which refers to splitting a full time job among two or more persons increases labour market flexibility, reduces absenteeism and increases continuity should an

employee leave the organisation. Job sharing is not a very prevalent form of flexibility due to low levels of managerial and trade union interest.

Bezuidenhout, Theron and Godfrey (2005: 42) and Horwitz and Franklin (1996: 10) find that the growth of part-time work opportunities poses a challenge in terms of the efficacy of trade unions since organising these workers proves to be a difficult task. Trade unions view subcontracting as keeping a large proportion of the labour force non-unionised as the rights of association given to principal workers are not necessarily transferred to subcontracted workers. Valverde *et al* (1997: 603) highlight two considerations that trade unions need to take into account. *Firstly*, they need to ensure that the implications of flexible employment for society are accounted for at all levels, that is, national, organisational and workplace levels. *Secondly*, trade unions must examine methods that render their services more viable to flexible employment.

Friedrich *et al* (1998: 505) maintain that the different types of flexibility divide the labour market into core and peripheral employees. The core employees comprise of multi-skilled permanent employees who are also in flexible employment in the sense that are able to adjust quickly to changes in production. The peripheral employees are those employees that provide numerical flexibility in the form of temporary employment, subcontracting and employment with less job security.

5.4.1.3 FINANCIAL FLEXIBILITY

Valverde, Tregaskis and Brewster (2000: 651) identify a third type of flexibility termed financial flexibility. This type of flexibility refers to labour costs reflecting the performance of employees as well as the firm in terms of profits and losses. Policies that are designed appropriately serve as an incentive to motivate employees to increase their productivity and also allow employers to have more control over their labour costs. The administration of variable pay policies is however difficult and variable pay is unlikely to be successful unless it is representative of a large proportion of employees' wages. According to Ozaki (1999: 16), pay flexibility is the responsiveness of wages to changes in individual and collective behaviour as well as to competitive cost pressures exerted by

markets, possibly arising from globalisation and trade liberalisation. Minimum wages (which are designed to alleviate poverty) are perceived as an impediment to job creation as employers are unlikely to employ workers at the lowest wage scales. Trade unions tend not to favour these types of policies as they may negatively affect the minimum wages for the employees that they represent.

Wage flexibility is a movement towards performance-based pay. Elliot (1991: 306-307) reveals that there are factors exogenous to the labour market that result in the real wage gap, that is, the deviation of real wages from the level required to maintain full employment. An example is an increase in oil prices, which in the short run increases domestic consumer prices as there are limited factor substitutes, decreases output and increases unemployment. In the short run, labour market flexibility can be measured by dividing the short run elasticity of nominal wages with respect to consumer prices by the elasticity of nominal wages with respect to the unemployment rate. Low values for the nominal wage divided by the consumer price elasticity and high values for the nominal wage divided by the unemployment elasticity suggest real wage flexibility. An alternative method is to calculate the level of real labour costs that would be required to maintain unemployment at a previous level. The difference between this level and the actual real labour costs gives a measure of real wage flexibility. In addition, estimating the growth in the productivity of labour and using this to construct an index of growth in the real wage that is required to maintain full employment, subsequently comparing this index to the actual real wage is also an indicator of the extent of flexibility.

Employers prefer flexible wage structures compared to rigid forms of compensation. Flexible wage systems allow employers to adjust the total wage costs to the business cycle⁷¹ as well as motivate employees as their productivity and performance is improved *via* the creation of a direct link with wages. However, Ozaki (1999: 93) adds that in practice, determining the objectives to be achieved and linking them with a variable wage scheme proves to be a difficult and sometimes unsuccessful exercise. In countries that

⁷¹ The business cycle (discussed in section 5.3.2.5) refers to upswings and downswings in the economy (Fourie 2001: 8).

experience lower unemployment levels and strong trade union presence, employers are concerned over wage levels that are rising. We highlight the role of trade unions in Chapter Four in the bilateral monopoly model. Since trade unions are largely present in South Africa, we examine their role in the South African context in section 5.3.2. Their needs are more focused on co-ordinating the bargaining process to secure wage control and at the same time increase flexibility at company level. The ability of trade unions to produce wage flexibility benefits employment and economic growth, but is largely dependant on the collective bargaining procedure.

5.4.2 DISADVANTAGES OF LABOUR MARKET FLEXIBILITY

Valverde *et al* (1997: 598) present a view showing that the employment of temporary staff can be associated with decreased levels of training and development. The cost of hiring temporary staff could therefore be better utilised if invested in training and development. Therefore, although the firm is experiencing higher profits in the short run by employing temporary staff, the investment in education and training would result in additional value-added permanent staff in the long run.

In section 4.7, we highlight the importance of training. Arulampalam and Booth (1998: 521) explore the impact of labour market flexibility on training. They highlight that if flexibility undervalues the training investment, this will have adverse consequences for long run economic performance. If employment is of a short-term duration, employers are unlikely to invest in education and training as it will either not be able to earn returns on this investment in the long-term or the worker will not accept the training (depending on who bears the cost of training). Arulampalam and Booth (1998: 531) conclude that workers on short-term employment contracts, not affiliated to trade unions or employed part-time are unlikely to be involved in any work related training to increase their skills. The lack of trade union representation further contributes to the lack of training. Trade unions to some extent cooperate with employers in the common goal of increasing workers skills *via* training for the current job.

Labour market flexibility provides the possibility of firms camouflaging poor management practices. An example is where high temporary employee turnover masks managerial inability to motivate employees. There is also the chance that temporary staff may lack commitment to the organisation as they are aware that the nature of their contract is short-term (Valverde *et al* 1997: 598).

Highly specialised temporary staff demand higher rates of pay than average temporary staff (Valverde, Tregaskis and Brewster 2000: 654). The higher real wage is reflected in the human capital analysis in Figure 5.1 diagram (B) on page 200. These higher rates temporarily decrease the firm's profits. The higher rates may also have a negative impact on permanent employees who feel discouraged to impart their best performance, as their monetary reward is lower than that of the temporary staff. A possible concern in recruiting temporary employees is that they can be health and safety hazards due to insufficient time to learn the job and its safety aspects.

A further disadvantage of flexibility (specifically for a developing country like South Africa) is that in larger organisations, sophisticated human resources practices are limited since survival and security needs are prioritised. Vaverde *et al* (1997: 602) maintain that there is lack of evidence to support increased levels of flexibility resulting in increased levels of employment. This section acknowledges that the advantages of labour market flexibility outweigh the disadvantages. Inevitably, firms will have to adopt some form of flexibility in order to continue trading successfully in the face of globalisation and trade liberalisation. We proceed to determine the extent of labour market flexibility in the South African labour market.

5.4.3 THE EXTENT OF LABOUR MARKET FLEXIBILITY IN SOUTH AFRICA

Intensifying levels of globalisation and trade liberalisation requires a high degree of flexibility from both employers and employees in the labour market. In South Africa, flexibility must be compatible with labour market security, which refers to protection from arbitrary loss of employment, from arbitrary loss of income, against dangerous and

unhealthy working environments and against discrimination. Labour market flexibility and security needs to be complementary with emphasis on 'voice regulation', that is, allowing collective bargaining partners to set their own labour standards (Barker 1999: 185). This requires bargaining between employees and their unions as well as between employers and their associations, which play a role in productivity-enhancing redesign of the work process, in training and skills development, in employment equity planning and other aspects of the employment relationship (Report of the Presidential Commission to Investigate Labour Market Policy June 1996: 2-3).

Horwitz and Franklin (1996: 6), present their findings from research on contemporary labour market practices in six hundred and twenty six South African organisations. The evidence suggests that conditions that facilitate the introduction of labour market flexibility occur only partially in South Africa. The larger organisations that participated in the study display lower labour costs achieved *via* numerical flexibility, which includes subcontracting and homework. Functional flexibility, which includes multi-skills, is not very evident, but is likely to increase (Horwitz, Brosnan and Walsh 1998: 36). In South Africa, over 50 *per cent* of the organisations in the study have experienced downsizing of the labour force and organisational restructuring. This has been with the objective of reducing costs and is a criterion of lean manufacturing. This is a relatively new concept with respect to flexible work practices. Lean manufacturing refers to improving performance *via* eliminating unnecessary procedures, organising labour into cross-functional teams as well as continuous improvement towards producing and distributing products with less effort, space, tools, time and costs.

Although manufacturing has reduced a large number of jobs in the 1990s, it has also been the largest employer in South Africa (Horwitz and Franklin 1996: 8). This implies employment growth in some industries and employment reduction in other industries and can be attributed to investment in manufacturing being spent mainly on restructuring industries (to incorporate flexibility) as opposed to creating employment. According to Simonazzi and Villa (1999: 298), there are long run effects on firms and labour markets where current low growth means lower potential growth. In other words, low growth

rates now can result in lower output later. This combined with a high rate of technological change increases structural problems of the labour market.

Horwitz and Franklin (1996: 15) cite evidence whereby 44 *per cent* of organisations indicate that the number of core employees working 30 hours or more a week has fallen due to job sharing and part-time workers replacing permanent workers over brief periods. Less than 1 *per cent* of permanent employees regularly work less than 30 hours a week. It is also noted that approximately 60 *per cent* of the labour force works in shifts. In response to fluctuations in short-term demand, 86 *per cent* of organisations use temporary agencies, 53 *per cent* employ employees on a short-term basis, 1.8 *per cent* use other means and 56 *per cent* regularly pay overtime.

There is increased flexibility in work time in response to the need to redistribute jobs. This does alleviate structural unemployment to some extent although there is still a trend to treat part-time employees as a secondary labour force. Bezuidenhout, Theron and Godfrey (2005: 39) suggest that strikes at Shoprite in 2003 and again in 2006 highlight the role of casual employment. Casualisation erodes standard employment and is one of three interconnected processes. The other two are informalisation (unregulated employment) and externalisation (where the employment relationship includes third parties such as contractors, labour brokers or other intermediaries).

Barker (1999: 37) maintains that non-wage labour costs form a small proportion of total labour costs in South Africa. There are no other social security or social insurance systems except for unemployment insurance and insurance for occupational injuries and diseases. Employers in South Africa tend to bear a high proportion of total labour costs (social wages) which further reduces flexibility. Social wages are the sum of all sources of social benefits received either free or partly thereof. These benefits include subsidies, state transfers, unemployment insurance and free public health services. Barker (1999: 117) therefore finds that social wages complement direct and indirect income.

According to Hirsch (2005: 175), the South African labour market is characterised by strong trade union presence that narrows large wage gaps which largely benefits unskilled workers. The South African government also raised the wages of its lowest paid employees. This highlights the inflexibility of labour markets, more so for the unskilled workers. Schultz and Mwabu (1998: 700) conclude that union membership is associated with wages that are 145 *per cent* higher than that of comparable non-union workers. Hirsch (2005: 175) however finds that the unionised unskilled worker is paid 71 *per cent* more than a non-unionised worker that possesses the same lack of skills. The difference in the percentages may be attributed to decreases in the level of protection in the economy. Union pressures and government pressures contribute to increased labour market inflexibility. Singh (1998: 19) indicates that the Congress of South African Trade Unions (COSATU) is of the opinion that there is no relationship between a freer, flexible labour market and economic growth or job creation.

Another study conducted by Horwitz, Brosnan and Walsh (1998: 31) reveals that approximately 90 *per cent* of the South African labour force are permanent full-time employees of which only a tenth work non-standard hours. There is only a small percentage of permanent part-time employees in South Africa, however, there is a higher level of temporary and fixed-term employees. Less than a quarter of South African employees have non-standard jobs. The results also show that women comprise a larger proportion of part-time work and are associated with smaller organisations. In terms of cost reduction over a period of three years, 36 *per cent* of South African firms were able to reduce costs. A key method in reducing costs was subcontracting services, which indicates increased specialisation and flexibility in using small suppliers (Horwitz, Brosnan and Walsh 1998: 38). The organisations that were able to reduce costs comprise a larger proportion of permanent full-time employees, fixed term employees and fewer temporary employees.

Horwitz and Franklin (1996: 10) find that there is an increase in outsourced employment. There are various reasons for higher levels of outsourcing: The costs in response to fluctuating production demand (which when outsourced is transferred to the contractor)

are limited. There are no legal obligations for the contractor to provide non-wage benefits and it is easier to recruit or dismiss employees that are subcontracted in exchange for fixed term contracts. Outsourcing facilitates organisational restructuring, downsizing and other cost saving initiatives. Finally, subcontracted labour can be used in areas that are risky (in terms of health or safety) rather than utilising employees affiliated to unions. Subcontracting is more viable than employment that is affiliated to unions as the nature of work is not permanent. This type of employment can also be used to replace trade union employees during strikes.

Bezuidenhout, Theron and Godfrey (2005: 39) examine casualisation in four sectors of the economy: mining, construction, household appliance manufacturing and retail. In the mining sector, the most prevalent form of non-standard labour is subcontracting which includes casualisation, externalisation and informalisation. Activities that are subcontracted include shaft sinking and underground construction, whereby employees are employed on fixed term contracts that are difficult to regulate. At the end of 2003, subcontracting accounted for approximately 20 *per cent* of all mining employment, which increased from 46,355 in January 2000 to 90,231 in November 2003 in a sector where there were approximately 438,000 formal sector employees. The evidence in this sector however indicates that contractors earn lower wages and do not experience benefits that regular employees have.

In the construction sector, there has been a rapid growth in the number of employees that are informally employed. The form of subcontracting in this sector is labour-only subcontracting and differs from the traditional form of specialised subcontracting in that it is a newer phenomenon that does not require specialist skills or the supply of materials by the subcontractor. With labour-only subcontracting, the contractor only demands the labour of workers to perform tasks. There are also emergent contractors, that is, small black owned building firms which are promoted by preferential tendering arrangements in terms of black economic empowerment (BEE) policies and small business development (Bezuidenhout, Theron and Godfrey 2005: 40).

The household appliance manufacturing industry uses short-term contractors (STCs) when production increases. Workers used on STCs receive preferential hiring treatment when permanent positions arise. Bezuidenhout, Theron and Godfrey (2005: 41) reveal that there is an increase of permanent temporary employees, that is, employees that are on long-term contracts for specific firms, but are not registered as full time permanent employees. In the retail sector, there is an increase in casual employment in the form of female part-time employees, usually employed during weekends, holidays and peak shopping periods.

According to Bharath (2004: 44), the World Bank finds that the South African labour market is relatively more flexible in comparison to other emerging and African markets. This conclusion is derived from the cost of retrenching an employee. The number of weeks of wages paid to a retrenched employee is lower in South Africa than in other country. In South Africa, the cost to a firm of retrenching an employee is approximately the equivalent of 45 weeks' wages per employee. Citing India, Romania and the Democratic Republic of Congo as examples, the retrenchment cost to firms in these countries is the equivalent of between 80 to 100 weeks' wages. The largest cost of firing to a firm is in Guatemala where approximately 3 years' wages per employee is to be paid. Singh (1998: 20) cites contradictory results from an International Labour Organisation (ILO) assessment of the South African labour market. The ILO findings reveal that the South African labour market is highly flexible (in terms of employment flexibility, wage flexibility and work organisation flexibility), in contrast to most evidence indicating otherwise.

Horwitz and Franklin (1996: 6) are in agreement that a distinctive feature of the labour market is the low levels of literacy and numeracy where 60 *per cent* of the formal sectors' labour force does not possess a high school education, which effectively limits labour market flexibility. Mayer and Altman (2005: 40) maintain that manufacturing industries have shifted towards capital and skill intensive technology whereas resource based industries, namely, mining and agriculture, tend to absorb low and semi-skilled employees. The acquisition of skills is therefore an important policy requirement for

development in South Africa. According to Teal (2000: 2), this will also result in higher levels of investment and growth.

Labour market regulation is a trade-restricting device. To ensure that the EU-SA FTA (and other forms of economic integration as described in Chapter Two section 3.8.2) is a success, the South African economy must demonstrate flexibility, accessibility, affordability and variety as the agreement is based on these attributes. The European Union can enhance the capacity of South African business by introducing programmes to build and extend administrative efficiencies, however South Africa's challenge is to enhance competitiveness by addressing its weaknesses in the form of labour market regulations (Wakeford 2000: 103).

This thesis takes the view that the South African labour market is relatively inflexible and is supported largely by the evidence in this section. Current and future strategies to alleviate unemployment must therefore promote labour market flexibility in addition to advancing human capital development. In the next section, we highlight some of the initiatives in South Africa that address the high levels of unemployment.

5.5 AN OVERVIEW OF INITIATIVES TO REDUCE UNEMPLOYMENT IN SOUTH AFRICA

South Africa adopted a Growth, Employment and Redistribution (GEAR) programme in 1996 (Carmody 2002: 257). The objective of the GEAR programme is to address income inequalities that characterise the South African economy. However, this economic reform programme is often criticised as being unsuccessful. The GEAR strategy does however highlight the need for a more flexible labour market (Hirsch 2005: 179). This flexibility will reduce unemployment if accompanied by job security whereby government improves the social wage as well as improves access to public services for the poor. Wage settlements need to take into account the diverse skill levels, training for new entrants to the labour market as well as the increased capital intensity of the economy.

In Chapter Four, section 4.6.1, the effects of a **partial subsidisation of employment** is examined. We note that on-the-job training programmes offer an employer incentive *via* a subsidy to provide disadvantaged employees with training for a specific period. In Figure 5.1 diagram (C) on page 200, partial subsidisation has the effect of shifting the demand curve from D1 upwards to the original position D0 and increasing employment of (L0-L1) employees as it decreases the marginal cost of labour. According to Lewis (2001: 36), employment subsidies increase the incomes of previously unemployed workers without lowering the average wage income of others. This therefore has the potential to increase the demand for goods and services produced in the South African economy. Standing, Sender and Weeks (1996: 3) indicate that subsidising employment is a policy option for South Africa that promotes labour intensive, export-oriented industries. A criticism however is that in addition to the three potential demand side problems discussed in Chapter Four (section 4.6.1), wage subsidies can result in inefficient labour market utilisation as well as restrict the structure of production.

In light of the low literacy and numeracy levels inhibiting efficiency and flexibility, one of the South African government's most important priorities is to develop a better-educated, better-trained and more productive labour force in order to achieve job-creating growth. Investing in human capital plays an important role for which an important criterion is implementing efficiency and service delivery. Tsikata (1999: 43) however adds that although there has been high investment in human capital, the results as measured by completion and pass rates have been relatively low. A point that Tsikata (1999: 43) highlights, is that firms pursuing export growth need to either develop technology and skill intensive products or expand high value added labour intensive products in niche⁷² markets that will require skills training in order to be more responsive to changes arising from trade liberalisation.

The Office of the Deputy President of South Africa and in particular Phumzile Mlambo-Ngcuka are actively seeking methods to address South Africa's unemployment problem

⁷² The importance of niche markets is emphasised in economies of scale in the new theories of international trade in Chapter Two section 2.8.1.

and attempts to halve poverty and unemployment by 2014. Msomi (2006) highlights the launch of the Joint Initiative for Priority Skills Acquisition (JIPSA). The Deputy President in the form of a programme called the Accelerated and Shared Growth Initiative of South Africa (ASGISA) brought this to the forefront. The lack of skills in South Africa is inhibiting economic growth and development. JIPSA addresses the lack of skills in the country by finding methods to absorb unemployed graduates into the economy and examining the mismatch between the skills provided by tertiary institutions and that required by the labour market (HRHighway 2006). This is an attempt to increase the gains from trade and the real returns to the unskilled labour factor that is most adversely affected by globalisation and trade liberalisation. In a further attempt to empower youth with skills that would assist in them acquiring employment, South African President Thabo Mbeki emphasises that the government will set up 100 Youth Advisory Services that would benefit at least 10,000 in the National Youth Service Programme. The economy cannot achieve the 6 *per cent* growth needed to create jobs because of the high cost of doing business as well as the high cost of intermediate inputs.

President Mbeki further adds that ASGISA comprises of a set of interventions that are intended to serve as medium for accelerated and shared growth plus development. R372 billion is to be provided over the next three years to implement ASGISA and for government to increase investment in infrastructure. Eleven infrastructure projects are already underway. These include the Umzimvubu Catchment and timber industries Development Initiative in the Eastern Cape, a water reticulation project for Mokopane-Vaalwater-Marken in Limpopo and the Johannesburg International Airport Logistics Hub and Industrial Development Zone in Gauteng to name a few (Media Briefing 06 February 2006: 4). In addition, public-private partnerships are to assume principal roles in electricity, water and telecommunications. ASGISA also attempts to increase the growth of small, medium and micro enterprises (SMMEs). Mayer and Altman (2005: 52) indicate that SMMEs are more labour intensive than larger enterprises and therefore possess a higher labour absorption capacity. Although South Africa has given rise to these SMMEs since 1994, they have either not been able to grow or to a large extent experienced jobless growth, that is, growth that is insufficient to create employment (Carmody 2002: 271).

ASGISA prioritises business process outsourcing (BPO), tourism and bio fuels as these are labour intensive, rapidly growing sectors world wide with prospects for Broad Based Black Economic Empowerment (BBBEE) and small business development. Business process outsourcing refers to locating costly labour activities to cheaper centres or countries, which is also part of the ASGISA agenda. The Black Economic Empowerment (BEE) charter was established in July 2002. The goals of BEE are *firstly* to correct inequalities of the past and create a favourable environment for South Africa's future development. The *second* goal is affirmative action where the objective is to promote Historically Disadvantaged South Africans (HDSA) (Schmidt-Whitley and Sutorius-Lavoie 2004: 23). BEE is therefore an initiative targeted at improving the abundance and real returns for specific sectors that were harmed by policies that existed prior to the election of South Africa's first democratic government in 1994. The objective is to accomplish a 40 *per cent* level of black participation at management level within the next three years. This is due to black South Africans comprising majority of the country's population. ASGISA, JIPSA and other initiatives focusing on addressing unemployment and the skills shortages in South Africa will be discussed further in Chapter Seven.

In June 2006, President Mbeki together with the South African government reached a bilateral agreement to restrict clothing and textile imports from China and India over a two-year period. This will allow local labour intensive industries to grow as well as increase labour absorption of unskilled and semi skilled workers. However, this is also to the detriment of South African consumers. Although protection has the effect of alleviating unemployment in South Africa, consumers will be forced to pay higher prices for now locally produced goods that could have been cheaply imported.

African Economic Outlook (2005-2006: 462-463) indicates that export orientated manufacturing sectors, namely, the textiles industries face difficulties in the presence of Asian competition, a strong rand and labour market rigidities. In this sector, employment fell by 7.5 *per cent* in the period 2000-2004 despite tariffs in excess of 40 *per cent* on certain products, government assistance as well as preferential access (reducing duties for exports of clothing) to the United States *via* the African Growth and Opportunity Act

(AGOA). AGOA came into effect into early 2001 for an initial period of eight years. This indicates that factors other than trade liberalisation are contributing to the high levels of unemployment. Government is determined not to increase protection, which means that this industry has to either increase efficiency or face further contraction. Fedderke, Shin and Vaze (2003: 4) reveal that South African manufacturing in the period 1972-1997 which was largely characterised by protection, output prices increased most significantly in sectors that were unskilled labour intensive.

South Africa's six largest clothing retailers are Edcon, Truworths, Woolworths, Foschini, Pepkor and Mr Price. According to Hall (2006), these retailers requested that government assign a task force to analyse the full effects of the quota before it is implemented. The inflationary effect is anticipated to be between 20-25 *per cent*. Woolworths CEO Simon Susman indicates that although the group has tried to obtain as much clothing from South Africa as possible, South African prices and the technology of the clothing produced falls short compared to that available in the rest of the world. The South African Clothing and Textiles Workers Union (SACTWU) and the Congress of South African Trade Unions (COSATU) on the other hand are in favour of the proposed quotas. The union is of the opinion that the agreement will allow South Africa to recover approximately 67,000 jobs that were lost in industry in the past four years as a result of increased imports. The agreement is effective from January 2007. This return to protectionism (to benefit the unskilled factor most harmed by trade liberalisation) is an exceptional incidence that is unlikely to occur in other industries.

In this section, we provide an overview of the South African labour market and briefly explain initiatives to alleviate unemployment in the South African labour market. Chapter Seven synthesises the literature in this study, reviews current initiatives to reduce unemployment in South Africa and provides further policy prescriptions. It is unequivocal that adopting cost effective active labour market policies coupled with macroeconomic policies will have the effect of successfully reducing unemployment.

5.6 CONCLUSION

Section 5.2 examines the effects of globalisation and trade liberalisation on the labour market. Globalisation and trade liberalisation are not necessarily the primary causes of unemployment. It is more so the failure of economies to adjust to these changes accompanied by labour market distortions that results in unemployment. Section 5.3.1 emphasises the lack of skilled labour and stresses investment in this factor of production, which we reiterate in the policy prescriptions for South Africa in Chapter Seven.

In Section 5.3.2, we link the causes of unemployment to the South African labour market. This section incorporates the bilateral monopoly model, efficiency wages, lack of skilled workers, reduced consumer spending and low levels of economic growth as causative factors to unemployment. Section 5.3.2.6 draws on the literature from Chapters Two (trade theory) and Three (trade policy) respectively and links the international trade outcomes to South African labour market (Chapter Four and earlier sections in this chapter). The normative outcome of the H-O theorem for South Africa is incorrect and instead that this country, paradoxically for historic reasons, has an abundance of skilled labour and a relative shortage of unskilled (near-skilled) labour making the latter the scarce factor. The most pronounced conclusion, common to all five theorems of international trade, is that unskilled labour in South Africa is the factor of production most harmed by globalisation and trade liberalisation in the context of inflexible labour markets.

One of the most popular responses to globalisation is labour market flexibility and this chapter focuses much attention on the subject. We examine the various forms of flexibility and their effects on the labour market in section 5.4. For South Africa in particular, there is high structural unemployment, which necessitates labour market flexibility. Various studies confirm that labour costs are reduced with the aid of some form of flexibility. We extend the analysis to the South African labour market (in section 5.4.3). The chapter concludes with citations of South African initiatives that address the high levels of unemployment. These initiatives include the GEAR programme, ASGISA

(incorporating JIPSA) and partial subsidisation of employment. Chapter Seven expands on these initiatives and provides further policy considerations for South Africa.

CHAPTER SIX

THE EXPERIENCES OF SELECTED COUNTRIES WITH TRADE LIBERALISATION, GLOBALISATION AND UNEMPLOYMENT

“Even if we study to old age, we shall not finish learning”

Anonymous

6.1 INTRODUCTION

This Chapter examines the effects of globalisation, trade liberalisation and unemployment in select countries. The analyses in this chapter highlights the experiences of both developed and developing countries and it is evident that South Africa is among many other countries besieged with high levels of unemployment. Although each country's approach to trade liberalisation is different, some of their outcomes and responses are relevant to the South African context. The selected countries' experiences relate to our analyses of international trade and the labour market in Chapters Two to Five.

Globalisation and trade liberalisation effectively influence all countries opening their trade to global markets. Our intention is to review the experiences of selected countries that are prominent in the world economy with specific focus on developing countries. We begin by examining countries in Latin America and Asia, which are considered to be among the fastest growing economies in the world. In section 6.3, we provide an overview of the experiences of Latin America with particular reference to the experiences of the developing countries Argentina, Brazil and Mexico. Section 6.4 goes on to examine the Asian economies that play an increasingly important role in the world economy, with emphasis on the Chinese economy. We highlight the United States' and Europe debate on flexibility and unemployment in section 6.5 as the United States labour market is perceived to experience unemployment to a lesser extent than Europe due to

more flexible labour market practices. We conclude this chapter with a brief overview of the developments in Africa (section 6.6).

The review of the various countries' experiences encompasses a broad overview of their exposure to trade liberalisation, unemployment and their policy responses thereof. A single country's experiences however, will not provide the solution to South Africa's high levels of unemployment. The Report of the Presidential Commission to Investigate Labour Market Policy (June 1996: 2) finds that it is either inappropriate or impractical to replicate approaches from other countries. This statement is justified, as policies to alleviate unemployment of such a large scale in South Africa require fine-tuning.

6.2 THE EFFECTS OF TRADE LIBERALISATION ON WORLD TRADE

A study of world trade for the period 1985 to 2002 reveals that world trade increased from 2,300 billion US dollars in 1985 to over 7,800 billion US dollars in 2002, much of which is attributed to the rise in trade liberalisation (Gunter and van der Hoeven 2004: 9). World nominal GDP expanded 2.5 times from 12,800 billion US dollars in 1985 to 32,100 billion US dollars in 2002. China and India experienced the largest growth in exports between 1985 and 2002.

Drucker (1994: 104) indicates that increased participation in the world economy has become a controlling factor in the domestic economic performance of developed and developing countries. Clearly, openness plays a significant role in world trade. We proceed to cite country specific evidence of the effects of globalisation and trade liberalisation on unemployment.

6.3 THE EXPERIENCES OF LATIN AMERICA

According to Haltiwanger *et al* (2004: 192), trade reform in Latin America⁷³ is accompanied by labour market reforms that intend on making the labour market adjustment more flexible. The increased incentives for reallocation should therefore be enhanced by lower adjustment costs. Increased flexibility implies higher efficiency and productivity as economic forces drive the allocation of resources to their highest value uses. However, increased flexibility is also associated with uncertainty for employees and employers in terms of job security and wage inequality.

In section 6.3.1, we review the developments of trade liberalisation and the labour market in Argentina, Brazil and Mexico respectively. Section 6.3.2 briefly discusses trade reform in Chile in addition to providing final annotations on the Latin American experience.

6.3.1 TRADE LIBERALISATION AND LABOUR MARKET

DEVELOPMENTS IN ARGENTINA, BRAZIL AND MEXICO

Argentina, Brazil and Mexico are developing countries in Latin America that embarked on substantial trade liberalisation. Brazil is the largest economy in South America (Ribeiro *et al* 2004: 209). According to Jenkins (2006: 187), trade liberalisation resulted in higher inequalities and slower levels of employment growth in the countries that liberalised their economies in Latin America. Lee (1996: 490) provides reasons for rising inequalities that are not directly related to trade liberalisation. We examine these reasons in the latter part of this section on final annotations on the experiences of Latin America.

6.3.1.1 ARGENTINA AND BRAZIL IN PERSPECTIVE

Latin America experienced an extreme policy shift from import-substitution industrialisation (ISI) policies as discussed in Chapter Three (which entails trade barriers and capital controls) to trade liberalisation (export-orientated strategies involving the elimination of trade barriers and the opening of capital markets). Trade liberalisation

⁷³ Latin America broadly encompasses Argentina, Brazil, Chile, Mexico, Paraguay, Trinidad and Tobago plus Uruguay.

encouraged initiatives in support of regional integration where Argentina and Brazil formed the *Mercado Común del Sur* or Southern Common Market (MERCOSUR) with Paraguay and Uruguay in 1991 (Ernst 2005: 1; Pavcnik *et al* 2004: 325). As highlighted in Chapter Three, MERCOSUR is an example of a free trade area (FTA) and a customs union (CU). Carnoy (2002: 291) cites evidence indicating that Argentina, Brazil and to a smaller extent Mexico, experienced an improvement in economic performance due to debt restructuring, where foreign governments and banks negated outstanding Latin American loans (which grew due to crises in earlier years). Another reason was that foreign capital began flowing back into Latin America.

Argentina commenced its liberalisation programme in the 1970s and Brazil joined in 1986 *via* an economic cooperation and integration agreement. In 1989, over 60 *per cent* of the tariff lines that were previously under quantitative restrictions were abolished. In 1990, import-licensing requirements were eliminated and tariffs were made uniform at 20.5 *per cent* in Argentina and 32.2 *per cent* in Brazil. Trade liberalisation progressed and by 2001, tariffs were uniform and lower at 11.6 *per cent* in Argentina and 12.9 *per cent* in Brazil respectively. Ganuza *et al* (2005: 397) indicate that Argentina, like most natural resource abundant countries, experienced rising income inequalities at the household level, but overall levels of poverty fell with trade liberalisation.

At the end of 2001, Argentina experienced severe economic crisis. Approximately three quarters of Argentinean households experienced a fall in real income in 2002, the majority of which were subject to a real income fall of 20 *per cent* or more. Unemployment increased and the standards of living rapidly fell. The fall in real income rather than unemployment was the principal cause of lower standards of living. One of the main social policy programmes as a public safety net response to this crisis was Argentina's *Jefes y Jefas* plan, introduced in January 2002 (Galasso and Ravallion 2004: 367). *Jefes* replaces the smaller-scale Trabajar workfare programme. The objective of *Jefes* was to provide direct income support for families (that have dependents) who lost their main source of earnings due to the crisis. The Argentinean government spent 500

million US dollars on *Jefes*, a quarter of which was financed by a loan from the World Bank.

However, since all individuals seeking transfers were able to obtain them, this meant that individuals who were not most in need were reaping the benefits of the programme. In light of these concerns, the World Bank deemed it necessary that 90 *per cent* of individuals in this programme meet the work requirement. This requires that a minimum of 20 hours per week be spent on basic community work, training activities or school attendance. Alternatively, beneficiaries can obtain employment in the private sector and receive a wage subsidy for six months (Galasso and Ravallion 2004: 370). It follows that since the poor have lower reservation wages, these individuals are likely to be the target of the work requirement. This programme combines a passive labour market policy (income support) with an active labour market policy (investment in human capital). This provides a good example of labour market policies, which we examine in Chapter Four section 4.6 coupled with investment in human capital in section 4.7. Galasso and Ravallion (2004: 394) acknowledge that although *Jefes* played only a small role in alleviating poverty, the results indicate that an extra 10 *per cent* of individuals would have experienced extreme poverty in the absence of this programme. The *Jefes* programme was successful in reducing Argentina's unemployment by 2.5 *per cent*.

The principal exports of MERCOSUR countries Argentina and Brazil include a combination of primary products and to a smaller extent secondary semi-processed products, which includes food products, the production of which requires labour used intensively. Processed food sectors reveal positive employment growth whereas all other food sectors as well as the automobile industry exhibit negative employment growth. Real wages for the labour force effectively increased by 1.7 *per cent*.

Harrison *et al* (2004: 291) maintain that although the Brazilian economy undertook substantial trade liberalisation in the 1990s, traces of the import substitution strategies (examined in Chapter Three section 3.5) that dominated the 1960s remain. The Brazilian economy exhibits high job reallocation rates and large within sector job reallocation.

According to Ribeiro *et al* (2004: 209), the effects of greater openness from trade liberalisation in Brazil is that it reduces jobs *via* increased job destruction (due to import penetration) with a negligible effect on job creation. Depreciation in the real exchange rate has however had the effect of creating jobs in manufacturing with no effect on job destruction. Trade policy reforms in Brazil tend to shift resources from capital intensive manufacturing to unskilled labour intensive agriculture (Harrison *et al* 2004: 291). This increases the real wages of unskilled labour relative to the real returns to capital and skilled labour. This outcome is therefore consistent with the predictions of the Heckscher-Ohlin and the Stolper-Samuelson theorems for a developing country, as examined in Chapter Two section 2.4). The net effect on the poor is therefore positive. The results from Harrison *et al* (2004: 291) indicate that the incomes of the poorest households are several times greater than the average percentage increase in incomes for the economy as a whole (expressed as a percentage of household consumption).

Brazil is engaging in negotiations to implement the Free Trade Agreement of the Americas (FTAA). A further development in economic integration is that MERCOSUR is negotiating a free trade agreement (FTA) with the European Union (EU). Harrison *et al* (2004: 305) predict that Brazil and the other MERCOSUR countries will experience gains from these free trade agreements, which are estimated to be approximately 0.6 *per cent* of consumption from the FTAA and approximately 2.1 *per cent* from the EU-MERCOSUR agreement. Agricultural trade liberalisation with the European Union is particularly important for agricultural exporters like Brazil in realising poverty reducing benefits. Brazil is therefore a country in support of further multilateral negotiations within the World Trade Organisation (WTO).

Argentina is estimated to lose slightly from the FTAA. In the absence of the FTAA, Argentina enjoys preferential access to the markets of other MERCOSUR countries. Trade agreements in the form of the FTAA erode preferential access as it allows equivalent access to countries in the Americas to the MERCOSUR market. Harrison *et al* (2004: 305) highlight the possibility that the effects of loss of preferential access combined with effects of trade diversion may dominate the effects of trade creation.

Harrison *et al* (2004: 312) reveal that the experiences of Brazil are consistent with the predictions of the Stolper-Samuelson theorem. Trade liberalisation expands the unskilled labour intensive sector relative to the capital intensive sector. Therefore, trade liberalisation results in the price of the factors used intensively in production in the protected sectors falling relative to the price of the factors of production in the unprotected sectors. The wage rates of the unskilled workers will increase relative to the interest rate on capital and in so doing benefits the poor. In addition, if we consider that the value of land rises more than the wage rates of unskilled labour, this implies that the rural communities are the largest gainers of trade policy reforms. This is consistent with the specific factors model examined in Chapter Two section 2.7. The specific factors model incorporates a third factor of production, in this case land, and predicts that trade benefits this immobile factor as it is specific to the country's export sector.

Wage premiums are that portion of workers wages that cannot be explained by the characteristics of workers or firms. Wage premiums are attributed to workers' industry affiliations and are important as they have implications for wage inequality between the skilled and unskilled workers⁷⁴. Pavcnik *et al* (2004: 341) indicate that in Brazil, over the period 1988-1994, changes in industry wage premiums arising from trade liberalisation (*via* tariff reductions) did not significantly contribute to increased wage inequalities between skilled and unskilled workers. Further evidence from their study shows that industry wage premiums vary widely across the Brazilian manufacturing sectors and premiums tend to be the smallest in sectors characterised by a high proportion of unskilled workers. As a result, unskilled workers earn lower wages due to an increase in the skill premium of the economy and because they are disproportionately employed in industries with low wage premiums. Pavcnik *et al* (2004: 342) conclude that labour market policies⁷⁵ (for example, policies focusing on improving the access to education, changing the minimum wage and social security programmes) have the potential to

⁷⁴ We examine the effects wage premiums on unemployment in the South African context in Chapter Five section 5.3.

⁷⁵ As we discuss and highlight in Chapter Four section 4.6.

address inequalities and rising skill premiums. We now shift our discussion to the Mexican experience.

6.3.1.2 THE MEXICAN EXPERIENCE

Mexico began its trade liberalisation reform in 1985 by eliminating import licences on capital and intermediate goods as well as reducing tariffs. Mexico strengthened its trade with the United States *via* the North American Free Trade Agreement (NAFTA) in 1994 at which point, Mexico was one of the most open developing countries in the world with uniform tariffs of approximately 13 *per cent* (Ernst 2005: 2). Uniform tariffs however rose to approximately 16 *per cent* in 2001, which can be largely attributed to the economic crisis in the late 1990s. The overall trend is still however toward further trade liberalisation. Ruiz-Nàpoles (2004: 105) indicates that the United States' government, the World Bank and the International Monetary Fund (IMF) promote trade liberalisation in Mexico. In the period 1994 to 2000, Mexico's trade with the United States as well as with Canada *via* NAFTA increased substantially, with exports tripling and resulting in a trade surplus over this period in excess of 19 billion US dollars.

Ruiz-Nàpoles (2004: 107) highlights that the wage differential between Mexico and the United States as well as their geographical closeness has always been attractive for foreign firms. Trade policy changes in Mexico incorporated importing low-cost high-quality intermediate inputs utilising cheap labour to manufacture final goods for export at a competitive level. Regulations on foreign investment up to the 1980s prevented Mexico from reaping the full benefits of trade policy changes. In recent years, there have been increased exports from assembly plants, termed *maquiladoras*⁷⁶. *Maquiladoras* account for a large proportion of total and manufacturing exports. Approximately 90 *per cent* of Mexico's positive trade balance arises from *maquiladora* exports, which represent a proxy for higher growth as a consequence of NAFTA (English and De Wulf 2002: 166; Ruiz-Nàpoles 2004: 108). Unfortunately, the negative and growing trade balance with the rest of the world (which is relatively small in relation to trade with the United States)

⁷⁶ *Maquiladora* is the Spanish name for the Mexican programme established in the 1960s, which encompasses in-bond manufacturing, offshore assembly and runaway plants (Ruiz-Nàpoles 2004: 108).

offsets the positive trade balance with NAFTA. In 2000, the overall trade balance for Mexico was therefore a deficit of approximately 8 billion US dollars. According to English and De Wulf (2002: 166) and Robertson (2005: 441), the *maquiladoras* employed approximately 900,000 workers in 1997.

Increased trade and foreign direct investment (FDI) arising from NAFTA increases the demand for labour in Mexico and increases Mexican wages relative to United States wages. However, although the Mexican and United States labour markets are significantly more integrated since the inception of NAFTA, the evidence on labour market integration is limited⁷⁷. Robertson (2005: 427) attributes this to much of the migration between Mexico and the United States being illegal (approximately 1.7 million in 2000) and is therefore difficult to measure. If we consider that labour is a relatively mobile factor of production, the specific factors model in Chapter Two section 2.7 predicts that the effects on real wages are ambiguous. Migration is therefore an important power integrating North American labour markets.

Mexico in contrast to Argentina and Brazil experienced strong growth in its manufactured exports that are concentrated in low labour intensive products with a relatively high value added. Mexico's exports also comprise of a high level of imported inputs. In 2001, machines, transport equipment and telecommunications were among Mexico's main exports and all of these industries experienced substantial real wage increases and employment growth (Ernst 2005: 13). A significant factor however is that the share of these exports in total industrial employment is relatively low. According to Santos-Paulino (2002: 144), Mexico's export promotion strategies allowed foreign competition mainly in the form of liberalisation of foreign direct investment (FDI) regulations and tax incentives for multinational corporations (MNCs) as discussed in Chapter Five section 5.2.2. Ernst (2005: 20) points out that the main losers from increased cheap agricultural (corn, grain and oilseed) imports are the rural workers in Mexico. As a result of cheap corn imports, the prices of corn fell and so too did the

⁷⁷ The peso crisis between 1994-1998 plus illegal labour migration are possible explanations for the limited evidence on labour market integration.

incomes of rural workers. Approximately a million jobs were lost during the period 1993-2002 leading to higher emigration.

Increases in exports increase the demand for intermediate goods and indirectly increases employment. This however must be accompanied by exports generating foreign exchange inflows that allow imports to increase by the same amount, without creating a deficit (Ruiz-Nápoles 2004: 107). In Mexico, the positive effect of increasing manufacturing exports on production is limited and offset by manufacturing imports, which consequently displaces domestic production.

Ernst (2005: 13) states that Mexico is an example of a country that successfully changed its specialisation from primary and primary semi-processed products to manufactured goods, which comprised ninety *per cent* of exports in 2003, although crude petroleum became a leading export again. Manufactured exports also experienced above average wages and employment growth, but with low labour intensity. This is reflected in a low skilled labour force completing the assembly of technological products. According to Jenkins (2006: 187), the effects of trade liberalisation effectively narrowed the wage gap in Mexico. This however, was more than offset by the effects of technological change in parallel with the dominant view that technology rather than trade is a key factor in explaining developments in the labour market, especially, increased inequalities.

The effects of trade liberalisation on Mexico and Argentina (from section 6.3.1.1) are not consistent with the predictions traditional economic theory, that is, the Heckscher-Ohlin theory addressed in Chapter Two (Lee 1996: 490). Ernst (2005: 13) asserts that both these countries are characterised by large populations, much of whom live in abject poverty. Since the poor population display low or no skills, they represent abundantly cheap labour in Argentina and Mexico, but each country's exports are not representative of this. The exports of these countries do not indicate specialisation in highly labour intensive products either. Moreover, the results reflect that there are some missed opportunities as these countries have the potential to specialise in relatively high value added products. Mexican exports, as mentioned earlier are concentrated in low labour

intensive products with a relatively high value added but the share of these exports in total industrial employment is relatively low. Increased imports (of medium to high labour intensive goods with relatively high value added and technology) has the effect of raising productivity in response to increased competition for domestic firms. The negative impact on employment is therefore relatively small. Factors that contribute to the success of these countries in the face of import competition include relatively good economic growth rates, increased imports of intermediate products that assist in increasing new technologies and higher levels of productivity. Increased productivity conserves labour, increases efficiency in the domestic economy and has a positive impact on production, welfare and unemployment (Ernst 2005: 20). The results for Brazil as discussed in section 6.3.1.1 are consistent with the predictions of trade theory.

Robertson (2005: 446) concludes that NAFTA has the effect of integrating labour markets and narrowing the wage gap. It is also evident that trade and investment has not increased sufficiently to observe the anticipated effects. Further investment, more so in infrastructure to promote trade and institutions to reduce economic risk will contribute to realising the positive effects of trade liberalisation.

6.3.2 FINAL ANNOTATIONS ON THE EXPERIENCES OF LATIN AMERICA

We briefly note the trade liberalisation reforms from the Chilean experience, which began in the 1970s. In Chile, there was a unilateral trade liberalisation programme where quantitative restrictions were eliminated and the adoption of a 10 *per cent* uniform import tariff was accepted (Edwards and Edwards 2000: 184). Ruiz-Nàpoles (2004: 106) indicates that although the effects of trade liberalisation on exports were positive, the effects on employment were negative. The results of an econometric analysis indicate that a decentralised collective bargaining procedure that reduces trade union power increases labour market flexibility and thereby decreases unemployment. In addition, job security has a minimal, if not zero effect on unemployment in Chile (Edwards and Edwards 2000: 184). The cash cost to firms of dismissing a worker was also reduced, but in international comparison, Chile still maintains relatively strict job security legislation.

Chapter Four emphasises the role of education and training in increasing the employability of individuals in the economy. In terms of education, countries in Latin America focus on decentralisation and privatisation. Carnoy (2002: 298) suggests that these reforms do not raise the quality of education, but rather increases inequality in educational delivery. Since decentralisation focuses on lower spending by the central government rather than improving the quality of education, low-income individuals are the most disadvantaged by this reform. Decentralisation is deemed a competitiveness driven reform that increases productivity in education at local level and thereby increases a nation's human resources. Countries that have experienced these reforms include Argentina, Brazil, Mexico and Chile. Due to the inefficiencies of decentralisation, these countries are now attempting to expand central government assistance to municipalities. Despite this attempt, decentralisation remains dominant in the Latin American countries.

Haltiwanger *et al* (2004: 207) indicate that trade reforms (*via* the lowering of tariffs) significantly increases the pace of job reallocation and in so doing improves allocative efficiency. However, reallocations as well as decline in net employment growth in Latin American countries are the costs associated with trade reform. Ganuza *et al* (2005: 398) on the other hand quote results from a project for sixteen Latin American countries. All countries, except Brazil reveal that trade liberalisation (through tariff and non-tariff barrier reductions) is an engine of growth for exports. Accordingly, trade liberalisation increases output, decreases poverty and has positive effects on wages and employment. In some countries, depending on the export structure, the rising skilled to unskilled wage gaps result in higher levels of income inequality. The demand for relatively skilled or unskilled labour depends largely on the traded goods sector.

In the 1990s, Argentina adopted employment subsidy programmes (which Chapter Four section 4.6.1 defines) to address rising rates of unemployment. These were used together with public employment programmes. Initial subsidy programmes were directed at hiring (that is, subsidies paying a fraction of the wages of employees that were hired for a minimum of four months). Successive programmes targeted SMMEs and the forestry industry. The participation rates for these programmes were relatively small (Lewis 2001:

38). Chile also embarked on employment subsidy programmes accompanied by training programmes. These programmes are more representative of training rather than employment subsidies and have noted relatively good participation rates.

Lee (1996: 490) argues that the reasons for rising wage inequalities in Chile and other Latin American countries are not directly related to trade liberalisation. Rather, wage inequalities in these countries are largely attributed to extensive labour market deregulation that occurred in the same period as trade liberalisation. Increased openness has the effect of rapidly diffusing skill intensive technology, which is facilitated by inflows of FDI, much to the detriment of unskilled labour. Another explanation postulates that middle-income countries are now well endowed with skilled labour by world standards, even though their skill endowment is still below that of industrialised countries. Their comparative advantage is therefore no longer in the production of exports manufactured by unskilled labour used intensively. Trade liberalisation is therefore increasing the demand for the ‘new’ abundant factor of production, that is, skilled labour. Lee (1996: 490) suggests that another contributing factor to rising wage inequalities is large scale labour intensive imports from low wage countries, namely, China and India. This has the effect of decreasing the terms of trade⁷⁸ thereby indirectly decreasing the wages of low skilled workers in all developing countries. This evidence supports our findings for the South African labour market in Chapter Two section 2.6.2.1 and Chapter Five section 5.3.2.

6.4 THE EXPERIENCES OF ASIAN COUNTRIES⁷⁹

Santos-Paulino (2002: 153) measures the impact of export duty reduction and trade liberalisation by calculating the elasticity of export growth to changes in export duty

⁷⁸ The terms of trade refers to the prices of exports relative to the prices of imports. Since the prices of imports fall, import-competing industries in developing countries, which largely employ low skilled, labour are the most adversely affected. The effects of trade liberalisation translates into lower wages for these lower skilled workers.

⁷⁹ Asian countries largely encompass Asia, China, Japan, Taiwan, Korea, Hong Kong, Singapore, Thailand, Malaysia and Indonesia.

reduction and trade liberalisation. The evidence indicates that trade liberalisation has been greater than export duty reductions. East Asia and South-East Asia have been impacted the most by trade liberalisation, which is a key determinant of export performance and competitiveness. For these regions, trade liberalisation increases export growth by between 25 to 30 *per cent*. According to Loots (2002: 2), the rapidly growing East Asian economies provide an excellent example of the benefits from economic growth and the gains from a more open and outward-orientated economy. In this section, we focus on China, a country that is playing an increasingly important role in the global economy in terms of providing cheaply manufactured exports.

6.4.1 TRADE LIBERALISATION IN CHINA

Löfstedt and Shangwu (2002: 188) indicate that China has intensified its relationship with the rest of the world and has become increasingly active both economically and politically in the international arena. In this section, we provide an overview of the trade policy reforms in China and detail the effects of these reforms on the Chinese economy.

6.4.1.1 AN OVERVIEW OF TRADE POLICY REFORMS IN CHINA

China gained membership to the World Trade Organisation (WTO) at the end of 2001, although most of its trade liberalisation measures were undertaken prior to 1998. Ianchovichina and Martin (2004: 18) maintain that China's accession makes it a larger player in world markets *via* three sources. These are China's rapid growth and structural change of its economy; the liberalisation undertaken in preparation for the WTO accession and the liberalisation undertaken after the liberalisation in 2001. According to Zhang (2004: 120), in the past twenty years, China's trade volume has increased by 18 times, which contributes to China now being one of the top ten players in world trade. In 1998, the total tariff revenue accounted for approximately 2.5 *per cent* of total import value. By 2004, China's average nominal tariff rate was reduced from over 40 *per cent* to less than 17 *per cent* and the country will attempt to further reduce the nominal tariff rate to 9 *per cent* over the next few years. Ianchovichina and Martin (2004: 8) approximate that the number of tariff lines subject to quotas and licences fell from 1,247 in 1992 to 261 in 1999. China is committed to reducing all official non-tariff barriers (NTBs) which

were at about 21.6 *per cent* in 2001 to zero in future periods. In addition, China's accession to the WTO requires that agricultural export subsidies be eliminated.

Zhang (2004: 120) reveals that a significant feature of the Chinese economy is that it is largely characterised by imperfect competition. This thesis discusses similar impediments in the South African economy in Chapter Four section 4.4 and Chapter Five section 5.3. The monopoly power is attributed to regional market segmentation, product differentiation, insufficient transportation capacities as well as other non-economic reasons. According to Ianchovichina and Martin (2004: 5), product differentiation between imported and domestic goods and among imports by region of origin allows for two-way trade in each product category (as examined in Chapter Two section 2.8). This however is dependant on the ease of substitution between the products from different regions.

China, unlike most developing economy exporters was excluded from liberalising elements of the Uruguay Round Agreement of Textiles and Clothing. As a result, prior to its accession to the WTO, China did not benefit from the integration of textile and clothing products into the General Agreement on Tariffs and Trade (GATT) or from increases in quota growth rates that were provided for under this agreement. This meant that prior to its accession, there were upward pressures on the prices of these quotas in China that were transmitted into higher costs for exporters, similar to that of an export tax. Rents accrue either to quota holders who differ from the producers and exporters of the goods or to the government (Ianchovichina and Martin 2004: 12). Thus, the marginal return from additional output of textiles and clothing products is net of the quota rent/export tax. The accession to the WTO benefited China immediately as quotas and increases in quota growth rates were abolished. All quotas are to be phased out by 2005 and importing economies are allowed special textile safeguards between 2005 and 2007 that are effective for a year at a time. Developing countries in South Asia, Latin America, India (to a smaller extent) and specifically Vietnam that compete with China in third markets are likely to experience losses from the removal of clothing and textile quotas in China's post-accession period. According to Robertson (2006: 35), temporary protection

has been re-introduced against Chinese suppliers to the European Union and United States' markets. This is pertinent to the South African case where the South African clothing and textiles industries are experiencing difficulties in competing with cheap imports from China (as pointed out in Chapter Five).

6.4.1.2 THE EFFECTS OF TRADE POLICY REFORMS ON THE CHINESE ECONOMY

In the period 1991 to 1996, the number of individuals living in poverty decreased from 94 million to 65 million in China. Löfstedt and Shangwu (2002: 188) indicate that this reduction can be attributed to changes in development strategy. There is a shift in the emphasis from agriculture to export led industrialisation. The outcome of this shift is that in 1997 income inequality doubled between urban and rural individuals.

The provision of higher education in China has risen substantially to 1,054 institutions in 1995. However, in terms of international comparisons enrolments remain low. A prominent feature of China is that despite the higher investment in education, approximate 30 *per cent* of the Chinese population remains illiterate. The literacy rate has however increased to 81.5 *per cent* in 1995, but is still far from satisfying the needs of economic and social development (Löfstedt and Shangwu 2002: 193). The Chinese government's allocation to education as a proportion of the entire state budget is relatively low in light of the exceptional annual growth rate of GNP per capita. The sources of educational funds (other than the government budget) include levying of education taxes by local governments, funds from industrial enterprises, income from work study programmes run by schools, contributions by voluntary organisations/ individuals/community and tuition fees.

Ianchovichina and Martin (2004: 16) anticipate that China's accession to the WTO will result in output and employment falling in agricultural sectors other than plant-based fibres (cotton), livestock and meat. This occurs as agricultural labour moves into the clothing and textile sectors and unskilled non-farm real wages rise. The automobiles and electronics sectors are expected to expand and generate employment opportunities, more

so for skilled labour. Chen and Ravallion (2004: 52) conclude that China's trade reforms have a small impact on mean household income, inequality and poverty. It is however evident that rural households are the losers while urban households experience gains.

Zhang (2004: 132) states that China can gain larger increases in real GDP and employment as well as achieve lower price levels as the economy moves toward perfect competition. China's comparative advantage is in the production of labour intensive goods. According to the Hecksher-Ohlin (H-O) theory of trade in Chapter Two, production in China should therefore be focusing on labour intensive goods. Although a large proportion of China's exports utilises unskilled labour, the Chinese economy is also focusing more on higher value added sectors, as these sectors are considered strategically important for growth. These sectors require substantial foreign direct investment (FDI). Saggi (2002: 356) reveals that the Chinese government has encouraged FDI in the form of joint ventures. China views FDI as a supplement to domestic investment and a major source of new technology and fully developed marketing capability. Joint ventures will however restrict foreign firms from adopting their most preferred mode of entry. Ianchovichina and Martin (2004: 25) add that China's accession to the WTO is likely to increase FDI as trade liberalisation improves returns to investment and the liberalisation of rules on investment eases the financial flows into previously restricted sectors, such as services and automobile production. The increases in FDI will also play a role in increasing productivity.

China's total gain from the WTO accession is estimated at 40.6 billion US dollars *per annum* (in 1997 dollars). In terms of China's trading partners, the largest absolute gains accrue to North America and Western Europe. Approximately half of these gains arise from eliminating quotas that these countries impose on China's exports of clothing and textiles (therefore eliminating efficiency and rent transfers to China).

In China, economic growth has accelerated beyond a sustainable rate and it may be necessary to slow down the economy and lower inflation. The expansion of the private sector together with increases in imports from abroad increases pressure on state owned

enterprises (SOEs) and where these enterprises collapse, the resultant effect is an increase in unemployment. Löfstedt and Shangwu (2002: 188) reveal that many state owned enterprises, in order to avoid increasing unemployment, are continuing to produce goods that are not saleable due to their inferior quality in relation to imports and/or goods produced by foreign funded enterprises.

6.4.2 OTHER ASIAN ECONOMIES

Japan and South Korea are two countries that have grown rapidly in the world economy. de Wet (1995:479) draws attention to the fact that Asian countries, apart from having a work ethic conducive to high productivity, adopted processes of gradual trade liberalisation in the sixties, which were already well under way in the seventies. The Japanese economy has significantly proven its efficiency in production. The key to success for Japan and other Asian economies is that these countries do not try to manage short-term fluctuations in their economies. Their focus is instead on creating the correct economic climate. According to Drucker (1994: 106), the focus is on policies that enhance their competitiveness in the world economy and the domestic effects are considered secondary. The objectives of Asian countries include maintaining low levels of inflation, investing in education and training, rewarding savings (*via* low taxes) and penalising consumption (*via* high taxes). de Wet (1995: 479) maintains that Asian countries' domestic policies are market orientated in that their governments support and encourage the private sector.

Japan, Taiwan, Hong Kong and Singapore are among the world's richest countries (Drucker 1994: 107). For these countries, investment abroad is successful in creating jobs at home. Japan in particular, invested heavily in overseas plants to produce goods for its home market. In manufacturing, the investment per worker in the machinery and equipment of a new plant is three to five times annual production. The initial employment in the first few years of starting a plant is relatively high (to get the new facility into production) and the productive equipment is produced by high wage labour in the home country of the investor (in this case, Japan).

Ianchovichina and Martin (2004: 20) indicate that Taiwan's welfare gain from its and China's accession to the WTO is approximately 3 billion US dollars *per annum*. Taiwan's gain represents the second largest gain relative to the size of the economy after China's gains. Santos-Paulino (2002: 145) maintains that access to imported inputs at world prices is important for export growth. In terms of improving the environment for export growth, countries like Taiwan and Korea implemented economy-wide measures, such as special import licences for exporters, duty drawbacks and special schemes that include bonded manufacturing⁸⁰ and export processing zones (EPZs). Export processing zones refer to government intervention that provides a policy environment as well as infrastructure that is favourable to investors that are seeking to produce for export (English and De Wulf 2002: 165-166). EPZs promote investment and employment in export-orientated production, increase foreign exchange earnings from non-traditional sources, encourages foreign direct investment in countries that experience impediments in investment in exports and transfers of technology and knowledge from EPZs to the rest of the economy. EPZs are an example of a 'second best' solution, which is useful in confronting large reform programmes. English and De Wulf (2002: 166) postulate that the more developed is the local economy in terms of sound macroeconomic and exchange rate policies, the higher are the net foreign exchange earnings.

Roberts (2004: 229) emphasises the role of competition policy in Japan and South Korea. Cooperation and interrelationships play an important role in building dynamic competitive power in firms within large corporate groups. Chapter Seven section 7.5.5 discusses competition policy in more detail for the South African context. Competition policy facilitates the adoption of different production systems, implementation of different business models governing firms and encourages innovation plus skills development. East Asian countries exhibit exceptional entrepreneurship that has facilitated the absorption of foreign technology. Korea is an example of a country that has greatly invested in improving its stock of human capital as well as successfully absorbed

⁸⁰ Bonded manufacturing refers to importing goods duty free for resale on the export market. At the point of sale of goods in the domestic market however, the duty must be paid. This provides an export growth advantage for manufacturing.

foreign technologies (de Wet 1995: 479; Saggi 2002: 352). Similarly, in Japan importing technology and local research and development, largely supported by the Ministry of International Trade and Investment (MITI) and Japanese government agencies, plays a key role in technological development. The MITI limited competition between potential Japanese buyers, restricted, but did not greatly liberalise foreign direct investment until 1970 as well as encouraged diffusion of the current technology. The Korean government performed in the same way, but further encouraged firms to export by providing them with subsidised loans conditional on export performance (Saggi 2002: 356).

Lee (1996: 489-490) reveals that the newly industrialised countries (NICs) like Hong Kong, Korea, Singapore, Taiwan, China and more recent additions such as Indonesia, Malaysia and Thailand experience rapid economic growth accompanied by low levels of inequality compared to other developing countries. This outcome therefore supports the Heckscher-Ohlin model of international trade (examined in Chapter Two) which predicts that trade liberalisation will increase the relative wages of low skilled workers and reduce wage inequalities in low-wage countries. Ianchovichina and Martin (2004: 20) indicate that most of these benefits are associated with trade liberalisation and the removal of quotas on clothing and textiles. These benefits translate into terms of trade gains after 2001.

The successful Asian experiences highlight stimulating investment by developing human resources *via* investment in human capital (de Wet 1995: 479). Macroeconomic policies emphasise efficiency in production brought about by outward orientation (trade liberalisation) within a framework of stability and policy consistency. We note the relevance of this for the South African economy in Chapter Seven.

6.5 THE EXPERIENCES OF THE UNITED STATES AND EUROPE

This section highlights the experiences of the United States and the European Union respectively in terms of globalisation, trade liberalisation and labour market flexibility. We then provide a comparison of the labour markets of these two economies.

6.5.1 THE UNITED STATES (US) LABOUR MARKET

Workers in import-competing industries tend to suffer whereas workers in export industries benefit from globalisation and trade liberalisation (Champlin and Olson 1999: 444; Wood 1995: 58). Although jobs are lost when plants are relocated to offshore locations, other workers gain from inflows of new foreign direct investment (as noted in Chapter Five sections 5.2.2 and 5.2.3). Unskilled workers are likely to experience downward pressure on wages since the destruction of labour intensive jobs reduces the demand for labour.

According to Pryor (1999: 473), contrary to most studies, the impact of foreign trade on the employment of less educated unskilled workers is relatively small in both import-competing and other industries. This result arises from an analysis focusing mainly on employment trends (as opposed to trends in wages). Pryor (1999: 473) finds that *firstly* although in the long run, the United States' net imports have increased more so in goods that are manufactured abroad by a high proportion of unskilled labour, there is no evidence to support that this is a general tendency in the manufacturing sector as a whole. *Secondly*, the author finds no evidence to indicate that in the long run, prices in unskilled labour intensive sectors that are susceptible to import competition have increased by a smaller margin than other sectors, after taking into account domestic shocks, such as differential changes in productivity. *Thirdly*, there is a lack of empirical evidence indicating that productivity and investment of unskilled labour has increased more rapidly in response to import competition. These results are also inconsistent with the predictions of the Heckscher-Ohlin and Stolper-Samuelson theorems of trade for a developed country. In order to remain competitive, productivity and investment in unskilled labour intensive industries tends to increase more rapidly than other industries. Instead, Pryor (1999: 481) indicates that skill-biased technological change is a more viable explanation for the reduction in the demand for unskilled workers. In addition, Haltiwanger *et al* (2004: 193) cite evidence from Bernard and Jensen (1999) whereby intra-industry⁸¹ reallocations to higher productivity exporters, accounts for approximately 20 *per cent* of productivity growth in US manufacturing.

⁸¹ Intra-industry trade is examined in Chapter Two section 2.8.2.1.

Decker and Corson (1995: 759) draw attention to the trade adjustment assistance (TAA) programme in the United States. In order to promote trade liberalisation and compensate workers for trade-related income losses, the TAA programme offers unemployment compensation referred to as Trade Readjustment Allowances (TRAs) and re-employment services to a small number of workers losing their jobs because of higher levels of import competition. The recipients of this type of compensation are explicitly those workers that are harmed by import competition who were largely employed in the manufacturing sectors that are concentrated in textiles, apparel, rubber, leather, fabricated metals, machinery and transport equipment industries. The non-manufacturing industries are the oil and gas extraction industries. These are unskilled labour intensive industries that are adversely affected because trade in the United States, being a developed country, tends to benefit skilled workers.

The TAA programme is an example of a passive labour market policy as defined in Chapter Four section 4.6.2 and is similar to the wage insurance programme cited by Kletzer (2004: 741). The rules of the TAA programme changed on two occasions shifting the attention from compensation to training for the long-term unemployed. If we consider that training is an active labour market policy instrument, this is a more viable option to alleviate unemployment. In the period 1982-1990, an average of 30,000 individuals *per annum* received financial assistance from the TAA programme. In the same period, fewer than 13,000 individuals *per annum* entered training each year. The training is primarily directed at developing job specific related skills in new occupations (Decker and Corson 1995: 763). The trainees expressed their opinion that the training helped them obtain employment as well as provided useful on-the-job experience in their re-employment. The results however indicate that in the first three years, the TAA training did not have a large positive effect on the earnings of the trainees.

Carnoy, Castells and Benner (1997: 27) highlight the shift from permanent employment to flexible employment defined by human capital portfolios in the United States. A good example is that of the Silicon Valley in California. Industries in the Silicon Valley are synonymous with innovation and production in global high-technology industries for

manufacturing and services. Flexible employment, new forms of networking and mobility and contingent employment are significant features of the employment conditions in the Silicon Valley. The temporary help services (THS) industry is largely present in most North American countries and is characterised by high levels of competition, low overhead costs and few barriers to entry. Swiftly changing product markets and high levels of competition in the global economy necessitate temporary employment.

It is evident that although skill levels play a role in flexible labour markets, networks of relationships and contacts outside the workplace are also important (Carnoy, Castells and Benner 1997: 27). The ability to make individuals' abilities known *via* networking increases the chances of finding employment. This characteristic of flexible working patterns is prevalent in South Africa where individuals are recommended for positions *via* 'word-of-mouth' as well as 'head-hunting'. In the next section, we discuss the European experience.

6.5.2 THE EUROPEAN EXPERIENCE

The countries in the European Union⁸² express mixed opinions on the use of flexible employment. On one hand, flexibility is seen as a positive development whereas on the other hand, policymakers are concerned as flexibility reveals a weakening of the labour market position of groups of workers whose position is already weak (de Grip, Hoevenberg and Willems 1997: 49). In 1995, Spain and the Netherlands experienced the highest proportions of flexible employment and Greece, Portugal and Denmark experienced the lowest proportions. Flexibility in the European Union largely comprises the use of part-time and temporary employment.

Haskel, Kersley and Martin (1997: 363) complete a study that examines the role of labour market flexibility in firms' responses to demand shocks in the United Kingdom. The

⁸² The 27 European Union member states as at 2005 comprise of Austria; Belgium; Bulgaria; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Irish Republic; Italy; Latvia; Lithuania; Luxembourg, Malta; Netherlands; Poland; Portugal; Romania; Slovakia; Slovenia; Spain; Sweden and the United Kingdom.

study accentuates three results. *Firstly*, only a few firms respond to demand shocks by increasing the product price. The study reveals that majority of the firms are likely to adjust the number of workers, the hours worked per week or the capacity of the plant. *Secondly*, firms that are more flexible in nature are likely to react to a demand shock by adjusting the number of workers or the hours worked per week. *Thirdly*, trade unions have the effect of reducing the number of hours worked as opposed to the number of workers.

6.5.2.1 BELGIUM'S SMALL OPEN ECONOMY

An interesting case in study is that of the Belgian economy. Vandenbussche and Konings (1998: 1151) examine the effects of reducing product market monopoly power in the domestic labour market in the presence of labour union bargaining with domestic firms over nominal wage levels. Belgium is a small open economy in Europe featuring high levels of unemployment and strong labour union presence. These are also attributes of the South African economy as analysed in Chapter Five section 5.3.

The evidence from this study indicates that increases in international competition (*via* imports in the relevant product markets) always lower domestic wages. If nominal wage rates abroad and domestic union power are higher, it is likely that unions will experience a reduction in monopoly power in the domestic market and increase the quantity demanded for labour above the autarky (no trade) position. However, domestic nominal wages and product market prices always fall with import competition (Vandenbussche and Konings 1998: 1162). If imports are obtained from a low wage country, employment in the domestic market falls whereas imports from high wage countries either preserve or increase employment in relation to the free trade position. We argue in Chapter Five that not only can the premium fall, but it is also possible that the market wage can fall. In this latter case, unemployment is unchanged.

A majority of the firms in the survey indicate that trade unions play a significant role in either wages, employment and/or working conditions. Unionised sectors experience lower rates of employment growth than non-unionised sectors. In addition, Belgian firms

that are subject to international competition experience lower rates of growth for workers and wages than those sectors unaffected by international competition (Vandenbussche and Konings (1998: 1166). This indicates that the Belgian economy is inadequately prepared to experience the benefits of international competition arising from trade liberalisation.

6.5.2.2 EXPERIENCES FROM SPAIN

Spain is a European country that has experienced high levels of employment growth. Bentolila and Dolado (1994: 53) and de Grip, Hoevenberg and Willems (1997: 49) assert that Spain's increases in employment have been due mostly to increases in temporary jobs. Spain has noted the largest increases in temporary employment in Europe. Flexibility tends to affect the certain groups, but not the core permanent employees. The effects of labour flexibility are however not evident immediately. Initially, the employment of temporary workers (associated with lower wages and lower firing costs) has the effect of reducing average labour costs and enhancing job creation. However, once the proportion of temporary workers stabilises, bargaining effects tend to strengthen and unit labour costs increase. This implies that when aggregate demand falls as a result of the higher unit labour costs, the temporary workers will face unemployment as has occurred in Spain.

The experiences of Spain highlight the use of an initial 'second best' solution to unemployment. Flexibility when introduced at the margin (that is, targeting certain groups aside from core permanent employees) for organisations that are distorted does not increase welfare. Bentolila and Dolado (1994: 84) emphasise addressing labour market rigidities directly. Examples include delaying dismissals, providing severance pay and reducing notice periods to name a few. In 1984, Spain adopted fixed-term contracts whereby workers signing these contracts are fired or permanently employed after a specified period. This has the effect of equalising the number of temporary workers and unemployed workers. According to Christopher Pissarides in Bentolila and Dolado (1994: 87), the Spanish experience reveals that when labour market flexibility is impaired

by one set of regulations, introducing another set of regulations to restore it may have the adverse effect and makes the situation worse.

6.5.3 A COMPARISON OF THE UNITED STATES AND EUROPEAN LABOUR MARKETS

In this section, we contrast the labour markets of the United States and Europe. These two developed economies play a major role in trade in the global economy. Tombazos (1999: 514) maintains that aggregate imports stimulate the demand for skilled labour. If for example there is a uniform tariff reduction and the relative price of imports with respect to the average price of skilled labour decreases by 1 *per cent*, this has the effect of increasing the average relative demand of skilled labour to imports in the range of 0.16 *per cent* and 1.7 *per cent*. This result indicates that imports impact adversely on unskilled labour in developed countries.

Nickell (1997: 55) compares the European labour market which is “rigid, inflexible and characterised by high unemployment” to the North American labour market which is “dynamic, flexible and characterised by low unemployment”. The direct rigidities in the European labour market are in the form of employment protection, based on the strength of the legal framework that governs hiring, firing and labour standards and the strength of the legislation governing aspects of the labour market (Nickell 1997: 60). Labour standards include legislation governing working time, fixed term contracts, employment protection, minimum wages and employees’ representation rights on work councils or company boards.

Due to high unemployment levels, European unemployment is often diagnosed as *Eurosclerosis* (Bentolila and Dolado 1994: 53). Mortensen and Pissarides (1999: 243) indicate that employment protection policy (as discussed in Chapter Four section 4.6.2) reduces efficient reallocation and contributes to unemployment in European countries. Unemployment insurance also contributes to rising unemployment as it discourages the search process and reduces the incentives to create jobs, but is likely to have a larger

impact on unskilled labour as it is this type of labour that is most adversely affected by skill-biased technological shocks.

Contrary to most studies, Simonazzi and Villa (1999: 286) assert that the European labour market is not rigid. The authors reach this conclusion based on an analysis of labour market flows and the elasticity of employment relative to the business cycle. The standard measures to analyse the net changes in employment and unemployment are job turnover and labour turnover. Job turnover relates to job creation and job destruction, that is job expansion and contraction at firm level. Labour turnover relates to hiring, firing and resignations over a period of time, that is the sum of job turnover and the movement of employees between jobs in progress. The figures for job turnover and labour turnover in Europe and the United States are essentially the same. In addition, Sen (1997: 159) indicates that the European labour market experiences lower levels of income inequality than the United States labour market.

In terms of the elasticity of employment relative to the business cycle, the volume of unemployment in Europe responds to changes in the growth rate of national income. The growth in employment in Europe is lower than in the United States partly due to the lower growth in GDP (Simonazzi and Villa 1999: 293). According to Sen (1997: 167), the high levels of unemployment necessitate coordinated employment policies. It is unlikely that Europe can adopt all its lessons from the United States. Government support in terms of poverty and health are too limited in the United States for Europe to adopt similar policies. However, there are attributes from each nation that the other nation can adopt. The United States can learn the positive features of the European health care system. Europe and South Africa can adopt the flexibility of employment that is prevalent in the United States.

6.6 PERSPECTIVES ON AFRICA⁸³ AND SUB-SAHARAN AFRICA

African countries are characterised largely by poverty and inequality in income distribution (Wobst 2003: 70). According to Hassan, Sukar and Ahmed (2006: 2), the

⁸³ Countries in Africa include Mauritius, and the SADC countries.

terms of trade in Sub-Saharan Africa continues to deteriorate. Exchange rates are distorted, manufacturing exports are still growing at the same rate and manufactured exports as a share of total exports continues to fall. Moreover, their share of world trade has not improved significantly and foreign direct investment (FDI) as a percentage of GDP is still low.

Although general and agricultural export sectors are likely to experience the gains from trade liberalisation, small-scale farmers that produce non-traded commodities are adversely affected as their relative prices decline. Wobst (2003: 73) indicates that African countries' export specialisation differs from one another. Malawi's exports are primarily in agriculture with tobacco exports accounting for more than *75 per cent* of agricultural and *60 per cent* of total export earnings. Zambia's export earnings are predominantly from mining and exporting copper. Mozambique, Tanzania and Zimbabwe have relatively high non-agricultural exports arising partly from the tourism (services) sector. The import shares for all of these countries for non-agricultural commodities range from *87 per cent* to *99 per cent* of the total import value.

In the latter 1980s and early 1990s, Malawi, Mozambique, Tanzania, Zambia and Zimbabwe underwent World Bank/IMF directed structural adjustment programmes (SAPs). **Table 6.1** reflects the country specific SAPs as well as compares major international trade, public sector and fiscal policy measures. Wobst (2003: 74) notes that the macroeconomic and sectoral reforms are essentially achieved from a combination of various policies at different intensity levels in each country. The reforms in Malawi seem to be the least effective. Reforms in Zimbabwe began in 1991, but since 1995, reforms have been significantly reversed. This can be attributed to the political and economic instability in the country.

Table 6.1: Selected macroeconomic structural adjustment programmes (SAPs) in five Southern African countries
(Wobst 2003: 75)

	Malawi	Mozambique	Tanzania	Zambia	Zimbabwe
Commencement of World Bank/IMF directed structural adjustment programmes (SAPs)	1981	1987	1986	1991	1991
Trade Policies	In 1995, quantitative restrictions were removed, trade taxes rationalised and reduced.	Liberalisation of prices. In 1996, tariff dispersion was reduced. Average tariff rate reduced from 18 <i>per cent</i> to 10 <i>per cent</i> .	In 1993, trade restrictions were abolished. In 1997, the number of non-zero tariffs was reduced from 7 to 4.	Liberalisation of maize marketing. Agricultural prices were liberalised. Reduced average import tariff below 15 <i>per cent</i> . Reduced tariff schedule to 3 non-zero rates. In 1998, import declaration fees and quantitative import restrictions were removed.	Agricultural and marketing system liberalised. Overall price controls phased out. International trade liberalisation.
Public Sector Reform	20,000 temporary public services employees retrenched. In 1995, sale of 25 public enterprises. In 1997, public expenditure allocation improved. In agriculture, fertiliser subsidies were removed, price controls lifted, and the market liberalised. In 1995, burley tobacco production was opened to smallholders.	In 1997, there was civil service reform as well as salary reductions. In 1998, selected parastatals were privatised. In agriculture, minimum prices (with the exception of cotton) were removed. Approval of Land Law to improve security of tenancy.	From 1993-1996, employment was reduced by 77,000. From 1994-1998, more than half the parastatals from government control were removed. In 1996, pay reform to reduce salary scales was introduced. In 1994, agricultural market liberalised for traditional export crops.	From 1997-1998, 15,500 government employees retrenched and salaries reduced. From 1993-1998, 224 parastatals in non-mining sectors and 6 enterprises within mining sector privatised. Agricultural prices were liberalised, input supply and crop marketing privatised and in 1999, fertiliser distribution was privatised.	Public sector workers retrenched. Subsidies to state owned enterprises (SOEs) reduced.
Sector Policies		Transit road infrastructure improved. State owned ports, coastal, air transport and railways partly privatised.	In 1995, new land policy improving tenure security and allocation of land. New Investment code adapted. Monopoly for refined petroleum products abolished.	In 1995, the mining licence system was opened to small scale mining.	
Fiscal Policies	Poll tax abolished.	In 1998, income taxes were reduced. In 1999, turnover and consumption taxes were replaced by value-added and excise taxes.	From 1995-1996, stringent expenditure control introduced, based on a rigorous cash management system.		Marginal tax rate reduced from 60 <i>per cent</i> to under 40 <i>per cent</i> .

The European Union (EU) is Sub-Saharan Africa's (SSA's) largest single trading partner. According to Hinkle and Schiff (2004: 1321), the EU purchases on average 31 *per cent* of SSA's merchandise exports and provides 40 *per cent* of its merchandise imports. The multilateral Cotonou Agreement was signed in June 2000 between the EU, SSA and other ACP⁸⁴ countries. This agreement provides for negotiation of Economic Partnership Agreements (EPAs) between the countries and is anticipated to be completed by December 2007 and effective in January 2008. The EU provides free access to its markets for ACP exports and the ACP countries provide free access to their own markets for EU exports. Economic Partnership Agreements (EPAs) offer SSA countries integration into the global economy, strengthens regional integration in Africa and accelerates their reform programmes (Hinkle and Schiff 2004: 1330). Chapter Three develops the literature on economic integration.

In Africa, a key input to high levels of unemployment is the low level of skills (Teal 2000: 1). Low skills are attributed *firstly* to lower levels of education in Africa than in other regions of the world. *Secondly*, the ratio of educated labour to land endowment is much lower in Africa than in any other region of the world. In other words, Sub-Saharan Africa has the lowest amount of schooling education and the highest amount of land per worker. Sub-Saharan Africa has a comparative advantage in natural resources (which dominates the export industry) and uses low levels of skills in production (Lal 1995: 508). Horwitz and Franklin (1996: 6) agree that a distinctive feature of the labour market is the low levels of literacy and numeracy. Approximately 60 *per cent* of the formal sector labour force does not possess a high school education and this effectively limits labour market flexibility.

Trade liberalisation has resulted in the closure of many domestic industries in Africa. Cheaper imports from technologically advanced developing countries, such as South East Asia, has absorbed a relatively large share of the African basic consumer goods market (Francois, van Meijl and van Togerem 2005: 352). This highlights the predicament of many developing countries that are subject to import competition from low wage Asian

⁸⁴ ACP refers to the African, Caribbean and Pacific countries.

countries. The Hecksher-Ohlin theorem predicts that since Africa and Sub-Saharan Africa are largely abundant in unskilled labour, trade liberalisation should increase the production of goods using this factor abundantly. Regrettably, similar to South Africa, this is not the case. Unskilled labour tends to be the most adversely affected factor of production as we show in Chapter Five section 5.3.2.6.

According to English and De Wulf (2002: 166), attempts to use EPZs in Africa, with the exception of Mauritius have been less successful than in other continents. This is largely attributed to lack of adequate infrastructure and services to support the business community, lack of investors as well as lack of local entrepreneurs. Government interference and distortions in the operation of free trade and capital regimes also contribute to poor performance in African countries. Mauritius, which has excellent transport infrastructure, has experienced success with EPZs. Jenkins and Thomas (2000: 32) find that economic indicators suggest that Mauritius has adopted a consistent and sustainable macroeconomic package that results in accelerated economic growth.

Many African countries are characterised by ‘natural’ barriers to trade. These include transport, that is, carriage and freight costs linked to transporting goods *via* air, rail or sea. Transport costs together with insurance costs and trade financing are easily quantifiable. The net freight and insurance payments comprise a large percentage of the value of total exports for landlocked countries in Africa. Milner (1998: 227) notes that differences between countries in the unit costs of transporting goods similar distances *via* the same form of transport is indicative of comparative advantage in transport services, economies of scale and the competitiveness of the relevant transport sector. Higher transport costs are attributed to Africa’s relatively small scale of international trade as well as its comparative disadvantage in capital.

Asante (2003: 47) cites excerpts from Stiglitz revealing that developing countries do not openly express their concerns over trade liberalisation, as they are concerned that they may lose IMF funding. Liberalising an economy must be accompanied by sound policies that maximise the benefits and minimise the negative aspects. Stiglitz maintains that

forcing developing countries to open up trade of imported products that compete with products produced in the domestic market has dire social and economic consequences. The resultant effect is job losses and higher levels of poverty as poor farmers in developing countries that cannot compete with highly subsidised goods from Europe and America before the industrial and agricultural sectors grow strong and create new jobs.

Lal (1995: 510) postulates that Africa needs to reverse its unsuccessful public policies that have unfavourably affected its population. In most African economies, the abundance in natural resources (land) necessitates higher levels of good governance than in labour abundant countries. This is attributed to the possibility of political tensions harming the distribution of natural resource rents. A policy response toward privatisation is appropriate in African countries, similar to that for South Africa (as discussed in Chapter Seven section 7.5.2). This highlights that trade liberalisation accompanied with good economic policies is extremely important for the development of any economy.

The experiences of Asian countries with trade liberalisation and globalisation are sufficiently better than that of Africa. English and De Wulf (2002: 170) highlight five priorities from the East Asian experience that are relevant for trade in Africa and other low-income countries. These are on-the-job training support *via* payroll taxes rather than subsidies as well as public training institutions; technical assistance to enterprises for access to technology and skills to develop in external markets; export credit support mechanisms; developing simple duty-free schemes and developing EPZs. Asante (2003: 48) concludes that in order to reap the benefits of trade liberalisation, policies must be pursued such that they promote economic and social development as well as contribute to reducing the large income gaps between and within countries. It is necessary for African governments to define their countries' economic interests rather than leave them in the control of market forces. Attaining high and sustained economic growth requires policies that are geared toward complete structural reforms in addition to opening up the economy (Hassan, Sukar and Ahmed 2006: 12).

6.7 CONCLUSION

In this chapter, we review selected countries' experiences with trade liberalisation and globalisation. Although the experiences tend to differ from country to country, it is evident that economies that are not adequately equipped for the full effects of trade liberalisation are subject to higher levels of unemployment. It is also clear that South Africa is neither alone nor unique in its endeavours to alleviate unemployment. The extent of unemployment and lack of skills is however more so apparent in the South African labour market.

The comparison of the United States and European labour markets in section 6.5.3 supports our analysis of labour market policies in Chapter Four section 4.6. Passive labour market policies adversely affect unemployment whereas active labour market policies have a positive effect on unemployment. Labour market flexibility, which we examine in Chapter Five section 5.4, is identified as a key instrument in facilitating the transition from protected to freer trade. The different forms of labour market flexibility in developed and developing economies is a significant tool in response to higher competition arising from globalisation and trade liberalisation.

In section 6.4, the Asian experience emphasises efficiency in production, stability and consistency in policies to realise overall success. As pointed out by de Wet (1995: 480), promoting sound and stable macroeconomic policies aimed at consistency complimented by limited good governance, development *via* economic liberalisation, investment, competition and human capital policies are key ingredients in the strategy for high quality growth.

Wobst (2003: 70) concludes that improving infrastructure reduces market costs and enables better market integration, which ultimately increases production opportunities. The analyses of the African and Sub-Saharan economies in section 6.6 show that underlying economic structures play a role in the outcomes of policies. It is noteworthy that these economies can utilise lessons from the Asian experience to achieve success in

promoting economic and social development as well as reducing the large income gaps between and within countries.

CHAPTER SEVEN

SYNTHESIS OF THE LITERATURE WITH LESSONS AND POLICY PRESCRIPTIONS FOR SOUTH AFRICA

“To be able to help oneself, anyone needs the hands of others in economic and social relationships”

Adam Smith (1776)

7.1 INTRODUCTION

Chapters Two through to Five examine the role of trade, labour and the links between these topics. This chapter synthesises the literature from former chapters, touches on some of the initiatives that are described in Chapter Five and outlines their progress. Despite higher levels of economic growth, South Africa still maintains unacceptably high levels of unemployment and poverty. As a result, a key focus in South Africa is on responses that assist in reducing and eliminating unemployment, which principally has not allowed unskilled labour to develop, yet at the same time highly skilled labour has grown as a resource. This chapter begins with a brief overview of employment and unemployment statistics in South Africa in section 7.2. We proceed to highlight policy considerations in section 7.3, review current initiatives in section 7.4 and propose further policy prescriptions for South Africa in section 7.5. According to the Report of the Presidential Commission to Investigate Labour Market Policy (June 1996: 2), solutions to high unemployment must be highly time and place specific. National policies that are responsive to considerations of international competitiveness are of prime importance in determining employment levels and labour standards in light of intensifying levels of globalisation (Lee 1996: 495).

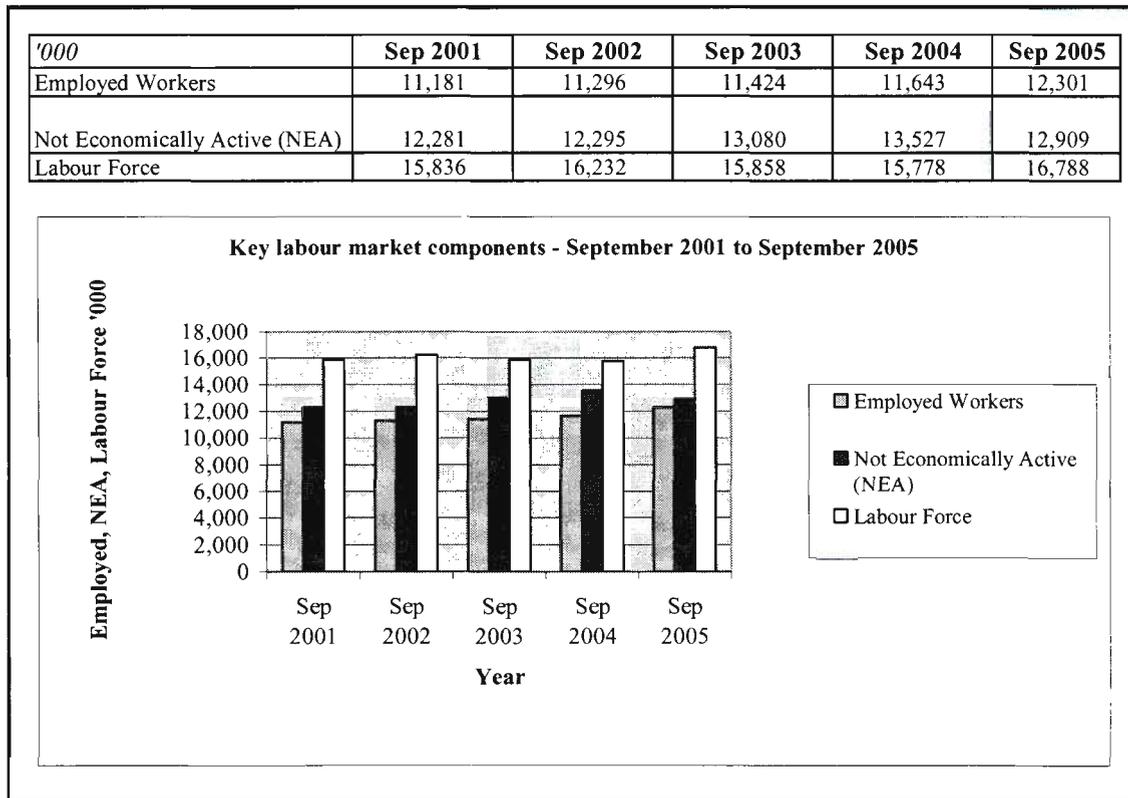
Most responses to reducing and eliminating unemployment address the higher levels of competition that are associated with increased openness and higher levels of international

competition in the economy. This is attributed largely to the effects of trade liberalisation and globalisation and the inability of economy to adapt to these changes. It is evident from previous chapters (specifically Chapter Five), and is reiterated in this chapter that skilled labour plays an exceptionally important role in the economy and may even be the abundant factor. Therefore, the cure for unemployment lies largely in the contribution of policy that promotes education and skills development for a labour resource as conventionally understood. The careful design of policies is crucial for their long-term success.

7.2 EMPLOYMENT AND UNEMPLOYMENT STATISTICS IN SOUTH AFRICA

In Chapters Three to Five, we constantly highlight South Africa's high level of unemployment. Before evaluating the lessons and policy prescriptions for South Africa, we reiterate the magnitude of unemployment in South Africa by citing recent employment and unemployment statistics. **Figure 7.1** illustrates key labour market components, specifically, the employed, the economically active and the not economically active labour force. **Figure 7.2** shows the number of unemployed and discouraged workers in South Africa and **Figure 7.3** reflects unemployment, absorption and participation rates respectively. The figures are all drawn for the period September 2001 to September 2005 (Labour Force Survey 2005: iii-v).

Figure 7.1⁸⁵: Key Labour Market Components
September 2001 to September 2005
(Labour Force Survey 2006: iii)



In the period September 2001 to September 2005, the South African economy created 1,120,000 jobs⁸⁶. The most significant rise in employment was during the period September 2004 and September 2005, where 658,000 jobs were created. **Figure 7.1** illustrates these increases in employment. The economically active labour force also increased from September 2001 to September 2005⁸⁷. In the same period, the working-age population increased less rapidly than the economically active labour force by 1,580,000. Figure 7.1 also reveals that the non-economically active population (NEA) increased by 628,000 over the period September 2001 to September 2005. It is also notable that between September 2004 and September 2005, the NEA fell by 618,000.

⁸⁵ Statistics South Africa represents this data with the aid of a line chart.

⁸⁶ Employed Workers ('000): Sep 2005 – Sep 2001 = 12,301 - 11,181 = 1,120

⁸⁷ Labour Force ('000): Sep 2005 – Sep 2001 = 16,788 – 15,836 = 952

Hence, it is clear the period September 2004 and September 2005 was significant for South Africa given that it was characterised by employment growth as well as a reduction in its NEA. However, since a fall in the NEA translates into an increase in the economically active population, it means that South must aim to achieve higher employment growth.

Figure 7.2⁸⁸: Unemployment and Discouraged Workers
September 2001 to September 2005
 (Labour Force Survey 2006: iii)

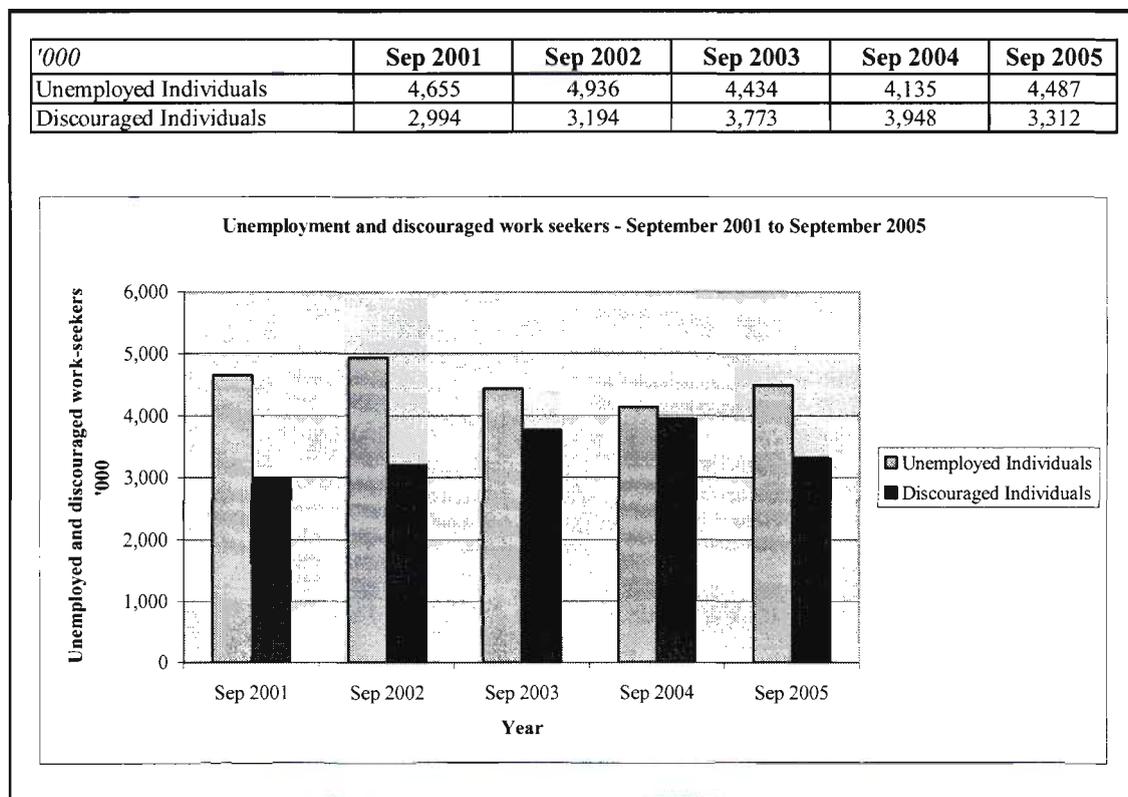
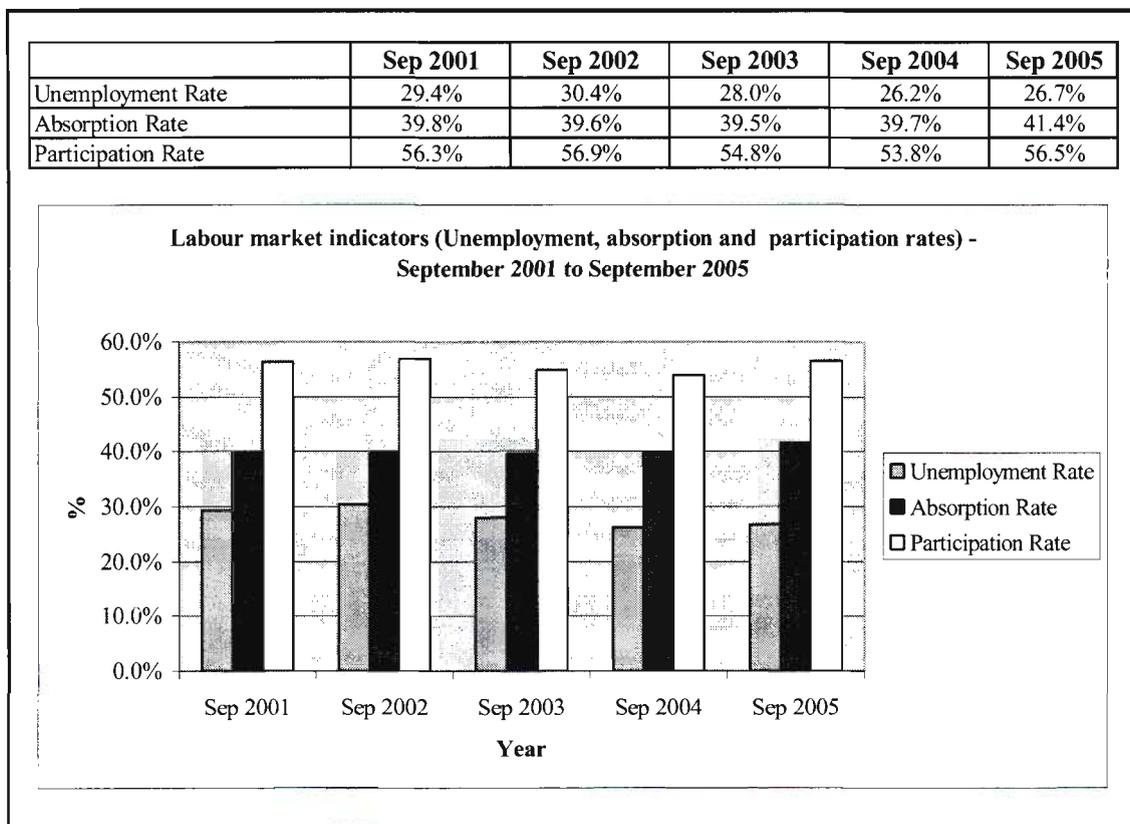


Figure 7.2 reveals that the level of unemployment in South Africa decreased in September 2003 and September 2004 respectively. However, the September 2005 figures indicate that unemployment has once again risen. The number of discouraged workers also declined substantially by 636,000 individuals from 3,948,000 to 3,312,000 in the

⁸⁸ Statistics South Africa represents this data with the aid of a line chart.

same period. The rise in unemployment may therefore reflect discouraged individuals that are beginning to actively search for employment. The active search for employment classifies these individuals as unemployed in terms of the strict or official definition of unemployment.

Figure 7.3⁸⁹: Labour Market Indicators⁹⁰
September 2001 to September 2005
 (Labour Force Survey 2006: v)



The Labour Force Survey (2005: iv) reveals that the unemployment rate fell from 29.4 per cent in September 2001 to 26.7 per cent in September 2005 as shown in **Figure 7.3**

⁸⁹Statistics South Africa represents this data with the aid of a line chart.

⁹⁰Unemployment Rate = Unemployed Individuals (Figure 7.2)/Labour Force (Figure 7.1).

Absorption = Employed Workers/ (Not Economically Active + Labour Force) (Figure 7.1).

Participation = Labour Force/ (Not Economically Active + Labour Force) (Figure 7.1).

which means that approximately a third of the South African labour force is unemployed. The unemployment rate did however increase, though not significantly by 0.5 percentage points in the September 2004 to September 2005 period. Figure 7.3 also illustrates increased participation in the labour force from 56.3 *per cent* in September 2001 to 56.5 *per cent* in September 2005. The rise in labour absorption in the South African economy from 39.8 *per cent* in September 2001 to 41.4 *per cent* in September 2005 can be attributed to higher employment growth.

**Table 7.1: Annual change in employment by industry
September 2001 to September 2005**
Labour Force Survey (2006: vi)

Industry	Sep 2002	Sep 2003	Sep 2004	Sep 2005	Change (Sep 2001- Sep2005)
<i>(' 000)</i>					
Agriculture	242	-207	-150	-138	-253
Mining	5	-7	-148	6	-144
Manufacturing	13	-83	164	-8	86
Utilities	-11	7	8	0	4
Construction	-30	60	159	111	300
Trade	-260	235	113	482	570
Transport	28	-37	26	53	70
Finance	49	14	49	148	260
Community Services	54	138	5	7	204
Private Households	-4	46	0	-8	34
Unspecified	30	-38	-8	3	-13
Total	116	127	219	658	1,120

Table 7.1 shows the annual employment gains and losses by industry for the period September 2001 to September 2005. The last column calculates the cumulative change for the same period. Table 7.1 aggregates the changes in employment illustrated in Figure 7.1. The largest growth is experienced in the trade, finance and construction sectors. These results are consistent with our analysis of the effects of globalisation and trade liberalisation on the South African labour market. The industries that experienced growth in employment are characterised as skill intensive.

Employment fell the most in the agricultural sector (by 253,000 jobs), much of which can be attributed to drought experienced in previous years. In the year up to September 2005, the agricultural employment losses (138,000) were more than offset by the increases in the trade (482,000), finance (148,000) and construction (111,000) sectors. The net overall increase in jobs in the September 2001 to September 2005 period is 1,120,000 jobs. Trade accounts for 51 *per cent* of the job creation and construction accounts for 27 *per cent*. The second largest fall in employment is in the mining industry (specifically in 2004 by 148,000) which is largely labour intensive.

Bosch (2005: 24) highlights South African employment and wage statistics that support our outcome in Chapter Five section 5.3.2.6. Wage differences are attributed to trade union activity and increases in wages for certain skills in specific occupations. Wages for workers with an education (specifically, postgraduate qualifications) are higher in the private sector than in the public sector. However, in general the wage premium is higher for workers in intermediate and higher skilled occupations in both the public and private sectors of South Africa. This is consistent with the real wage above the market clearing level in Figure 5.1 in Chapter Five section 5.3.2.6.

It is therefore clear that highly skill intensive sectors experience increases in employment whereas relatively unskilled (employable labour) sectors are negatively affected. In Chapter Five section 5.3.2.6, the Heckscher-Ohlin theory [incorporating the Stolper-Samuelson and factor price equalisation (H-O-S) theorems] and the specific factors model predicts the same outcome. In South Africa, unskilled labour is the factor of production most adversely affected by globalisation and trade liberalisation. The industry results in this section support our analysis of the effects of international trade on the labour market.

7.3 POLICY CONSIDERATIONS FOR SOUTH AFRICA

Outward-orientation *via* trade liberalisation raises efficiency in production (de Wet 1995: 486). Drucker (1994: 108) asserts that free trade is not sufficient to boost growth in an economy. Economic integration provides only a basis for international trade policy. Free

trade must therefore be accompanied by active and aggressive policies that offer external economy opportunities and requires priority over domestic policies' demands and problems. In order to accomplish the right domestic economic policies, the question that must be at the top of the list of policymakers is whether domestic policies will advance South African competitiveness and participation in the world economy.

Downes, Gomez and Gunderson (2004: 136) perceive that the effects of labour market policy initiatives on the labour adjustment process are largely dependent on the nature of the policy initiative. The distinction between active and passive labour market policies as examined in Chapter Four section 4.6 therefore plays an important role. Active policies seek to actively address unemployment, labour shortages and skills bottlenecks whereas passive policies compensate the unemployed in terms of income support and insurance as opposed to addressing the problem.

Before discussing the different aspects that policies must seek to address, we emphasise that the outcome of these policies must effectively result in higher economic growth accompanied by higher employment growth. In order to increase economic growth, all policies need to increase market access and productive capacity. Aspects that policies must consider include:

- increasing the quantity of jobs (labour intensive production);
- increasing the quality of jobs (skills, training, education, labour standards and social protection); and
- increasing job opportunities (capacity building, expanding assets and resources, improving access and competitiveness of the working poor and giving them higher bargaining power).

Lewis (2001: 36) adds that demand and supply side policies are closely linked. Employment subsidies are demand side policies that provide an income to previously unemployed workers without decreasing the average wage of other workers. Investing in human capital to match labour market vacancies is an example of a supply side policy. Employment subsidies are examined in Chapters Four, Five and again in the South

African context in section 7.5.4 of this chapter. We discuss investment in human capital in Chapter Four. Initiatives to enhance the labour resource are addressed in Chapter Five section 5.5 and section 7.5.3 of this chapter. Simkins (2004: 266) further notes that a careful reconsideration of labour market regulations will prove to be useful, as these have contributed to increasing the cost of labour to employers.

Campbell (2000: 659) emphasises the need for local active labour market policies to absorb the long-term unemployed and identifies five main areas of action. These are:

- prevention so that long-term unemployment does not occur in the first place;
- acquiring education and skills that increase employability;
- matching which is a process that facilitates faster job search and placement;
- activation whereby there are incentives where the benefits of work outweigh leisure; and
- stimulating demand so that workers can gain experience either *via* temporary and permanent placement with the aid of subsidised employment.

7.3.1 INTEGRATING DYNAMIC ASPECTS INTO GOVERNMENT POLICIES

The principal objective of government is to ensure as well as facilitate incentives to induce investment in activities in which a country has a comparative advantage. In addition, government must facilitate technological changes and policy changes. Hoekeman and Smarzynska Javorcik (2004: 10) agree with the Report of the Presidential Commission to Investigate Labour Market Policy (June 1996: 2) that the most important aspect in stimulating investment is time consistency. Timing is essential because if firms do not believe in the long-term nature of globalisation and trade liberalisation, they will not adjust their business requirements accordingly. The result will be inefficient and defeats the purpose of a response to globalisation and trade liberalisation. Government must focus on intervening where there are well-defined market failures and seek to address them as well as provide appropriate adjustment assistance.

Standing, Sender and Weeks (1996: 419) indicate that labour market policies have at least seven major objectives, which must relate to labour security. Policies may be designed to: assist in reducing unemployment or labour market insecurity; influence labour supply; improve the productivity of labour; adjust labour mobility to improve labour market efficiency; contain economic redistribution effects; facilitate employment restructuring or improve other forms of labour market security (for example, occupation health and safety).

7.4 CURRENT INITIATIVES IN SOUTH AFRICA

There are various programmes designed to alleviate unemployment. This section highlights the initiatives that broadly encompass the links to unemployment arising from this study. These initiatives include the growth, employment and redistribution (GEAR) programme, the accelerated and shared growth initiative of South Africa (ASGISA) and the joint initiative for priority skills acquisition (JIPSA). This section concludes with a brief discussion of developing small, medium and micro enterprises (SMMEs) and the new partnership for Africa's development (NEPAD).

7.4.1 THE GROWTH, EMPLOYMENT AND REDISTRIBUTION (GEAR) PROGRAMME

The Growth, Employment and Redistribution (GEAR) programme as outlined in Chapter Five section 5.5 emphasises the role of economic growth in job creation. The South African government's employment strategy largely aims to promote investment and exports. GEAR incorporates the objectives of the Reconstruction and Development Programme (RDP)⁹¹ in South Africa.

According to (Barker 1999: 184), the following aspects are incorporated into the GEAR policy:

- reducing tariffs which decreases input prices;
- gradually relaxing exchange controls;

⁹¹ The Reconstruction and Development Programme (RDP) is initially cited in Chapter Four section 4.6.1.

- tax incentives to stimulate new investment;
- developing SMMEs and infrastructure;
- restructuring government assets, which includes privatisation;
- structuring labour market flexibility within the collective bargaining system to facilitate wage and price control;
- enhancing human resource development;
- budget reforms to reduce the fiscal deficit, while strengthening the redistributive effect of expenditure; and
- adopting anti-inflationary monetary policy.

The GEAR policy anticipates that employment growth will arise from increases in economic growth, special government programmes enhancing job creation and institutional reforms in the labour market. Policies must further emphasise that salary and wage increases should not rise faster than productivity growth. South Africa is however largely characterised by employment declining even though there is positive economic growth⁹².

7.4.2 THE ACCELERATED AND SHARED GROWTH INITIATIVE OF SOUTH AFRICA (ASGISA) AND THE JOINT INITIATIVE FOR PRIORITY SKILLS ACQUISITION (JIPSA)

In Chapters Two to Five, we emphasise the role of the rising skill-intensity of the economy. Consequently, the focus in this chapter and specifically this section is on policies to augment the skilled labour factor of production. In Chapter Four section 4.7.2, we present evidence revealing that the unemployment rate for individuals with a tertiary qualification more than doubled in the period 1995-2002. It is therefore crucial that tertiary institutions produce skills that match current demand trends in the economy. Hence, this chapter also addresses the mismatch between individuals' educational qualifications and employers requirements. Section 7.5.3 is also dedicated to policies designed to increase the skills database in South Africa.

⁹² This outcome is generally referred to as 'jobless growth'.

“The crux of the dilemma is thus how to reconcile labour costs low enough to promote employment of low-skill workers with reasonable incomes for these workers and proper incentives toward economic efficiency (incentives to work and incentives to acquire skills). ... We should be prepared to face the dilemma squarely and for many years to come” (Dréze and Sneessens 1997: 262).

Against this backdrop, a recent programme to address unemployment and economic growth is the accelerated and shared growth initiative of South Africa (ASGISA) as promoted by the Office of the Deputy President and in particular Phumzile Mlambo-Ngcuka. This programme is summarised in Chapter Five section 5.5. ASGISA identifies six constraints that represent weaknesses specific to the South African economy and government. These are:

- (1) a shortage of skilled labour;
- (2) limited competition and investment opportunities;
- (3) South Africa’s overvalued⁹³ and volatile currency which deters investors in the tradable goods and services sectors outside the commodity sector;
- (4) an onerous regulatory environment;
- (5) deficient state organisation, capacity and leadership; and
- (6) inadequate national infrastructure.

In light of the above weaknesses, ASGISA proposes six broad categories of initiatives to overcome the constraints:

- (1) developing suitably skilled labour in South Africa;
 - (2) generating small businesses to narrow the gap between the formal and informal sector;
 - (3) investing in infrastructure;
 - (4) improving public administration;
 - (5) creating a macroeconomic environment more conducive to economic growth;
- and

⁹³ The currency is overvalued in terms of economic resources being diverted into narrow channels of investment which results in an unstable foundation for the future (Media Briefing 06 February 2006: 4).

Hirsch (2005) highlights the use of learnerships in addressing the skills shortages in South Africa. Learnerships are a modified form of apprenticeships that are targeted at new entrants to the labour market as well as the unemployed in that they are shorter in duration and more skill specific. The South African Qualifications Authority (SAQA) accredits these learnerships in terms of the National Qualifications Framework (NQF). Various Sector Education and Training Authorities (SETAs) administer the systems of learnerships.

The Skills Development Act of 1998 seeks to develop the skills of the South African labour force and in so doing increases the quality of working life for individuals, improves workplace productivity and promotes self-employment as well as the delivery of social services (Barker 1999: 221). The Act attempts to encourage employers to utilise the workplace as an active learning environment as well as provide opportunities for new entrants to the labour market to gain work experience. The Skills Development Act aligned with SAQA promotes the quality of learning in and for the labour market.

Skill per worker is calculated by the average number of years of schooling of the population over the age of fifteen. The stock of skills in a country is the number of person-years of schooling (calculated by multiplying average years of schooling by South Africa's supply of labour). Mayer and Wood (2001: 8) find that the average years of schooling is not an ideal measure as it does not take into account cross-country differences and the quality of schooling.

(Mayer and Wood 2001: 7) highlight the international mobility of skilled labour. South Africa needs to address the 'brain drain' problem that reduces the number of highly skilled workers available. This is due to much of the skilled labour force emigrating in search of better employment prospects as well as improved standards of living (Lewis 2001: 33). Mahadea (2003: 39) asserts that the 'brain drain' in South Africa has a negative impact on economic growth. The mobility of highly skilled workers implies that their services can be purchased to develop the production of goods in which a country's resources give it a comparative advantage. This then supports the H-O theory pattern of

trade. It is evident from the factor price equalisation (H-O-S) theorem examined in Chapter Two section 2.4.3 that trade acts as a substitute for international mobility of factors of production in its effect on factor prices. Under the assumption of perfect factor mobility, labour migrates from low wage to high wage countries until wages in the two countries become equal. The result is complete equalisation in the absolute returns of the homogeneous factors of production (Salvatore 2001: 137).

According to Downes, Gomez and Gunderson (2004: 137), an important facet to note is government must not finance training that would have otherwise been funded by the private sector, as there is the danger of displacing this (private) sector. If government spends scarce resources to finance training initiatives and higher education that should be funded by the private sector, it has the effect of possible 'brain drain' whereas these individuals should in fact contribute to the internal development of firms in the economy in the post-training period.

7.5.4 THE ROLE OF EMPLOYMENT SUBSIDIES

Active labour market programmes⁹⁹ are most effective when they are targeted to reach the individuals that require them the most (Campbell 2000: 664). In terms of efficiency, active labour market policies that target the long-term unemployed result in fewer deadweight losses as the probability of finding a job decreases as unemployment increases. Lewis (2001: 34) describes employment subsidies as a general set of labour market interventions that increase employment *via* lowering labour costs while sustaining the average wages of workers. The better the targeting, the less likely is it that subsidies (an active labour market policy instrument) will go to persons who should be otherwise employed.

Hoekeman and Smarzynska Javorcik (2004: 11) assert that the granting subsidies must be conducted with strict discipline. The various forms include direct transfers *via* budget transfers, indirect transfers operating *via* tax concessions, and lastly through the financial system as directed credit and interest rate subsidies. Lewis (2001: 37) examines a

⁹⁹ Refer to the analysis in Chapter Four section 4.6.1.

marginal employment subsidy programme possibly designed as a hiring subsidy. Targeting unemployed individuals with little or no work experience, has the effect of increasing the number of jobs for unskilled and near-skilled workers (Dréze and Sneessens 1997: 257). A further criterion is to match currently unemployed workers with new employment opportunities. Targeting this group is likely to extend benefits beyond those associated directly with new employment opportunities to include improvements in the employability after the employment subsidy has been terminated. In addition to the direct subsidy cost, the associated costs of administering the programme would need to be taken into account.

Employment or wage subsidies are most successful when combined with other labour market policies, specifically supplementary training programmes and job placement services that increase the employability and earning potential of the targeted groups (Lewis 2001: 35). Sang Ho (2000: 89) identifies targeted wage subsidies as an adequate tool in light of structural changes arising from trade liberalisation. Targeting of subsidies allows resources to be channelled towards specific segments of the labour force that are identified as requiring assistance. If wage subsidies are not targeted, the resultant potentially adverse consequence of reliance on them is the imposition of one distortion (the subsidy) to offset another (labour cost rigidities) (Lewis 2001: 35). Wage subsidies can however have a further disadvantage if there is a disincentive for workers to work productively and may create tensions in the organisation that reduces productivity.

7.5.5 COMPETITION POLICY IN SOUTH AFRICA

Alternative policies for South Africa include proactive competition policies, which may be required to ensure that consumers benefit from lower priced, and higher quality goods and services as these policies seek to prevent predatory pricing and monopolisation of markets (Hoekeman and Smarzynska Javorcik 2004: 19; Krueger 1999: 925). According to Roberts (2004: 227), competition policy is part of an emerging orthodoxy in economic policy, which is promoted by international organisations as part of government's role in establishing rules for the business environment in the face of reduced government intervention and trade liberalisation. Holden (2001: 719) maintains that the best

competition policy that a country can follow is to open up the economy to international competition. There are two facets to competition-related policies. *Firstly*, competition-related policies promote new activities that facilitate entry or expansion in the industry. *Secondly*, competition policies respond to factor reallocation constraints that relate to restructuring or exiting the industry (Hoekeman and Smarzynska Javorcik 2004: 12). It is in the restructuring phase that labour market flexibility plays a markedly important role.

In Chapters Four and Five respectively, we emphasise the role of the monopoly in setting a price above the perfectly competitive level. Monopolies result in the gains from trade liberalisation accruing to intermediaries. Designing pro-active competition policies has a positive effect on the average price mark-ups. Roberts (2004: 229) asserts that traditional economic theory predicts that large dominant firms generate profits by constraining supply and increasing prices above the marginal and average cost. Smaller firms however collude rather than compete to collectively generate monopoly profits. Competition policy is required to address activities that impact negatively on economic efficiency *via* increasing prices and barriers to competition. However, identifying these activities proves difficult due to economies of scale, shocks to production costs and the existence of multi-product firms. Holden (2001: 719) indicates that since South Africa's trade liberalisation is gradual, the objectives of competition policy as well as trade policy must be to realise efficiency gains.

The legislation of South Africa's Competition Board (which ceased in 1999), operated under the Maintenance and Promotion of Competition Act No. 96 of 1979 and provided for a review of mergers and acquisitions, restrictive practices and monopoly situations (Roberts 2004: 232). The Competition Act of 1998, which came into effect on the 1st of September 1999, replaces South Africa's Competition Board, which was relatively ineffective. The Act required that the Competition Commission, Competition Tribunal and Competition Appeal Court be established to rule on most cases.

The purpose of the Competition Act of 1998 is to promote and maintain competition in South Africa in order to:

- promote efficiency, adaptability and development of the economy;
- expand opportunities for South African organisations in world markets as well as recognise the role of foreign competition in South Africa;
- promote employment, social and economic welfare in the country;
- provide consumers with competitive prices and product choices;
- ensure that SMMEs have sufficient opportunity to participate in the economy; and
- promote a greater spread of ownership, more so to create opportunities for historically disadvantaged individuals.

(Roberts 2004: 233).

7.5.6 POVERTY ALLEVIATION AND REDUCING INEQUALITIES

High levels of unemployment translate into high levels of poverty. Motloun and Mears (2002: 534) cite the GEAR programme indicating that job creation, which is the primary source of income redistribution, is inadequate in South Africa. Motloun and Mears (2002: 536) reveal that according to the Poverty and Inequality Report (PIR), unemployment is the highest among Africans in rural areas, among women, the youth and those lacking work experience. Inadequate employment opportunities (either no opportunities or low paying jobs) are therefore strongly influencing poverty in South Africa.

African Economic Outlook (2005-2006: 473) presents data from the South Africa United Nations MDG Report 2005, which indicates that in 2000, 34.4 *per cent* of the South African population lived on less than 1 US dollar (or approximately 7 Rand) a day. In 2004, the human poverty index dropped to 30.9 *per cent* (although still significantly high), ranking South Africa fifty-third among the 102 developing countries for which the index has been calculated (Human Development Report 2006).

The successful path in alleviating poverty is economic growth, which necessitates strong economic policies. A further recommendation is that a policy framework includes orientation toward greater integration into the world economy as examined in this thesis. This places emphasis on three specific groups, governments of developed countries, governments of developing countries and non-governmental organisations (Fischer 2003: 2).

Winters (2002: 33), suggests that retraining, assistance to relocate as well as temporary income methods of support are more justified for the 'losers' of trade liberalisation. This is as opposed to lump sum payments, which governments view negatively due to the high costs involved. In all of these options and especially for official retraining, it is difficult to identify whether trade liberalisation is in fact the source of unemployment. Motloun and Mears (2002: 537-538) also highlight the importance of investing in human capital as a means of poverty alleviation.

According to Winters (2002: 35), where trade liberalisation leads to job losses, the government can assist as well as finance unemployment payments. If the persons receiving this assistance use the funding productively, poverty will be alleviated to some extent. However, as indicated in Chapter Four section 4.6.2, although the advantage of unemployment policies is that they seek to assist the unemployed, the disadvantage is that being a passive policy instrument, it could effectively lead to higher rates of unemployment. In addition, since unemployment payments are generally based on past performance as opposed to current needs, they may not be the most useful tool in alleviating poverty.

Winters (2002: 35) cites the following considerations for poverty alleviation:

- Infrastructure support so that participants in the economy, for example, consumers and producers are able to access the major market centres and obtain the benefits of trade thereof;
- In terms of market institutions, it may be viable to combine small amounts of inputs or outputs from poor producers into realistically sized packages. This

will reduce transaction costs and allow transactions with poor producers to be more beneficial; and

- Labour mobility is also a method to alleviate poverty. Information and physical mobility of labour will assist in reducing the barriers created by markets that are segmented based on culture or geography.

Rogerson (2006: 68) acquires evidence indicating that there are a number of international donor agencies operating in South Africa. The *Deutsche Gesellschaft für Technische Zusammenarbeit* (GTZ)/ technical arm of the German Development Cooperation and USAID are two agencies highly involved in supporting SMMEs in South Africa. This support forms part of the market development approach. There are three advantages of this approach in comparison to the standard government-led model of provision of services. *Firstly*, the approach is demand-led rather than supply-driven, thereby focusing on market-led development. *Secondly*, it has potential even after the active donor or government support ceases and *finally* it has the potential for high impact delivery of support (Rogerson 2006: 73).

Minimum wages are designed to alleviate poverty. The minimum wage may also serve to reduce the number of individuals on income maintenance programmes as the minimum wage, if higher than income support, serves as an incentive to re-enter the labour force (Downes, Gomez and Gunderson 2004: 140). This is however a blunt instrument in terms of alleviating poverty in that it affects the wages of one family member only and may be of a temporary nature if it is the earnings of a youth. Minimum wage jobs may have the effect of reducing the employability of individuals and has adverse effects if this job is accepted instead of a lower-paying job that has the benefits of being accompanied by education and training. Government can also establish wage control programmes to control inflation. These serve to reduce gender wage inequalities in the labour market in terms of equal work.

Policies with the objective of reforming the labour market and creating jobs must recognise the role of unemployment and low wages as contributory factors to poverty.

Singh (1998: 20) maintains that COSATU views wage flexibility as an exchange of one source of poverty (low wages) for another (unemployment). Therefore, job creation accompanied by higher wages requires a long-term strategy and is dependent on productive investment in job producing sectors as well as structural transformation.

Motloug and Mears (2002: 532) conclude that the solution to alleviate unemployment, and in so doing, reduce poverty in South Africa, is to create more labour intensive employment as well as develop worker's skills. In terms of unskilled labour being the relatively scarce factor of production of South Africa, this conclusion is recommendable. However, if we consider that South Africa must remain competitive in the global economy, this is inadequate. It is the investment in human capital and identification of economic characteristics of the different groups in the economy to increase the value-added of labour that provides a solution to unemployment alleviation. Increasing productivity has the effect of increasing an individual's income. In addition, increased competition from low wage economies like China and India makes it increasingly difficult to create unskilled employment *via* export growth (Dunne and Edwards 2006: 16; Edwards 2004: 59).

7.5.7 ADDRESSING THE INFORMAL SECTOR

Motloug and Mears (2002: 538) argue that the informal sector, described in Chapter Five, plays an important role in poverty alleviation. The informal sector absorbs some unemployment, decreases idleness, thereby inhibiting crime and provides a channel for targeting aid to the poor.

According to the Global Policy Network and Economic Policy Institute (2005: 45), the policies that should be considered when the informal sector comprises a large proportion of total employment are active labour market policies. These include:

- policies that incorporate labour force protection measures and development schemes;

- policies that address self-employment (as this comprises a high share in developing countries) and wage earners' concerns in both formal and informal employment;
- active labour market policies that concentrate on the demand side's structural constraints that discourage formal job creation, increase informalisation and reduces the competitiveness of micro entrepreneurs and the self-employed. Addressing supply side problems only, such as the lack of education and skills proves insufficient.

7.5.8 REVISITING PUBLIC POLICIES TO REDUCE UNEMPLOYMENT

In Chapter Four section 4.5.2, we classify unemployment into four types as this facilitates more direct policy responses. South Africa can follow in the path of the United States (US) government in response to the different types of unemployment. In terms of frictional unemployment, the US government has programmes that make information on jobs readily available. These assist individuals that are unemployed by highlighting skill requirements of vacancies and assists employers to match job applicants to vacancies (McConnell, Brue and Macpherson 2003: 576). In South Africa, there are however a number of non-governmental organisations as well as personnel agencies providing this function.

There are various instruments useful in alleviating structural unemployment in the United States. These include educational subsidies that reduce the investment costs of acquiring human capital. McConnell, Brue and Macpherson (2003: 93) maintain that other things being equal, the lower the cost of human capital investment, the higher will be the number of individuals that find this investment profitable. These take the form of grants, student loans plus funding primary, secondary and tertiary education. The TAA programme in the United States and the *Jefes* programme in Argentina (discussed in Chapter Six sections 6.5.1 and 6.3.1.1 respectively) may also be suitable to some extent in South Africa. Bhagwati (2004: 234) is of the opinion that if rich countries like the United States have programmes like TAA, surely poorer countries require them as well,

more so as workers displaced as a result of trade liberalisation are possibly existing below minimum living standards and the transition to new jobs is not instantaneous.

Directed wage subsidies and tax credits are also a possibility whereby government makes direct payments or grants tax credits to firms that hire workers from specifically disadvantaged groups that experience high rates of structural unemployment. McConnell, Brue and Macpherson (2003: 149) add that the effectiveness of a wage subsidy programme depends on the elasticity of demand in industries employing low-skilled workers. The more elastic the demand for labour, the higher will be the increase in employment arising from these wage subsidies. Another example is on-the-job training as highlighted in Chapters Four and Five. A possible, although not always feasible option is layoff warning (Downes, Gomez and Gunderson 2004:145). This allows workers to begin the search for new jobs as well as enrol in training programmes in advance of the lay-off. Simkins (2004: 266) agrees that improving education and increasing tertiary education will increase labour supply of skilled workers.

Absorbing cyclical or demand-deficient unemployment requires fiscal and monetary policies. In term of a fiscal policy response, government has to manipulate expenditure and taxes, which increases aggregate demand consequently increasing domestic output and employment. In terms of monetary policy, the South African Reserve Bank (SARB) might embark on deliberate actions to increase the country's money supply and interest rates. This has the effect of increasing aggregate demand for goods and services. McConnell, Brue and Macpherson (2003: 576) add that the wage subsidies and tax credits that are used to target structural unemployment are also useful in alleviating cyclical unemployment.

The South African government's expansion of social security expenditure and public works programmes (PWPs) are some of the best policy responses available to deal with current labour market conditions. According to Simkins (2004: 269), the Centre for Development and Enterprise (CDE) states that public works' wages should be as close as possible to local informal wages for unskilled casual employment. Public works

programmes can then benefit the maximum number of poor people possible. In 2000-2001, small public works programmes succeeded in employing no more than 80,000 people. This highlights the need for a larger and more systematic programme. Mahadea (2003: 45) adds that public works infrastructure (requiring low skilled labour) has the potential to augment wealth, income and learning opportunities and in so doing reduce poverty in previously disadvantaged communities.

As highlighted in Chapter Four, PWPs have their limitations and are not sustainable in the long run as they do not generate adequate returns. In November 2003, the President of South Africa, Thabo Mbeki announced an expanded public works programme. This seeks to employ approximately a million individuals in its first five years using labour intensive methods to create infrastructure (Simkins 2004: 269).

Simkins (2004: 267) adds that a possibility to alleviate labour intensive unemployment is to provide stimulation that will reverse migration. Land reform encourages highly labour absorbing small holding agriculture. Farming is however risky as there is limited rainfall. Moreover, there is uncertainty as to whether the returns from this endeavour will justify the expenditure. Historically though, this type of programme was unsuccessful. Despite difficulties, land reform and agricultural support need to be consistently reviewed with the objective of increasing their contribution to employment.

7.6 CONCLUSION

Globalisation, trade liberalisation and inflexible labour markets result in ‘winners’ and ‘losers’. There are proponents in support for, and opponents against, the implementation of a freer trade regime in the economy. We have developed in our review of the literature, that although the ultimate ‘loser’ from trade liberalisation is unskilled labour, the net effect is that free trade results in overall gains.

Our review of all the literature provides an ambiguous picture of the factor content in South Africa. The normative outcome of the Hecksher-Ohlin (H-O) theorem for South Africa is incorrect. Our analysis of the theorems of international trade on the South

African labour market in Chapter Five section 5.3.2.6 supports the view that this country, paradoxically for historic reasons, has an abundance of skilled labour and a relative shortage of unskilled (near-skilled) labour making the latter the scarce factor. Our new insight reveals that South Africa's imports ironically saves on our scarce factor, labour with some skill.

Globalisation and trade liberalisation requires that economies seek to address the problems in their current context. It is noteworthy that in South Africa the effects of globalisation and trade liberalisation are not solely responsible for the high levels of unemployment. High unemployment reflects the existence of rigidities in the labour market specific to South Africa as shown in Chapter Five section 5.3.2. However, in terms of competing in the global economy, reverting from a free trade regime to a protectionist regime is an impractical alternative.

Despite the high rates of unemployment that South Africa is experiencing, policy measures other than protectionism must be considered. Openness is vital for South Africa's competitiveness in the global economy. The most effective methods of addressing the unemployment problem in South Africa as opposed to contesting free trade is attaining higher levels of investment (more so, foreign direct investment as well as augmenting investment in the development of human capital) and achieving a higher rate of economic growth in the long-term as discussed in section 7.5.2. Trade policy objectives must therefore be consistent with these other objectives for reform in the economy (Holden 2001: 711).

The point that this thesis makes is that policymakers must ensure that the benefits of global economic integration is shared extensively in order to maintain the support for the free trade system and reduce protectionism (The Economist 2006b: 66). Chapter Five section 5.2.3 draws attention to reallocating resources as a key feature in realising the welfare gains from trade liberalisation. We find (in Chapter Five section 5.4 plus section 7.5.1 of this chapter) that these benefits can only be realised if the labour market is more flexible. Labour market flexibility is a significant response to rising levels of competition

as it facilitates firms' adjusting their labour force in response to changes in the product market. Moreover, labour market flexibility must also be consistent with other macroeconomic policies to ensure investment flows.

Jenkins and Thomas (2000: 25) and Lewis (2001: 62) correctly conclude that South Africa must maintain credible and consistent macroeconomic policies. These must be accompanied by policies that address the structural imbalances and improve the investment climate of the South African economy (as highlighted in section 7.5.2). The successful Asian experience accentuates efficiency in production together with stability and consistency in policies to achieve overall success. There is no single solution to the high levels of unemployment and impediments to growth. However, there are a number of viable policy options that together create the conditions for progress as well as provide further momentum for economic and social change.

Passive unemployment policies (as described in Chapter Four section 4.6.2 and again in section 7.5.6) do not have the effect of remedying the causes of unemployment and poverty. Their failure highlights the need for active labour market policies. Workers that are displaced as a result of globalisation and trade liberalisation must be retrained in order to be absorbed back into the labour market. This plays an important role in alleviating unemployment, and in so doing, poverty. The new initiatives of the government – ASGISA and JIPSA – must focus on human capital and skills development of all types of labour. It is the adoption of cost effective active labour market policies together with macroeconomic policies that will successfully reduce unemployment.

7.7 FUTURE RESEARCH

The analysis in this dissertation is largely of a partial equilibrium nature. There is scope for further research of a general equilibrium nature.

In this review of the literature, we synthesise some of the propositions of globalisation, trade liberalisation and the labour market. An important area for future work is

synthesising all propositions into a unified outcome especially as regards the factor intensity content of South African trade.

The principal objective of this dissertation is to provide a major review of the literature. This topic has the possibility to be supported by an empirical or econometric analysis. Further, undertaking labour market surveys in both the export and import-competing sectors most affected by globalisation and trade liberalisation will complement the literature review.

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