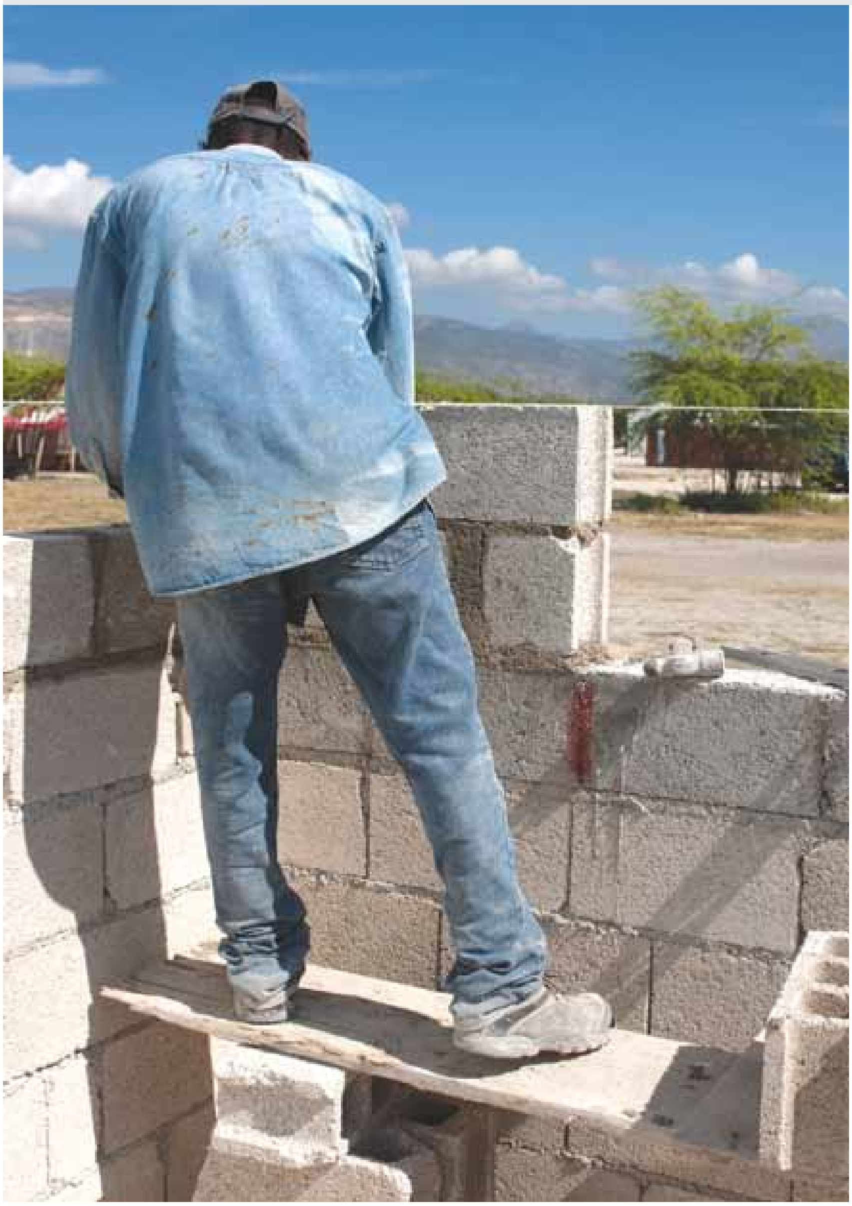
National minimum wage

Reducing poverty and inequality, spurring economic growth

Expert statistical modelling commissioned by the University of the Witwatersrand's **National Minimum Wage Research Initiative (NMWRI)** reveals that a national minimum wage in South Africa would considerably reduce poverty and inequality while spurring economic growth, without significant adverse effects.



The findings from the modelling concluded:

- **By boosting wages a NMW increases spending thereby inducing higher output in the economy.** GDP growth increases by an additional 0.5% per year for higher levels of a NMW. A NMW provides a considerable boost to incomes, consumption, and output. Total employment expands too.
- **Higher wages mean a higher quality of employment in the economy.** This occurs in two ways: employment shifts within the economy and workers earn a fairer wage.
- **Short-term increases in the unemployment rate are minimal relative to the deep reductions in poverty and inequality.** In all scenarios the number of people employed increases as a result of the economy and output expanding – although the unemployment rate rises marginally. When set at the highest level, a NMW increases unemployment by only 0.2% over the five-year period modelled; a range of complementary policies could offset this. Reductions in inequality and poverty are significant.

- **A NMW is an effective tool to decrease inequality and poverty in South Africa.** The percentage of the population living in poverty decreases by a substantial 1.3% to 2.6% as a result of a NMW. The Gini index measuring inequality decreases by between 0.4% and 1.7%.
- **Lower-income households stand to benefit most from a national minimum wage.** Poverty decreases particularly strongly among the bottom 20% of the population. For the highest NMW modelled, the poverty rate in 2020 for the bottom fifth of the income distribution is 9% lower at 60% compared with 69% in the baseline scenario.
- **Significantly stronger adverse effects are not found at progressively higher levels of a NMW indicating flexibility in the level at which a NMW can be set.** Higher levels of a NMW are found to moderately increase the unemployment rate while substantially further reducing poverty and inequality, and increasing output. Compared with a low minimum wage, a higher minimum wage results in an additional 0.3% gain in Growth Domestic Product (GDP), an average wage 20% higher, and poverty falling by a further 2.3 percentage points. The unemployment rate is on average 0.1% higher.
- **A NMW helps to establish the conditions for sustained higher economic growth in the long run.** It should be used in conjunction with complementary policies to increase productivity and industrial diversification. International experience indicates the potential for complementary policies to leverage higher wages to more strongly increase productivity and expand employment and industrial diversification.

MODEL DETAILS

Wits University's NMWRI commissioned Applied Development Research Solutions (ADRS) to undertake this modelling. This was done using ADRS's Dynamically Integrated Macro-Micro Simulation Model (DIMMSIM) of South Africa, constructed over the last 15 years. This is a non-linear inter-temporal dynamic model, which incorporates the aggregate economy and households, allowing feedback between the two.

The micro component of the model includes a full microsimulation of taxes and transfers. Its macroeconomic component consists of more than 3,200 equations and more than 400 behavioural equations. It is built using modern time series estimation methods. The equations capture the structure of the National Income and Product Account (NIPA) in a highly disaggregated manner that includes seven estimated variables for 41 economic sectors:

- 45 categories of investment
- 45 categories of employment
- 45 categories of average remuneration rates
- 45 categories of outputs
- 45 categories of exports
- 45 categories of imports
- 103 categories of prices
- 26 categories of private consumption expenditure
- 16 categories of private sector's income and expenditure
- 16 categories of households' income and expenditure
- 28 categories of government sector income and expenditure.

FOUR SCENARIOS

Raising wages to levels defined in each scenario simulates the implementation of a national minimum wage. The analysis thus far covers five years; a longer-term analysis is currently being undertaken.

Baseline: This is what the South African economy would behave like if no NMW was implemented. It is 'business as usual', premised on current policies and following the existing growth path. The simulation compares four scenarios against this 'baseline scenario'.

Minimalist: The first scenario is a 'minimalist' one with a national minimum wage in 2016 set at R2,250, slightly above the current lower sectoral determinations. This is then adjusted for inflation each year after that.

Maximalist: The 'maximalist' scenario sets a national minimum wage at R6,000, covering about 65% of full-time workers. It is increased annually by inflation plus 2% to close the gap that has emerged between labour productivity growth and growth in real wages.

This scenario sets three 'tiers' for very low-wage sectors, an established international practice. Agricultural workers earn 80% of the national minimum wage, domestic workers 70% and employees of the government's Expanded Public Works Programme 60%.

The third and fourth scenarios are 'indexed'. They benchmark the national minimum wage against a certain percentage of the average wage – also an established international practice – and gradually increase it over time. Tiers are also used.

Index 40%-45%: The first indexation scenario starts at 40% of the 2015 average wage for full-time workers, R3,467, and increases yearly to reach 45% by 2020 (adjusted for inflation).

Index 45%-50%: In the second indexation scenario the starting point is 45% of the 2015 average wage for formal sector full-time workers, excluding agriculture and domestic work, an amount of R4,623. This is gradually increased to 50% of the inflation-adjusted average. The higher amount ensures that workers earn enough to meet their basic needs, the central purpose of a national minimum wage.

This very slight increase in the unemployment rate fits the pattern observed internationally. It is a minor trade-off when considering the significant increases in the wages of wage earners, increases to household income (shared with the unemployed) and positive growth effects. In all scenarios labour productivity increases marginally.

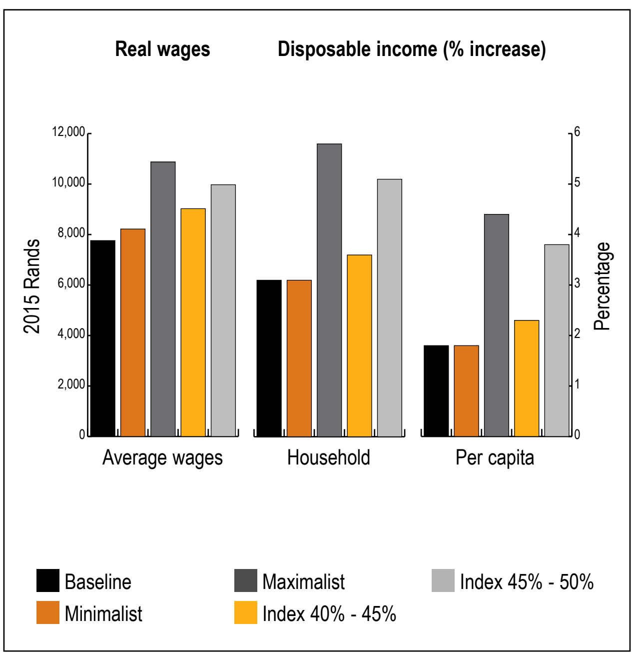
REAL AVERAGE WAGES AND DISPOSABLE INCOMES INCREASE

The impact on incomes is understandably positive and leads to rising household spending.

Figure 1 shows that average real wages for full-time employees are higher than the baseline in all other scenarios. The maximalist scenario, unsurprisingly, has the largest impact, increasing average real wages by 28% to R10,877 by 2020. The minimalist scenario produces the lowest increase, reaching R8,219, just above the baseline scenario of R7,779. Wage increases disproportionately benefit the poorest.

Given the rise in wages we see an increase in per capita and household disposable income, meaning that household spending increases. The indexation scenarios fall between the minimalist and maximalist positions with the 45% to 50% indexation scenario producing average annual increases of 5.1% and 3.8% to per capita and household disposable income respectively.

Figure 1: Real wages and average annual increases to disposable income (2016 – 2020)

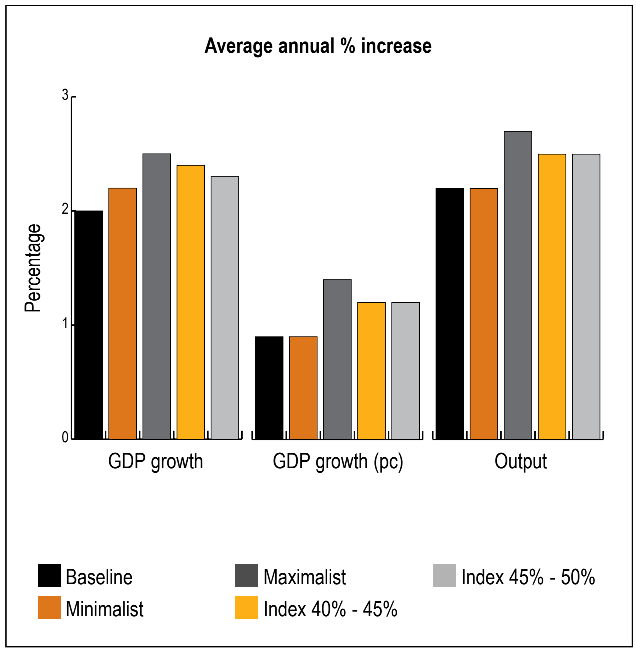


ECONOMIC GROWTH IS BOOSTED

The rise in incomes stimulates growth through increased spending as shown in Figure 2.

Real GDP growth in the baseline scenario averages at only 2% but rises to between 2.2% and 2.5% with the institution of a national minimum wage. Unsurprisingly, the average annual percentage increase to output is above the baseline in all but the minimalist scenario, and sits at 2.5% for both indexation scenarios.

Figure 2: GDP and output growth (2016 – 2020)



These results are extremely important. Stimulating output and growth in the economy in the near term (five years) can have long lasting effects in changing the path of the economy in the long term.

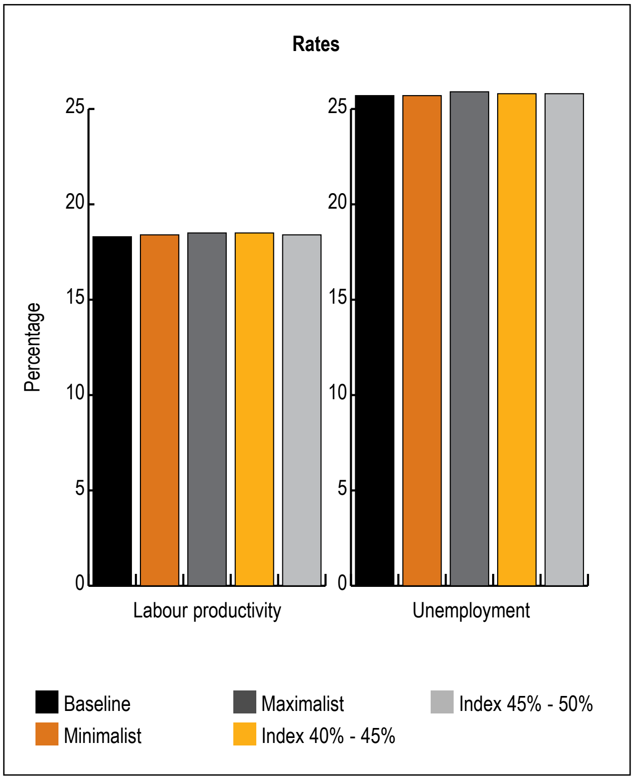
EMPLOYMENT INCREASES, UNEMPLOYMENT RATES RISES MARGINALLY

In all scenarios the number of people employed increases while the unemployment rate rises marginally above the baseline.

The minimalist scenario leaves the unemployment rate unchanged, the maximalist lifts it by 0.2% higher than the baseline, and indexation results in a negligible 0.1% above the baseline.

This very slight increase in the unemployment rate fits the pattern observed internationally. It is a minor trade-off when considering the significant increases in the wages of wage earners, increases to household income (shared with the unemployed) and positive growth effects. In all scenarios labour productivity increases marginally.

Figure 3: Average rates of labour productivity and unemployment (2016 – 2020)



NMW AN EFFECTIVE TOOL

The national minimum wage results in a decrease in poverty and inequality in all scenarios.

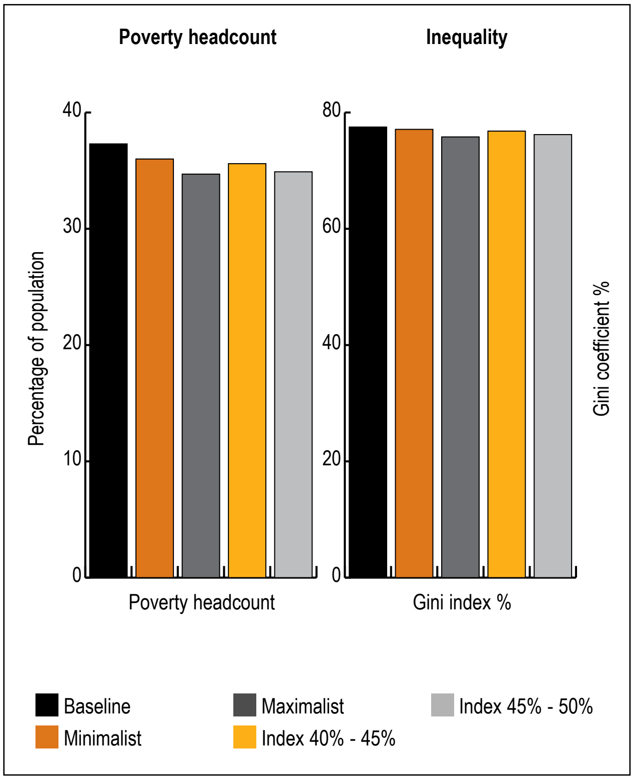
In Figure 4 the baseline projection for the 'poverty headcount' – the percentage of the population defined as poor – is 37.3%. This falls in all scenarios after the institution of a national minimum wage. The most dramatic decrease, of up to 2.6%, is in the scenarios with higher NMW.

Similarly, instituting a NMW results in a decline in inequality. We should recall that inequality between income earners (and not unemployment) is the main driver of inequality.

The magnitude of this reduction in inequality is directly related to the level, with a low national minimum wage in our minimalist scenario having the least impact. This does not take into account the internationally recognised 'ripple effect' through which increased wages at the bottom end of the distribution increase wages higher up in the distribution. The impact on inequality is likely to be greater than shown.

These decreases, while not huge, reveal the potential of a national minimum wage to contribute to the fight against poverty and inequality.

Figure 4: Poverty and inequality (2020)



CONCLUSION

The simulations show that a NMW meaningfully boosts growth and leaves households significantly better off. Alone it does not raise employment but it opens the space – via increases in purchasing power, demand and output – for other policy interventions that could spur long-term growth and employment.

Modelling is not a perfect prediction. A range of economic and political events could throw these estimates off. But what can be neatly compared is the difference between the baseline 'business as usual' scenario and the introduction of a national minimum wage in various forms.

This exercise shows, differentiation notwithstanding, that a national minimum wage set at levels high enough to meet workers' basic needs can have a positive impact on wages, consumption, growth, poverty and inequality, without dire consequences for employment or inflation. Overall, the economy is left significantly better off. LB