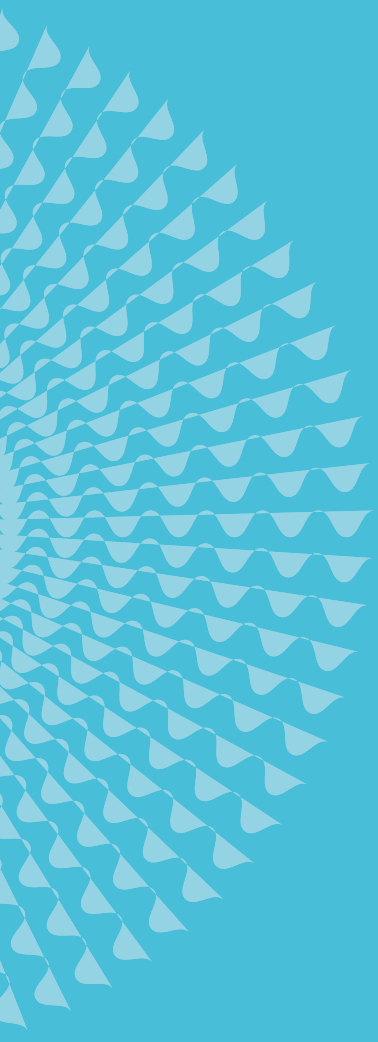
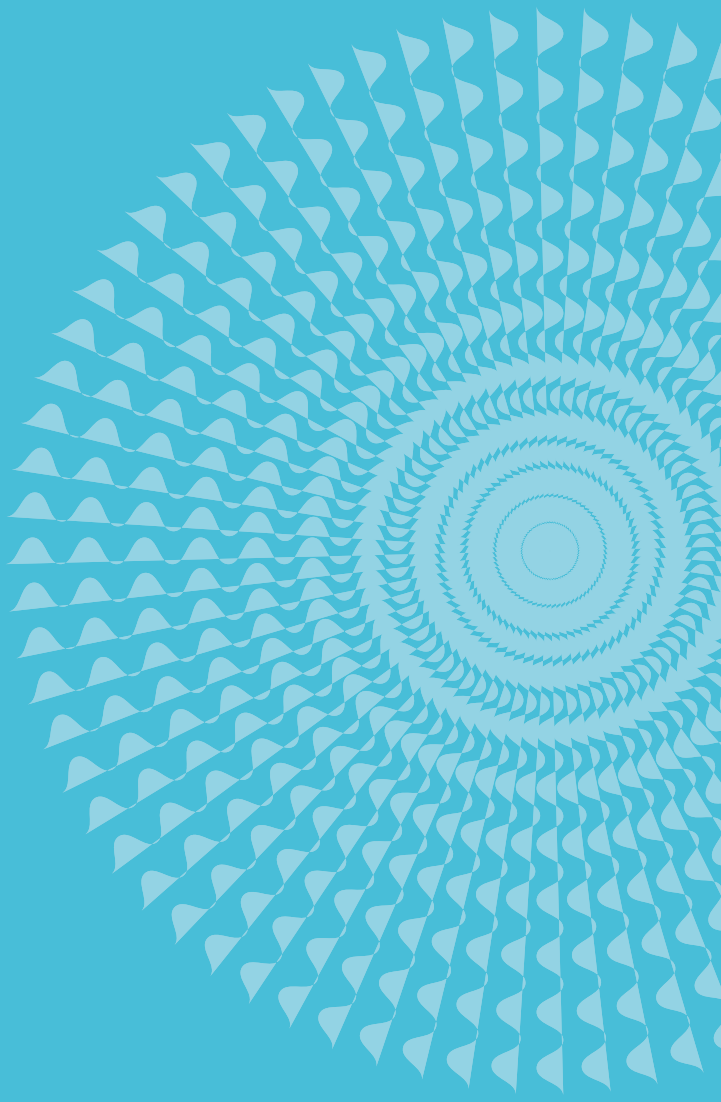




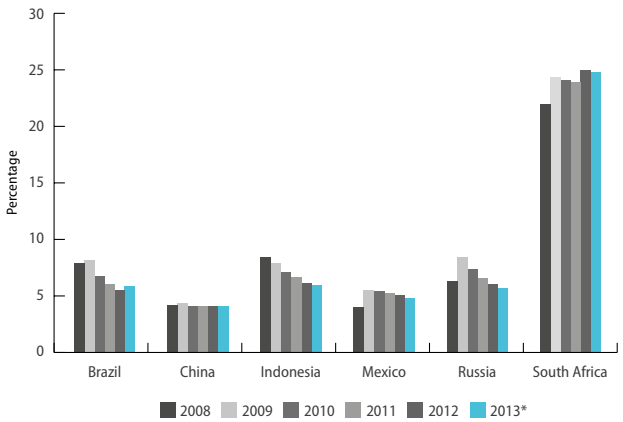
Chapter TWO

The Labour Market

The Labour Market at a Glance

By the end of the third quarter of 2013, unemployment had recorded a year-on-year decline of 0.8 percentage points from 25.5 per cent to 24.7 per cent. While such modest improvements are encouraging, it is likely that unemployment will rise again in the first quarter of 2014, due to losses in seasonal employment, as has been the case in preceding years. Although the employment absorption rate was somewhat higher at 41.9 per cent of the labour force, compared to the 41.3 per cent of last year, this figure remains low and South Africa should continue to focus attention on the need to draw more working-age South Africans into employment. Statistics from the Department of Labour for 2012, such as the 99 work stoppages reported, show that poor relations between unions and employers, leading to undesirable strikes, continue to undermine productivity and growth. While the data for 2013 were not available at the time of going to press, this trend appeared to have continued during 2013. There will be keen anticipation to see whether and when the implementation of an employment tax incentive, as mooted this year by the ANC, will make a significant contribution to job creation, especially amongst young South Africans.

South African unemployment in comparative perspective



Source: International Monetary Fund, World Economic Outlook Database, October 2013
* estimated for all countries excluding SA

COUNTRY NOTES
Brazil source: National statistical office latest actual data: 2012. Primary domestic currency: Brazilian reais. Data last updated: 09/2013. *China source*: CEIC latest actual data: 2012. Employment type: National definition. Primary domestic currency: Chinese yuan. Data last updated: 09/2013. *Indonesia source*: CEIC latest actual data: 2012. Employment type: National definition. Primary domestic currency: Indonesian rupiah. Data last updated: 09/2013. *Mexico source*: Haver analytics latest actual data: 2012. Employment type: National definition. Primary domestic currency: Mexican pesos. Data last updated: 09/2013. *Russia source*: Haver analytics latest actual data: 2012. Employment type: Harmonised ILO definition. Primary domestic currency: Russian rubles. Data last updated: 09/2013. *South Africa source*: Stats SA Quarterly Labour Force Surveys (Q4, 2008–Q3, 2013), actual figures for Q3 2013 updated by the IJR.

South Africa's key labour statistics	
Unemployment	24.7%
Unemployment (expanded definition)	35.6%
Unemployed young South Africans (15–34) as a percentage total unemployed	72.0%
Number of employed ('000)	14 029
Number of unemployed ('000)	4 609
Not economically active working-age population ('000)	14 826
Employment absorbtion rate	41.9%
Labour force participation rate	55.7%

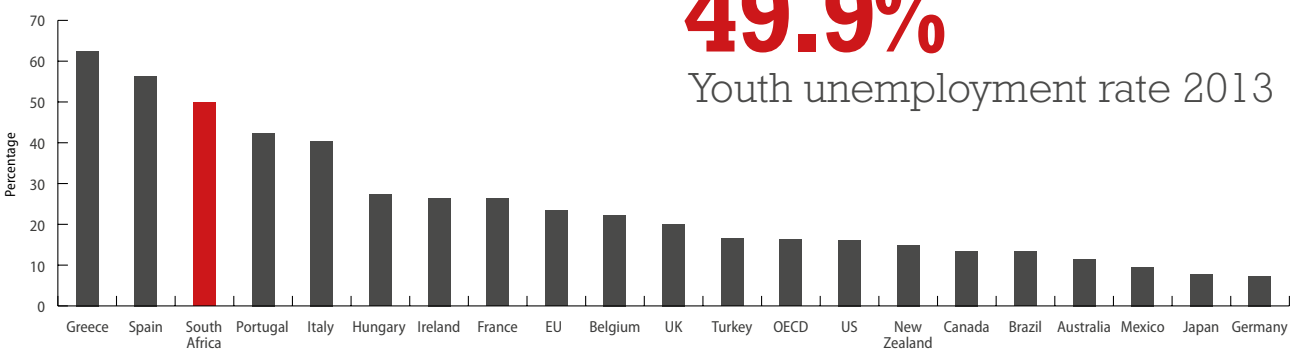
Source: Stats SA, Quarterly Labour Force Survey, 3rd Quarter, 2013

Key youth (15–24) labour market statistics, 2013	
Unemployment rate	49.9%
Unemployment ratio	12.8%
Labour force participation rate	25.5%
Inactivity rate	74.5%

Source: Stats SA, Quarterly Labour Force Survey, 3rd Quarter, 2013

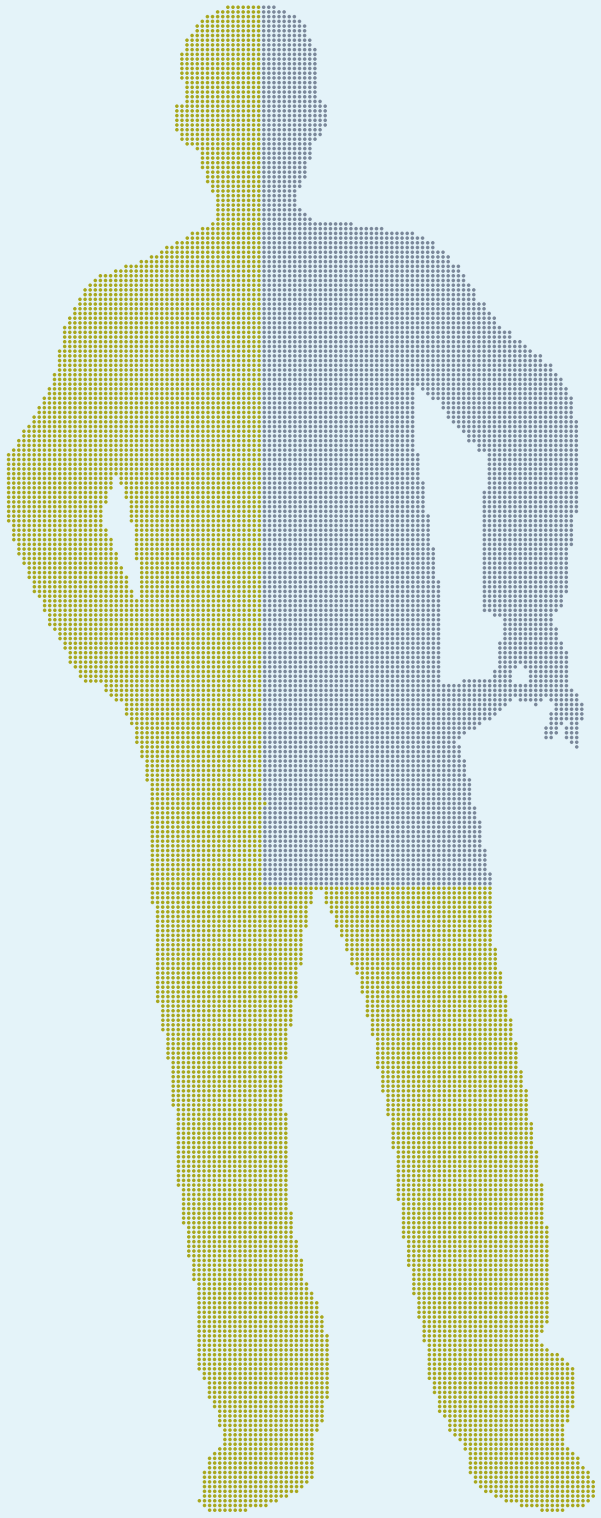
OECD youth unemployment, selected countries

49.9%
Youth unemployment rate 2013



Source: OECD Short-term Labour Market Statistics Database
1) 2012 Q4 for Switzerland; 2013 Q1 for New Zealand; February 2013 for Greece, Turkey and the United Kingdom; March 2013 for Chile, Estonia, Hungary, Norway and Slovenia; May 2013 for Canada and the United States
2) Q3 of 2013 for South Africa – figure updated by the IJR – *Source:* Quarterly Labour Force Survey, 3rd Quarter, 2013
Note: Youth (15/16–24) age group

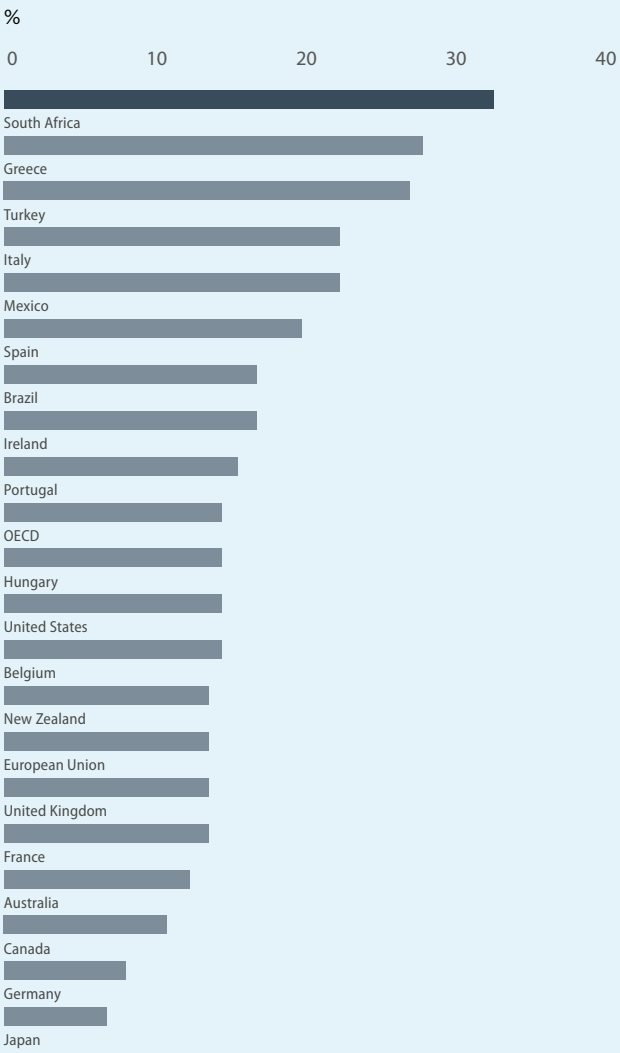
NEETs 2012, Quarter 4



31.5%

of youths are not in employment, education or training

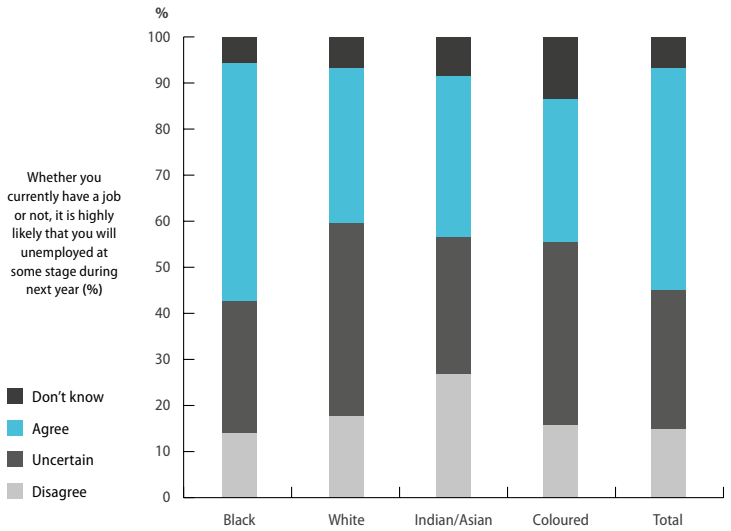
Percentage of youth aged 15–24 not in employment, education or training



Source: OECD estimates based on national labour force surveys

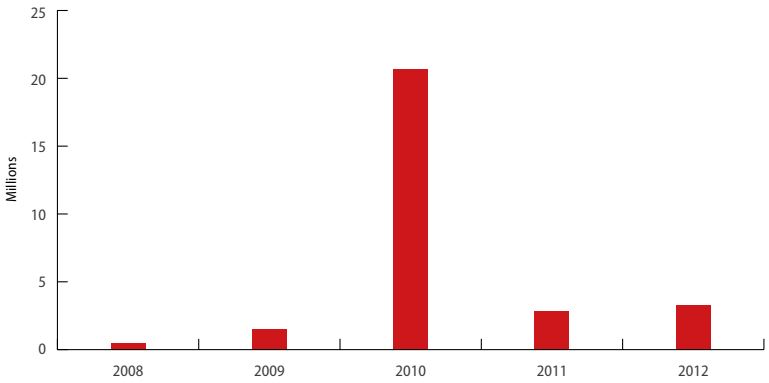
Data notes: 1) 2009/10 only for India; 2010 for China; 2011 Q4 for Saudi Arabia; March 2013 for Australia; and 2013 Q1 for Canada, Mexico, New Zealand and the United States
2) Q3 of 2013 for South Africa – figure updated by the IJR – *Source*: Quarterly Labour Force Survey, 3rd Quarter, 2013

Youth perceptions of employment prospects, during the next year (15–34 year-olds), by race, 2013



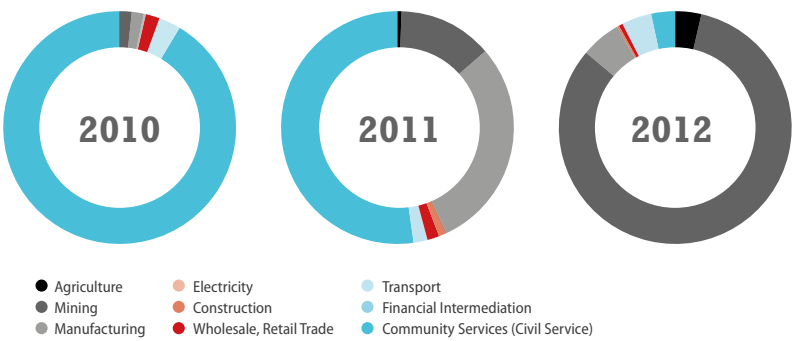
Source: Institute for Justice and Reconciliation, 2013 South African Reconciliation Barometer
1) Response categories for 'Agree' and Strongly Agree' have been combined for readabililty
2) Response categories for 'Disagree' and 'Strongly Disagree' have been combined for readability

Number of working days lost in South Africa due to industrial action

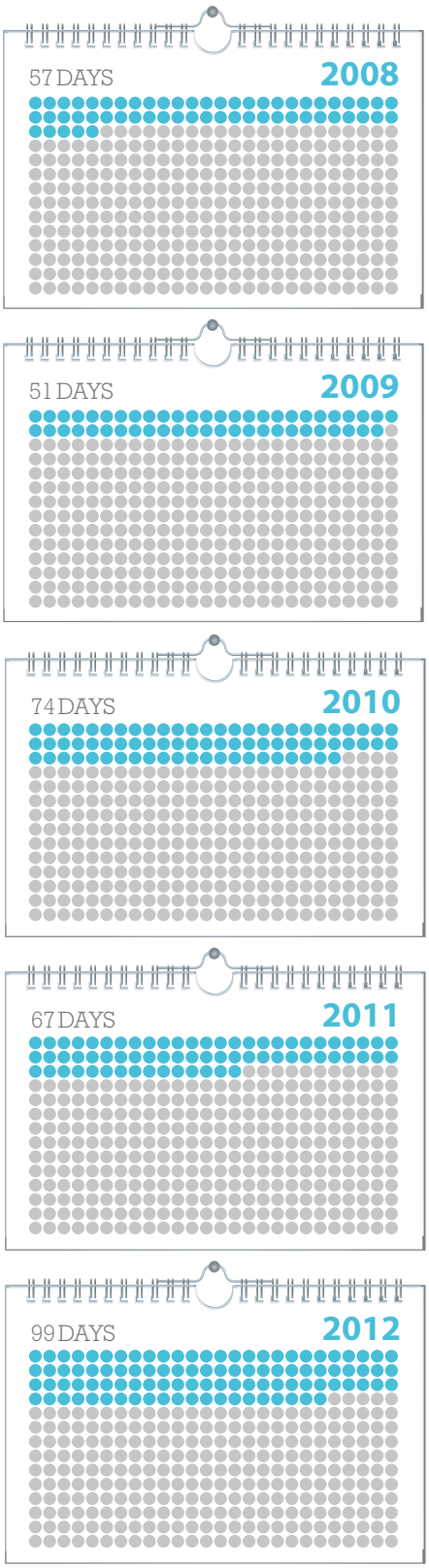


Source: Department of Labour, 2012 Annual Industrial Action Report
Note: According to the Department of Labour's 2012 Annual Industrial Action Report, the spike in 2010 was largely due to the major public sector strike that occured during this year

Percentage of working days lost by industry, 2010–2012



Number of work stoppages as a result of industrial action



An overview of real earnings trends of the formally employed in post-apartheid South Africa

Derek Yu

Introduction

While South African policy debates about solutions to the country's developmental challenges may be highly polarised, there is little disagreement about their underlying cause – a skewed and dysfunctional labour market. Both poverty and inequality are being reinforced by the pattern of wage distribution in our society.

As such, employment creation has been at the heart of a host of economic strategies that have seen the light over the past two decades. These include the Reconstruction and Development Programme (RDP), the Growth, Employment and Redistribution (GEAR) strategy, the Accelerated and Shared Growth Initiative for South Africa (ASGISA) and, most recently, the New Growth Path (NGP), which was launched in 2011. That the targets for reducing unemployment have been ambitious to date is largely a reflection of both the magnitude of the problem and the urgency of stemming its impact on the country's developmental agenda. The NGP has set its sights on bringing down unemployment levels to 15 per cent by 2020. This, coincidentally, was the target set by its predecessor, ASGISA, for 2014 (National Treasury 2007). However, at the time of the writing, the narrow unemployment rate in the first quarter of 2013, just one year away from the ASGISA deadline, is 25.2 per cent (Stats SA 2013). If the current growth trajectory is not altered significantly, the country is also likely to miss the 6 per cent unemployment target of the National Development Plan (NDP), which was adopted by the government in 2012 to guide its economic planning until 2030 (NPC 2012).

The question of youth unemployment, in particular, is most serious. The narrow unemployment rate of the labour force for those aged 18–29 years (the target age group of the proposed youth wage subsidy) is 41.8 per cent, compared with 17.3 per cent for 30–65 year olds, in the first quarter of 2013 (Stats SA 2013). This indicates the deeply structural nature of the challenge, which, rather than being reversed, is being reproduced. Thus, it is critical to try and understand the factors that sustain this configuration of circumstances. Inevitably, as indicated above, the results of such analyses tend to elicit polarised responses from stakeholders with vested interests on all sides of the economic spectrum.

Various studies have investigated the main causes of high and persistent unemployment in South Africa. Some highlight the extent to which capital deepening and technological advancements have changed the structural nature of the economy, leading to a growing demand for highly skilled labour, and the retrenchment, as well as declining recruitment, of low-skilled and unskilled workers (Banerjee, Galiani, Levinsohn & Woolard 2006; Lam, Leibbrandt & Mlatsheni 2008; Bhorat 2009; Marcus 2013). Others have also highlighted the extent to which the provisions of the Labour Relations Act 66 of 1995 (LRA) have made it difficult and time-consuming for employers to shed non-performing workers, thereby causing unnecessary employment rigidity, which makes it difficult for employers to switch to capital-intensive methods if they so choose (Mahadea 2003; Bhorat 2009; Mahadea & Simson 2011). Arora and Ricci (2005), Bhorat (2012) and Bhorat, Jacobs and Van der Westhuizen (2013) all note the extent to which the high procedural costs associated with the dismissal of unproductive workers and the hiring of new employees have impacted on higher levels of employment. Such arguments have been given credence by the World Economic Forum's 2013 *Global Competitiveness Report* (WEF 2013), which ranked South Africa 116th out of 148 participating countries for its labour market efficiency. The report also ranked the country 144th in the flexibility of wage determination, 147th in hiring and firing practices, and last for employer-employee relations.

Much debate has centred on the contentious issue of the determination of minimum wages, which is also the focus of this article. Critics have suggested that the existing process of collective bargaining is stifling the growth of new business (and, hence, employment), because larger firms agree to minimum wages that are frequently unaffordable to emerging smaller firms. As a result, these nascent businesses, which are typically more labour intensive and, consequently, create more employment, are being forced to either shed jobs or become more capital intensive. If they cannot afford the latter, they inevitably close down (Nattrass 2000; Bhorat 2009). Certain studies (Armstrong & Steenkamp 2008; Bhorat, Van der Westhuizen & Goga 2009) have found that employees who were members of trade unions or were covered by a bargaining council were paid relatively higher wages than those who were not, even after controlling for the differences in educational, demographic and work characteristics.

Some also point to an inherent asymmetry between the desires of the currently employed (the insiders) and the unemployed (the outsiders). The insiders, as might be expected, prefer to keep wage levels high, while those struggling to gain access are willing, in some instances, to sell their labour at prices below the minimum wage (Von Fintel & Burger 2009; Paton 2011). Unfortunately, the views of the outsiders are not considered during collective bargaining processes. Almost counter-intuitively, wages tend to remain sticky and slow to fall during times of low labour productivity and demand, such as during a recession. As a result, the outsiders, frequently young, inexperienced work-seekers, fail to find employment in the formal sector (Von Fintel & Burger 2009; Paton 2011). Some of them may still be able to survive in the informal sector, but this sector also is riddled with obstacles to entry, ranging from crime, lack of access to formal or even informal credit, weak infrastructure and services, insufficient provision of training facilities, and inadequate government promotion of micro-enterprises and informal enterprises (Kingdon & Knight 2004, 2007; Rogerson 2004; Burger & Woolard 2005; Devey, Skinner & Valodia 2006). Consequently, the outsiders become and remain chronically unemployed.

> That the targets for reducing unemployment have been ambitious to date is largely a reflection of both the magnitude of the problem and the urgency of stemming its impact on the country's developmental agenda.

As far as its impact on employment is concerned, the minimum wage has various pros and cons. Its detractors argue that unemployment would rise if the minimum wage is above the market-clearing wage level,[1] and there is no longer a clear linkage between wages and labour productivity (Barker 2007; Klein 2012) or between wages and employment (Wakeford 2004; Marcus 2013). On the flip side, there are arguments in favour of the idea that higher wages motivate people to work harder, thereby improving productivity and providing an incentive for employers to hire more workers (Barker 2007).

In this article, some of these assumptions are tested against the most readily available and reliable data for the South African labour market. This is done by looking at each of the main sectors in the South African economy to determine whether there are fixed patterns or whether our findings are sector-specific. In conclusion, we comment on the implications that these findings have for minimum wage determination. Before we proceed, however, it is necessary to provide a broad overview of the parameters and context of wage formulation in South Africa.

Wage formulation in the South African labour market

Wages in South Africa can be negotiated either within or outside of the statutory system of wage determination. With regard to the former, the LRA provides the legislative framework for the establishment of bargaining councils. In terms of the Act, one or more registered trade unions and one or more registered employers' organisations may establish a bargaining council for a particular sector. The Act, in addition, provides for the state to be a party to any bargaining council if it is an employer in the sector and area in which the bargaining council is established.

The LRA makes it possible for the bargaining council to request the minister of labour to extend a collective agreement (regarding minimum wages, for example) to non-parties that fall within its jurisdiction. Various provisions have to be satisfied before the minister may agree to such an extension. Amongst other things, it is a prerequisite that the trade unions representing the majority of workers in such negotiations vote in favour of the extension, as is the case for employers' organisations that employ the majority of workers affected by the negotiations. Once the minister is satisfied that all requirements have been met, the collective agreement is extended and is published in the government gazette (for more detailed information on the legislative environment of bargaining councils, see Bhorat et al. 2009; Godfrey, Maree, Du Toit & Theron 2010).

In June 2013, there were 124 registered trade unions and 163 registered employers' organisations in South Africa (SALG 2013a, 2013b). In addition, there were 42 private bargaining councils, as well as six local government and government bargaining councils (SALG 2013c).

Sectoral determination provides another statutory avenue for setting wages. The minister of labour, following a process of research and consultation that involves employers, employees and the Department of Labour, has the discretion to decide on a sectoral determination that establishes basic conditions of employment (including minimum wages) in a specific sector and area. Such a determination has to be made in accordance with the provisions in Chapter 8 of the Basic Conditions of Employment Act 75 of 1997 and must be published in the government gazette.

The following areas of economic activity (which cannot easily be reduced to formal sectors and sub-sectors) have sectoral determinations in place: children in the performance of advertising, artistic and cultural activities; civil engineering; contract cleaning; domestic workers; farm workers; the forestry sector; hospitality workers; learnerships; the private security sector; the taxi sector; and the wholesale and retail sector (DoL 2013).

Non-statutory collective bargaining can take place either in centralised bargaining forums or at the company and plant level (Godfrey 2007). Centralised non-statutory collective bargaining typically takes place in the mining, automobile manufacturing and pelagic fishing sectors. In the mining sector, centralised bargaining takes place only in the gold- and coal-mining industries. In the case of gold and coal mining, the employers' organisation, the Chamber of Mines, bargains on behalf of these industries with the relevant unions. To date, the dominant union in this sphere has been the National Union of Mineworkers (Godfrey 2007; Bhorat et al. 2009). Gold and coal mines that are not members of the Chamber of Mines are covered by firm-level or mine-level collective bargaining agreements (Godfrey 2007).

Non-statutory collective bargaining can also take place at the decentralised or single-employer level, with common examples found in the retail and food manufacturing sectors.

How do these forms of bargaining affect wage levels? Calmfors and Driffill (1988) argue that if collective bargaining were to be either completely centralised (i.e. taking place at national level), or completely decentralised (i.e. taking place at company or plant level), the negotiated wages would be at

their lowest. In the case of the former, trade unions represent both the employed (insiders) and the unemployed (outsiders) and, hence, are more likely to exercise wage constraint to ensure that unemployment is kept to a minimum. Conversely, in the case of completely decentralised bargaining, the unions would have too little market power to increase wages significantly and, thus, both wages and unemployment would remain low.

This suggests that at intermediate levels of bargaining, such as the industrial or sectoral level (e.g. the current South African bargaining councils), wages would be higher because unions are powerful enough to negotiate significantly higher settlements for their workers. Higher wages, however, are likely to exert downward pressure on employment. Since they are not accountable to the unemployed, unions' bargaining strategies within this context are aimed at maximising wages, not employment (Calmfors & Driffill, 1988). This line of reasoning is suggestive of an insider-outsider model, as discussed above.

Information on minimum wage levels is available on the Department of Labour website and from the 'bargaining indicators' released by the Labour Research Service (LRS). For instance, the LRS (2011) found that, in 2010, the average minimum wage was highest in the transport, storage and communication industry, followed by the manufacturing and mining industries. These were the only industries where the average minimum wage was above the overall average minimum wage of all industries. In contrast, the average minimum wage was lowest in agriculture, followed by construction and financial and business services. In the discussions below, wage trends over a prolonged period in each industry are analysed in greater detail, and their relationship with employment and production (in terms of gross value added) is examined. Whether the current system of collective bargaining has a detrimental impact on employment, as hypothesised by Calmfors and Driffill (1988), is also investigated.

Data and methodology

The focus of this analysis falls on formal sector employees. Informal sector employees are excluded from this study, because only a small proportion (approximately 2.5 per cent in 2013) are members of trade unions, compared with more than one-third in the case of formal sector employees. Furthermore, 90 per cent of formal sector employees are employed in terms of a written contract, while this is the case for only 40 per cent of informal sector employees. The employment data used come from the 1997–1999 *October Household Survey (OHS)*, 2000–2007 *Labour Force Survey (LFS)* and 2008–2011 *Quarterly Labour Force Survey* (QLFS). With regard to information on earnings, the data are from the 1997–1999 *OHS*, 2000–2007 *LFS*, and the 2010–2011 *Labour Market Dynamics (LMD)*. It is important to note that the 2010 *LMD* consists of the pooled data from all four 2010 *QLFS*. The same applies to the 2011 *LMD*. At the time of writing, the 2012 *LMD* data were not yet available.

One shortcoming of this analysis is that it is not possible to use the *OHS* 1995–1996 data, because the questionnaire did not make a clear distinction between formal and informal sector employees (Essop & Yu 2008). As a result, the focus falls on the 1997–2011 period. In addition, it has become typical behaviour for respondents in labour surveys to report extremely high earnings (Burger & Yu 2006). Hence, for the purpose of this discussion, these outlier earnings values are excluded from the analysis to render more reliable results on the real earnings trends. In the section that follows, monthly earnings trends by industry between 1997 and 2011 are considered. The earnings are expressed in 2012 constant prices. The relationship between wage trends and employment trends is also investigated.

Empirical findings

Before proceeding with our analysis of real wage trends by industry, it is important to look at the employment and gross value added contributions by each industry. From Table 2.1 we can infer that structural change in the South African economy has resulted in a surge in demand for highly skilled and educated workers in the tertiary sector. Between 1997 and 2011, employment in this sector increased by 2.67 million (3.9 per cent), with the financial and business services industry showing the highest level of growth. In the secondary sector, employment increased by only 0.48 million (2.6 per cent), and was driven mainly by the construction industry. Employment in the primary sector decreased marginally by 41 000 (0.3 per cent). During this 14-year period, only mining and quarrying and electricity, gas and water, suffered net job losses.

Table 2.2 presents the real gross value added by industry between 1997 and 2011 in constant 2005 prices. As expected, the increase was greatest in the tertiary sector (4.0 per cent), followed by the secondary sector (2.8 per cent), while the primary sector's growth was negligible (0.3 per cent). The three industries that showed the greatest increase of real gross value added in percentage terms (exceeding 5.0 per cent) are construction, financial and business services, and transport, storage and communication. Electricity, water and gas recorded the lowest growth (1.1 per cent), while mining and quarrying is the only industry that showed a decline (of 0.2 per cent) in real gross value added.

Together, Tables 2.1 and 2.2 clearly suggest that the economic and employment contributions were the weakest in the mining and quarrying, and electricity, gas and water industries. The best performers, on the other hand, were the construction, and financial and business services industries. The results also suggest the weakening global demand for minerals, and the structural change in the South African economy, as indicated by the relatively more rapid employment and gross value added growth of the industries in the tertiary sector.

Table 2.1: Formal sector employees (1 000s) by industry, *OHS* 1997 vs *QLFS* 2011Q4

Industry	Number		Share		Change	
	OHS 1997	*QLFS* 2011Q4	*OHS* 1997	*QLFS* 2011Q4	Absolute	Relative
Primary sector	878	837	13.3%	8.8%	-41	-0.3%
Agriculture, forestry and fishing	496	511	7.5%	5.4%	15	0.2%
Mining and quarrying	382	326	5.8%	3.4%	-57	-1.1%
Secondary sector	1 773	2 252	26.9%	23.7%	479	1.7%
Manufacturing	1 347	1 514	20.4%	15.9%	167	0.8%
Electricity, gas and water	107	81	1.6%	0.9%	-26	-1.9%
Construction	320	658	4.8%	6.9%	338	5.3%
Tertiary sector	3 735	6 411	56.6%	67.4%	2 676	3.9%
Wholesale and retail trade	1 071	1 870	16.2%	19.7%	799	4.1%
Transport, storage and communication	409	543	6.2%	5.7%	134	2.1%
Financial and business services	612	1 451	9.3%	15.3%	839	6.4%
Community, social and personal services	1 643	2 547	24.9%	26.8%	904	3.2%
All formal sector employees	6 602	9 064	100.0%	100.0%	2 462	2.3%

Source: Author's calculations using *OHS* (1997) and *QLFS* (2011Q4) data

Table 2.2: Gross value added (R million, 2005 prices) by industry, 1997 vs 2011

Industry	R million (2005 prices)		Share		Change	
	1997	2011	1997	2011	Absolute	Relative
Primary sector	*134 806*	*141 252*	*12.5%*	*8.3%*	*6 446*	*0.3%*
Agriculture, forestry and fishing	33 012	41 580	3.1%	2.4%	8 568	1.7%
Mining and quarrying	101 794	99 672	9.5%	5.9%	-2 122	-0.2%
Secondary sector	*261 951*	*385 516*	*24.3%*	*22.7%*	*123 565*	*2.8%*
Manufacturing	205 293	292 733	19.1%	17.2%	87 440	2.6%
Electricity, gas and water	29 729	34 798	2.8%	2.0%	5 069	1.1%
Construction	26 929	57 985	2.5%	3.4%	31 056	5.6%
Tertiary sector	*680 083*	*1 174 059*	*63.2%*	*69.0%*	*493 976*	*4.0%*
Wholesale and retail trade	137 123	235 404	12.7%	13.8%	98 281	3.9%
Transport, storage and communication	*85 590*	*172 549*	*7.9%*	*10.1%*	*86 959*	*5.1%*
Financial and business services	195 356	402 500	18.1%	23.7%	207 144	5.3%
Community, social and personal services	262 014	363 606	24.3%	21.4%	101 592	2.4%
All formal sector employees	*1 076 840*	*1 700 827*	*100.0%*	*100.0%*	*623 987*	*3.3%*

Source: Author's calculations using South African Reserve Bank (SARB) *Quarterly Bulletin* data

Mean monthly earnings in comparison to employment gains

Figures 2.1–2.10 present mean monthly earnings in 2012 prices and number of formal sector employees. Since there are no earnings data available for 2008–2009 (despite the fact that the information on formal sector employment and gross valued added data are available), only the 1997–2007 and 2010–2011 results are presented in these figures.

Primary sector

Figure 2.1 clearly shows that a decrease in real earnings coincided with an increase in employment in the agriculture, forestry and fishing industry between 1997 and 2003. However, the slight upward trend in real earnings between 2004 and 2007 was accompanied by stagnant employment levels. In 2010–2011, mean real earnings increased again, while employment declined. Thus, there is an inverse relationship between real earnings (on average terms) and employment, which suggests that wage increases may have been too quick to match productivity increases in recent years and, hence, gave rise to a growth in retrenchments. However, as mentioned above, it could also partly be attributed to the use of more capital-intensive technologies in production, thereby causing agricultural employment to decline.

Figure 2.2 shows that mean real earnings remained fairly stable in the mining and quarrying industry between 1997 and 2003. Between 1997 and 2000, there were significant gains in employment, which stabilised at a relatively high level up to and including the first half of 2004. Employment, however, plunged as mean wages increased during the second half of 2004. In the following years, employment levels went up slightly as mean wages declined, but plummeted again to new lows in 2010 and 2011 as mean wages reached new highs. The 2010–2011 data may suggest that the extent of the increase in real earnings was too rapid, and not matched by an equally rapid increase in productivity of workers. As a result, some of the less robust mining and quarrying firms either had to close down or retrench workers in order to switch to more capital-intensive production techniques. Also, as suggested in Table 2.2, there seems to have been a reduction in the demand for production in the mining and quarrying industry. Furthermore, the high incidence of strikes and relatively greater number of working days lost can be regarded as an added impediment to employment in this industry in recent years (Jacobs & Yu 2013).

Secondary sector

Figure 2.3 shows that both real monthly earnings and employment levels were fairly stable in the manufacturing industry, with a slight upward trend during the 1997–2011 period. Over the same period, the pattern of mean earnings and employment levels in the electricity, gas and water industry, however, was erratic and with no clearly discernible relationship between the two variables (see Figure 2.4).[2] The picture for the construction industry (see Figure 2.5), one of those that recorded rapid growth in both employment and gross value added (see Tables 2.1 and 2.2), shows that the downward trend in earnings between 1997 and 2004 was accompanied by a slight upward trend in employment. However, it is interesting to note that since 2005, both mean real earnings and employment showed a general upward trend. This may suggest that the rise in real earnings was matched by an increase in labour productivity, thereby leading to more production and an increase in demand for labour.

Tertiary sector

In the wholesale and retail industry (see Figure 2.6), mean real earnings were fairly stable during the period under review, with the exception of a sudden surge in 2010–2011. During the same period, employment showed an upward trend, particularly between 2004 and 2007. It is interesting to note that in 2010 and 2011 formal sector employment remained high, even though mean real earnings increased. These results are not surprising, as Tables 2.1 and 2.2 have already shown that this is one of the industries with a relatively more rapid increase in gross value added. This may have led to an increase in labour demand to meet the increasing product demand and, consequently, an increase in employment. It is also possible that the workers in this industry have become more productive over the years.

Figure 2.7 shows that the trajectory for employment in the transport, storage and communication industry was stable, albeit slightly downward, between 1997 and the first half of 2007. With three exceptions (the first halves of 2000, 2003 and 2004), the mean monthly wage was located within the R7 000–R8 000 band. However, in 2007 there was a significant upward surge in employment, which remained at that level into 2011.

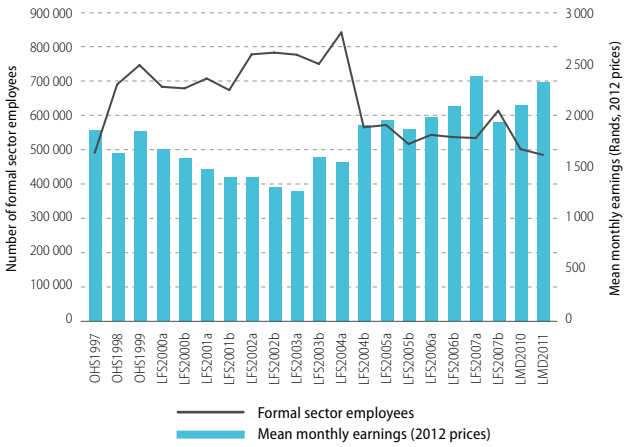
Looking at financial and businesses services (see Figure 8), the other industry that recorded very rapid improvement along with construction (see Tables 2.1 and 2.2), it is evident that, other than the surprisingly high increase during the second half of 2007,[3] mean real earnings were quite stable during the period under review.

Formal employment in community, social and personal services showed incremental growth between 1997 and 2006, but then witnessed a rapid increase between 2007 and 2011 (see Figure 9).

In summary, the findings for the three sectors between 1997 and 2011 suggest that mean real earnings and employment levels were most stable in the tertiary sector, while fluctuations occurred in the two industries in the primary sector. Figure 2.10 shows the overall picture, with formal sector workers from all industries included, and points to a slight upward trend in both the mean real monthly earnings and formal sector employment levels for the period under review.

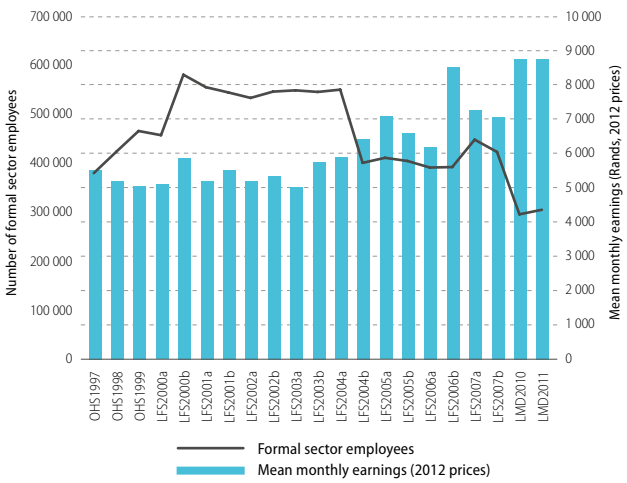
The results of the above analysis suggest that the obvious downward trend in formal sector employment in the two

Figure 2.1: Mean monthly real wages (2012 prices) and number of formal sector employees – agriculture, forestry and fishing



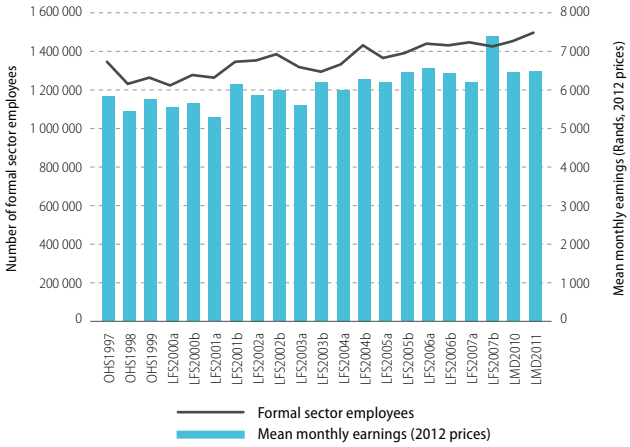
Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data

Figure 2.2: Mean monthly real wages (2012 prices) and number of formal sector employees – mining and quarrying



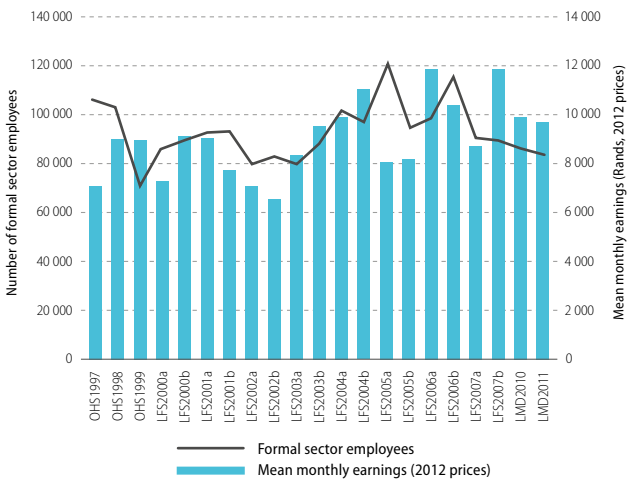
Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data

Figure 2.3: Mean monthly real wages (2012 prices) and number of formal sector employees – manufacturing



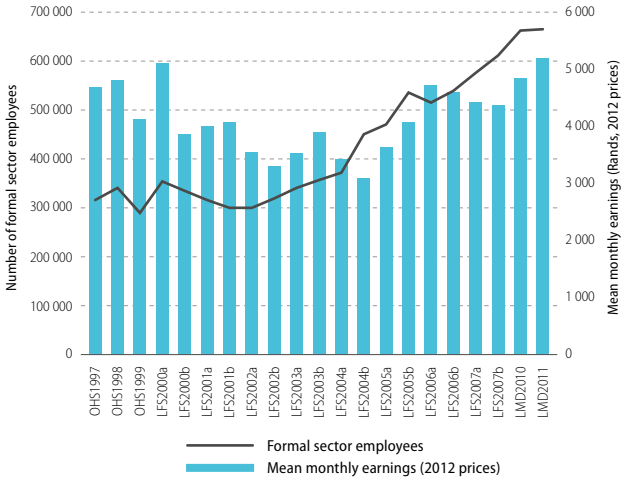
Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data

Figure 2.4: Mean monthly real wages (2012 prices) and number of formal sector employees – electricity, gas and water



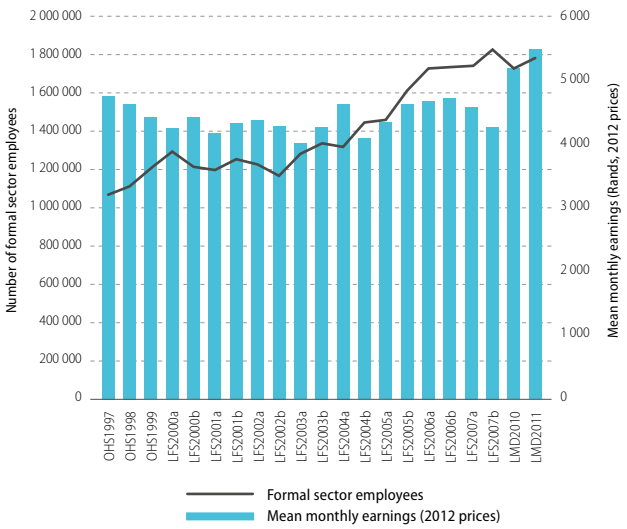
Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data

Figure 2.5: Mean monthly real wages (2012 prices) and number of formal sector employees – construction



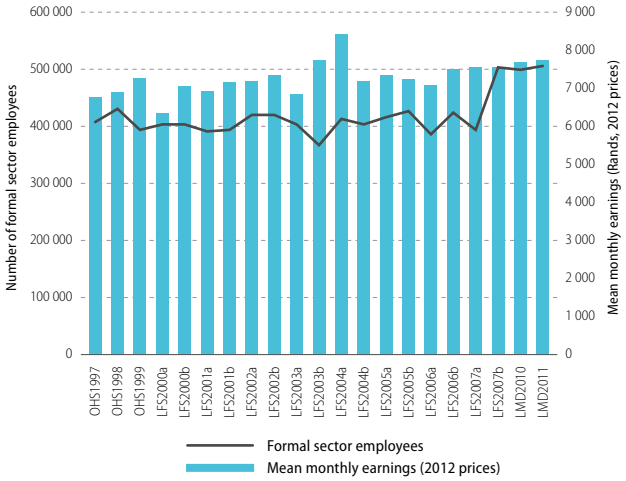
Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data

Figure 2.6: Mean monthly real wages (2012 prices) and number of formal sector employees – wholesale and retail trade



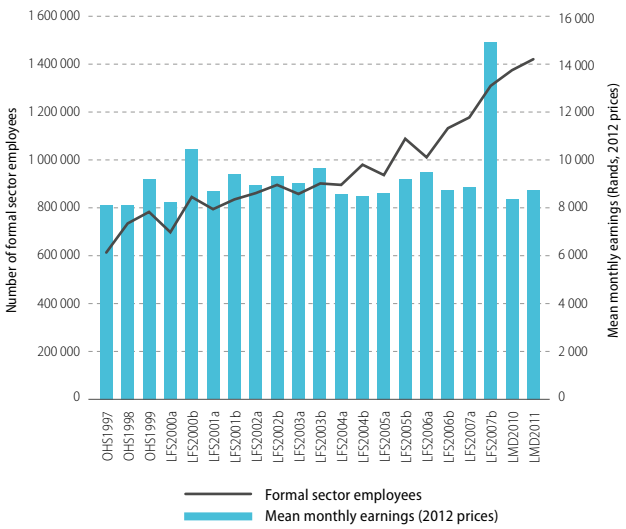
Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data

Figure 2.7: Mean monthly real wages (2012 prices) and number of formal sector employees – transport, storage and communication



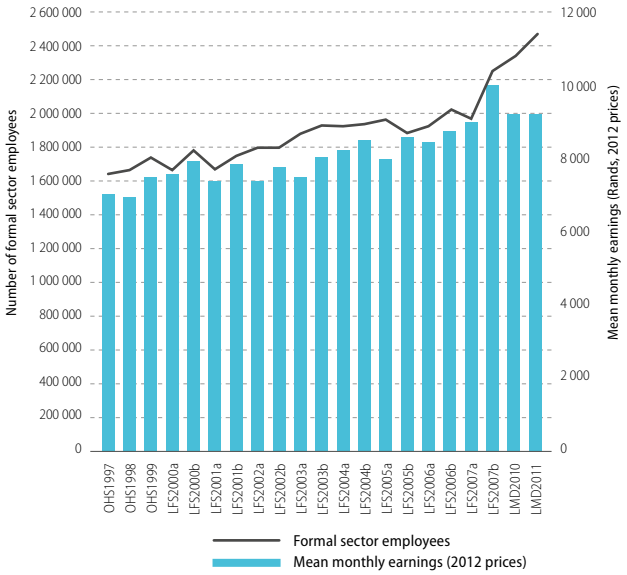
Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data

Figure 2.8: Mean monthly real wages (2012 prices) and number of formal sector employees – financial and business services



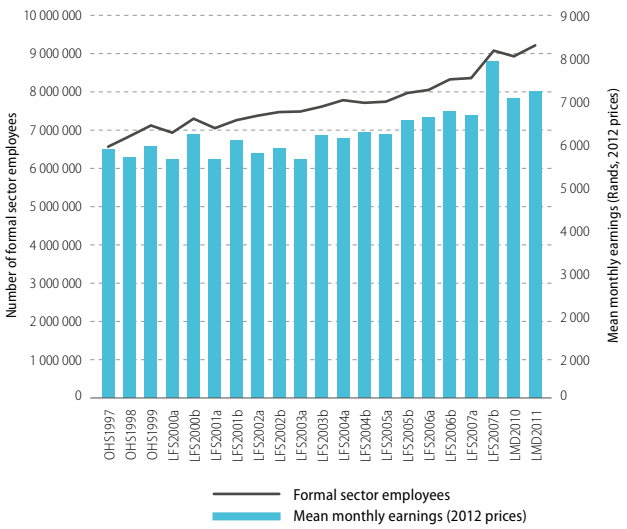
Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data

Figure 2.9: Mean monthly real wages (2012 prices) and number of formal sector employees – community, social and personal services



Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data

Figure 2.10: Mean monthly real wages (2012 prices) and number of formal sector employees – all formal sector employees



Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data

industries in the primary sector in recent years could be attributed to factors ranging from minimum wages, to structural change of the South African economy, to decreasing global demand for the products in these industries. However, Figures 2.1–2.10 focus only on the average real earnings of formal sector employees; further analysis would require consideration to be given to the distribution of earnings of between different levels of employment. Table 2.A.1 (see Appendix) shows the Gini coefficients of real earnings in three surveys, and it can be seen that the coefficient increased continuously (from 0.4678 to 0.5341) for all formal sector employees.[4] When looking at each industry, the Gini coefficient was highest in the construction industry (0.5471) in 2011, followed by financial and business services (0.5351). However, community, social and personal services was the industry showing the greatest increase in the Gini coefficient (from 0.3798 in 1997 to 0.4850 in 2011 – an increase of 28 per cent).

Figure 2.11 illustrates the preceding discussion on mean real monthly earnings and formal sector employment increases from the perspective of annual percentage change. The results show that in five industries (financial and business services; construction; wholesale and retail; community, social and personal services; and transport, storage and communication), employment growth was more rapid than mean real earnings growth (in particular, in the financial and business services and the construction industries). In the manufacturing sector, annual employment and real monthly earnings increased at the same rate, while the positive growth rate in mean real earnings in the agricultural sector was accompanied by a slightly negative growth rate in employment. The more concerning findings relate to the performance of the electricity, water and gas industry, and the mining and quarrying industry. These two industries showed the most rapid increase in mean real earnings, but also the most precipitous decline in formal sector employment. The results suggest that the minimum wages agreed upon during consecutive collective bargaining processes might have been too high, even in real terms (i.e. the extent of the increase in nominal wages far exceeds the inflation rate) in these industries. It can also be assumed that these increases were not matched by equal gains in labour productivity, which resulted in higher unit labour cost.[5] Under such circumstances, where production declines and international competitiveness is lost, firms are forced either to close down or to retrench workers.

Comparison of mean real monthly earnings, percentage contribution to formal sector employment, and gross real value added in respective industries

Figures 2.12–2.20 present the relationships between mean real monthly earnings, percentage contribution of formal sector employment and percentage contribution of real gross value

added in each industry between 1997 and 2011. The aim of these figures is to investigate if the mean real earnings trend is linked to the structural change of the economy (as indicated by the decreasing employment share and gross value added share of the industry concerned).

Primary sector

Figure 2.12, which reports on trends within the agriculture, forestry and fishing industry, points to a strong inverse relationship between employment and real monthly wages in the period 1997–2011. However, the trend in the relative gross value added in this industry has remained fairly stable, with a slight downward trajectory. The mining and quarrying industry (see Figure 2.13) shows a continuing downward trend both in gross value added and in its contribution to employment. It is interesting to note that the most precipitous declines in both occurred at around the same juncture, where real monthly wages show a substantial increase, which was sustained right through to 2011.

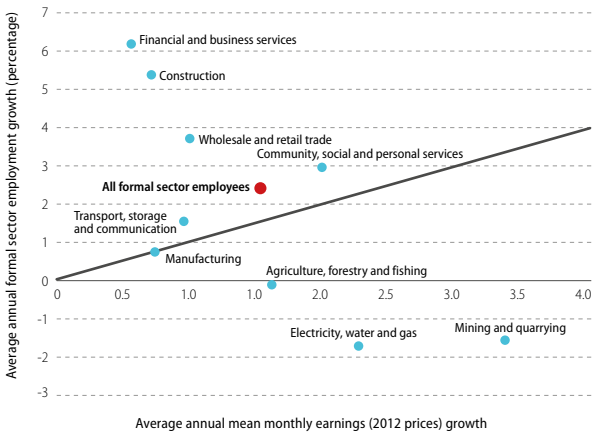
Secondary sector

Figure 2.14 shows that gross value added in the manufacturing industry remained fairly stable over the period measured, while the industry's contribution to employment shrank, and mean earnings increased. In the electricity, gas and water industry (see Figure 2.15), there was a slight downward trend in relative contribution to gross value added, which might explain the very similar trend in its contribution to formal sector employment. The general trajectory for mean income over the period was upward. As far as the construction industry is concerned, it is evident from Figure 2.16 that although this industry's relative contribution to gross value added was quite low (around 2.5–3.5 per cent), its contribution to formal sector employment increased very rapidly from 2002. This occurred even against the backdrop of a general upward trend in mean real earnings from 2004.

Tertiary sector

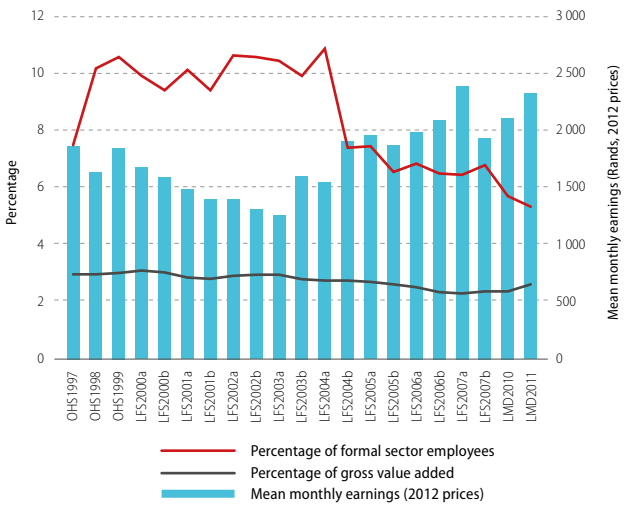
In the wholesale and retail industry (see Figure 2.17), gross value added did not change significantly. Between 1997 and 2003, the general trajectory for mean earnings pointed downward, but rose again from 2004. Although the percentage of formal sector employees remained stable between 1997 and 2004, the trajectory of growth increased in the years thereafter. Although the relative contribution of the transport, storage and communication industry to formal sector employment was constant at approximately 5.5–6.0 per cent for the period under review, its relative contribution to gross value added increased continuously between 1997 and 2006, before stagnating at around 10 per cent (see Figure 2.18). Coincidentally, this stagnant trend in 2007–2011 occurred when the mean real earnings increased continuously. Other than the abrupt increase in 2007, the level of mean real earnings was fairly stable in the financial and business services industry

Figure 2.11: Average annual percentage growth in mean monthly earnings (2012 prices) and formal sector employment by industry, 1997 vs 2011



Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data

Figure 2.12: Mean monthly real wages (2012 prices), formal sector employment as a percentage of total employment, and relative gross value added – agriculture, forestry and fishing



Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data, as well as SARB *Quarterly Bulletin* data

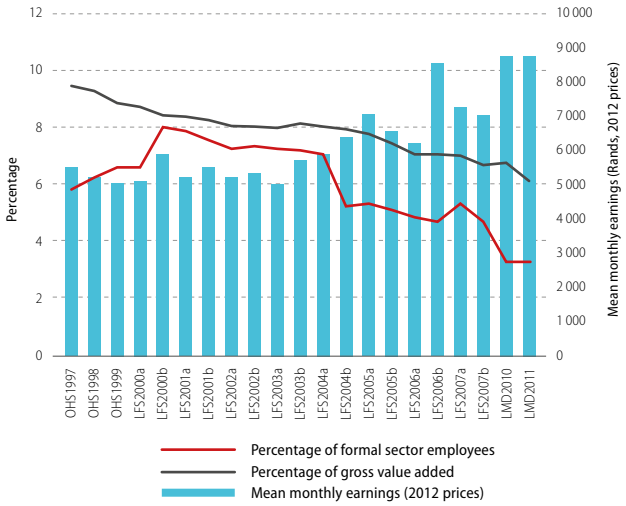
(see Figure 2.19). A particularly encouraging finding in this industry was that relative contributions to both gross value added and formal sector employment showed a continuous upward trend in general. Finally, for the community, social and personal services industry (see Figure 2.20), the slight upward trend in mean real earnings between 1997 and 2007 was accompanied, firstly, by a stagnant relative contribution to formal sector employment (of approximately 25 per cent) and, secondly, by a slight decline in relative contribution to gross value added (from 25 per cent in 1997 to 21.4 per cent in 2007). Interestingly, the industry's relative contribution to formal sector employment increased again from 2008, while the mean real earnings level stagnated during the same period.

Table 2.3 provides a summary overview of the information presented in Figures 2.12–2.20, by highlighting the average annual percentage growth rate of the mean real wage, real gross value added (2005 prices) and formal sector employment between 1997 and 2011. It clearly indicates that the mining and quarrying sector witnessed the largest average annual growth rate in mean real earnings between 1997 and 2011. However, at the same time, this is the only sector that achieved negative growth rates for both real gross value added and formal sector employment. Although agriculture, forestry and fishing, and the electricity, gas and water sector, attained positive growth in terms of mean real earnings and real gross valued added, they experienced declines as far as formal sector employment is concerned. Interestingly, the industries that showed the biggest growth rates in both formal sector employment and real gross value added, construction and financial and business services, were also those with the lowest growth rates in mean monthly real earnings (0.7 per cent and 0.6 per cent, respectively).

Figure 2.21 presents the preceding discussion on real gross value added and formal sector employment increases from an annual percentage change perspective. It shows that only three industries (wholesale and retail; financial and business services; and community, social and personal services) recorded more rapid employment growth than real gross value added growth. In four industries (agriculture, forestry and fishing; manufacturing; construction; and transport, storage and communication), both variables showed positive growth rates between 1997 and 2011, but the growth of real gross value added was relatively greater. For the electricity, water and gas industry, positive real gross value added growth was accompanied by negative formal sector employment growth in 1997–2011. Mining and quarrying was the only industry showing negative growth rates in real gross value added and formal sector employment (see Table 2.3).

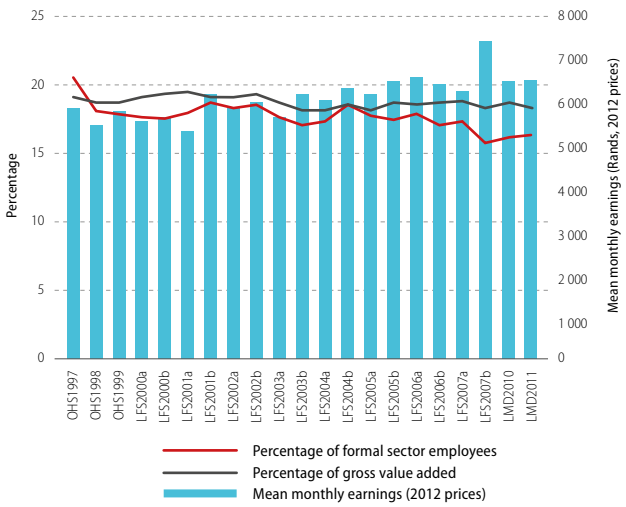
The above analyses seem to suggest that the rapid growth in real gross value added and formal sector employment in some industries (the construction, and financial and business services industries, in particular) could at least partially be attributed to the stable trend or slow growth of mean real earnings. In contrast, the decline of formal sector employment

Figure 2.13: Mean monthly real wages (2012 prices), formal sector employment as a percentage of total employment, and relative gross value added – mining and quarrying



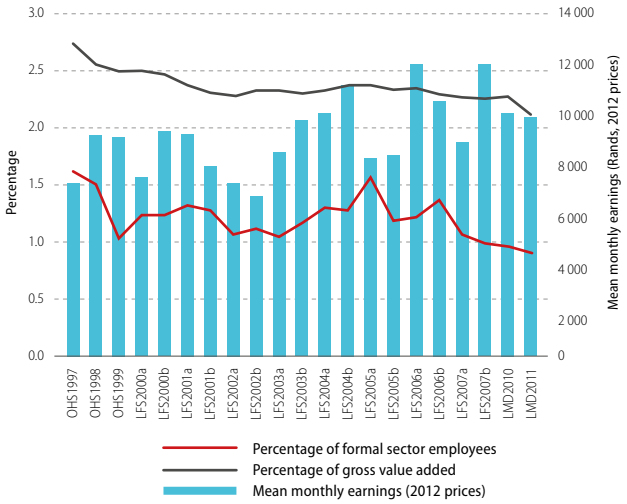
Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data, as well as SARB *Quarterly Bulletin* data

Figure 2.14: Mean monthly real wages (2012 prices), formal sector employment as a percentage of total employment, and relative gross value added – manufacturing



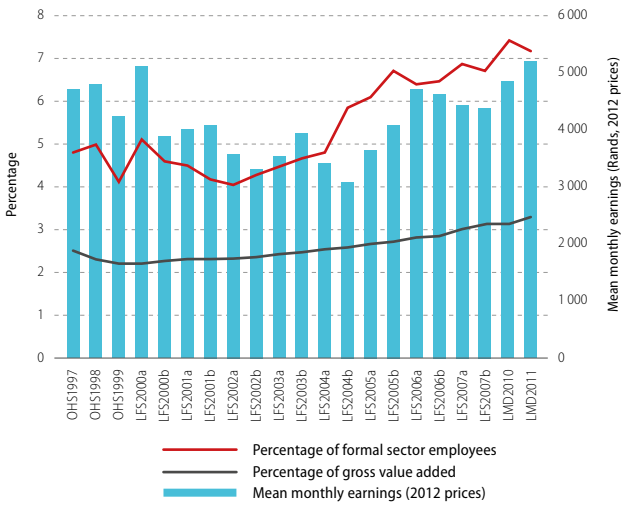
Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data, as well as SARB *Quarterly Bulletin* data

Figure 2.15: Mean monthly real wages (2012 prices), formal sector employment as a percentage of total employment, and relative gross value added – electricity, gas and water



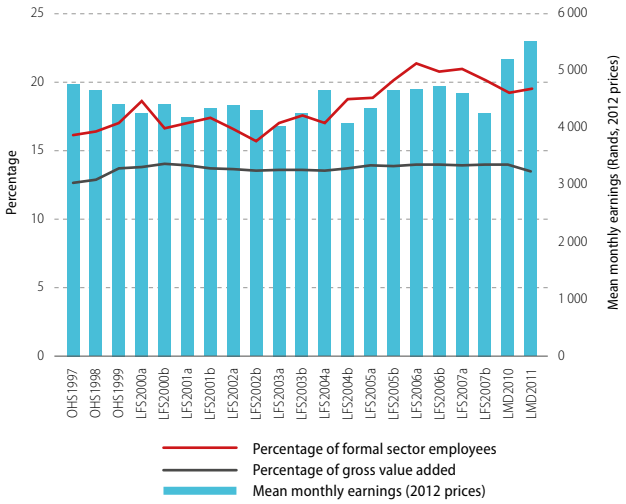
Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data, as well as SARB *Quarterly Bulletin* data

Figure 2.16: Mean monthly real wages (2012 prices), formal sector employment as a percentage of total employment, and relative gross value added – construction



Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data, as well as SARB *Quarterly Bulletin* data

Figure 2.17: Mean monthly real wages (2012 prices), formal sector employment as a percentage of total employment, and relative gross value added – wholesale and retail trade

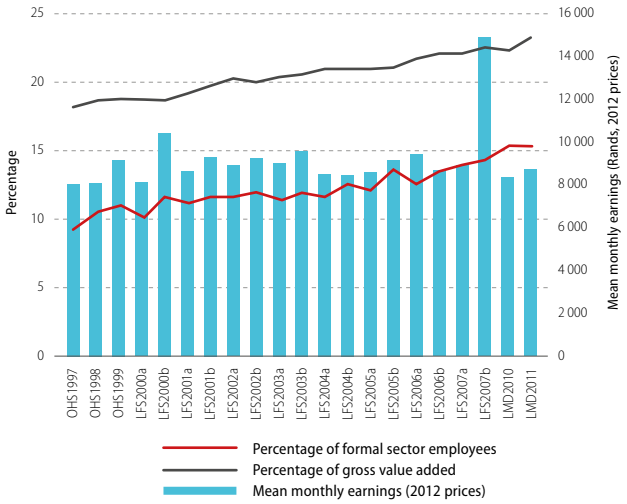


Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data, as well as SARB *Quarterly Bulletin* data

Figure 2.18: Mean monthly real wages (2012 prices), formal sector employment as a percentage of total employment, and relative gross value added – transport, storage and communication

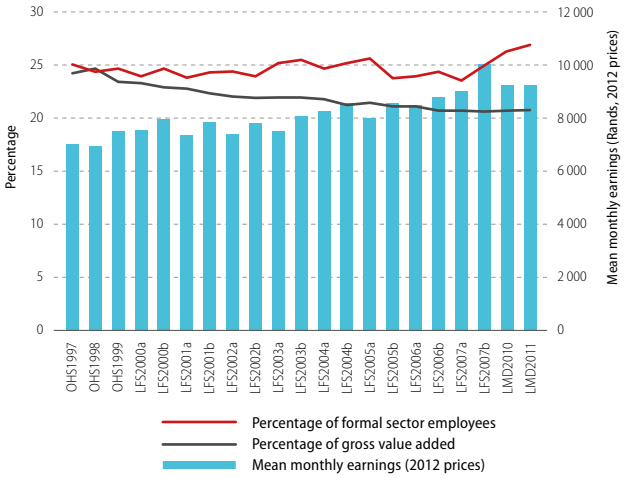
Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data, as well as SARB *Quarterly Bulletin* data

Figure 2.19: Mean monthly real wages (2012 prices), formal sector employment as a percentage of total employment, and relative gross value added – financial and business services



Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data, as well as SARB *Quarterly Bulletin* data

Figure 2.20: Mean monthly real wages (2012 prices), formal sector employment as a percentage of total employment, and relative gross value added – community, social and personal services



Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data, as well as SARB *Quarterly Bulletin* data

Table 2.3: Average annual percentage growth in mean monthly earnings (2012 prices), gross value added (2005 prices) and formal sector employment by industry, 1997 vs 2011

Industry	Mean monthly earnings (2012 prices)	Gross value added (2005 prices)	Formal sector employment
Agriculture, forestry and fishing	1.6%	1.7%	0.2%
Mining and quarrying	3.3%	-0.2%	-1.1%
Manufacturing	0.8%	2.6%	0.8%
Electricity, gas and water	2.3%	1.1%	-1.9%
Construction	0.7%	5.6%	5.3%
Wholesale and retail trade	1.0%	3.9%	4.1%
Transport, storage and communication	1.0%	5.1%	2.1%
Financial and business services	0.6%	5.3%	6.4%
Community, social and personal services	2.0%	2.4%	3.2%
All formal sector employees	1.5%	3.3%	2.6%

Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data, as well as SARB *Quarterly Bulletin* data

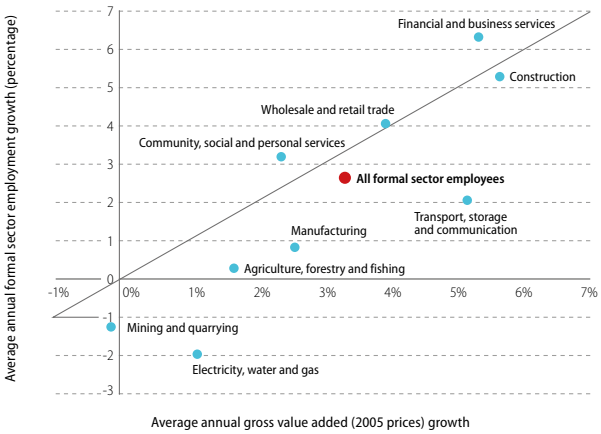
in others (the agriculture, forestry and fishing, mining and quarrying, and electricity, gas and water industries) correlates with the relatively rapid growth of mean real earnings in these industries. Viewed together, the question arises as to whether the increase in mean real earnings can be attributed to a minimum wage that has been growing too rapidly in real terms, as a result of the collective bargaining process. Should we, moreover, conclude from the above that an increase in the minimum wage will automatically translate into a decline in employment? If we posit a scenario where a real increase in the minimum wage is matched by an equally rapid increase in labour productivity, what impact will this have on employment?

Figures 2.22 and 2.23 can assist us in answering these questions. In Figure 2.22, D_1 and S_1 represent labour demand and labour supply, respectively, and they intersect at equilibrium e_1 (i.e. the supply of workers exactly matches the demand that exists for them in the economy). At this equilibrium, the market-clearing wage level is W_1 and L_1 workers are employed. Assuming that a higher minimum wage of W_2 is agreed upon during collective bargaining, where the labour supply is higher (more people are willing to supply their labour at this higher wage), but the quantity of labour demanded in the economy is lower (the economy might be sluggish or labour market uncertainty might convince employers to substitute labour with relatively cheaper capital alternatives), higher levels of unemployment would result. Employment, thus, drops from L_1 to L_2, while unemployment is equal to L_3-L_2.

However, a scenario may also arise where lower wage levels, associated with high unemployment, can lead in the long run to the hiring of more workers. The efficiency wage theory posits that higher wages can, under certain circumstances, result in at least an equivalent increase in productivity (Barker 2007). It is possible that a higher minimum wage could improve the morale of workers, resulting in harder work and increased productivity. As a result, labour turnover will decrease as workers feel more secure about their employment, after being offered a higher wage. This will lead to an increase of labour demand from D_1 to D_2. The cumulative effect would be that the new equilibrium will become located at e_2, and employment will increase from L_1 (before the imposition of the minimum wage) to a higher level of L_2 (after the imposition of the minimum wage). This may help to explain why both mean real earnings and formal sector employment increased in industries like construction, as discussed above. Therefore, if the extent of increase in the minimum wage is acceptable and is matched by an equally rapid increase of labour productivity, the minimum wage could help in boosting employment.

Unfortunately, another scenario is possible: the retrenchment of workers and a decline in recruitment can become a long-term phenomenon when the extent of minimum wage increases over a protracted period remains too high. If we look at Figure 2.23 and assume for a moment that workers now demand an even higher minimum wage of W_3, labour

Figure 2.21: Average annual percentage growth in gross value added (2005 prices) and formal sector employment by industry, 1997–2011



Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data, as well as SARB *Quarterly Bulletin* data

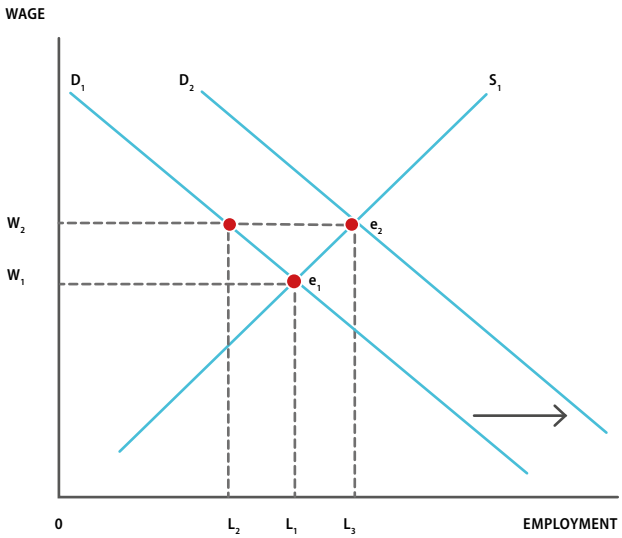
productivity may increase as a result, but it will not be sufficient to catch up with the substantial increase of the wage (from W_1 to W_3). At W_3, the quantity of labour supplied is L_4 while the quantity of labour demanded is only L_3. Ultimately, only L_3 workers are employed, which would result in a drop from L_1, before the minimum wage is imposed, or L_2-L_1 workers are retrenched. Unemployment is equal to the difference between L_4 and L_3. This could help to explain the negative relationship between mean real earnings and formal sector employment trends in industries like mining, and electricity, gas and water, where wages have increased, but employment has plummeted.

The stark reality of the dynamics relating to the minimum wage is that it protects only those who are currently employed. Its fluctuation, however, has a profound impact on the extent to which unemployed outsiders (e.g. those stuck in the informal sector, or the long-term unemployed, or those youths who have just started seeking work) can access the workplace. Many of these workers may not mind being paid a wage below the minimum wage. At present, the South African collective bargaining regime is structured in a way that makes it biased against people who fall into this category. For this reason, some have argued that there is room for making collective bargaining more flexible, especially as it pertains to small, medium and micro enterprises (SMMEs) that are bound to wage agreements struck between labour and larger corporations within their respective sectors.

Conclusion

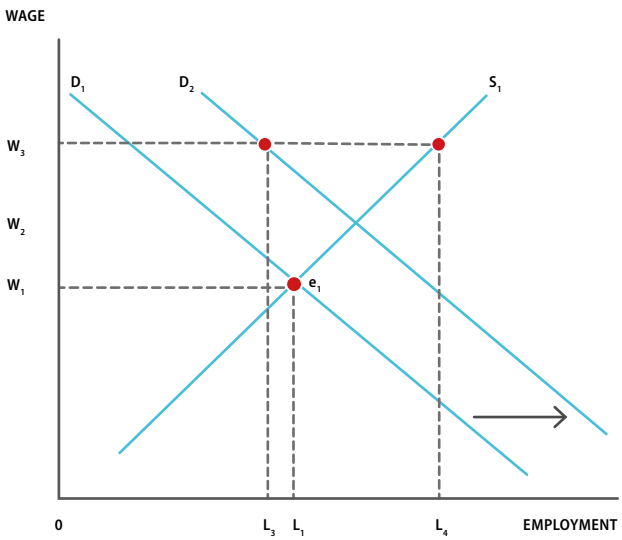
This article first reviewed the main mechanisms of wage determination in South Africa, before using various labour survey data to examine the mean real earnings trends for 1997–2011 in each industry. The results pertaining to the relationship between mean real earnings, real gross value added, and formal sector employment by industry suggested that the impact of collective bargaining on the minimum wage might have been negative in terms of employment and labour demand in certain industries (such as mining and quarrying). By drawing on the appropriate employment data, it was suggested that this might be attributable to the pace of wage increases outstripping the rate of labour productivity growth. It was also suggested that in some instances the current approach to collective bargaining benefits the interests of the employed (insiders) at the expense of the unemployed (outsiders). While the latter may be eager to participate in the labour market, they face several institutional challenges, which may unintentionally exacerbate rather than alleviate the problem of unemployment.

Figure 2.22: The impact of the imposition of a minimum wage on formal sector employment – Case 1



Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data, as well as SARB *Quarterly Bulletin* data

Figure 2.23: The impact of the imposition of a minimum wage on formal sector employment – Case 2



Source: Author's calculations using *OHS* 1997–*QLFS* 2011 and *LMD* 2010–2011 data, as well as SARB *Quarterly Bulletin* data

Endnotes

1 The market-clearing wage level occurs when labour supply equals labour demand. All persons who are looking for work at this wage can find a job. In other words, there is zero unemployment (Barker 2007). At any other wage level, there would be too many work-seekers competing for too few available jobs (that is, excess supply of labour) or too many jobs chasing too few available work-seekers (that is, excess demand for labour) (Borjas 2013).

2 These erratic trends could be due to the fact that the employees in this industry account for a very small proportion of the sample size in the *OHS*, *LFS*, *QLFS* and *LMD* data.

3 The abruptly high real mean earnings in this industry in LFS 2007b are due to the high earnings reported by some of the respondents in the sample, even after removing the outliers.

4 The Gini coefficient is a statistical measure of the extent of income inequality and is ranged between zero and one. The higher the coefficient, the more unequally the income is distributed amongst the population.

5 Unit labour cost stands for the cost of labour to produce one unit of output (Barker 2007).

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