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WAGES THROUGH BOOMS AND RECESSIONS: A CASE STUDY OF ZIMBABWE

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15. Wages through Booms and Recessions: A Case Study of Zimbabwe
Mkhululi Ncube, 2001

Table of Contents

List of tables

List of figures

Foreword

The International Labour Organization (ILO) is a member of the United Nations family of organizations whose special mandate is the promotion of safe and decent work in all countries of the world. Unlike other specialised UN agencies, the ILO is a tripartite organization, and each country is represented not only by its government but also by the representatives of its workers and employers. Similarly, ILO services are provided to trade unions and employers associations as well as to governments. Over the eight decades since its establishment in 1919, the ILO has promulgated a large body of Conventions which deal with labour and social issues. The general thinking behind these Conventions is that, as stated in the Preamble to the ILO Constitution, "the failure of any nation to adopt humane conditions of labour is an obstacle in the way of other nations which desire to improve the conditions in their own countries". The Conventions establish benchmarks for all governments in their efforts to promote decent and safe working conditions, and can also discourage backsliding by member States.

In the global economy, the fulfilment of the ILO's mandate requires new and innovative approaches. To better equip the organization to pursue its mandate in the next century, the ILO Director-General has formulated four strategic objectives. These are:

(i) promoting and realising fundamental principles and rights at work;
(ii) creating greater opportunities for women and men to secure decent employment and income;
(iii) enhancing the coverage and effectiveness of social protection for all; and
(iv) strengthening tripartism and social dialogue.

These objectives will focus ILO activities in the coming years, providing complementary and mutually reinforcing approaches to ensuring decent work for all people.

In the mid-1990s, the ILO sought to move even closer to its constituents through a major decentralisation of staff, resources, and authority. Under its Active Partnership Policy, it established multidisciplinary advisory teams in Africa, Asia, Latin America, and Central and Eastern Europe. These teams include specialists in areas such as labour standards, employment and labour markets, small enterprise development, occupational safety and health, social security, industrial relations, labour administration, workers' and employers' activities, statistics and training, as well as in such cross-cutting issues as gender. Demand driven, the teams respond to requests from ILO member States, trade unions, and employers associations for advice on policy issues and assist governments in the design and implementation of development programmes and projects. The Southern Africa Multidisciplinary Advisory Team (SAMAT), based in Harare, Zimbabwe, provides these services to nine countries in Southern Africa.

As one of its services, SAMAT publishes a series of discussion papers on labour and social issues of which this paper is a part. Through this series, SAMAT seeks to create an ongoing dialogue with governments, workers and employers by promoting the ratification and application of the ILO Conventions in a regional context, presenting ideas for new labour and social policy directions, and providing regional statistical data and comparative analyses which enable the member States to learn from others' experiences.

I am pleased to present this latest contribution to the ILO/SAMAT Discussion Paper Series entitled 'Wages through Booms and Recessions: A Case Study of Zimbabwe'. The paper analyses developments in the wage system in Zimbabwe, with special reference to wage differences, the macroeconomic role of wages and the effects of structural adjustment on them. It finds that real wages in Zimbabwe have been flexible and fallen sharply during the 1990s. Wage inflexibility, therefore, is not a major cause of the unemployment crisis. The collapse of real wages inevitably has changed the labour market landscape by giving rise to non-standard activities as workers try to cushion themselves against rapid and deep wage declines. Coupled with a rising share of capital in national income, wage declines have depressed aggregate demand, which is a far more important contributor to the country's unemployment crisis than the inflexibility of wages.

The paper argues that a wage policy must be pillared on decentralised, coordinated and synchronised collective bargaining, in private and public sectors alike. In the public sector, there is no collective bargaining at the moment and that is why wages in that sector sometimes lag behind those of the private sector. The analysis on real wages and productivity trends revealed that the gap between wages and labour productivity is widening, with wage trends on the decline while productivity is rising quite rapidly. This implies that the functional distribution of income is increasingly pro-profit, a situation that calls for a wage policy that would encourage the linking of wage settlements to productivity changes. The analysis of wage differentials highlights the fact that labour markets in Zimbabwe typically contain considerable wage variations. Gender and racial wage differentials are common in the labour market.

This paper was prepared by Dr. Mkhululi Ncube, Lecturer, Economics Department, University of Zimbabwe.

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ILO/SAMAT

1. Introduction

One of the central elements in labour market analysis is the wage system. Wages are an amazing and delicate system of prices. In a market economy wages act as guideposts, informing labour market participants on which jobs to take, when to take these jobs, or when to switch jobs. Their role is to quickly and smoothly facilitate the allocation of labour inputs to their most productive and efficient uses.

From a macroeconomic standpoint wages play a crucial role. The labour market is itself linked to other markets in the economy; it influences their workings and is in turn influenced by them. Wages are one mechanism that links and integrates labour markets with other markets. Wage developments directly and indirectly influence some of the macroeconomic fundamentals such as full employment, price stability, budget deficits, etc. In turn, such macroeconomic developments affect wages. Wage developments can affect a country's competitiveness, and thus its balance of payments position. In development, too, wages play a crucial role. The complex nexus between wages and productivity cannot be overemphasised. High productivity can give rise to high wages as also high wages can lead to productivity improvements through reduced worker shirking, improved morale or good health.

Wages are called upon to serve other social purposes as well. They form an important component of family income. Thus, they play a fundamental role in the distribution of income and reduction of poverty. Falling labour earnings spawn a host of problems: growing inequality, social exclusion, a rise in crime or even social and political unrest. In contrast, the benefits of increased labour earnings, other things being equal, are higher levels of economic growth, poverty reduction, and greater equity.

The central role of wages makes them an important policy tool. The knowledge of wage developments is important for successfully selecting, designing and implementing polices that aim at raising national income, achieving an equitable distribution and reducing poverty. The knowledge of forces behind wage developments, wage trends, or wage differences, for example, is pivotal in assessing which policies to target towards particular groups. Wages are also one channel through which major internal and external shocks are transmitted to the economy or the population. An assessment of the effects of such shocks on the economy and the population at large can best be understood by, *inter alia,* analysing developments in the wage system.

This paper traces and analyses developments in the wage system in Zimbabwe, with special reference to wage differences, the macroeconomic role of wages and the effects of structural adjustment on wages. It is organised as follows. Following this introduction, we trace wage trends in Section 2. This is followed by an analysis of wage behaviour in the 1980s and 1990s in Section 3. In this section we use an econometric model to assess the relationship between wages and some macroeconomic variables. In Section 4 we analyse wage differentials. Section 5 contains an analysis of wage flexibility. In this section we provide an econometric analysis of the wage-employment relationship by estimating sectoral employment equations. The conclusion is provided in Section 6.

2. Wages through booms and recessions

In this section we focus on the real wage trends since 1980. The sectoral trends for the perio 1980-98 are shown in Table 1 using wage indices (1990=100), and in Figure 1 using real wage levels in selected sectors. Average real wages rose substantially between 1980 and 1982, save for

the public sector, where there was a fall in 1981 and a rise in 1982. The strongest upward movement in wages was in agriculture, which recorded a growth rate of 44 per cent in 1981 relative to 1980. The steep rise in real wages in most sectors between 1980 and 1982 was due to several factors. Two years – 1980 and 1981 – were boom years, thanks to the lifting of sanctions and massive aid inflows. In addition, the "peace dividend" in the rural areas, coupled with the rehabilitation of rural infrastructure, good rains, access to credit at concessionary rates and good guaranteed prices, led to record yields in the agricultural sector. The spectacular economic growth of 10.6 per cent in 1980 and 9.7 per cent in 1981 facilitated the substantial growth in real wages (Ncube 1997a). In turn, real wage growth resulted in improved domestic demand and then increased capacity. Aggressive minimum wages also helped exert an upward pressure on average wages, especially in agriculture where minimum wages shifted wages up from their historic trend quite substantially (Knight 1996).

The fall in public sector wages between 1980 and 1981 largely reflected labour supply shocks in this sector during this period. In both years, the government employed a huge number of people, acting, in effect, as the employer of last resort. The enormous increase in employees in this sector may have had a depressing effect on average wages.

In the period between 1982 and 1990, when the structural adjustment programme began, real wages remained broadly constant, fluctuating around a stationary path. In some sectors wages picked up to a certain degree, while in some they fell steadily up to the wage freeze of 1987, when the downward trend was partly reversed (see Figure 1 and the wages indices in Table 1). Good examples of sectors where wages troughed in and around 1987 are agriculture, manufacturing, transport and health. In all the sectors but education, real wages in 1990 were below their 1982 levels. Inflationary pressures contributed to this trend. In addition, the government contributed to this trend by allowing a steady fall in real minimum wages after 1982 in response to mounting pressures from the private sector arguing that legislated wages were having some disemployment effects. Between 1982 and 1990 the performance of the economy did not augur well for real wage growth. Economic growth fluctuated from around –4 per cent in 1983 to mini booms of 7.5 per cent in 1985 or 6 per cent in 1988.

As from 1990 the government embarked on a liberalisation programme that involved the deregulation of the labour market. One of the greatest negative impacts of the Economic Structural Adjustment Programme (ESAP) was felt in the labour market through the fall in real wages. ESAP unleashed inflationary pressures that had been contained for almost three decades by an elaborate and sophisticated system of price controls. High inflation eroded wages in the formal sector as a whole. Inflation was also worsened by the tremendous increase in other macro prices, in particular interest rates, and the depreciation of the currency. These macro prices tend to drive one another. End-of-year inflation rose by 18 percentage points, form 28.5 per cent in 1991 to 46.6 per cent in 1998. The exchange rate depreciated from Z$5.1 to the US$ in 1991, to Z$37.4 in 1998. Interest rates, denoted by the 90-day Negotiable Certificates of Deposit (NCDs), rose to 42.0 per cent in 1998, from 25.5 per cent in 1991.

The worst affected sectors were private domestics and agriculture, with declines of 21 and 12 per cent in real wages per annum between 1991 and 1995, respectively. In these sectors, real wages were in 1997 less than 50 per cent of their 1990 levels.

According to standard economic theory, trade liberalisation should lead to a removal of price distortions, benefiting labour in terms of remuneration**.** Being a labour surplus country, Zimbabwe has a comparative advantage in labour intensive goods. Trade liberalisation would

entail a shift from capital intensive to labour intensive goods. This in turn would increase the demand for labour and the returns to labour relative to capital. In a nutshell, trade reforms are expected to lead to increased demand for labour intensive goods, higher wages and a reduction in the relative returns to capital. Demand for labour, and therefore wages, would increase even faster in the tradables sectors relative to non-tradables sectors. However, such theoretical predictions do not square well with Zimbabwe's experience. In Zimbabwe, the downward pressure on real wages was heavy in both tradable and non-tradable sectors. Such a pattern is even more surprising for agriculture, a sector that consists mainly of large-scale commercial farms that produce for export. This is the case also with mining and manufacturing, where 1997 wages were only about 75 per cent of their 1990 levels. Overall, wages in the formal sector regressed on average by 2 per cent per annum during the adjustment period. The main tradable sectors contributed substantially to this wage regression, contrary to what one would have expected of these sectors during reforms.

Looking at the 1991-98 patterns, the sectors that did best were those with a significant government involvement: public administration, education, health, and electricity and water. Large increases in public sector salaries in 1996 and 1997 explain this pattern.

Severe wage declines during ESAP have resulted in other non-standard labour market behaviours. A range of reactions has become evident amongst those who have seen their pay deteriorate over the years. They have pursued various cushioning mechanisms in their attempt to preserve their previous standards of living. The responses to pay deterioration have taken the form of moonlighting, "sunlighting" or trading. The fast deterioration of pay levels is widely seen also as an important cause of the escalating incidence of corruption. It would not be surprising if the increase in such behaviour has had some negative effects on overall productivity and efficiency.

3. Wage behaviour and determination in the 1980s and 1990s

In the 1980s, wage determination was mainly the outcome of one player, the government. The other two players, the employees and employers, came into the process in a more open way in the 1990s, thanks to the liberalisation of the economy and the labour market. Government involvement in wage setting in the 1980s was motivated by two factors. Firstly, part of the colonial legacy was the acute inequalities along occupational and racial divides that needed urgent attention, and the labour market was one arena in which this could be dealt with directly. Secondly, the principal constituency of the new government was mainly in the low wage bracket, and therefore legislation for higher wages was a direct way of appeasing this constituency, while also addressing the general issue of poverty. An incomes policy that hinged on minimum and maximum wages guided government efforts in promoting equity and reducing poverty. Minimum wages and wage ceilings were used to moderate wage gaps. The incomes policy provided for relatively higher permissible increases for lower wages than for higher wages. In 1982 for example, wages that were less than Z$1,200 per annum were increased by 23.5 per cent, whereas those at the top – Z$20,000 per annum and above – had only a 1 per cent upward adjustment. In 1985 the bottom and top scales were adjusted by 15 and 2 per cent respectively (Ncube, 1997a). As some 76.6 per cent of the workers were earning incomes below the poverty datum line of Z$70 a month in 1980, minimum wages were meant to push up the wages at the lower end of the income spectrum and improve the standards of living of concerned workers (ibid).

Table 1. Wage indices by industrial sector, 1980-98 (1990=100)

Sector	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Agriculture	72.9	104.7	113.5	110.1	104.9	100.2	96.9	92.3	97.4	95.2	100.0	90.2	53.6	59.6	57.4	48.3	53.9	59.6	62
Mining	82.3	95.7	101.9	94.1	93.3	96.2	92.0	88.6	95.3	95.3	100.0	96.2	84.2	80.2	77.4	77.6	80.7	93.2	102
Manufacturing	92.3	100.7	102.4	97.6	94.0	96.5	91.5	91.5	95.7	96.5	100.0	94.3	80.5	75.2	71.6	71.7	71.0	76.7	73
Electricity	101.6	104.2	105.9	93.4	92.2	98.7	91.3	93.0	100.2	92.9	100.0	94.3	80.5	75.2	71.6	71.7	71.0	76.7	195
Construction	122.3	131.3	139.1	135.2	131.6	123.7	115.8	109.6	106.0	101.3	100.0	96.6	72.9	61.5	59.5	67.1	69.4	86.2	86
Finance	101.8	103.0	100.0	92.4	87.3	86.9	85.6	85.8	92.4	92.1	100.0	100.4	95.5	95.2	83.0	92.4	87.6	80.0	94
Distribution	112.6	121.8	122.8	114.5	104.5	111.2	101.8	98.2	101.7	98.7	100.0	97.2	83.4	74.2	68.6	72.2	73.0	80.0	80
Transport	105.7	109.2	108.3	93.7	84.2	83.6	83.2	80.6	86.8	91.9	100.0	86.1	73.6	72.1	67.5	62.3	62.2	68.1	71
Public Admin.	157.2	126.5	133.4	116.6	104.5	101.3	96.2	98.5	100.0	97.7	100.0	89.7	68.1	56.3	58.1	61.1	81.0	119.8	113
Education	116.2	93.4	96.8	83.0	80.5	85.8	82.3	81.9	91.6	88.9	100.0	101.6	78.6	65.3	59.3	53.9	75.5	98.5	92
Health	105.9	99.9	103.0	86.3	84.5	90.1	87.4	84.1	87.7	91.0	100.0	95.7	75.5	63.8	62.0	62.4	73.7	115.3	110
Domestic	116.0	118.0	126.4	111.9	96.1	96.6	111.7	108.1	109.6	103.6	100.0	84.1	59.1	46.3	37.9	30.9	25.4	21.4	16
Others	118.4	119.6	120.7	108.5	101.3	102.6	93.0	91.8	92.0	93.3	100.0	90.5	76.4	70.7	68.4	68.6	71.9	80.8	82
Total	**92.5**	**96.9**	**107.4**	**99.2**	**93.3**	**94.7**	**91.3**	**90.9**	**95.4**	**94.7**	**100.0**	**87.7**	**75.9**	**67.9**	**65.3**	**64.4**	**70.6**	**84.2**	**86**

Source: Calculations based on CSO, Quarterly Digest of Satistics, various issues.

The effectiveness of government incomes policy in achieving the desired objectives has been a subject of debate. Minimum wages were to a certain extent effective in improving the incomes of many workers, considering that many were at the lower end of the income spectrum. According to evidence from Knight (1996) and Kanyenze (1996), minimum wages actually pushed up the average wages of low-wage workers beyond their historic trend. Knight (1996), from his estimates of an earnings function, found that minimum wages had a positive effect on average wages: a 10 per cent increase in minimum wages was found to have pushed average wages up by about 5.8 per cent in mining, 2.5 per cent in agriculture/domestic, and 3.5 per cent in industry/commerce sectors. In addition, it would seem that the entire incomes policy did narrow wage inequalities. Knight (1996) estimates the distribution of wages for 1982, 1985, and 1990 and finds some narrowing in the mid to the late 1980s. For 1982, the coefficient of variation (a measure of dispersion) was 103 per cent, before falling to 97 per cent in 1985 and 78 per cent in 1990.

However, there is every reason to suspect that the policy was less effective in the private sector, as there was no effective mechanism to detect non-compliance. In the private sector, such centralised government incomes policy was seen as infringing on the principle of free bargaining between workers and employers, and thus incentives to breach the stipulated adjustments were very high. Besides outright avoidance of government stipulated adjustments, this policy was circumvented through the use of in-kind benefits, fake promotions or allowances (Shadur, 1996; Knight, 1996).

In the government sector where the government was the employer and the implementer of the policy, there is no reason to suspect that the policy did not work. In the civil service, the IMF has argued that, although compressionary incomes policies were effective, they had disastrous consequences as they tended to impose rigidities on the structure of relative wages (IMF, 1993). Besides devaluing the skills in the public sector, such policies widened the gap between public and private sector wages, inevitably leading to the brain drain from the former to the latter. The persistent shortage of skills in the 1980s in the public sector was partly as a result of this policy (Kanyenze, 1996). Furthermore, this could have resulted in low morale, absenteeism, moonlighting or double jobbing among public employees. One major consequence of such shift in behaviour is overall inefficiency in the public sector (Ncube, 1997a).

Minimum and maximum wages have other consequences too in the Zimbabwean case. Neoclassical theory argues that minimum wage legislation constrains labour demand. The textbook model contends that minimum wages above the equilibrium level reduce labour demand. They bring about rigidities in the labour market that have a bearing on the efficient allocation of labour inputs. The employment-reducing effects of minimum wages in the 1980s were investigated in Hawkins et al. (1988). In a survey of 186 enterprises this study found that minimum wages adversely affected employment, mainly in the agriculture sector. The survey found that 77 per cent of agricultural employers considered that labour costs deterred them from employing more labour, compared with about 39 per cent of employers in non-agricultural sectors. The negative employment effect of minimum wages was supposed to be moderated by employment protection regulations, whose distinctive feature was that employers were required to seek ministerial approval before any retrenchments or dismissals were effected. Again the employment regulations had their toll on labour demand through increasing adjustment costs (Hawkins et al., 1988; Fallon and Lucas, 1993 and 1994).

What was the role of trade unions in the wage determination process in the 1980s? Between 1980 and 1985 the union movement and the government had an alliance which dated back to the pre-independence period. This alliance saw the government championing labour's cause and setting wage parameters through legislation. This role of the government ensured that it exercised overall control of labour. It was only after 1985 that this romance turned sour as workers gradually moved out of this marriage of convenience. The new leadership at the Zimbabwe Congress of Trade Unions (ZCTU) precipitated this shift. From 1985 onwards the labour movement began to be more organized and articulated the interests of wage earners more effectively. Although the government continued to set wage parameters up to 1990, pressure was mounting from trade unions and employers for it to pull out. Every side was increasingly viewing the government with suspicion, with trade unions claiming that the parameters set by government were not good enough to cushion them against the rising cost of living, while employers argued that their productivity was affected by the lack of flexibility in the labour market.

The centralized government incomes policy was explicitly abandoned in 1990 in all but two sectors, domestic services and agriculture. In these sectors the government still stipulates minimum wages. The general shift in labour policy in 1990 was part of the structural adjustment programme that sought to eliminate all perceivable rigidities in the economy, including the labour market. One area of action of reforms was to do away with the incomes policy as it was viewed as causing inflexibility in the labour market, with unemployment as the major consequence. The centralized wage determination policy gave way to collective bargaining as the principal mechanism for wage setting.

It is important to note that in Zimbabwe a tax-based incomes policy is still in existence, albeit to a smaller extent. The government has often relied on the budget to tax excessive wages on a progressive scale. In the 1997-2000 budget statements for example, a typically tax-based incomes policy may be observed as very high tax rates were imposed on high wages. In the 2000 budget there is even an added element, a 25 per cent surcharge on incomes above $720,000 per annum. A tax-based incomes policy means that employers are free to pay more than the norm, but at the cost of a substantial financial penalty. Thus, firms are less likely to accept excessive wage levels or outrageous wage adjustments. A higher tax rate tends to reduce excessive wage pressure and wage leapfrogging. Although such taxes have some inherent distortions – e.g. some negative effects on work incentives or diminishing marginal productivity – they also have some beneficial effects as they tend to equalize incomes and may lower unemployment. They lower unemployment because an extra dollar of wages resulting from excessive wages constitutes an increase in the cost of production, which translates itself into less demand for labour. It is therefore important that the implications of tax-based incomes policy are investigated in a comprehensive fashion.

During ESAP, wage determination in the formal private sector has been the outcome of the activities of three key players – labour, employers and government, all with divergent and at times antagonistic objectives. Unions want to maximise their wages, employers seek to minimize costs, while the government has often been viewed with suspicion by both sides, as its position has always been unpredictable. Collective bargaining is done mainly at industrial level through Employment Councils. In a way, the end result through this form of collective bargaining is negotiated industrial minimums. Different industries tend to follow wage adjustments recommended by Employment Councils. In Zimbabwe collective bargaining has mainly centred on wages. Bargaining over employment has never been a major issue as employment decisions are often the prerogative of managers. However, the recent scale of layoffs has led to an

additional dimension in bargaining. Bargaining over severance pay or redundancy payments has become common.

In the public sector the government largely determines wages, after some consultations with civil service associations. In the 1990s these consultations have increasingly taken the form of collective bargaining. Public service associations have increasingly utilized strikes or threats of strikes wherever possible to achieve higher wages.

At the beginning of the year 2000, an unusual phenomenon in the wage determination process emerged. The government became for the first time the pace setter in wage settlements. Civil servants were awarded 69 to 90 per cent cost of living wage adjustments on a sliding scale. Earlier, Ministers, Parliamentarians, chiefs, and headmen had also been awarded large increases. As the government has taken the lead, the private sector is increasingly following this trend to avoid costly strikes. Sporadic strikes by private sector workers demanding similar increases have been common. As parliamentary elections were due in mid-2000, it would perhaps not been surprising if such increases for civil servants were part of an electioneering strategy. Before elections incumbent governments often tend to create artificial booms by stimulating aggregate demand, and the wage increases may be a handy instrument for this purpose. However, such artificial booms may be costly to the economy. The deficit and inflationary pressures may mount, defeating the whole purpose of such wage increases.

3.1 The wage formation process

In analysing wage behaviour the wage formation process is critical. The wage formation process is intricately linked to the macroeconomic performance of an economy. Macroeconomic factors influence wage changes while, in turn, wage changes influence macroeconomic fundamentals. A number of factors are pertinent and theory often guides us on the cause and effect relationship.

To analyse the wage formation process we construct a macroeconomic model of wage changes. In the models we estimate, wage changes depend on productivity, capacity utilisation,[1] and price changes. We also include two policy variables to capture incomes policy and trade liberalisation periods. They take the value of one during the incomes policy or trade liberalisation phases, or zero otherwise. These dummies are introduced separately.

Perhaps the best known variable to be linked to wage changes is unemployment. Unemployment remains the single major challenge facing policy makers today. Standard economic theory predicts that wages rise in a labour market characterised by positive excess demand and fall in markets with excess supply of labour. But the problem in Zimbabwe is the porous data on unemployment. Series data on this variable are not available. Instead we proxy for it by a capacity utilisation variable. Capacity utilisation broadly captures macroeconomic fluctuations, including unemployment (Davies and Rattsø, 1999).

The estimates of changes in money wages are reported in Table 2 below. Wages respond positively to their own lag and prices lagged once in both models. A 10 per cent increase in wages lagged raises present wages by between 5 and 8 per cent. This parameter reflects the speed of adjustment, i.e. how fast/slow industries adjust their wages to shocks in the system. These coefficients imply that employers are able to adjust between 50 and 80 per cent of the previous

[1]Figures for capacity utilisation were kindly provided by Davies and Rattsø from their paper Davies and Rattsø (1999).

year's deviation from the long-run equilibrium in one year. Such speeds of adjustment are relatively fast, strongly suggesting some wage flexibility in the labour market.

Table 2. Wage functions

Independent variable	Dependent variable			
	Changes in wages[1]		Changes in wages[2]	
	Coefficient/ test statistic	t-value / probability value[3]	Coefficient/ test statistic	t-value / probability value[3]
Explanatory variables				
Constant	1.9180	2.391	0.7814	1.753
Wages lagged once	0.5353	2.812	0.7994	7.943
Current prices	0.3998	1.219	0.5620	1.831
Prices lagged once	0.4723	2.730	0.2346	2.588
Capacity utilisation	0.1752	1.515	0.0137	0.141
Labour productivity	0.0393	0.412	0.0323	0.375
Incomes policy dummy (1980-90)	0.1012	2.065		
Trade liberalisation dummy (1991-95)			-0.1256	-2.892
Statistical tests				
R-squared adjusted	0.97		0.97	
F(6,15)	951.38	0.00	115.3	0.00
Standard error	0.0562		0.0510	
Diagnostic tests				
AR	2.0278	0.1712	0.6816	0.5230
ARCH	0.3240	-0.5789	0.0884	0.7710
Normality	2.1546	-0.3405	0.7343	0.4171
Chi-squared	0.5405	-0.8035	0.5078	0.8229

1 Model with incomes policy dummy.
2 Model with trade liberalisation dummy.
3 t-values relate to coefficients while probability values relate to statistical tests.

Money wages do not respond to current price changes, but are strongly sensitive to previous year's prices. This shows that in adjusting wages, employers and employees consider expected inflation, and in making forecasts of future inflation, their information set contains previous inflationary experience. The strong link between inflation and nominal wages partly reflects the critical role of government in the wage setting process in the 1980s. The government set wage parameters largely on the basis of the cost of living. Even the collective bargaining exercises of the 1990s, used inflation as the main reference point for wage changes. The incomes policy period dummy is positive and significant, suggesting that policies of the 1980s had a positive effect on average wages. In other words, these policies significantly shifted average wages up from their historic path. The trade liberalisation dummy is found to be negative and significant. This implies that, in general, wages suffered as a result of trade liberalisation.

Wage changes are not responsive to capacity utilisation. This contradicts Davies and Rattsø (1999) who find a short-run association between nominal wages and capacity utilisation. Labour productivity was also found to be insignificant. An increase in labour productivity often leads to higher national income and therefore real per capita income. And an increase in per capita income is usually associated with higher wages. In Zimbabwe it seems this was not the case. The reason may be that the increase in national income was associated with a functional distribution in favour of profits, not labour. The massive shift towards profits in the functional distribution of income (see below) may explain why productivity is not a significant factor in wage changes.

3.2 Wage determination in the informal and rural sectors

The informal component of the labour market is differentiated from the formal component by its mode of operation – e.g. recruitment procedures, informal terms and conditions of employment – or its wage determination process. The firms in the informal sector operate in a more competitive environment than those in the formal sector, as they rely less on contracts. Unions are not found in this sector. Wages are competitively determined and the absence of government and trade union intervention ensures, to a certain degree, the existence of an equilibrium in this market, although a lower one than the formal labour market. There are two reasons to suspect that the wage is lower in this sector than in the formal sector. First, unemployment must be exerting a stronger downward pressure on wages in the informal sector than in the formal labour market. High unemployment is known to depress wages that are competitively determined and this sector being a dumping ground for workers laid off in the formal sector and a sort of refuge to the unemployed, must be experiencing this depressing effect in a more pronounced way than the formal sector. Secondly, one of the distinguishing features of this sector is its low marginal productivity, which is translated into lower wages. Low productivity also implies a lot of underemployment.

The determination of wages in the rural (non-commercial) areas approximates that of the informal sector. Rural labour markets are characterised by self-employment, sharecropping and to a lesser extent wage employment. The distinct features of this market are the high levels of unemployment and underemployment, and relatively low average productivity and therefore wages. Wage determination in this sector is however complex in the sense that there are a lot of in-kind payments which contribute significantly to total incomes. The household is often the decision-making unit when it comes to pay determination.

4. Wage differentials

A labour market that is efficient is important for economic growth as it ensures that resources are allocated optimally. An efficient labour market will rapidly match skills to their most needed areas and facilitate speedy allocation of the labour inputs across firms and industries. For labour markets to be efficient, relative wages play a significant role, as their changes help square supply and demand for labour. Labour market segmentation or institutional factors adversely affect the efficient operations of the labour market. Such labour market features curtail the signalling role of wages and inhibit the free flow of labour despite imbalances in the labour market. If labour markets are segmented or fragmented, labour inputs cannot be reallocated easily from points where their marginal productivity is low to areas where it is high. Institutional forces, from government policies to trade unions, are also blamed for distorting the smooth operation of labour markets.

Relative wages are important in our endeavour to understand the functioning and in particular the efficiency or otherwise of labour markets. For example, wage differentials may imply that the labour market is not allocating labour inputs efficiently, raising the possibility that certain forces may be at play that militate against efficiency. In this section we shall consider different forms of wage differentials and their implications, starting at a more general level of the formal-informal divide, to the more specific cases of gender or racial disparities.

4.1 Formal, informal and rural labour market wage differentials

The labour market in Zimbabwe is divided into the urban formal, urban informal and rural labour markets. Within these classifications, the markets are not entirely homogenous and there are some interactions between these broad classifications. The urban elite and wage earners in the modern sector, especially in the private and public enterprises, constitute the formal labour market, while the rural labour market comprises mainly of wage labour in plantations, workers in small and large scale farms, and the self-employed, non-agricultural workers. In between the urban formal and rural labour markets is the urban informal labour market. This sector draws its workers from both the formal and rural labour markets. It is more of a dumping ground for those rejected by the formal sector, and also a refuge for those who leave the rural labour market in search of urban formal sector jobs, and because of the tightness of the latter, end up in the informal sector. The urban informal sector is characterized by "bad" jobs; high labour turnover, employment insecurity, lower job tenure rates, absence of internal training, poor promotional prospects and low average wages.

Wages in these three labour markets differ quite substantially. Rural labour markets are the main suppliers of excess labour to the other two markets, implying that wages in the rural labour markets are lower than wages in the urban sector. The lower wages in rural areas reflect their lower labour productivity. Seasonality also affects incomes in this market. Informal sector workers earn lower wages than formal modern sector workers. Informal sector wages reflect the outside forces of unemployment more than any other market. The prevailing unemployment around it, coupled with the absence of institutional forces such as trade unions and government regulations, all contribute to wages being lower than in the formal sector. This sector also exhibits lower marginal productivity compared to the formal sector. In this case, the sector masks a lot of underdevelopment and poverty.

The rural and informal labour markets have a high concentration of female employees. In the informal sector, McPherson (1991) puts their share at 57 per cent, compared to about 20 per cent in the formal sector. What this means then is that more women are concentrated in areas of low and unstable incomes.

Figures on relative wages/incomes for the rural labour markets are sketchy. For the urban formal labour market, series data are available. For the informal labour market, wage data is virtual non-existent. The data on the rural/urban divide are available for 1990/91 (Table 3). The figures should be interpreted with caution, as the unit of analysis is the household.

In rural areas the main source of income is the wage, followed by agriculture and then remittances. Female-headed household have higher incomes than male-headed households. In the urban areas, wage income is the major source (81 per cent), followed by properties (12 per cent). In total, rural households earn on average about 39 per cent of urban household incomes, while urban female- and male-headed households earn 48 and 37 per cent more than their rural

counterparts, respectively. Looking at wages only (employment column), rural households earned seven times less than their urban counterparts.

Table 3. Rural and urban household incomes by source, 1990/91 (Z$ per annum)

Household type	Incomes by source					
	All sources	Employment	Agriculture	Property	Remittances	Other
Rural areas						
All households	1,290	406	385		290	209
Female-headed	1,320	145	428		524	223
Male-headed	1,272	557	360		155	200
Urban areas						
All households	3,321	2,992	245	443		-359
Female-headed	2,738	1,324	764	452		198
Male-headed	3,414	3,256	163	442		-447

Source: World Bank, 1995, Zimbabwe: Country Report, Washington DC.

Another way of looking at the rural-urban wage differentials is through the manufacturing to agriculture average wage ratios (Mazumdar, 1994). The ratios for 1980, 1985, 1990, 1995, and 1997 are 6, 4, 4, 6, and 6, respectively. The figures reflect a partial narrowing in the 1980s, probably reflecting the influence of government incomes policy. During ESAP, the gap widened to its 1980 level. Compared to some other sub-Saharan African countries, the rural-urban wage gaps are wider in Zimbabwe. Van der Geest (1996) provides estimates of the ratios for 1985 for some African countries: Botswana (3.9); Ghana (1.8); Kenya (3.04); and Malawi (3.4). The ratios for 1991 are Botswana (2.06); Ghana (0.87); Kenya (2.71); and Malawi (3.12). In Zimbabwe, the average manufacturing wage was five times that of the average agricultural wage in 1991.

The disparities in rural-urban incomes will always drive people to urban areas despite high levels of unemployment. This will further swell the ranks of the informal sector and depress the wages in this sector. Average productivity in the rural sector has to be increased to improve incomes and reduce rural-urban migration. Development of rural infrastructure (roads, dams, irrigation), extension services and marketing networks are some of the crucial factors for improving rural incomes. There is also a need to raise the level of productivity in the informal sector to remove many workers trapped in poverty in this sector. Low labour productivity can partly be addressed through human capital development in the informal sector. The rudimentary infrastructure in this sector is also a reason for low marginal productivity and low profitability.

4.2 Inter-industry wage differentials

At face value, wages in different industries are different and as wage negotiations are by industry, this may explain it all. However, in reality we can only speak of inter-industry differentials if similar workers are paid different wages. To analyse this, two sets of information are required: (i) individual workers' characteristics that are expected to determine earnings (e.g. the level of education, age, sex, marital status, union membership, experience, skills, etc.); and (ii) job attributes (e.g. job environment, firm location, firm size, presence of labour union, etc).

Valenchik (1996) estimates a standard wage equation using the Regional Programme on Enterprise Development (RPED) data set on individuals. These data are for the manufacturing sector. Her equations include group (i) and (ii) control variables. In addition, she includes industry and occupational dummies and market power (measured by the number of competitors). The results of this study suggest that each industry has its own labour market. In other words, there are inter-industry wage differentials within the manufacturing sector as the sectoral dummies exert a significant influence on wage growth. This means that even after controlling for individual worker characteristics and job attributes, inter-industry wage differentials still remain. Also important in this study is that market power has a significant influence on wage growth. Firms with a larger market power award their workers higher wage raises. The study also finds that profitability is important for wage growth. The significant correlation between market power and profitability on one hand and wage growth on the other, is indicative of a rent or a profit sharing process in existence in the labour market.

In another study and using the same RPED data set, Valenchik (1996b) finds that firm size and industry dummies are important explanatory variables for variations in earnings. This means wages differed between industries and firms in ways that go beyond the effect of differences in ability or working conditions. Firms in large industries pay their workers more than their counterparts in smaller firms. What therefore explains these inter-industry wage differentials? According to the traditional neoclassical competitive paradigm, firms pay similar workers the same wage and pay wages that clear the market. There is no incentive for firms to pay more than the market-clearing wage. The existence of these differentials implies that Zimbabwe's labour market deviates from this orthodox structure.

Such wage differences could be explained by the efficiency wage hypothesis. This hypothesis may explain why industrial labour markets seem to be separate entities. In this hypothesis firms increase wages above the running or market-clearing rate to attract some workers. The so-called "efficiency wage" is pitched at a higher than minimum at which people are willing to work. This implies that wages of otherwise identical workers differ widely across firms and industries. What is the rationale for firms to pay efficiency wages? There are four possible reasons for paying such wages. Firms engage in such behaviour to: (i) keep shirking under control and monitoring costs low, and because these costs are high in large firms, bigger firms tend to pay more than small ones; (ii) to minimise turnover costs; (iii) to attract a larger pool of good quality applicants; and (iv) to promote loyalty from workers as firms share rent (profits) with their employees and so profitable firms tend to pay higher wages. All these four reasons imply that firms pay high wages to have a stable workforce, with exceptionally high morale and productivity. This further enhances their profit margins. In a nutshell, the findings of Valenchik suggest that both efficiency wages and rent/profit sharing may be present in the Zimbabwean labour market.

As evidence from Valenchik (1996a and 1996b) points to the existence of efficient wages in the manufacturing sector, with otherwise identical workers receiving different wages, what then are the employment consequences of efficiency wages? When all firms realise that paying wages above the market clearing level is profitable they will follow suit. The consequence of this is that a competitive equilibrium wage will be realised above the market clearing level. So there will be a competitive wage but the market will not clear. Persistent involuntary unemployment, especially for the unskilled, is the main outcome of efficiency wages. Since the resulting unemployment is involuntary, efficiency wage contracts are not Pareto efficient.

The root cause for efficiency wages is information asymmetry in the labour market. Efficiency wages therefore call for government intervention in the labour market through improvement of

the information flow. This further calls for a tax-based incomes policy that will reduce pressures for excessive wages.

4.3 Occupational and private-public wage disparities

Occupational wage differences seem to be widening in Zimbabwe. Davies and Rattsø (1999) have pieced together data on wages for both executive and general workers relative to those of a medium security guard. A security guard is one of the lowest paid employees in the formal sector. The results of this study are reported in Table 4. The gap between executives and the median security guard seems to be widening. In 1989, chief executives were on average earning 11.3 times more than a security guard, but by 1997 this ratio had more than doubled to 23.2. The same general pattern obtains for other executive grades. What could possibly explain this divergence? The efficiency wage hypothesis is one plausible explanation: executives are paid a high premium probably as a way of retaining them and also to attract a good application pool. Another plausible explanation is rent sharing, i.e. companies share the rent with executives. Davies and Rattsø see this as one of the ESAP outcomes; that executive categories are internationally mobile, and therefore a tradable factor, and so liberalisation raises their relative salaries as it happens with any other tradable good during reforms.

Table 4. Ratio of basic pay of various pay categories to that of a Security Guard

Employee category	1989	1993	1995	1997
Executive				
Chief Executive	11.3	11.9	23.1	23.2
Technical/Research Executive	8.5	7.6	15.2	15.6
Marketing Executive	8.1	6.9	14.6	15.1
Manufacturing Executive	7.9	6.4	15.1	14.9
General				
Accountant (qualified 5-10 years)	6.3	4.7	7.8	5.1
Sales representatives-general (male)	2.5	3.0	3.1	2.2
Handyman	1.5	1.0	1.4	1.2
Security Guard	1.0	1.0	1.0	1.0
Waitress/Tea-maker	0.7	0.7	0.7	0.7

Source: Davies and Rattso, 1999.

Salaries for some occupations in the private and public sectors are also shown in Table 5. The data suggest that private sector employees earn far more than their public sector counterparts, with public servants earning no more than 40-60 per cent of what private sector workers earned in 1990, and between 26 and 97 per cent in 1995. In the lower occupations (messenger, clerical or typist), the difference between public and private sector salaries seems to have widened between 1990 and 1995. Private sector wages fell for these lower occupations and rose only for executives. In the public sector, real wages rose in the middle occupations, and fell at the bottom and at the top. In general real wage differences between private and public servants have become more unequal. This has implications for the internal brain drain. There is an incentive for those workers who can find employment in the private sector to leave the public sector. In turn, this has implications for efficiency in the public sector and the ability of this sector to implement reforms since the best workers tend to move.

Table 5. Real wages per month (Z$, 1990 prices)

Occupation	Salaries				Ratios	
	1990		1995		1990	1995
	Private Sector	Public Sector	Private Sector	Public Sector	Private/ Public	Private/ Public
Messenger (Office Orderly)	565	307	387	242	54.3	62.5
Clerk	964	573	636	615	59.4	96.7
Typist	1,087	534	802	615	49.1	76.7
Engineer	3,615	1,613	3,187	1,878	44.6	58.9
Chief Executive (Permanent Secretary)	9,440	4,131	12,475	3,268	43.8	26.2

Note: Chief Executive has 1001-5000 employees. In parenthesis are central government equivalents.
Source: Knight, 1996.

4.4 Full time, part-time and casual wage disparities

The other dimension of wage differentials that is least known about is by type of employment – casual, full-time and part-time. In Zimbabwe, casual and part-time employment has been on the increase, especially during ESAP. Employers have sought some flexibility in the labour market by engaging casual workers. Casual workers contributed 3 per cent of total formal sector employment in 1985, but by 1998 this share had trebled to 9.4 per cent. Similarly, the share of part-timers in total formal employment increased from 0.8 per cent in 1985 to almost 3 per cent in 1998. Casual workers are largely concentrated in commercial agriculture, mining and construction sectors. With this apparent shift in the employment structure, it is important to compare wages of these employee types. In Table 6 we compare salaries of casuals and part-timers to full-timers by sector.

Casual workers generally earn less than a third of the full-timers. Between 1985 and 1998 their salaries fluctuated between 20 per cent and 27 per cent of those of full-timers. The gap between casuals and full-timers is narrower in agriculture, mining and manufacturing sectors and widest in finance and education. Although no empirical work has been done to compare the number of hours of casual and full time employees, we would not be surprised if a substantial portion of the disparities in wages of casual and full time employees is explained by the differences in the number of hours worked. Casuals sometimes work few hours than full time employees. Part-time employees generally earn more than casuals, but less than full-timers (except in agriculture). In 1998, part-timers in agriculture earned almost 32 times the wages of full-time employees. Part timers in this sector are mainly technical staff – hence this huge gap. Overall, part-timers earned 36 per cent of their full-time counterparts in 1997 – a drop from 56 per cent in 1985.

What these figures suggest is that there is an increase in a class of the working poor, especially casuals. Besides being in insecure jobs, the plight of these workers is made worse by the fact that other employment benefits like medical aid, pension membership, bonuses, etc. which accrue to full-time employees are non-existent for them. This calls for some form of protection for these workers. If everything is left to market forces, super-exploitation of this group of workers is inevitable.

Table 6. Casual and part-time average annual salaries as percentage of full-time average salaries

Industry	Employment type	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Agriculture	Casual	28.1	87.8	70.1	50.0	42.1	29.5	37.3	42.0	36.7	34.8	37.6	50.4	36.7	48.3
	Part-time	239.1	365.8	341.7	33.2	261.2	209.6	330.4	294.5	253.3	229.0	283.8	334.6	297.9	348.6
	Full-time	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mining	Casual	29.5	24.0	42.1	22.2	21.7	22.9	19.1	36.2	29.9	26.0	34.9	29.4	24.0	22.5
	Part-time	40.6	27.3	30.0	27.7	24.5	24.2	23.0	28.8	23.8	26.5	38.7	32.2	21.8	20.9
	Full-time	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Manufacturing	Casual	24.1	25.4	34.4	32.4	31.3	33.5	32.1	33.6	32.5	23.6	31.3	31.8	0.0	0.0
	Part-time	31.7	44.8	64.8	40.6	38.9	36.0	36.5	37.1	34.1	31.9	33.5	27.7	0.0	0.0
	Full-time	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Electricity	Casual	11.9	12.7	19.5	21.6	17.1	13.4	5.2	62.9	37.1	20.1	24.0	6.7	10.5	7.5
	Part-time	108.6	83.3	41.8	10.8	8.4	13.9	26.1	21.3	28.7	12.7	4.3	2.2	0.0	0.0
	Full-time	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Construction	Casual	44.2	51.7	36.7	34.8	27.5	30.5	25.5	19.9	16.1	21.4	31.2	27.9	26.9	23.4
	Part-time	69.4	89.9	73.3	67.9	30.5	54.9	66.6	36.8	61.5	23.7	45.2	52.7	38.9	35.8
	Full-time	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Wholesale	Casual	19.6	24.2	28.0	19.9	17.8	19.3	21.8	19.4	27.0	21.7	20.0	22.2	18.8	21.7
	Part-time	45.8	78.1	40.6	35.6	32.9	35.7	37.3	31.6	38.2	33.4	33.4	34.5	42.0	139.0
	Full-time	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Transport	Casual	16.4	19.4	22.9	22.1	20.0	22.2	25.7	18.6	20.9	21.2	16.8	26.7	32.9	28.1
	Part-time	77.9	104.7	82.7	44.8	52.4	18.0	32.6	20.6	27.2	23.6	16.0	24.7	26.2	19.7
	Full-time	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Finance	Casual	13.8	31.7	22.8	23.3	17.7	16.6	14.6	14.0	20.6	16.2	13.2	11.6	8.3	9.3
	Part-time	67.9	65.9	69.5	58.2	52.8	47.5	50.8	19.4	31.9	27.5	52.7	34.2	28.7	340.0
	Full-time	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Other services	Casual	19.4	12.4	23.0	18.6	15.0	21.6	19.1	25.2	19.9	19.4	19.7	20.2	30.1	18.7
	Part-time	70.6	50.0	74.3	61.0	49.5	48.4	47.1	37.7	43.0	44.2	59.8	58.9	55.7	57.6
	Full-time	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Public Admin.	Casual	17.4	117.2	17.4	17.8	20.0	22.3	21.7	17.6	21.9	20.2	21.5	15.2	9.4	12.8
	Part-time	19.8	20.3	16.1	26.9	17.9	36.3	44.1	20.7	34.0	39.3	38.0	34.1	18.0	12.8
	Full-time	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Education	Casual	18.5	17.8	13.5	12.3	12.5	11.8	10.7	12.6	14.3	18.1	15.2	12.3	10.8	10.7
	Part-time	50.6	65.4	35.1	36.5	39.5	27.8	37.6	23.8	26.1	47.2	47.2	29.4	15.9	11.5
	Full-time	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Health	Casual	22.2	12.6	26.1	28.4	38.7	48.7	49.3	32.7	28.6	38.0	30.8	32.7	16.6	19.5
	Part-time	86.9	63.8	72.4	54.7	79.8	66.5	75.6	72.6	54.0	73.0	77.4	73.0	44.0	40.5
	Full-time	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Grand total	Casual	22.7	24.9	28.1	25.6	23.1	24.5	23.5	24.2	20.5	23.0	26.5	24.8	25.0	23.0
	Part-time	56.4	61.1	52.1	45.3	42.8	40.8	42.6	29.2	39.5	35.5	41.5	37.3	34.5	35.5
	Full-time	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Calculated from CSO, upublished data.

4.5 Gender and racial wage gaps

Gender and racial wage differentials are one sensitive area of labour economics. Sensitivity is due to the fact that such differentials may be associated with discrimination. Any gender or racial wage differential can be decomposed into one portion explained by discrimination and another that can be explained by one's ability. Without a proper decomposition, any wage differential should be interpreted with care. In our case, data that are necessary for such a decomposition are not available. Only data showing wage differentials in the manufacturing are available. Table 7 reports on this data.

The mean weekly wage figures in Table 7 suggest that females earned lower wages than their male counterparts. Europeans and Asians earned, on average, about six and three times the wages of Africans, respectively. As has been noted, without a proper decomposition it is not possible to tell whether these gaps were due to discrepancies in human capital endowment or discrimination.

We might also gain some insights into the issue of gender wage disparities by looking at the distribution of employees in different wage scales. The Central Statistical Office has unpublished data on the distributions of employees in different income cohorts by gender. Figures 2(a)-2(d) contain plots of these data for 1992, 1994, 1996 and 1998. Surprisingly there are no marked differences between males and females. The concentration of all employees is generally around the middle-income brackets in both categories.

Table 7. Manufacturing mean weekly wages by gender and race

	By gender		By race		
Year	Male	Female	African	European	Asian
1993	281.5	241.7	236.0	1,298.6	651.5
1994	368.2	297.1	304.0	1,805.1	1,080.8

Source: Valenchik, 1996a.

5. Real wage flexibility, unemployment and wage elasticity of labour demand

A labour market is an important market for economic growth. This market has strong linkages with other markets. Policy makers are often interested in the proper functioning of markets. If markets are working well, then a Pareto optimal outcome is generated. If one market is not functioning well, it becomes a constraint to other markets. A labour market that "works well" is necessary for other markets, and for economic growth. The standard benchmark for assessing whether the labour market works well or not is the classical competitive paradigm, where wages adjust to equate supply and demand in the labour market. In this market, wages should be flexible and be good signals for the efficient allocation of resources. The orthodox view associates persistent unemployment with labour inflexibility. The employment protection regulations and minimum wages in Zimbabwe have been widely cited as examples of factors impeding labour market flexibility and possibly causing unemployment. In the 1980s, these factors may have had a negative effect on the functioning of the labour market. Fallon and Lucas

(1993 and 1994) tested this empirically and found that protection regulations had a disemployment effect in the manufacturing sector. Besides minimum wages and employment regulations, institutional forces like trade unions distort the functions of the labour market and lead to unemployment. However, in Zimbabwe in the 1980s, trade unions were not that strong to bring about any negative effects.

Flexibility in the labour market is seen as central to any structural adjustment programme. Flexibility takes two forms – wage flexibility and employment flexibility. Wage flexibility usually refers to the speed at which real wages adjust to equilibrate supply and demand in the labour market. This includes the employers' ability to affect the wage rate. In this section we shall analyse the issue of wage flexibility and the unemployment problem during the structural adjustment phase.

The orthodox view of labour markets is that a fall in real wages must be accompanied by a fall in unemployment. In Zimbabwe the wage series indicate severe falls during the ESAP period (see Table 1 and Figure 1). In Figure 3 we show wage changes in four periods: pre-reform periods of 1980-1985 and 1986-1990, and the reform periods 1991-1995 and 1991-1997. Figure 3 shows that wage growth was substantial in the 1980-85 period, and low to modest in the 1986-90 phase. During the ESAP period of 1991-1995, however, wage growth fell quite sharply in all sectors. By including 1996 and 1997 we see that in the 1991-1997 phase, wage declines were moderated by substantial increases in some sectoral wages in 1996 and 1997. What these growth rates indicate is that there was real wage flexibility in the labour market, especially during ESAP.

The aspect of wage flexibility can also be investigated through correlation coefficients (Dureval and Ncube, 1999). Correlation coefficients between changes in wage costs and output give some insights into whether employers were able to adjust wage costs in the face of changes in the economic environment. Although correlation coefficients are not a watertight measure as they do not control for other factors, they nevertheless give rough indications of whether or not real wages adjusted to equilibrate supply and demand in the labour market. The correlation coefficients for the reform and pre-reform periods are presented in Table 8.

Table 8. Correlation between the rate of change in output and wage costs in GDP

Period	1986-90	1991-95	1991-97
Correlation coefficients	0.23	0.34	0.36

Source: Calculations based on CSO data (various).

The correlation coefficients clearly point to increased association between wage costs and output, an increase of at least 11 percentage points from the pre-reform period. Three factors might explain the increase in wage cost flexibility. First, the inflation triggered by ESAP may have facilitated real wage flexibility (Collier and Garg, 1995). Secondly, the engagement of large numbers of casual workers may also have contributed to adjustments of their working hours, hence their wage rates (Valenchik, 1996). Lastly, collective bargaining may have increased wage cost flexibility as it allowed for wages to be set at industry level.

Thus how can we interpret the evidence discussed above, and what can we infer about labour market workings? The evidence presented above suggests that wages were to a larger degree

flexible during ESAP. How then does this picture square with the employment situation during ESAP? During the same period over 50,000 workers lost their jobs, both in the public and private sectors. Unemployment persisted despite wage-cost flexibility and the fall in real wages, sometimes to less than half of their peak levels. It cannot be argued that wages did not fall fast and far enough to reverse the unemployment trend. The severe falls attest to the fact that the real wage inflexibility is not an appropriate explanation and one should look elsewhere for more plausible explanations. This conclusion implies that wage flexibility is not a panacea if the unemployment problem is to be solved. Severe declines in real wages beyond a certain point may actually increase unemployment because of their adverse effect on aggregate demand. If falling real wages are accompanied by a falling share of wages in national output, aggregate demand will fall, assuming that wage earners have a lower propensity to save compared to profit earners (Krueger, 1978).

According to standard trade theory, trade liberalisation in a country rich in labour and poor in capital should increase the demand for labour, real wages, and the share of wages in national income. In Zimbabwe, however, labour demand and real wages in fact followed an opposite course. This is true of the share of labour income as well after 1991, as may be seen in Table 9. Between 1985 and 1990 this share fluctuated above 47 per cent, but in 1991 it dropped to 43 per cent and then to below 40 per cent in most subsequent years. The profit share, on the other hand, increased from 50 per cent in the 1980s to an average of 60 per cent between 1991 and 1997. For profit recipients the gains were large among public corporations and financial institutions, while non-financial private sector companies only maintained their shares.

What then does this evidence imply about the predictions of theory? The fall in the share of labour income exonerates wage inflexibility as the cause of persistent unemployment; it rather suggests that severe real wage declines during ESAP may have precipitated low aggregate demand. Persistent unemployment may not have been a result of the labour market not working well or due to wage rigidity, but partly a result of poor aggregate demand feedbacks from real wages.

5.1 Labour productivity and wages

Figure 4 depicts trends in labour productivity (measured by value added per worker in the formal sector) and real wages in five sectors – agriculture, mining, manufacturing, construction, transport – as well as in the entire formal sector. They reveal wide and increasing divergence between labour productivity and real wages in virtually all sectors. Real wages either remained stagnant or declined from the mid-1980s to the mid-1990s. This picture also obtains for the formal sector as a whole (last graph). Sharp increases in labour productivity and adverse real wage trends have resulted in structural shifts in the functional distribution of income against labour. Labour has continued to be marginalised in the sharing of productivity benefits. To arrest this unfavourable trend in the functional distribution of income it is important that wage adjustments are by and large linked to productivity.

5.2 Wage demand elasticity

Another well-known relationship in labour market theory is the negative one between wages and employment. According to standard theory, high labour costs arising from high product wages retard employment growth. To investigate this relationship, we estimated some simple sectoral employment equations, where employment is a function of product wages (wages deflated by the GDP deflator), output (as measured by GDP), employment lagged once, and a trend term to capture the state of technology. The results are reported in Table 10. On the third column of this table we report a battery of statistical and diagnostic tests. Generally all these tests suggest well-behaved models.

The regression results suggest that output significantly explains employment in agriculture (at 10 per cent level of significance), manufacturing (1 per cent significance level), and the formal sector as a whole (1 per cent significance level). The output elasticities show greater responsiveness in the manufacturing sector where a 10 per cent increase in output boosts employment by 2.7 per cent. The trend squared – a proxy for the state of technology – is statistically significant in all the regressions, save for the mining sector. This means that technological changes are progressive as far as labour absorption is concerned. The lag of employment is significant in all the four regressions.

The coefficient on the lag of the dependent variable measures how fast/slow industries adjust their labour to shocks (Hamermesh, 1993). The speed of adjustment in the formal sector is 28 per cent. This value implies that employers are able to correct 28 per cent of their previous year's deviation from the long-run equilibrium in one year. The size of the coefficient (28 per cent) indicates a modest speed of adjustment, suggesting some mild distortions in the labour market. This probably captures the distortions of the 1980s, especially the incomes policies and employment regulations alluded to earlier. However, the selected sectors – agriculture, mining and manufacturing – exhibit higher speeds of adjustment than the formal sector as a whole. The sectoral adjustment speeds are, respectively, 37 per cent, 30 per cent and 38 per cent. Ncube (1997b) estimates the speeds of adjustment during the Unilateral Declaration of Independence (UDI) period [1965-79], first post-independence decade [1980-1990] and ESAP periods [1991-1995] for the manufacturing sector. The speeds of adjustment during these three periods were respectively, 39 per cent, 40 per cent and 43 per cent. These estimates suggest more employment flexibility during ESAP than the previous periods.

The median lag length for the entire formal sector was calculated. The median lag length t* is the time it takes for the system to move halfway to the eventual equilibrium in response to a shock. We derive t* from solving for t* in the formula $\eta^t = 0.5$ (see Hamermesh, 1993, p. 248), where η is the coefficient on the lagged dependent variable. The median lag length in the formal labour market as a whole is 0.54. This implies that it takes about two quarters of a year to move halfway to the equilibrium in response to a shock.

Turning to the coefficient of interest, the wage coefficient, we note that the signs of the coefficient are all negative and insignificant in all the sectors. This result implies that real product wages are not a deterrent to employment. This further supports earlier results that wage inflexibility in Zimbabwe is not a particularly important issue in the unemployment debate. The results further point to aggregate demand stimulation as one of the key variables for increasing employment.

Table 9. Functional income distribution (percentage shares)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Wages and Salaries	47.7	49.1	53.7	49.1	47.2	47.0	42.8	42.7	39.9	37.4	42.6	36.8	38.8
Gross Operating Profits	52.9	51.4	46.7	50.8	52.4	52.9	57.5	56.5	59.9	63.0	57.0	62.7	60.6
Unincorporated Companies (non-financial)	30.0	28.4	24.8	26.9	30.7	29.3	33.4	31.3	35.0	34.1	23.7	34.0	30.3
Financial Institutions	16.2	15.2	11.1	14.6	12.1	15.7	16.7	14.7	12.5	16.0	17.6	15.2	16.0
Public Corporations (non-financial)	5.4	4.8	6.5	5.4	6.0	5.0	4.6	6.9	6.0	7.0	7.7	6.7	7.0
Gross Domestic Income (at factor cost)	0.8	2.7	3.9	3.3	2.6	2.8	2.5	3.2	6.0	5.2	7.3	6.3	6.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Durevall and Ncube, 1999.

Table 10. Employment functions (Endogenous variable: Employment)

	Agriculture		Mining		Manufacturing		All sectors	
	Coefficient	t-value/ probability[1]	Coefficient	t-value/ probability[1]	Coefficient	t-value/ probability[1]	Coefficient	t-value/ probability[1]
Explanatory variables								
Constant	3.1314	5.4440	2.1120	0.9990	2.5531	2.0050	1.3015	1.0190
Output	0.0828	1.8180	0.0828	0.3650	0.2732	5.6690	0.1249	4.0990
Wages	-0.0446	0.9890	-0.3099	1.1700	-0.1979	0.1250	-0.0458	1.2560
Employment lagged	0.3714	3.8530	0.3030	2.7970	0.3820	3.0760	0.2829	4.3770
Trend squared	0.0011	3.6540	0.0007	0.3960	0.0021	5.5520	0.0010	4.4260
Statistical tests								
R-squared	0.96		0.73		0.89		0.98	
F-value	84.730	0.000	8.315	0.002	25.015	0.000	170.340	0.000
Standard error	0.0205		0.0541		0.0241		0.0131	
Diagnostic tests								
AR(1)	0.0534	0.9480	1.3442	0.3041	1.5424	0.2607	0.0436	0.9575
ARCH	0.4077	0.5375	0.0053	0.9434	3.4263	0.0939	0.3844	0.5491
Normality	6.6584	0.0358	0.4856	0.7844	0.5056	0.7766	3.5640	0.1638
Reset	0.0150	0.9047	0.2621	0.6188	0.0211	0.8872	1.9311	0.1921

[1] t-values relate to coefficients while probability values relate to statistical tests.

6. Conclusion and policy recommendations

An important finding of this study that has a direct bearing on one aspect of the current employment policy debate is that real wages in Zimbabwe have fallen sharply during ESAP and have been flexible. There has been a tendency to criticise the pattern of wage growth in the 1990s on the grounds that wages are inflexible and therefore a cause of the unemployment crisis. The analysis reveals that real wages are in fact flexible in Zimbabwe. The preoccupation with flexibility in the labour market as a panacea for unemployment must also be weighed against the consequences of this obsession for workers. Wage flexibility attained through declines in real wages may throw many workers and their families into abject poverty, further aggravating aggregate demand and unemployment. In addition, employers have enhanced their wage-cost flexibility by increasing their use of casual labour. Flexibility must be weighed against the plight of such vulnerable groups in the labour market. In a country with limited social safety nets, sharp falls in real wages and significant casualisation of labour swell the ranks of the working poor. The plight of such workers calls for some form of selective protection which will not compromise flexibility.

The collapse of real wages inevitably changes the labour market landscape by giving rise to non-standard activities as workers try to cushion themselves against rapid and deep wage declines. Declining real wages lead to a deterioration in worker morale, high incidences of "moonlighting" and "sunlighting", high prevalence of rent seeking behaviour, and contributes to outright corruption. Such developments have profound implications for productivity, quality of services and efficiency.

A decline in real wages beyond a certain point, coupled with a rising share of capital in national income, has serious adverse implications for aggregate demand. We saw earlier that employment responds positively and strongly to output growth. This suggests that poor aggregate demand feedbacks in Zimbabwe may be a far more important contributor to the country's unemployment crisis than the inflexibility of wages.

A wage policy must be pillared on decentralised, coordinated and synchronised collective bargaining, in private and public sectors alike. In the public sector, there is no collective bargaining at the moment and that is why wages in that sector sometimes lag behind those of the private sector. Collective bargaining should be decentralised so that differences in ability to pay are taken into account at different levels. However, to minimise chances of wages in different sectors leapfrogging each other, these adjustments should be coordinated and an institution, such as a Labour Commission, could be set up to, inter alia, coordinate and synchronise wage settlements to minimise such chances.

Our analysis also suggests that wage-cost flexibility can be introduced via profit sharing schemes. Profit sharing can be beneficial to the economy as it promotes a stable, loyal and productive labour force. In the long run profit sharing schemes could have positive employment effects through improved productivity.[2] Such schemes need to be encouraged by the government through tax-based incentives.

The analysis on real wages and productivity trends revealed that the gap between wages and labour productivity is widening, with the wage trends somewhat declining while productivity is rising quite rapidly. This implies that the functional distribution of income is increasingly pro-

[2] Obviously other mechanisms must be put in place to improve productivity.

profit, a situation that calls for a wage policy that would encourage the linking of wage settlements to productivity changes.

The analysis of wage differentials highlights the fact that labour markets in Zimbabwe typically contain considerable wage variations. Gender and racial wage differentials are common in the labour market. However, their cause could not be diagnosed as no proper data exist to accomplish this task. Thorough research in these two areas is necessary.

Labour markets can broadly be divided into urban formal, urban informal and rural. Incomes in the three labour markets differ, with the informal and rural labour markets at the lower end. Wages in the informal and rural labour markets are low primarily because of low productivity. The two labour markets also mask a lot of underemployment and poverty. To raise wages and therefore standards of living for workers in these sectors it is important to improve worker productivity. Productivity can be enhanced through vigorous human capital and infrastructure development, technology transfer, subcontracting, franchising, access to affordable capital and land.

The labour market also contains considerable inter-industry and occupational wage variations. The analysis here points to the existence of some efficiency wage and rent sharing behaviour in the labour market. Efficiency wages may to some small extent explain part of the current unemployment crisis. To reduce the frequency of such wages it is important that labour market information is provided and disseminated widely to labour market participants. This includes information on wages, unemployment levels, skill shortages, etc.

An attempt was made to analyse factors behind the wage formation process. The analysis permits some tentative conclusions about the role of different macroeconomic variables on this process. Three factors that seem to have played a major part in the wage formation process are the orientation in the policy framework, previous wages, and prices. The trade orientation variable points to the depressing effect on wages of opening up the economy, contrary to the general predictions of ESAP proponents that trade liberalisation would lead to an increase in wages in a labour abundant country. The analysis suggests that wages moderately adjust back to equilibrium in response to a shock in the labour market. In fact almost a third of adjustment is done in one year if the market is in disequilibrium.

On prices the analysis suggests that labour market participants regard previous inflationary experience as a vital piece of information when making decisions on wage adjustments. Such evidence points to the existence of a process whereby wages leapfrog inflation or vice versa. Wage adjustments can determine the levels of price adjustments, while in turn price adjustments determine the magnitude of wage changes. The process of wage adjustments tailing prices or the other way round, can be very damaging to overall economic growth and can wipe out all the employment creation prospects in the economy. This wage-price cycle has to be broken. Wage indexation is not the solution, but a social pact among stakeholders (government, trade unions and employers) is one way to break this cycle. Through a social contract stakeholders commit themselves to solving the problems that affect the economy. A social contract ensures that all stakeholders cooperate in finding solutions to national problems. It has the power to moderate excessive growth and erratic fluctuations in macro prices. It also minimises any speculative behaviour, which reinforces distortions in the economy. Above all, a social contract minimises fiscal slippages, ensures adequate monitoring and accountability of all expenditure systems, and ensures transparency and policy consistency. In the labour market a social pact can ensure that labour restrains wage adjustments that would otherwise influence price adjustments, and

producers will in turn restrain excessive price increases that would exert pressure on wages. A speedy drive towards a social pact is therefore crucial

In the wage formation analysis it was noted that incomes policies indeed pushed average wages above their historic path in the 1980s. However, this study does not recommend such conventional incomes policies anymore (as the consequences were clear), but we propose a tax-based incomes policy (a tax on excessive wage growth or a progressive tax on wages). This is a financial penalty that acts as a disincentive to excessive wage settlements. The tax (especially a tax on wage growth), besides containing inflationary pressures, may also reduce unemployment. The result of a high tax penalty is lower wage pressures, lower labour costs and more new jobs. Such a tax however should not detract from wage increases that are justified by higher productivity. Proceeds of such taxes can be channelled back to vulnerable workers.

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