A review of international evidence on employment tax incentives implemented in special economic zones

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Summary

Title: A review of international evidence on employment tax incentives implemented in special economic zones

Keywords: tax incentives, unemployment, special economic zones

South Africa's youth unemployment figure ranks among the worst in the world and is one of the country's major macro-economic challenges. Research identified the most significant cause of youth unemployment as being the high cost of labour in relation to the level of productivity by the youth of the country. The government is consequently attempting to reduce the cost of labour by means of the Employment Tax Incentive Act which subsidises employers for appointing new workers below the age of 29.

The study reviewed international research performed on similar globally implemented incentive programmes, which established that the majority of wage subsidy programmes do not appear to have a net positive impact on the longer-term employability of the participants in these incentives. This was found to be particularly so in the case of developing countries, such as South Africa.

The interaction between the Employment Tax Incentive Act (No 26 of 2013) and the proposed Special Economic Zones Bill was also evaluated by reviewing international research on geographically targeted wage subsidies. The research identified that incentives tied to the number of new jobs created within targeted areas are able to raise employment levels within those areas. However, the increased levels of employment within targeted areas are frequently offset by the consequent decreases in employment levels in surrounding areas, resulting in an absence of net impact. The study also found that when geographically targeted wage subsidies are used in conjunction with other forms of business incentives, existing establishments are, resultantly, at a competitive disadvantage. This causes business closures and loss of employment, which once again neutralises the positive effects of the new employment opportunities created by the subsidy.

In the study, it was established that wage subsidies, such as those proposed by the Employment Tax Incentives Act, are probably not the answer to raising employment levels. Furthermore, the Employment Tax Incentives, used in conjunction with the proposed Special Economic Zones Bill, are also unlikely to yield any significant increase in employment levels in these specific zones. Recommendations were made for future research relating to international experience with other forms of active labour market programmes and the outcome of the Employment Tax Incentives, on the country's employment levels, when actual data and statistics become available.

Opsomming

Titel: **‘**n Hersiening van internasionale bewyse rakende belastingaansporings vir werkskepping in spesiale ekonomiese sones

Keywords: belastingaansporings, werkloosheid, spesiale ekonomiese sones

Suid-Afrika se jeugwerkloosheidskoers is van die hoogste ter wêreld en is een van die land se vernaamste makro-ekonomiese vraagstukke. Die navorsing het bevind dat die hoë arbeidskoste in vergelyking met die vlak van produktiwiteit van die land se jeug die belangrikste rede hiervoor is. Die regering probeer gevolglik om die hoë arbeidskoste af te bring by wyse van ‘n jeugloonsubsidie vir werkgewers wat werknemers onder die ouderdom van 29 aanstel.

Die studie het internasionale navorsing oor soortgelyke aansporingsprogramme wat wêreldwyd geïmplementeer is, oorweeg. Hierdie navorsing dui daarop dat die meerderheid loonaansporingsprogramme nie ‘n netto positiewe effek het op die langer termyn indiensneembaarheid van deelnemers aan die programme nie. Dit is veral die geval in ontwikkelende lande soos Suid-Afrika.

Die interaksie tussen die Wet op Aansporing van Indiensneming (beter bekend as die Jeugloonsubsidie) en die konsepwetgewing wat betref spesiale ekonomiese sones, is ook ondersoek deur internasionale navorsing rakende geografies-geteikende loonsubsidies in ag te neem. Die navorsing toon dat aansporings gebaseer op die hoeveelheid nuwe werksgeleenthede geskep in geteikende areas, in staat is om die vlakke van indiensneming in daardie areas te verhoog. Daar is egter ook bevind dat die verhoogde vlakke van indiensneming in geteikende areas gewoonlik afgespeel word teenoor die gevolglike afname in indiensnemingsvlakke van die omliggende areas. Verder is ook bevind dat wanneer geografies-geteikende loonsubsidies in samewerking met ander vorms van besigheidsaansporings gebruik word, bestaande ondernemings in ‘n nadelige mededingende posisie op eindig. Dit lei tot die sluit van besighede en ‘n verlies van werksgeleenthede wat eweneens die voordele van die werksgeleenthede wat wel geskep word, uitwis.

Die studie het bevind dat loonsubsidies, soos die Jeugloonsubsidie, waarskynlik nie die antwoord is om die land se vlakke van indiensneming te verhoog nie. Voorts blyk dit ook nie of die Jeugloonsubsidie in samewerking met die konsepwetgewing rakende spesiale ekonomiese sones enige noemenswaardige toename in indiensnemingsvlakke tot gevolg sal hê nie. Voorstelle vir toekomstige navorsing is gemaak wat betref internasionale ondervinding met ander vorms van aktiewe arbeidsmarkprogramme en die uitkoms van die Jeugloonsubsidie op die land se vlakke van indiensneming wanneer data daaroor bekend gemaak word.

Table of contents

Summary 1

Opsomming 3

Chapter 1 Introduction 7

1.1. Introduction 7

1.1.1. Background to the research area 7

1.1.2. Main features of the South African Employment Tax Incentive Act 9

1.1.2.1. Qualifying employees 9

1.1.2.2. Eligible employers 10

1.1.2.3. Qualifying periods and the value of the incentives 11

1.1.3. Impact of employment tax incentives on unemployment rates 12

1.2. Motivation of topic actuality 13

1.3. Problem statement 14

1.4. Objectives 14

1.5. Limitation of Scope 14

1.6. Research design and methodology 15

1.7. Chapter overview 16

1.7.1. Chapter 1 16

1.7.2. Chapter 2 16

1.7.3. Chapter 3 16

1.7.4. Chapter 4 17

1.7.5. Chapter 5 17

Chapter 2 Unemployment in South Africa: causes and solutions 18

2.1 The scope of unemployment in South Africa 18

2.2 Causes of youth unemployment 22

2.3 Proposed intervention 24

2.3.1 Economic growth 25

2.3.2 Education 26

2.3.3 Active labour market programmes 26

2.3.3.1 Introduction to active labour market programmes 26

2.3.3.2 Employer-side subsidies 27

2.3.3.3 Employee-side subsidies 30

2.3.3.4 Job search assistance programmes 30

2.3.4 Identifying the best alternative 31

2.4 Summary 33

Chapter 3 Reviewing international experience with employer-side wage subsidies 34
3.1 Introduction 34
3.2 International experience with employer-side subsidies 34
3.3 A South African pilot study 37
3.4 Summary 37

Chapter 4 Limiting employer-side subsidies to targeted areas 39
4.1 Understanding the government's Special Economic Zone strategy 39
4.2 The Andrew Hanson study 40
4.3 The Bondonio and Greenbaum study 43
4.4 The Greenbaum, Petras and Russell study 45
4.5 Summary 46

Chapter 5 Conclusion 47
5.1 Summary of research findings 47
5.2 Concluding thoughts 49
5.3 Recommendations for future research 50

References 51

Chapter 1. Introduction

1.1 Introduction

1.1.1 Background to the research area

The official unemployment rate in South Africa is 24.1% (Statistics South Africa, 2014:2) and remains one of the country's major macro-economic challenges (Harmse, Blaauw & Schenck, 2009).

A further aspect of concern is the average period of unemployment. The Labour Force Survey by Statistics South Africa (2005) reported that 40% of unemployed individuals experience unemployment periods exceeding three years. Chronic unemployment is a long-standing feature of the South African labour market and this has created an unfavourable climate for the youth in particular to enter the labour market (Lam, Leibbrandt & Mlatsheni, 2008:2).

It is therefore not surprising that unemployment rates amongst the youth are particularly high. Together with Greece and Spain, South Africa tops international youth unemployment charts, with nearly half those between the ages of 15 and 24 estimated as being unemployed, according to the latest Insights Report on Global Risk compiled by the World Economic Forum (2014:14).

National Treasury (2011:14-16) cites two main reasons for this. Firstly a lack of skills and work experience and secondly, that minimum wages are a poor reflection of the youth's productivity, consequently making them less eligible for employment. This is confirmed by Mlatsheni and Rospabe (2002) who found that "the most obvious difference in individual characteristics between the young and adults lies in the level of work experience."

As a result, the National Planning Commission has identified youth unemployment as one of the critical factors in its National Development Plan

(2012:24) and has implemented several initiatives in an attempt to alleviate the unemployment rates, particularly among the youth.

One of these initiatives is the implementation of the controversial Youth Wage Subsidy first introduced by President Jacob Zuma in his State of the Nation address in February 2010 (Democratic Alliance, 2011:1). The announcement was followed by months of debate and criticism, especially from the Congress of South African Trade Unions (Cosatu) (Ensor, 2013). The bill was nevertheless promulgated on 18 December 2013 as the Employment Tax Incentive Act (No. 26 of 2013) (the Act), effective from 1 January 2014 to 31 December 2016 (SAIT, 2014).

Wage subsidies are subsidies to encourage employers either to hire new employees, or to keep workers in employment who might otherwise have been laid off for business reasons. They can be awarded directly to either employers or employees or take the form of social security payment offsets and may be targeted specifically at the long-term unemployed, areas/sectors with high unemployment or special groups of workers, e.g. the youth (Betcherman, Dar & Olivas, 2004:5).

Before the Employment Tax Incentive Act, there were no subsidies directly linked to the number of new, low-skilled jobs created. On the contrary, many of the currently available subsidy programmes actually discourage employers from hiring unskilled workers because the former make capital, the more-skilled workforce and technology cheaper - all substitutes for low-skilled labour. This is the result of subsidies being provided by the government firstly for learnerships, which generally require a prior level of skill or education, and secondly for universities. Furthermore, rapid depreciation on capital outlay for buildings and machinery, government-backed lending through institutions, such as the Industrial Development Corporation and the Development Bank of South Africa, beneficial tax treatment for research and development activities and subsidised electricity for a number of large firms are some of the government subsidies which favour institutions which, to a large extent, employ the more-skilled

workforce (Rankin, 2013). In contrast, the Employment Tax Incentives are directed specifically towards the unskilled youth. The specific requirements of the Act are discussed below.

1.1.2 Main features of the South African Employment Tax Incentive Act

The subsidy is a form of demand or employer-side intervention as opposed to a supply or employee-side intervention (Equal Education, 2013:7). This means that employers receive the benefit of the incentives instead of the benefit being available to employees by means of, for example, skills development.

The incentive is settled in the form of a reduction in the employees' tax (PAYE) withheld by an employer that has to be paid over to the South African Revenue Service (SARS). The portion of the employees' tax that an eligible employer has collected, and which can be claimed in the form of the incentive, is the mechanism through which the state is subsidising the cost of employing qualifying employees (Van der Zwan, 2014).

1.1.2.1 Qualifying employees

The term 'qualifying employee' is defined in section 6 of the Act and stipulates six requirements to be met before an employer may claim the incentive in respect of an individual employee. As the first requirement, qualifying employees should *either* be between the ages of 18 and 29[1], employed by an employer operating through a fixed place of business, located within a special economic zone as designated by the Minister of Finance where that employee

[1] It is worthwhile noting that the unemployment rate in South Africa is measured from the age of 15 as this is the age at which a person is allowed to formally enter the labour market (Basic Conditions of Employment Amendment Act no 75 of 1997). The incentives will, however, only apply to persons over 18 years of age as the primary focus of persons under this age should be to obtain a National Senior Certificate / Matric (National Treasury, 2014).

renders services mainly within the special economic zone, *or* be employed by an employer in an industry designated by the Minister of Finance.

Secondly, employees must be in possession of an RSA Identification Document or an asylum seeker permit. Thirdly, a qualifying employee must not be a connected person in respect of the employer and as the fourth requirement, must also not be a domestic worker. The fifth condition specifies that the date of employment must be on or after 1 October 2013, which correlates with the aim of the Act to promote new employment opportunities. Lastly, an employee should be employed by an employer who is in compliance with the applicable wage regulating measure (as discussed below).

1.1.2.2 Eligible employers

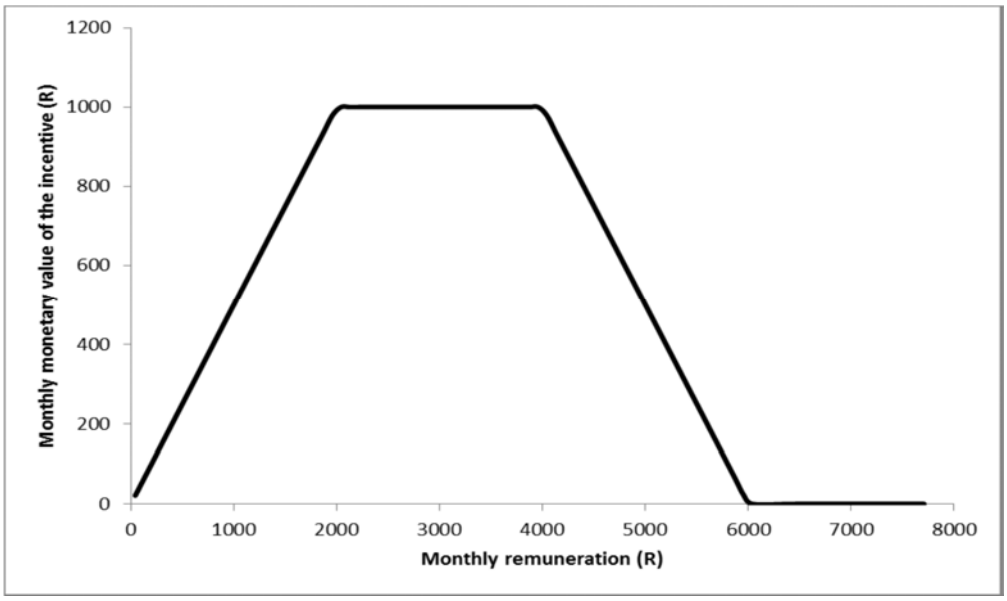
The scheme is aimed at employers in the private sector who are registered for purposes of employees' tax under paragraph 15 of the Fourth Schedule of the Income Tax Act 58 of 1962. The current PAYE system is used by employers to claim the incentive through an updated EMP201 declaration which now makes provision for such claims. Employers are furthermore only eligible to receive the incentive when complying with the wage regulating measures (or minimum wages) applicable to the relevant sector. If no such measure exists, the minimum qualifying wage is set at R2 000 per month. Moreover, employers may be disqualified by the Minister of Finance if it is found that existing employees are being displaced in order to take advantage of the incentive scheme.

1.1.2.3 Qualifying periods and the value of the incentives

The incentive is available in respect of the first 24 months of employment (not necessarily consecutive), from the date on which an employer employs a qualifying employee. This means that in a situation where an employee receives fluctuating remuneration, due to for instance overtime payments, and the total remuneration for a specific month consequently exceeds R6 000, the incentive will not be applicable for that particular month and that month will not count as part of the allowed 24 months. Moreover, the incentives cannot be claimed after 31 December 2016, regardless of the remaining qualifying periods.

The incentive amount is determined with reference to a sliding scale contained in section 7 of the Act and is summarised in the graph below.

Figure 1: The monthly value of the incentive for the first 12 months of employment of a 'qualifying employee' for differing levels of monthly salary



Source: National Treasury (2013)

In the second 12 months of employment, the value of the incentive is halved. The incentives apply to each employee-employer relationship, which means that a second employer who hires a new employee, in respect of whom the incentives had already been claimed by a first employer, will also qualify for the incentives for a renewed period of 24 months.

1.1.3 Impact of employment tax incentives on unemployment rates

The implementation of the Employment Tax Incentives is the first of its kind for South Africa. The National Treasury based its decision to implement the incentive policy on the outcome of international studies performed on similar incentive or subsidy programmes implemented in several countries around the world (National Treasury, 2011:10). Cosatu (2013:3), however, suggests that these studies provide no empirical evidence in support of the policy.

The results of international studies are fairly similar regarding the outcome of employment incentive schemes: subsidy programmes do not appear to have a net positive impact on the longer-term employability or earnings of employees. This is particularly the case for countries that are in transition or are developing (Bechterman, Daysal & Pagés, 2008). However, the Organisation for Economic Co-operation and Development (OECD) argues “that it may be possible to raise net employment gains by wage subsidies by 20% to 30% or more through effective targeting to specific disadvantaged groups and by closely monitoring behaviours of employers in order to prevent possible abuse of the subsidies” (Lee, 2005). This study is supported by Greenbaum, Petras and Russel (2010:166) who found that incentives would be most effective in addressing distressed areas when they are targeted, to improve particular populations, areas, or industries.

However, if the subsidy is targeted towards a specific group of employees, employers may simply replace their current labour force with qualifying employees (Smith, 2006:41), leaving overall employment levels unchanged. The

reason for this is that by lowering the cost of labour employed in the formal sector, a wage subsidy increases the demand for labour employed in the formal sector and favours labour at the expense of capital. A targeted wage subsidy does this for only a subset of workers, and by doing so, increases the relative attractiveness of hiring the targeted group relative to those who are not targeted (Levinsohn, 2007:9).

This null effect on employment levels is echoed in a United States study conducted by Bondonio and Engberg (2000:21) who evaluated the relevant outcome data of incentive programmes restricted to certain geographical areas. It was found that wage subsidy programmes implemented in five states had a direct impact on the employment growth within the strict boundaries of the zone areas, although surrounding areas were negatively impacted, thereby diluting the positive results in the targeted zone areas.

It therefore seems that this type of intervention is able to create jobs, but only when limited to designated areas, while it has a negligible positive impact on national unemployment rates (Equal Education, 2013:7).

1.2 Motivation of topic actuality

The Employment Tax Incentive Act was mainly designed to target the youth and to reduce their unemployment rates. The Act however, also targets employers operating within the proposed Special Economic Zones as beneficiaries of the incentives (Refer to section 1.1.2.1). This is in answer to the government's National Development Plan (2012:281) which states that Job Intervention Zones "require particular forms of state support for specified periods."

It should therefore be asked whether, in the light of the international evidence, the Employment Tax Incentives are able to alleviate the troubling unemployment rates in the country's proposed Special Economic Zones, thereby contributing to the government's strategy of developing these areas.

1.3 Problem statement

The research problem investigated in the study may be formulated as follows:

Based on international experience, can the South African Employment Tax Incentives contribute to alleviating unemployment rates in the proposed Special Economic Zones?

1.4 Objectives

The specific research objectives to be pursued in answering the research problem are:

- to describe the magnitude of the current unemployment crisis in the South African labour market and to investigate the causes thereof and possible solutions thereto (Chapter 2)
- to evaluate the international experience with employer-side wage subsidies (Chapter 3)
- to establish whether limiting employer-side subsidies to specific geographical areas could reduce unemployment rates in these areas. (Chapter 4)

1.5 Limitation of scope

The proposed study has several delimitations. Firstly, it is noted that the concepts of 'employee', 'employers' and employees' tax' are defined in the Fourth Schedule to the Income Tax Act No. 58 of 1962. However, this study will not address these provisions in detail.

Secondly, although this study might refer to the Basic Conditions of Employment Act and other relevant labour regulations, the study will not focus on labour laws. Thirdly, literature in this study will be limited to literature freely available in English and only

data pertaining to the Employment Tax Incentives Act No. 26 of 2013 and the Special Economic Zones Bill, 2013 as available up to 31 October 2014 will be considered for the purpose of this study.

Finally, the study will focus on the effectiveness of the tax incentives in creating jobs and will not consider in detail the overall economic effect and other related factors that the tax incentives may have in a specific country.

1.6 Research design and methodology

A literature review was selected as a means of identifying the problem statement; the sources of which were in the form of documents, texts and websites. The research was conducted in terms of the interpretivist paradigm (also known as the anti-positivist or naturalistic paradigm). A grounded theory methodology was used where data was collected and interpreted to create a theory.

The sources of this study, which are academic commentators' perspectives on a variety of incentives introduced by governments all around the world, are publicly available sources. Published international studies on similar incentivising programmes were analysed to answer the research question, as no actual data relating to the local incentive outcomes were available at the time of writing (due to the effective date of the Employment Tax Incentive Act only being 1 January 2014). The primary sources on the structuring of the incentives are the Employment Tax Incentive Act No. 26 of 2013 and explanatory memoranda issued by the National Treasury. These were supplemented by various reports from entities such as Cosatu, Equal Education, Statistics South Africa and the World Economic Forum. Information on the current unemployment situation in South Africa was also gathered from local and international studies, published statistics and media reports.

The study will largely be confined to a qualitative analysis, as it may be difficult to quantify the effects of all the costs and initiatives.

1.7 Chapter overview

1.7.1 Chapter 1

Introduction

Chapter 1 presents the background to the research area. The chapter briefly describes the unemployment situation in South Africa and gives detail on the requirements of the Employment Tax Incentive Act. It further motivates the relevance of the topic, formulates the problem statement, describes the research method and design and finally stipulates the chapter division.

1.7.2 Chapter 2

Unemployment in South Africa: causes and solutions

This chapter explores the labour market conditions in South Africa; firstly, by describing the magnitude of the unemployment problem in the country. Key labour market indicators and definitions are interpreted and unemployment amongst different age categories is investigated. Secondly, the major cause(s) of unemployment are determined; finally, possible solutions to the high unemployment rate are discussed and the best alternatives are identified.

1.7.3 Chapter 3

International experience with employer-side wage subsidies

In Chapter 3, international experience with employer-side wage subsidies is discussed by reference to an international study performed by Betcherman, Dar and Olivas (2004) who undertook an updated review of the previous World Bank study conducted by Dar and Tzannatos (1999) on international experiences with active labour market programmes. Furthermore, the results of a South African pilot study on employer-side subsidies were also evaluated

in order to determine whether employer-side subsidies, such as the Employment Tax Incentives, could be an effective intervention to alleviate unemployment rates in South Africa.

1.7.4 Chapter 4

Limiting employer-side subsidies to targeted areas

Chapter 4 considers whether the limitation of the employment incentives to targeted areas (or Special Economic Zones) could reduce the unemployment rates in these areas specifically, thereby contributing to government's strategy of developing these areas as determined in the National Development Plan. A number of international studies performed on geographically-targeted tax incentive programmes were considered for this purpose.

1.7.5 Chapter 5

Conclusion

Chapter 5 presents a summation of the research findings and conclusions on the research question. Several key aspects of the Employment Tax Incentive Act were assessed against the research findings, while important findings to be considered by policy makers are highlighted. Possible areas for future research are also identified.

Chapter 2 Unemployment in South Africa: causes and solutions

2.1 The scope of unemployment in South Africa

The level of unemployment in South Africa is excessively high and exacerbates a range of social problems and tensions (OECD, 2013:4). The official unemployment rate has nearly doubled between 1994 and 2010 from 13% to 25% (Sharp, 2011). Employment is not only about earning an income; it also promotes dignity, independence, achievement and innovation. The unemployed do not acquire the skills or experience needed to drive the economy forward, which in turn, inhibits the country's economic development and imposes a larger burden on the state to provide social assistance. Unemployment is also associated with social problems such as poverty, crime, violence, loss of morale, social degradation and political disengagement (National Treasury, 2011:9).

The *unemployment rate* as defined by Statistics South Africa's Quarterly Labour Force Survey (2014) is the proportion of the *labour force* that is *unemployed*. The *labour force* comprises all persons who are *employed* plus all persons who are *unemployed*.

Employed persons are those aged 15–64 years who, during the reference week, did any work for at least one hour, or had a job or business but were not at work (temporarily absent) while *unemployed* persons are those (aged 15–64 years) who were not employed in the reference week; actively looked for work or tried to start a business in the four weeks preceding the survey interview; and were available for work, i.e. would have been able to start work or a business in the reference week; or had not actively looked for work in the past four weeks but had a job or business to start at a definite date in the future and were available. The reference week is the calendar week (Sunday to Saturday) containing the 12th day of the month and is used as the time period for documenting unemployment statistics.

Changing these definitions into numbers, the picture becomes clearer. According to Statistics South Africa (2014) the *labour force* consists of 20,007 million individuals

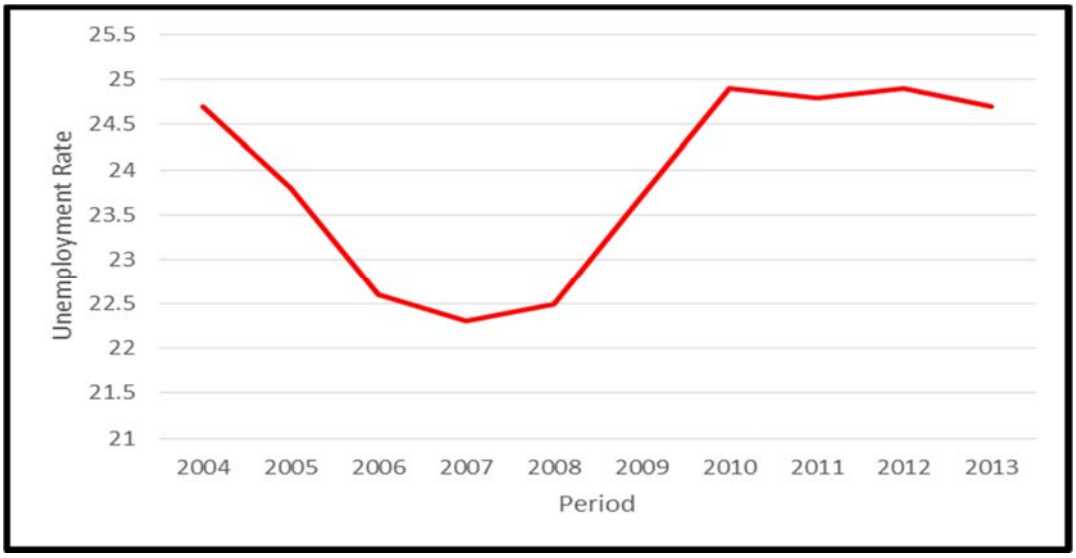
of which 15,177 million are *employed* and 4,830 million are not. The proportion of the labour force that is unemployed is therefore 24.1%. This effectively means that approximately one in every four individuals in the labour force is unemployed.

Furthermore, the expanded definition of unemployment includes *discouraged work-seekers* (Schüssler, 2012) who are defined as persons who were not employed during the reference period, wanted to work, were available to work/start a business but did not take active steps to find work during the last four weeks, provided that the main reason given for not seeking work was either that no jobs were available in the area; inability to find work requiring their skills or had lost hope of finding any kind of employment.

Statistics South Africa (2014) reports that the total population of working age is 35,022 million which comprises the labour force of 20,007 million and the economically inactive individuals (persons aged 15–64 years who are neither *employed* nor *unemployed* in the reference week) of 15,015 million. In its turn, the economically inactive group includes discouraged work seekers of 2,200 million. If these discouraged work seekers are included in the definition of unemployed (expanded definition), the unemployment rate increases to 35.1% which translates to an unemployment ratio of more than one in three individuals of the labour force.

The graph below (Figure 2) illustrates that the high level of unemployment is a long standing feature of the South African labour market, by indicating the country's official unemployment rates as published by the OECD for the ten years from 2004 to 2013.

Figure 2: Graph of historical unemployment rates



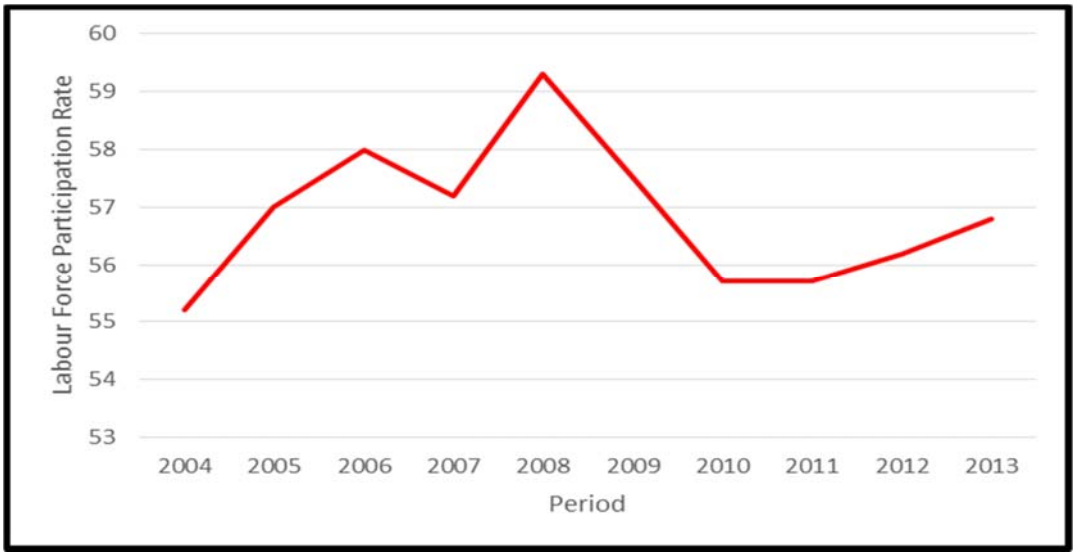
Source: Adapted from the OECD 2014

Not only does South Africa record one of the lowest employment rates in the world, it also reports one of the lowest employment rates in the history of the world. This, while the definition of somebody employed, as described above, is one of the widest in the world today. One hour of labour a week, even without compensation, would be sufficient to categorise a person as *employed* in South Africa (Schüssler, 2012).

Another important labour market indicator is the rate of labour force participation. The *labour force participation rate* is the proportion of the working-age population that is either *employed* or *unemployed* (Statistics South Africa, 2014) and therefore excludes the *discouraged work seekers*. South Africa's labour force participation rate is 57.1% and illustrates that a very large proportion of the working age population is not economically active.

The following graph, Figure 3, illustrates how the low level of labour force participation is also a long standing feature of the South African labour market.

Figure 3: Historical labour force participation rates

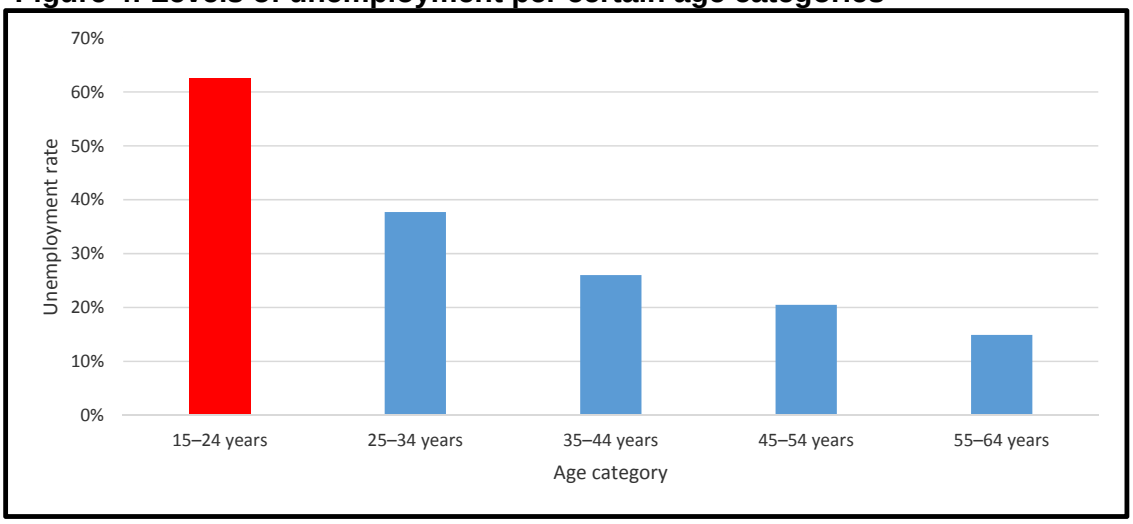


Source: Adapted from the OECD 2014

Moreover, the employment challenge facing South Africa's youth is even greater. The ratio of youth to adult unemployment in South Africa is about 2.5:1 (i.e. the youth unemployment rate is two and half times larger than the adult unemployment rate). This is broadly in line with other emerging markets and therefore the relative magnitude of youth unemployment is not an unusual characteristic of South Africa's labour market. However, the great magnitude of youth unemployment is what makes South Africa an anomaly from an international perspective. Applying the International Labour Organisation's definition, which restricts "youth" to those aged between 15 and 24 years, the number of persons unemployed is more than 1.2 million. One in every two people below the age of 25 looking for work is jobless (National Treasury, 2011:13).

The graph in Figure 4, compares youth unemployment rates to other age categories, using the expanded definition of unemployment.

Figure 4: Levels of unemployment per certain age categories



Source: StatsSA (2014)

This table makes clear where unemployment is most acute and identifies that policy efforts should be concentrated on the 15 to 24 years age range. Now that the context of the South African labour market is known, the causes of unemployment can be investigated.

2.2 Causes of youth unemployment

Youth unemployment has been widely researched and several possible causes have been identified. These causes include factors such as the youth not having an effective network to obtain information on job opportunities as well as a lack of financial resources and mobility to seek work or relocate closer to the places where job opportunities exist (Smith, 2006). It is a common phenomenon that younger workers are more likely than older workers to leave their jobs as they might have shorter goals and are still discovering what they want in life (Mlatsheni & Rospabe 2002). Furthermore, according to Du Toit (2003), general human resource practice in recession times is usually to discontinue recruitment, in turn affecting young entrants to the labour market and making younger workers, rather than older workers, redundant. Youth, more than older workers, experience job losses through lay-offs because of less expensive severance packages and also because they are less

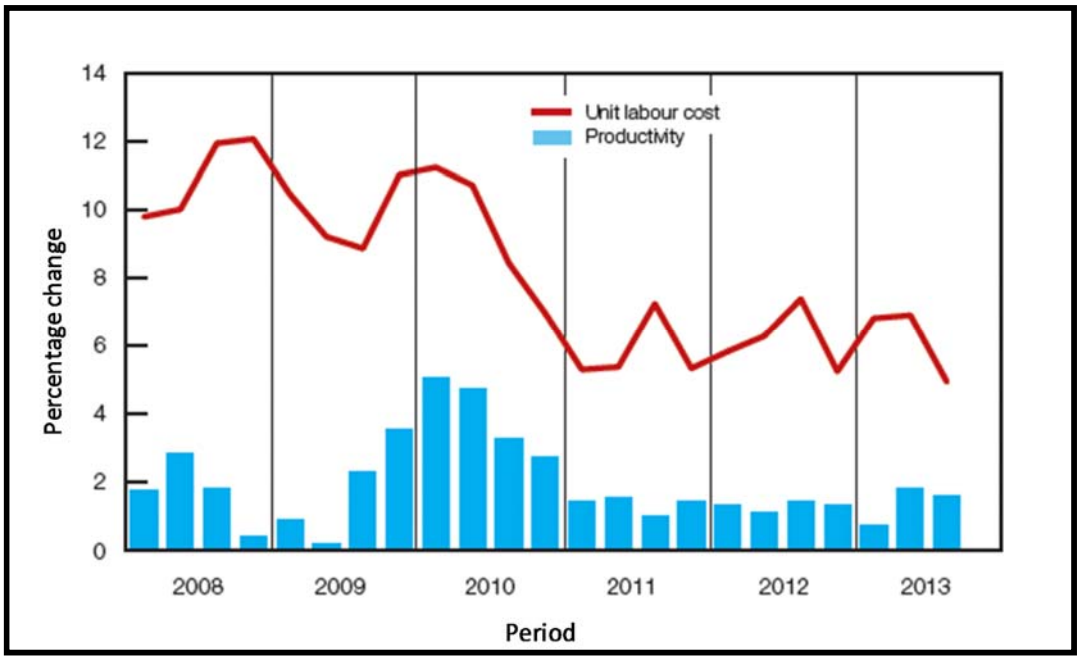
experienced than older workers. Mlatsheni and Rospabe (2002) also found that one of the most obvious differences causing greater unemployment for youth than for adults was their level of work experience. The youths also lack 'soft' skills, such as communication skills, personal presentation and emotional maturity (National Treasury, 2011).

Most prominently, labour is being underutilised due to its high cost relative to capital (Alleyne & Subramanian, 2001). Minimum wage requirements frequently drive up the cost of labour, which ultimately decreases the demand for labour by employers (OECD, 2011:16). This is also true for South Africa where minimum wages are legally determined by the Basic Conditions of Employment Act (no 75 of 1997) in several sectors (Holmes, 2014). Within this context, South Africa's system of sectoral minimum wages may have contributed to the low levels of youth employment by pushing up the cost of entry-level workers. This drives the cost of labour upwards, which may potentially result in employees earning wages which do not necessarily correlate with their level of productivity (National Treasury, 2011:17).

As mentioned in the introduction to this study, one of the main reasons identified for the high unemployment rates, especially among the youth, is that the minimum wage is an inaccurate reflection of the youth's productivity, thereby making them less desirable for hiring by employers. The gap between real wages and productivity is therefore particularly high for young and lower-skilled workers, due to poor education, poor skills and a lack of work experience (National Treasury, 2011:14-16).

This gap is illustrated by the graph in Figure 5 which demonstrates that labour cost inflation exceeded the change in the level of productivity over the last five years. It is also noteworthy from the graph that labour cost inflation is almost constantly above the upper limit of the South African Reserve Bank's inflation target range of 6%, which represents the maximum desirable increase in the price of other goods and services in the economy. In addition, labour cost inflation is consistently above the national average inflation rate (Holmes, 2014).

Figure 5: Formal non-agricultural labour productivity and nominal unit labour cost



Source: South African Reserve Bank (2014:23)

Since records were first kept in 1967, South Africa's labour productivity has fallen to a 46-year low with most of the decline occurring since 1995. The Labour Relations Act of 1995 brought about a radical change in labour laws and presented enormous challenges in terms of dismissal protections and wage escalations (Adcorp, 2013).

The high cost of labour in relation to the level of productivity is therefore possibly the most prominent cause of youth unemployment in South Africa. Section 2.3 addresses possible solutions to the unemployment problem and attempts to identify the most appropriate alternative.

2.3 Proposed intervention

The magnitude of the youth unemployment challenge facing South Africa has the consequence that it cannot be resolved by a single employment policy. A combination of interventions, or a multi-pronged approach, is likely to offer the greatest potential for young people to gain decent work opportunities and alleviate youth unemployment (National Treasury, 2011:18). In its discussion paper for public

comment, the National Treasury cites three broad categories of possible policy options to confront youth unemployment in South Africa namely economic growth, education and active labour market programmes.

2.3.1 Economic growth

Changes in unemployment are the result of changes in both the demand and the supply side of the economy. The main reason for the persistently high and rising rates of unemployment in South Africa is the dramatic increase in the labour force in the recent past and not a poor growth in the economy. However, as economic growth and employment growth tend to move together over time, an expanding economy could translate into higher employment levels (Hodge, 2009).

According to the National Treasury (2011:18), economic growth is important because a growing economy boosts labour demand and offers decent employment opportunities. This may be numerically expressed by the growth elasticity of employment which measures the percentage change in employment levels for a one per cent rise in Gross Domestic Product.

A greater growth elasticity of employment and rising employment levels increase income levels, which translates into higher levels of consumption, savings and investment. As a result, a higher growth elasticity of employment stimulates greater economic activity and higher economic growth. A growth elasticity of employment of 0.7 could potentially create more than 6.7 million jobs and raise potential growth to 6 per cent by 2025 (Faulkner, Loewald & Makrelov, 2013:14).

2.3.2 Education

The National Treasury (2011:19) reports that formal education is critical in determining the quality of labour market entrants. The poor quality of schooling in South Africa and the small number of learners who complete secondary school have lowered the productivity of young workers entering the labour market and therefore contribute to the gap that exists between productivity and real wages. Employment prospects and absorption rates improve with education. This is echoed by Mlatsheni and Rospabe (2002) who hold that education plays a major role in the probability of finding employment.

2.3.3 Active labour market programmes

2.3.3.1 Introduction to active labour market programmes

OECD countries have long and extensive experience with active labour market programmes. These 'active' programmes are intended to directly affect the employment prospects of the unemployed by encouraging (or forcing) participation in activities and workshops that teach job search skills and provide training, as opposed to 'passive' programmes which entail the provision of support for unemployed individuals (Unemployment Insurance for instance), with little attempt to monitor the job search process or provide resources to assist with the job search (Smith, 2006:5).

Smith describes active labour market programmes as entailing particular interventions, such as employment services, training, public works, wage and employment subsidies and self-employment assistance. Active labour market programmes are becoming more relevant in transitional and developing countries as many of these governments struggle with growing levels of unemployment. In 2001, OECD nations on average spent 0.8% of Gross Domestic Product (GDP) on active labour market programmes. Over the past ten years, the level of public spending on such programmes has risen, but has

remained largely stable as a percentage of total GDP. Around 20% of this expenditure is spent on employee or employer-side subsidies while the major portion is spent on job search assistance. Although this spending is said to be much lower in transitional and developing countries, wage subsidies for lower income workers are quickly becoming a key policy for encouraging labour market participation.

Smith's study evaluated international experience with labour market interventions and assessed possible policy options relevant to South Africa's unique labour market situation. His paper focused on three types of interventions for possible implementation in this country: employment subsidies for firms (employer-side), employment subsidies for workers (employee-side) and job search assistance programmes intended to assist job seekers in finding and applying for employment.

2.3.3.2 Employer-side subsidies

Employer-side subsidies provide financial incentives for employers to hire workers by reducing the effective cost of employment for a period of time. This is usually achieved through reimbursing the employer for a portion of the newly hired employee's wage or awarding the employer a one-time bonus upon appointment of an eligible employee (Smith, 2006:11).

Smith classifies these subsidies as either targeted subsidies which apply only to specific types of job seekers (for instance, the long-term unemployed, current welfare recipients or the youth), or untargeted subsidies which usually apply to all new hires that took place over and above the normal employment growth. The structure of employer-side wage subsidies varies significantly from country to country as these subsidies tend to target specific groups of workers, and countries tailor these criteria to meet the particular characteristics of their unemployed population.

Take-up rates for untargeted subsidies are expected to be higher. This is because such subsidies also subsidise employment for workers that firms do not need additional incentives to hire, are more likely to be widely advertised, resulting in firms being more aware of the existence of the credit, and apply to a larger share of the firms' workforce (Smith, 2006:21). The international evidence on untargeted subsidies is scarce and conclusions are difficult to draw because these types of subsidies usually apply on a national level and are available to all firms, leaving no control group for comparison. For this reason, the remainder of this section focuses on targeted employer-side subsidies.

The said subsidies have been globally widely implemented and several studies investigated the outcome of these programmes. However, findings have frequently revealed that targeted subsidies are ineffective at increasing marginal employment. Smith (2006:21) attributes this to the administratively burdensome process of firstly determining the eligibility of potential hires and secondly, of submitting proof of eligibility to the government. Thirdly, experimental evidence suggests that employers are less likely to hire eligible workers due to the stigmatising effects of how some of the targeted subsidies are structured. When the target group is too specific, employers are less likely to hire a job seeker when they learn that the applicant is a member of a targeted class of workers. Lastly, it is suggested that participation rates tend to be low when the subsidy amounts are not sufficient to compensate employers for the risks associated with hiring targeted workers. Such workers are potentially more risky due to lower levels of work experience while some subsidies require employment commitment for a specified period of time.

Nevertheless, there are arguments suggesting that targeted subsidies might be effective in South Africa if the target population is broader and less specific than in other countries, thereby not stigmatising a small portion of the population. This can be achieved by targeting all unemployed low-income individuals, for instance. Broader subsidies would also reduce the

administrative burden of eligibility confirmation and reduce the uncertainty about whether a potential applicant is eligible or not.

On the other hand, broader subsidies will result in subsidising a greater amount of hiring that would have already occurred in the absence of the subsidy, resulting in a cost-ineffective subsidy programme (Smith, 2006:43).

Smith (2006:19) points out that another method of implementing employer-side wage subsidies is by giving vouchers to eligible workers to be used in the job search process. These vouchers are displayed to prospective employers and details the benefits that the employer firm could receive upon employment of the eligible employee. This method removes the burden of eligibility verification from the employer, thereby reducing the administrative costs associated with applying for and receiving the subsidy, which could potentially result in higher participation rates by employers.

In 1984 and 1985, the Illinois Department of Employment Security conducted experiments to test the effectiveness of such a scheme to reduce the duration of insured unemployment. New claimants for unemployment insurance were randomly assigned to an experiment that was designed to speed up their return to work. A bonus of $500 was offered to the employers of eligible claimants. Although net employment level gains were observed in the treatment group relative to the control group, only 3% of the treatment group that found employment actually had their vouchers redeemed by their employers (Woodbury & Spiegelman, 1987:516). This could possibly illustrate that the positive employment gains from the employer-side vouchers are due to the additional search effort put in by job seekers rather than stemming from awarding employment incentives to employers. The next type of intervention investigated considered this type of subsidy where incentives are directed toward prospective employees.

2.3.3.3 Employee-side subsidies

Employee-side subsidies are subsidies to individuals contingent upon working and may be in the form of a one-time cash bonus awarded to an unemployed individual upon finding a job or a continuous wage subsidy that is in some way a function of labour supply (number of hours worked) or labour earnings (Smith, 2006:23). Although costly, these types of interventions can theoretically be cost-saving if they successfully motivate the unemployed to find jobs, thereby reducing the amount of unemployment insurance benefits to be paid by the government.

Smith's study revealed that employee-side wage subsidies offer an effective method to increase labour force participation for the low-income population. This evidence, however, was derived from subsidies that were implemented in countries for which most labour income is reported to the tax authorities (formal employment). In the developing country context, for which a greater share of labour income comes from the informal sector, a wage subsidy scheme targeting only the formal sector (where labour income is necessarily reported) may be less effective at increasing labour force participation for the lower income population (Smith, 2006:31).

2.3.3.4 Job search assistance programmes

Job search assistance programmes may take on various forms such as job-search courses, job clubs and career guidance as well as counselling and monitoring (National Treasury, 2011:22). According to Smith (2006:39) the international evidence suggests that these programmes improve employment outcomes for participants relative to non-participants and for participants relative to participants in other active labour market programmes. His conclusions are drawn based on numerous randomised trials performed in the United States of America's Welfare-to-Work experiments and experimental evidence from the United Kingdom, Canada and the Netherlands.

However, these programmes are usually provided in conjunction with other forms of job search assistance, making it difficult to distinguish the impact of each form of assistance separately. Furthermore, search assistance programmes are usually also integrated within a country's unemployment insurance systems where the unemployed are required to participate in the assistance programme in order to benefit from unemployment insurance. In South Africa, where numbers of unemployment insurance recipients are quite low, such an enforcement mechanism does not necessarily exist, making it difficult to motivate participation in these programmes. Participation could however be encouraged through positive incentives. Financial incentives, for instance, could be provided for job search assistance participation by rewarding participation in these programmes or rewarding verifiable acts of job search (Smith 2006:40).

Smith (2006:40) emphasised that a major benefit of, and an important difference from wage subsidy programmes, is the fact that job search assistance programmes may more easily be directed towards informal employment, which is where the unemployment levels are most acute.

2.3.4 Identifying the best alternative

South Africa's rigorous labour protection legislation, which makes it difficult to retrench the unproductive youth, along with the collective bargaining capabilities of well organised labour unions, are making it unattractive for employers to employ more workers (Roodt, 2014). Furthermore, trade unions have the upper hand, which has created a large union wage effect with wage gains only loosely tied to productivity increases (Lewis, 2001:13).

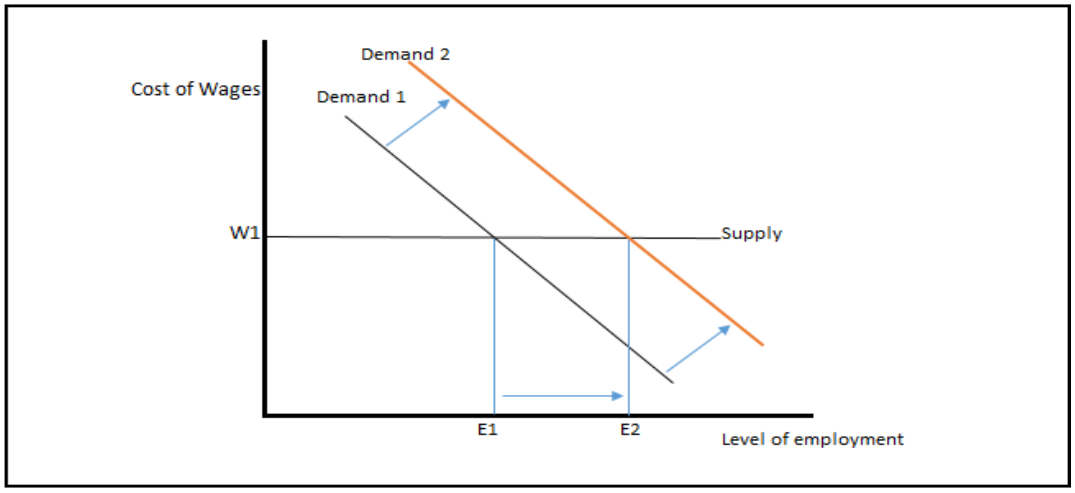
On the other hand, more rapid job creation primarily concerns keeping unit labour costs steady or moderated over time. This implies that productivity growth and real wage gains occur at a similar pace, not that real wages decline. Rising relative unit labour costs both destroy jobs and incentivise firms to substitute by

using labour-saving capital, therefore reducing the labour intensity of the economy (Faulkner, Loewald & Makrelov, 2013:15).

Lowering the cost of youth labour is therefore critical to increase the demand for it. Targeted employer-side wage subsidies may do so by providing financial incentives for firms to hire certain workers, through reducing hiring and employment costs for some length of time. (Smith, 2006:11). The objective of such a targeted subsidy is to improve the employment prospects and opportunities for a particular group (e.g. the youth) by reducing the costs of employing the targeted group relative to other groups, making them more attractive for firms to hire them (National Treasury, 2011:28).

The effect of an employer-side subsidy may be demonstrated in the context of a simple supply and demand model of the labour market, where the theoretical effects from a wage subsidy are able to be estimated. In Figure 6, in the graph, the downward sloping line represents the demand for labour. As the wage level is effectively fixed due to the existence of high levels of unemployment, the labour supply curve is horizontal (i.e. labour supply is infinitely elastic) instead of the traditional upward sloping line for a demand curve. An equilibrium price (or wage) and quantity (or level of employment) is reached where the supply and demand lines intersect.

Figure 6: Theoretical effects of an employer-side subsidy



Adapted from National Treasury (2011:29)

When a wage subsidy is introduced, a reduction in the effective cost of labour occurs. This increases demand for labour, which is graphically illustrated by the demand line moving to the right. In this case, the subsidy does not affect the wages of employees but will have a larger impact on employment levels as the increase in labour demand is not limited by rising wages (National Treasury, 2011:29). This results in a new equilibrium in the labour market where the level of employment has increased from E1 to E2. Considering all of the facts above, the most promising method of creating more employment opportunities seems to be that of employer-side wage subsidies.

2.4 Summary

This chapter demonstrated that South Africa's level of youth unemployment ranks among the worst in the world and that the most prominent cause thereof is that the cost of labour is too high in relation to the level of productivity of South Africa's youth. Solutions to the unemployment challenge considered in this study include economic growth, education and active labour market programmes. The latter was identified as being the most promising method of directly impacting unemployment levels in the country. In line with this finding, the South African government recently implemented an employer-side wage subsidy known as the Employment Tax Incentives. These incentives are meant to reduce the effective cost of labour associated with hiring the youth. This will potentially increase the demand for labour, resulting in more employment opportunities for the youth.

Employer-side wage subsidies have been attempted in many countries. However, the balance of international research shows weak or poor results, unless the country was already experiencing a period of growth (Equal Education, 2013:3). In Chapter 3, empirical evidence based on international experience with employer-side wage subsidies is reviewed in order to determine what outcome may be realistically expected from the Employment Tax Incentives.

Chapter 3 Reviewing international experience with employer-side wage subsidies

3.1 Introduction

This chapter comprises of two parts. Firstly, the findings from a comprehensive international study which evaluated the success of active labour market programmes implemented in several developed, transitional and developing countries around the world were interpreted. In particular, the findings relating to employer-side wage subsidies were assessed in order to determine whether these subsidy programmes are able to meaningfully raise net employment levels. Secondly, the results of a South African pilot study on employer-side wage subsidies were reviewed. The combined analysis of these two studies present a clearer view of what is to be expected from the South African Employment Tax Incentives.

3.2 International experience with employer-side subsidies

Betcherman, Dar and Olivas (2004) performed an updated review on the previous World Bank study conducted by Dar and Tzannatos (1999) on international experiences with active labour market programmes by adding 87 new studies to the 72 scientific evaluations that had originally been considered. These additional studies also included the evaluation of transitional and developing countries as opposed to the earlier study which focussed on industrialised nations.

In their observations, Betcherman *et al.* solely included evaluations that used a control group methodology. This entails the construction of a control group of people who did not participate in the respective subsidy programmes but were otherwise ideally identical to participants. This is done to determine what would most likely have happened to the participants if they had not taken part in the programme. The outcomes (i.e. employment levels) of the two groups are then compared at some point after the programme has been completed, in order to assess the impacts of the programmes. This is considered necessary for ensuring valid impact evaluation

results (Betcherman *et al.*, 2004:18). These researchers describe two techniques in undertaking this research: experimental and quasi-experimental both of which were used in the evaluations considered (Betcherman *et al*., 2004:14-15).

Experimental techniques are based on the principle that the observable and unobservable characteristics of the treatment and control group, when selected randomly, are identical. Any difference in the outcome of the subsidy programme can therefore be attributed to participation in the programme. Quasi-experimental techniques are non-experimental selection techniques used when experiments are not feasible. A selection will typically be made from a survey or administrative database that includes individuals with characteristics which fit those of the group targeted by the intervention.

Of the total 159 evaluations, 23 related to wage and employment subsidy programmes which included seven from the 1999 review and 16 new ones. Of these, 17 were from industrialised countries, five were from transitional countries, and one related to a developing country. The evidence was reviewed for seven active labour market programme categories: employment services, training for the unemployed, training for workers in mass layoffs, training for youth, wage and employment subsidies, public works and micro-enterprise development assistance.

For the purpose of this dissertation, reference will only be made to the findings which relate to the impact of wage subsidies on employment levels. It should furthermore be noted that these evaluations do not fully estimate deadweight and substitution effects, which are especially relevant in the case of subsidies. The deadweight effect refers to individuals who find jobs through these programmes, who are often more qualified than most job-seekers and might have found jobs in the absence of these programmes, while the substitution effect refers to the situation where subsidised workers simply replace unsubsidised ones, leaving the overall level of employment unchanged. The results of the study are summarised in Table 1 below:

Table 1: **Summary of Evaluation Results for Wage and Employment Subsidies**

	Impact on Net Employment		
Category	**Positive**	**Non-positive**	**Not clear**
Developed countries	6	9	2
Transition countries	-	5	-
Developing countries	1	-	-
Total	7	14	2

Source: Betcherman *et al.* (2004:41)

The overall findings are unfavourable. In total, 21 evaluations showed results on the impact of net employment incentives on employment rates, of which 14 (or two thirds) indicated that the effect was either neutral or negative. The table indicates that the positive findings, where programme evaluations showed net employment gain, were gleaned from studies done almost exclusively in developed countries. The developing country evidence is limited to the Argentina Proempleo experiment, where participants were divided into three groups namely those receiving vouchers only, those receiving vouchers and training, and lastly the control group. The impact of the voucher was not evident until 18 months after the programme, at which point 14% of participants were reported to be employed, compared to only 9% for the control group who received neither vouchers nor training.

This study indicates that wage subsidies, although exceptions might occur, are probably not the answer for increasing employment levels in a developing country such as South Africa. This is due to the much larger informal labour markets generally found in developing countries and weaker capacity to implement the wage subsidy programmes.

However, local evidence on the effect of wage subsidies in a South African context sheds more light on this question. In a working paper of the Department of Economics and the Bureau for Economic Research at the University of Stellenbosch, a randomised control trial was constructed in order to predict how a wage subsidy might affect youth unemployment in South Africa. This experiment will now be considered.

3.3 A South African pilot study

The pilot study incentives designed by Levinsohn, Rankin, Roberts and Schöer (2013) were structured in much the same manner as the bonuses examined by the Illinois Department of Employment Security in section 2.3.3.2. Firms which employed eligible young people would be given a voucher that enabled them to claim the subsidy from the project office in Johannesburg. Although the design was not identical to the Employment Tax Incentives, the effect of this pilot study reveals a reduction in the effective cost of hiring new employees in an attempt to increase demand for labour, and the results of this pilot study were deemed potentially useful.

Two similarly sized groups of young people with similar characteristics were randomly selected; one of the groups was given the vouchers while the other group was used as the control group. Approximately 4 000 young people from Gauteng, Kwazulu-Natal and Limpopo took part in the pilot study. The values of the vouchers were capped at the lower rate of R833 per month or half the monthly wage and were redeemable for a period of six months. Participants were interviewed annually over four years in order to monitor their progress.

The project results showed that, although only a small number of new jobs were created, voucher holders were roughly 25% more likely to be employed compared to the control group. This effect lasted for up to two years after the vouchers were allocated. Results also indicated that voucher holders were, on average, in employment for more than a month longer than those without the vouchers. However, in line with the findings of Woodbury and Spiegelman (1987), only a few of the employing firms actually redeemed the voucher.

3.4 Summary

The study established that the clear majority of international subsidy programmes do not appear to have net positive impacts on the longer-term employability of participants, particularly in transitional and developing countries. This is consistent

with the findings of Smith's study, which suggest that the meagre success of employer-side subsidies in an international context indicates that similar interventions in South Africa, a developing nation, might not yield positive outcomes (Smith, 2006:22). Levinsohn *et al* (2013) conclude that, given the poor performance of the South African economy, this type of incentive is unlikely to generate the large numbers of employment opportunities needed to meaningfully reduce the unemployment rates among the youth.

However, the research question has yet to be answered. The following chapter investigates international research on wage subsidies targeted towards specific areas in order to determine whether similar incentive programmes, such as the Employment Tax Incentives, might be able to raise employment levels in South Africa's Special Economic Zones.

Chapter 4 Limiting employer-side subsidies to targeted areas

4.1 Understanding the government's Special Economic Zone strategy

At the time of writing, the Department of Trade and Industry had already introduced the draft Special Economic Zones Bill, 2013 to Parliament for consideration (Gad & Radloff, 2013); this initiative will ultimately replace the current Industrial Development Zone programme, launched in 2001.

Deloitte (2013) describes Special Economic Zones as geographically designated areas of a country set aside for specifically targeted economic activities, which are then supported through special arrangements, which may include laws and support systems to promote industrial development. According to Gad and Radloff (2013) the proposed support offered by the Special Economic Zones Bill will be in the form of custom duties rebates and Value-Added Tax exemptions. Furthermore, business activities within a special economic zone would be taxed at a reduced corporate tax rate of 15%, instead of the normal statutory rate of 28%. A capital allowance equal to 10% of the cost of any new and unused buildings owned within a Special Economic Zone or new and unused improvements to such buildings will also be granted.

In addition to this, the Employment Tax Incentive Act also awards incentives to employers operating through a fixed place of business located within a Special Economic Zone, for hiring employees who render services mainly within that zone. This, according to the Centre for Development and Enterprise (2011:8), could be a remarkable tool for growth and job creation if structured correctly.

The use of the Employment Tax Incentives and Special Economic Zones is therefore already part of the government's job creation plan (Smith, 2014). The evidence in chapter 3, however, raised uncertainty about whether employer-side subsidies, such as the Employment Tax Incentives, could be useful in alleviating the unemployment situation in South Africa. The studies referred to in Chapter 3 did not assess whether such subsidies, when limited to certain geographical areas, such as Special Economic Zones, could raise employment rates in these areas specifically.

Three studies conducted in the United States of America on similar types of combined intervention will now be reviewed in order to determine whether limiting employment incentives to certain geographical areas has the ability to alleviate unemployment rates in those specific areas. This was done in order to determine the ability of the South African Employment Tax Incentives initiative to raise employment levels within the proposed Special Economic Zones. Studies performed on incentive programmes implemented in the United States of America were chosen for the purpose of this analysis, as this country has decades of experience with the use of geographically-targeted tax incentives, which are becoming an increasingly popular policy for economic redevelopment (Hanson, 2009:721).

4.2 The Andrew Hanson study

Andrew Hanson (2009) estimated the effect of the federal Empowerment Zone programme on employment, poverty and property values. This programme was implemented by the United States Department of Housing and Urban Development in 1993, offering a range of tax incentives to employers located within distressed areas.

The so-called distressed areas which were declared Empowerment Zones, were selected from a group of areas in which at least 20% of the population were living in poverty and at least 6.3% were unemployed. The areas nominated included economically distressed parts of larger cities as well as rural areas. In total, nine zones were declared Empowerment Zones and were given the abovementioned tax incentives, while other nominated areas, named Enterprise Communities, were given a “runner-up” incentive which entailed a less comprehensive set of tax incentives.

The largest component of the programme encompassed a tax credit awarded to an employer for each new resident of an Empowerment Zone employed. This is similar to the requirements of the South African Employment Tax Incentives as described in Chapter 2.

Employers operating within Enterprise Communities were, however, not given the wage subsidy. As the economic conditions of the nominated areas were all similar, the Enterprise Communities were able to be used as a control group.

It should however be noted that the Empowerment Zones were also awarded a larger one-time grant allocation than most of the Enterprise Communities. Because the effect of this one-time grant could not be separated from the wage tax credit, the results of this study should be viewed as the joint effect of the larger grant and continued presence of the wage tax credit.

For the purpose of this dissertation, reference is made solely to the identified impact on employment rates. The Ordinary Least Squares method was used to identify the effect of the wage tax credit by comparing the difference in employment rates, between one city's Empowerment Zones and its surrounding areas, to the Enterprise Communities of another city and *its* surrounding areas before and after the programme. The assumption made in this study was that the difference between the respective changes in employment levels of one city's Enterprise Communities and its surrounding areas and another city's Empowerment Zones and the latter's surrounding areas, would be attributable to the wage subsidy. Census data from 1990 and 2000 were used for this analysis.

The 1990 census reported that only 27% of the Empowerment Zones' residents were employed, compared to 41% of the surrounding cities' residents. In the 2000 census it was found that economic outcomes for Empowerment Zone residents improved relative to residents in the surrounding areas. The average employment rate of Empowerment Zone residents rose by 7.4%, compared to a 2.4% decline in the average employment rate in surrounding areas.

The runner-up areas did not, on average, experience the same economic improvement as the Empowerment Zones, relative to their respective cities. The average employment rate in smaller Enterprise Communities remained constant, while the larger Enterprise Communities experienced a one percentage point decline in employment.

At first sight, the results indicate that the Empowerment Zone programme managed to significantly improve employment levels compared to those of the Enterprise Communities. However, Empowerment Zones were selected by the Department of Housing and Urban Development based on “ability to spur economic opportunity by creating jobs, attracting private partnerships, and training residents for new job opportunities” (Hanson, 2009:726). This suggests that the Empowerment Zones might have experienced economic improvements even without the presence of the subsidy programme.

Hanson subsequently focussed his study on eliminating this bias from the study results by using instrumental variable regressions. This method requires an instrument for Empowerment Zone designation, or some feature of the census region that is correlated with being designated as an Empowerment Zone. Political favouritism by influential members of Congress associated with a census region, who used leverage to bargain for Empowerment Designation, was identified as a plausible instrument. Hanson subsequently established a strong correlation between membership of the Committee on Ways and Means and the number of years a member had been on the Committee at the time of designation of these regions as instruments for Empowerment Zone designation. The Committee on Ways and Means is the chief tax-writing committee of the United States House of Representatives.

After correcting for these biases in the Empowerment Zone designation, new results were formulated, which are, theoretically, closer to being a purely causal effect of the programme. These results showed that the wage tax credits exercised a null effect on employment levels within Empowerment Zones. However, due to the large standard errors in these regressions, the null results should be viewed as casting doubt on the magnitude of the first results, rather than as conclusive evidence that employment levels were unchanged (Hanson, 2009:728).

Bondonio and Greenbaum (2007:121) suggest that the impacts of the incentives have more complex dynamics than those revealed by the null mean impact estimates obtained from analysing net growth outcomes. In their study, the gross

flows of new, existing and vanishing establishments were examined and separately analysed.

4.3 The Bondonio and Greenbaum study

This study used establishment-specific panel data across multiple states to comparatively estimate the impact of state-specific policy implementation features on gross flow measures of economic growth, in order to evaluate state Empowerment Zone programmes. In contrast to the previous study, this analysis moves beyond the measurement of net employment changes due solely to the presence or absence of a programme. It separately estimates the marginal impact on the baseline growth rates in the economic outcomes of employment, capital expenditures, sales and payroll per employee caused by specific Empowerment Zone policy features for new, existing and vanishing establishments (gross flows). Once again, reference is made just to the identified impact on employment levels for the purpose of this dissertation.

Similar to other studies on the same state programmes, Bondonio and Greenbaum (2007:129) established that designation as an Empowerment Zone has a statistically insignificant impact on the net outcomes of employment levels. When the results were analysed across the gross flows, however, it was found that zone designation had positively affected employment rates for new establishments. Empowerment Zone incentives tied to the number of new jobs created were found to comprise the only policy variable that marginally affected the employment baseline growth rate in existing establishments.

Results for vanishing establishments indicated that Empowerment Zone status marginally accelerates the rate-loss of employment. This is because new establishments benefit the most from other forms of incentives which are associated with Empowerment Zone designation, leaving the existing establishments, which must compete in the same factor markets without the large benefits from other forms of subsidies, at a competitive disadvantage (Bondonio & Greenbaum, 2007:132).

This is owing to the fact that greater emphasis is placed on attracting new economic activity rather than on retention. This ultimately means that positive zone-induced increases in employment levels in new and existing establishments are nullified by job losses resulting from firms that close or leave the zone areas due to the uncompetitive market conditions. According to Bondonio and Greenbaum (2007:133) this is consistent with the findings from other econometric studies, e.g. Boarnet and Bogart (1996); Bondonio and Engberg (2000); Greenbaum and Engberg (2004) and Peters and Fisher (2002).

Furthermore, a significant reduction in the employment growth rate was observed as the proportion of the state designated as Empowerment Zones increased. There are four main reasons for this. Firstly, smaller areas allow for more intense marketing efforts for each single zone. Secondly, smaller areas allow for better evaluation of the potential, comparative advantage of different eligible areas, allowing areas that have developed the strongest local support for economic growth to be designated. Thirdly, smaller areas enable closer programme monitoring and evaluation and finally, they prevent the dilution of the zone incentives (Bondonio & Greenbaum 2007:134).

The results of this study ultimately indicate that wage subsidies can raise the levels of employment when the incentives are limited to only a few zones of limited size and linked directly to the number of jobs created. However, when combined with other forms of incentives which mostly benefit new establishments, job losses may occur due to existing establishments becoming vanishing establishments, thereby diluting the positive effects of the new and existing establishments. These are important findings which should be considered by South African policy makers when designing programme features for assisting target areas.

Another factor to be contemplated by local policy makers is whether or not the subsidies reach their intended targets (i.e. areas in distress). Greenbaum, Petras and Russell (2010:154) examined the distribution of economic incentives by gauging the intensity of incentives. This allows for examination of whether incentives are truly targeted to distressed locations or industries.

4.4 The Greenbaum, Petras and Russell study

The study examined three different tax abatement programmes in the state of Ohio (United States of America): the Community Reinvestment Areas, Enterprise Zones, and Job Creation Tax Credits. Both the number of incentives and the value of incentives were measured as well as the incentive intensity, or the number and value of incentives on a per-establishment and per-employee basis. This is to compensate for the fact that larger zones would naturally receive more incentives. The aim of the study was to measure the intensity of economic development incentives in different zones in order to establish whether the incentives achieved their goal in improving the economic conditions in distressed areas.

The analysis was performed for all three subsidy programmes from 1996 to 2004 as this was the time frame for which data for all three programmes was readily available. Statistics from reliable sources were obtained for urban and rural zones, as well as for the eight largest cities in Ohio; the results were measured separately.

Urban zones, especially the largest, exhibited higher unemployment rates in the 1990 Decennial Census of the Population, identifying them as areas in distress. The lower levels of employment did not comprise the only economic challenge faced by urban zones. Urban communities reported much higher percentages of minority populations, lower levels of household income and slower increases in the number of business establishments. However, the percentage of adult residents without a high school degree was similar across urban and rural communities, whereas the percentage was higher in the biggest cities. Therefore, if the subsidy intends to improve the economic conditions of the distressed areas, it should be directed at urban zones.

On average, urban zones received roughly 34 incentive agreements, while the eight largest zones combined received 97, with less than one agreement that was received in rural communities. The total value of incentive agreements in urban zones ($132 million) was also much greater than in rural zones ($3.2 million), with the largest portion being allocated to the eight largest cities ($415.5 million.) This

was most likely because of the much larger size of urban zones; nevertheless, this still does not indicate that the target areas were actually reached.

When considering the number of incentives per establishment in a community, rural zones received marginally more incentives (0.018) than urban zones did (0.017). The same results are found in terms of number of incentives per 1 000 employees. Rural zones attracted more agreements (1.47) than urban zones (0.81). The trend continues when considering the value of the incentive agreements, where urban zones received only $51 000 per establishment, compared to $124 000 in rural zones.

The more populous communities dominate rural communities in terms of the number and total value of incentive agreements. However, rural zones fare better when those measures are scaled to reflect the lower number of establishments and employees in those areas. When weighted by the density of economic activity (as measured by the number of establishments or number of employees), this policy missed the mark of targeting areas in distress (Greenbaum *et al*., 2010:154).

4.5 Summary

From the three studies considered, it could be deduced that employer-side wage subsidies implemented in specific zones generally do not appear to have any significant impact on unemployment rates. The reason for this may be attributed to the manner in which these subsidy programmes are structured. Hanson (2009) determined that the way in which the target zones were selected was biased towards areas that showed promising economic prospects. Bondonio and Greenbaum (2007) reported that the positive results on employment levels resulting from new establishments are often diluted by job losses as a result of vanishing establishments. Finally Greenbaum *et al.* (2010) identified that subsidy programmes might miss the targeted areas when they are awarded purely based on numbers, not on weighing the density of economic activity.

Chapter 5 Conclusion

5.1 Summary of research findings

In the introduction to this study, the research objectives were identified as follows. Firstly to describe the magnitude of the current unemployment crises in the South African labour market and to investigate the causes thereof and possible solutions thereto. This objective was set in order to identify the most promising method of intervention to be evaluated further. The second objective was to evaluate international experience with employer-side wage subsidies as a method of intervention in the labour market. This was done in order to evaluate the recently implemented Employment Tax Incentives against international evidence. The third objective narrowed this evaluation to establish whether limiting employer-side wage subsidies to specific geographical areas could reduce unemployment rates in these areas specifically.

Combined, these objectives strive to answer the research question of whether the newly implemented South African Employment Tax Incentives could contribute to alleviating unemployment rates in the proposed Special Economic Zones.

In Chapter 2, where the intensity of the unemployment situation in South Africa was investigated, it was found that the country's unemployment statistics rank amongst the worst (lowest) in the world. The high cost of labour in relation to the level of productivity was predominantly identified as the most significant cause of unemployment. Several solutions to unemployment were also evaluated and, ultimately, employer-side wage subsidies were identified as the most important measure in decreasing the cost of labour, in an attempt to increase employers' demand for the latter.

Chapter 3 reviewed international experience with active labour market programmes and employer-side wage subsidies in particular. It was found that wage subsidies implemented in the international arena did not appear to raise employment levels in transition and developing countries. The South African pilot study, also assessed in

this chapter, indicated only marginal increases in employment levels of the treatment group relative to the control group. The pilot study also yielded similar results to those reported by Woodbury and Spiegelman (1987) with regard to the low rates at which vouchers were redeemed.

This could point to the reason for improved employment rates as stemming from intensified search efforts on the part of employees, which suggests that employee-side subsidies or job search assistance programmes may possibly be more fruitful methods of intervention for South Africa.

Chapter 4 evaluated the impact on unemployment rates when employment tax incentives were implemented in specific geographical areas. The results in the Hanson (2009) study cast doubt on the incentives' ability to raise net employment levels in areas which did not already show potential for economic growth. That study also reported that although these programmes might have a direct impact on the employment growth within the strict boundaries of zone areas, this effect might be offset by job losses in the regions immediately surrounding the zone areas, resulting in a lack of net impact. However, as the objective of the government's Special Economic Zone programme is to develop these specific zones, one might argue that the Employment Tax Incentives might aid in this goal.

Bondonio and Greenbaum (2007) demonstrated that incentives tied to the number of new jobs created comprise the only policy variable that marginally affected employment growth. The structure of the Employment Tax Incentive Act is aligned in this regard, as the incentives are awarded to eligible employers for each new qualifying employee employed. The same study also reported that the smaller the designated areas were, the larger the impact on employment levels will be. This is an important finding to be kept in mind by South African policy makers when identifying the proposed Special Economic Zones.

Another important finding from this study is that geographically targeted wage subsidies, combined with other forms of intervention, result in job losses. This is because new establishments benefit most from these other forms of incentives,

resulting in some existing establishments closing down as a result of being forced to operate at a competitive disadvantage. This is cause for concern as the geographically targeted wage subsidies of the Employment Tax Incentive Act, which apply to employers operating through a fixed place of business within a Special Economic Zone, are offered in conjunction with the other forms of incentives as proposed in the Special Economic Zones Bill. This could result in the closure of existing South African establishments within Special Economic Zones and subsequent job losses, which may possibly nullify the positive effects of the new employment opportunities created.

Local policy makers should further consider whether interventions truly reach their intended targets. Greenbaum, Petras and Russell (2010) established that policies intended to target areas in distress often miss the mark when the density of economic activity, such as number of establishments or employees, is factored in.

5.2 Concluding thoughts

Ultimately, wage subsidies seem to be able to create some employment. Nonetheless, they will probably not create the large number of employment opportunities needed to substantially reduce national unemployment levels (Levinsohn, 2013). This study is therefore not able to rule out the Employment Tax Incentives as a method of increasing employment levels. It may, however, be concluded that there is much uncertainty concerning the ability of the Employment Tax Incentives to meaningfully reduce unemployment levels among the country's youth, or even in the proposed Special Economic Zones.

Policy makers in South Africa will have to assess whether the high cost of implementing the Employment Tax Incentives and the likely, meagre impact on national unemployment rates, are warranted by the anticipated benefits that will arise from developing Special Economic Zones.

It should however be considered that there is also a particularly strong social element to these programmes, even if there is no net employment gain (Martin, 2000). Incentives should also be judged in terms of their success at improving economic welfare rather than just whether jobs are created or not (Courant, 1994).

5.3 Recommendations for future research

This study reviewed international evidence on employment tax incentives implemented across the world. The major portion of this evidence was derived from studies performed on such programmes implemented in developed countries, as research on similar programmes in developing countries is scarce. It is therefore recommended that more research should be conducted on wage subsidies implemented in developing countries.

This study did not address the concepts of ‘employee’, ‘employers’ and employees’ tax’ are defined in the Fourth Schedule to the Income Tax Act No. 58 of 1962 in detail. The interaction between these concepts and the Employment Tax Incentive Act is an area for additional research. Furthermore, the interaction between the Basic Conditions of Employment Act, as well as other relevant labour regulations, and the Employment Tax Incentive Act could be investigated

Other forms of active labour market programmes should also be critically evaluated against international studies in order to assist local policy makers in formulating a suitable course of action to address unemployment in South Africa.

Moreover, it is recommended that data and statistics on the participation rates and employment level changes regarding the South African Employment Tax Incentives should be investigated, when made available.

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