The Evolution of Labour Market Trends in Lesotho's Manufacturing Sector: Lessons and Policy Implications

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Abstract

THIS ARTICLE sheds light on the key dynamics of the manufacturing sector in Lesotho during a 20-year period from 1997 to 2016, with a view of informing economic policy. The results show that factors such as inflation, labour productivity and industry average wage can be used as the basis upon which labour market polices such as minimum wages can be set. The current nominal minimum wage has been found to be highly correlated with the past inflation rate, while it is positively and significantly related with the current labour productivity. When setting up the minimum wage based on the industry average, it has been found that the optimal level should be sought so that it is not relatively too high or too low.

Keywords: Wages, inflation, labour productivity, manufacuting, employment
JEL classification: E24, E31, J24, L60, O14

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1 INTRODUCTION

CAN POLICYMAKERS and other industry stakeholders in Lesotho benefit from the analysis of developments in the manufacturing sector? The answer to this question must be in the affirmative, especially given considerable transformation witnessed by the sector since the late 1990's. Overall, there is dearth of empirical analysis of Lesotho's labour market developments. In this regard, the objective of this paper is to provide insights about the evolution of key trends in the manufacturing sector, which has remained the largest formal employer in the country in recent years since the last decade and their implications for minimum wages setting and adjustment, thereof. This serves as a starting or reference point to assist policy-makers, employers and labour union representatives in their regular interaction.

During the last two decades, Lesotho's manufacturing industry experienced major transformation, in the wake of the enactment of the African Growth and Opportunities Act (AGOA)[1] by the USA government in 2000. Under AGOA, exports from qualifying sub-Saharan African countries, including Lesotho, have duty-free access to the U.S. market, which has boosted Lesotho's textile manufacturing sector significantly. However, despite phenomenal nominal growth, lack of empirical research impedes deeper understanding of the sector's developments. This paper aims to shed light on the subject by examining key labour market trends as they relate to setting and adjustment of minimum wages, among other things by using annual data from 1997 to 2016[2]. An understanding of developments regarding these indicators could be useful to both the policy-makers and key industry stakeholders. It may also contribute toward an informed public debate and trigger further research in the area.

To achieve its objective, Section 2 of the paper discusses the indicators of interest in some detail. Section 3 concludes.

[1] "The African Growth and Opportunity Act (AGOA) was signed into law in May 2000 with the objective of expanding U.S. trade and investment with sub-Saharan Africa, to stimulate economic growth, to encourage economic integration, and to facilitate sub-Saharan Africa's integration into the global economy". See: https://ustr.gov/issue-areas/trade-development/preference-programs/african-growth-and-opportunity-act-agoa.
[2] Data for 2017 and 2018 was not yet available.

2 INTRODUCTION

2.1. Overview

Lesotho's manufacturing sector grew significantly since the enactment of AGOA, driven largely by the garments industry. The latter accounts for more than 90 per cent of the total employment and 85 per cent of the total wage bill of the manufacturing sector. During the four years preceding the coming into effect of AGOA, the sector's value added accounted for an average of 12.2 per cent of the overall economy. This contribution doubled and averaged 24.4 per cent in the five years post-AGOA, peaking at 25.7 per cent of the overall economy in 2005. Subsequently, the sector's contribution declined to 19.9 percent in the period 2006-2010. The sector has contributed 12.0 per cent during 2011-2016 period.

Despite the recent decrease in its contribution to total value added, the manufacturing sector continues to play a key role in Lesotho's economy. It is a major export earner and the largest formal employer in the country. Against this background, understanding developments in the sector is essential. Table 1 presents growth rates of some of the key labour market indicators for the sector, along with relevant rates of inflation, using data from 1997 to 2016.

Table 1	Average annual percentage changes in key variables							
	Employment	Output	Productivity	labour share	Real wages	Unit labour cost	Minimum Wages	Inflation
1997-2000	18.5	6.4	-9.1	10.7	0.1	19.4	9	8.0
2001-2005	15	12.9	-0.5	-3.9	-4.5	4.4	7.3	8.6
2006-2010	1.7	2	0.7	-6.7	-6.1	-1.7		5.4
2011-2015	-0.4	-1.1	2.3	9.3	8.4	18.2	6.2	8.5
2016	-8.9	21.7	33.8	-35.1	-13.4	-33.2	10	3.0
Source	Lesotho Bureau of Statistics							

2.2. Real Wages and Productivity

In theory, real wages and labour productivity are closely connected and have implications for labour share of income (Das, Basu & Halder, 2017). As demonstrated in Table 1, between 1997 and 2000, real wages grew by an average of 0.1 per cent per annum while average labour productivity declined by 9.1 per cent. From 2001 to 2005, the period of booming manufacturing activity because of Lesotho's access to the US market under AGOA, productivity growth recovered albeit remaining negative while real wages declined by almost 5 per cent. Subsequently, labour productivity growth became positive, ranging from 0.7 percent per annum between 2006 and 2010 to 33.8 percent in 2016. At the same time, real wages declined by about 11 percent on average between 2006 and 2016, despite a strong positive growth between 2011 and 2015. As explained in the next subsection and demonstrated in Figure 1, developments in these two variables have implications for the labour share of income.

2.3. Labour Share of Income

Labour share of income refers to the portion of value added that accrues to employees in the form of wages and salaries. Formally, the labour share of income is calculated as the ratio of employees' total compensation to the value of the sector's output:

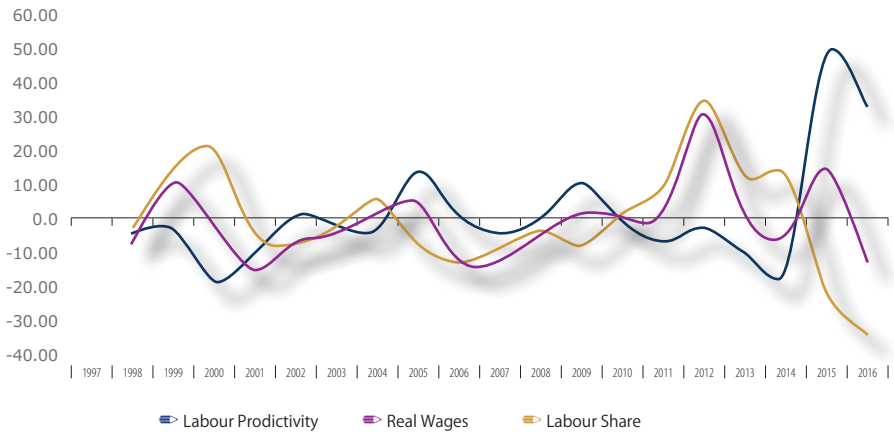
$$S_l = \frac{WL}{PY} = \frac{W/P}{Y/L} = \frac{w_{real}}{l_p} \quad (1)$$

Where l_p is average labour productivity and w_{real} is average real wage.

This equation demonstrates that labour share of income will increase (decrease) if real wages grow faster (slower) than labour productivity. Based on data presented in Table 1, the labour share of income declined in all periods covered except for 1997 to 2000 and 2011 to 2015. From 2000 to 2010, the labour share of income has generally been declining except for 2000, 2004 and 2010. This pattern is consistent with empirical expectations. As Hashimoto (2017:187) points out, labour share tends to fall during the boom period and rise during the

recessionary periods. In the period 2001-2007, the manufacturing output expanded significantly, which coincided with declining sector's labour share of income.

Figure 1 Labour Share of Income, Real Wages and Labour Productivity 1997-2016



Source: Lesotho Bureau of Statistics

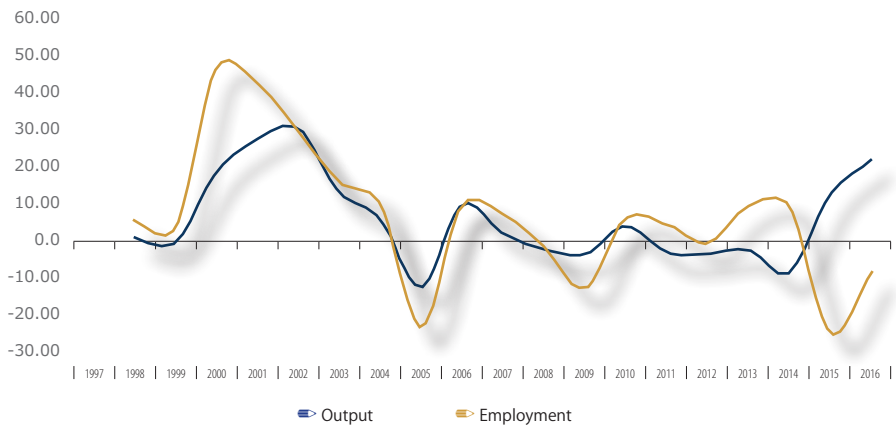
2.4. Employment, Output and wages

2.4.1 Employment and Output

Employment and output are generally expected to move in the same direction, since firms would normally respond to rising demand for their products by hiring more workers and other factors of production. This is supported by data in Table 1, which is also demonstrated by Figure 2 showing a strong correlation between employment and output. The sector's employment increased strongly between 1997 and 2005. Subsequently, employment growth started declining, with a relatively smaller positive growth rate during 2006 to 2010, followed by negative growth rates in the rest of the review period.

Two important episodes – the end of the Multi-Fibre Agreement (MFA) in 2005 and global financial crisis in 2008 and 2009 – have had a large influence on the sector's performance. In 2005, employment declined by almost 23.0 per cent while output declined by more than 12.0 per cent, driven by closures of some firms. Similarly, employment fell by 12.5 per cent in 2009 while output fell by 3.5 per cent.

Figure 2 Employment and Valued Added in the Manufacturing Sector (% per Annum)



Source: Labour Bureau of Statistics

2.4.1 Employment and Wages

The relationship between employment and wages can be derived by re-arranging the labour share equation and expressing employment in terms of labour share of income, real output and real wages as follows:

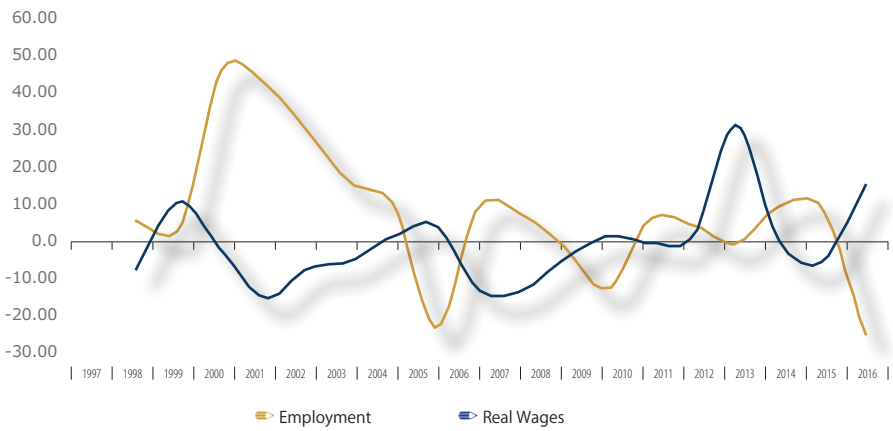
$$S_{labour} = \frac{WL}{PY} \Rightarrow S_{labour} = w_{real}\frac{L}{Y} \Rightarrow S_{labour}Y = w_{real}L \Rightarrow L = Y\frac{S_{labour}}{w_{real}}$$

Equation 2 is the re-arrangement of equation 1 where Employment L is expressed as product of real output, Y and the ratio of labour share of income, S_{labour} to real wages, w_{real}. The price level used here is the national GDP deflator.

Taking natural logarithms of variables in equation 2 and expressing them in percentage changes results in the following equation, for small percentage changes:

$$\%\Delta L \approx \%\Delta Y + \%\Delta S_{labour} - \%\Delta w_{real} \quad (2)$$

Figure 3 Employment and Real Wages in the Manufacturing Sector



Source: Lesotho Bureau of Statistics

The equation shows that excessive real wages (real wages rising after than labour productivity) negatively affects employment creation. For the entire period of study, growth in real wages have led to firms' downsizing.

2.5. Determinants of Minimum Wages

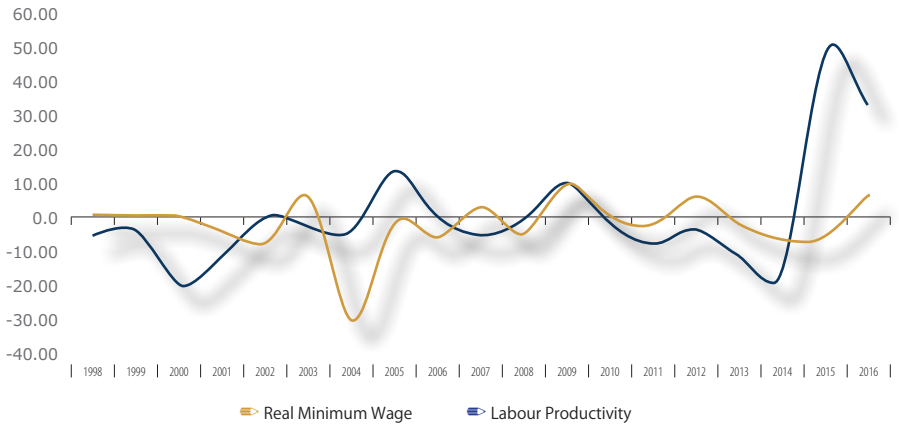
In light of the preceding discussion, this section examines the relationship between some of the indicators and minimum wages. The minimum wage policy is a complex and, sometimes, hotly debated issue, which is not surprising due to its implications for the welfare of the workers, profitability of the firms, and the overall performance of the economy. Luebker (2012) defines the minimum wage as the lowest wage a worker can earn for the labour services provided, which simplifies the definition provided by the ILO[3]. According to the ILO, certain economic factors should be taken into account in setting and adjusting minimum wages; including a country's level of economic development, productivity levels, and companies' ability to pay. Other factors, which have been considered by different countries are the price level and conditions of employment (Konopelko, 2016)[4]. Other countries use the Kaitz index, which is defined as the ratio of the minimum wage to some measure of the average wage.

2.5.1 Labour Productivity

Setting or adjusting the minimum wage in relation to labour productivity, which is practiced by some countries including Colombia, The Gambia and Spain is premised on fairness to ensure that workers can share in the results of economic progress (ILO, 2014; Dobija, 2011). Figure 4 plots growth rates of the real minimum wage and average labour productivity in Lesotho from 1998 to 2016.

[3] This is the ILO Minimum Wage Fixing Convention, 1970 (No. 131).
[4] TAccording to Konopelko (2016), the following countries index their minimum wages to labour market indicators and other economic variables: Brazil, Costa Rica, France, Indonesia, Luxembourg, Malaysia, Nicaragua, Netherlands, Poland and South Africa.

Figure 4 Average Labor Productivity and Real Minimum Wage (% per Annum)



Source: BOS and Authors' Calculations

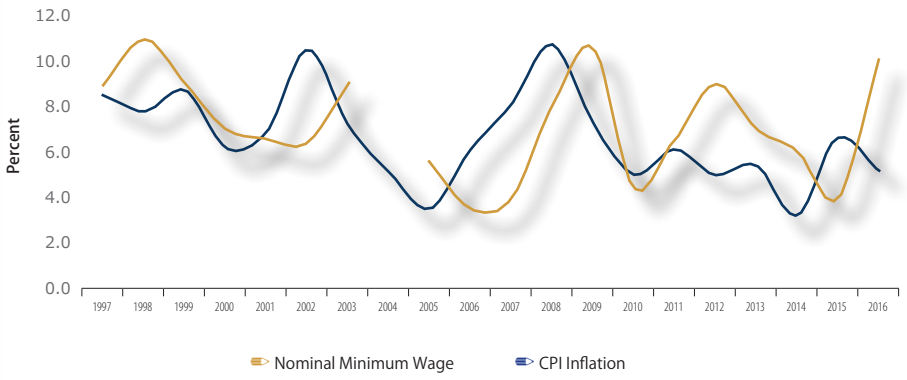
As the chart shows, the growth rate of the real minimum wage in the manufacturing sector seems to have tracked growth in labour productivity closely, despite few exceptional episodes. Notable exceptions include the period from 1998 to 2001, when real minimum wages outpaced labour productivity; 2004 to 2006, when labour productivity grew faster than real minimum wages; and 2010 to 2014, when growth in minimum wages was higher than growth in labour productivity. Finally, the last two years of the review period saw labour productivity growing by almost 50 per cent; while growth in the real value of the minimum wage ranged between -6.1 per cent in 2014 and 6.8 per cent in 2016.

2.5.2 Price Level

The minimum wage can also be adjusted based on the level of prices, such as in Costa Rica (Gindling and Terrell, 2004). According Tasso (2017), adjusting the nominal minimum wage at the same rate as that of consumer price index ensures that the real value of the minimum wage does not erode or decline overtime. However, if the rate of inflation is too high or too low, this mechanism can be distorted and, in extreme cases, some countries have abandoned this indexation.

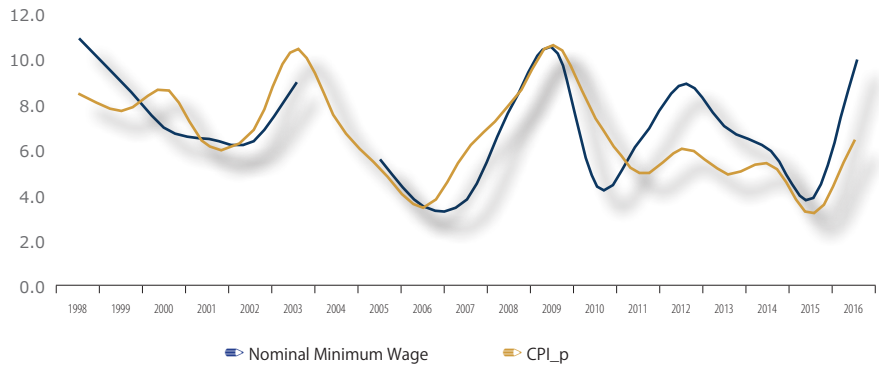
Figures 5 and 6 depict the growth rate of the nominal minimum wage against the current year and previous year's inflation rate, respectively. As both graphs show, the nominal minimum wage grows in line with inflation. However, the co-movement of the two variables is more synchronized in Figure 6 with the correlation coefficient of 0.7 than in Figure 5 with the correlation of 0.23. This is consistent with the prominent role of inflation as well as the backward-looking nature of the national minimum wage adjustment process. However, significant deviations can be observed in some periods, which may be an indication that some factors might have played a larger role in the adjustment process.

Figure 5 Nominal Minimum Wage and Current Year's CPI Inflation Rate



Source: Labour Bureau of Statistics

Figure 6 Nominal Minimum Wage and Previous Year's CPI Inflation Rate

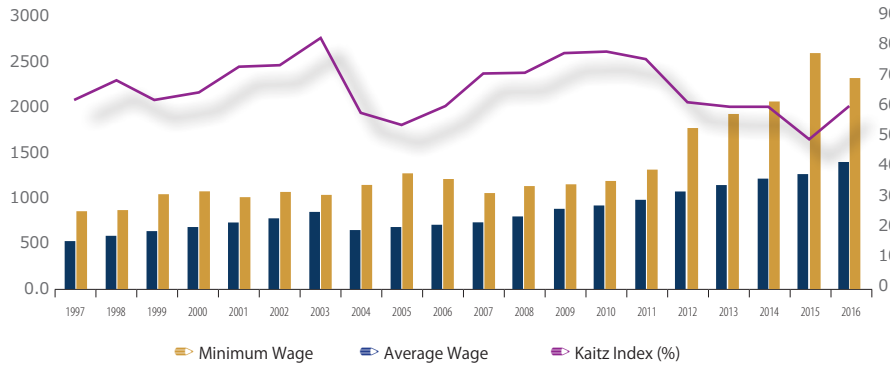


Source: BOS and Authors' Calculations

2.5.3 Ratio of Minimum to Average Wage

One of the popular variables in the literature is Kaitz index, defined as the ratio of the minimum wage to a measure of the average wage (Dolton, Rosazza-Bondibene, & Wadsworth, 2010). The index will be relatively high in cases where the legal minimum wage is tougher. Figure 7 plots the evolution of the Kaitz index along with its components, the minimum and average wages for Lesotho. Over the review period, the index averaged 66.0 per cent. However, as the graph shows, the index has more pronounced movements during some periods, reflecting divergence in the growth of the minimum wage and the average wage.

Figure 7 Dynamics of the Minimum Wage, Average Wage and Kaitz Index (%)



Source: Labour Bureau of Statistics

According to the ILO (2014), one of the objectives of the minimum wage policy is to reduce income inequality and poverty. In this regard, a rising Kaitz index signals a reduction of the wage or income inequality between the low- and high-earning workers within the same industry, holding other factors constant. If most of the workers in a given industry are production workers (excluding managers), then rising minimum wages faster than average wages may help achieve the objective of reducing income inequality (Konopelko, 2016).

3 CONCLUSIONS AND RECOMMENDATIONS

The paper has discussed the evolution of the key labour market indicators in Lesotho's manufacturing sector. This analysis should be useful to both the policy-makers and industry stakeholders. In particular, the paper sheds light on key indicators that can be used to inform policy-making in minimum wage adjustments, inter alia. The optimal minimum wage policy could help in reducing income inequality and poverty. Based on the discussion presented in Section 2, the process of minimum wage determination or adjustment could benefit from incorporating, along with the rate of inflation and relevant conditions of employment, variables such as labour productivity growth and the ratio of minimum wage to either average or median earnings. It is up to the national stakeholders to collectively agree on what indicators to use or if they wish to use a group of these statistical indicators in formulating a framework that they can use to adjust the required level of minimum wage.

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