

Who benefits from productivity growth? The labour income share in New Zealand

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This *Cut to the chase* discusses the results of the New Zealand Productivity Commission working paper: *Who benefits from productivity growth? The labour income share in New Zealand*, written by Paul Conway, Lisa Meehan and Dean Parham.

Introduction

The labour income share (LIS) measures the split of national income between workers who supply labour and the owners of capital. Because an increasing number of people earn income by both participating in the labour market and owning capital, the LIS indicates the income split across inputs to production, rather than across two distinct groups of people in the economy.

The LIS has recently been the focus of considerable international concern that growth in real wages has fallen behind growth in labour productivity. When this occurs, the LIS falls as the share of national income going to labour decreases and capital receives a bigger slice.

While this work is mainly about the split of the income “pie” across labour and capital, it is also important to keep in mind the growth of the pie as a whole. For example, if productivity growth is fast enough, real wages could still be rising at a reasonable pace even when the LIS is falling. To the extent that income has an important bearing on wellbeing, this may be preferable to an economy in which the LIS is constant because real wages and productivity are both stagnating.

The LIS only describes the broad split of national income between labour and capital. Because significant components of income are excluded – such as government transfers through taxes and benefits – this analysis does not provide a comprehensive picture of changes in New Zealand’s personal and household income distribution. However, because capital income still tends to be distributed more unequally than labour income, falls in the LIS are associated with a widening in the income distribution, all other things being equal.

Ideally, this study would cover the whole economy. However, for data reasons it is restricted to what is called the “measured sector” of the New Zealand economy. This accounts for just over 60% of GDP and includes all industries in the primary and goods-producing sectors, plus some (but not all) service industries.

The international context

Over the last three decades, the LIS has fallen in most OECD countries as capital has received an increasing slice of national income. In the last decade or so, there is also evidence of sharper falls in the LIS in some countries, including the United States. This fall in the LIS has been attributed to a number of influences, including new technology, globalisation and policy changes that have eroded worker bargaining power.

Technology is moving ahead in leaps and bounds internationally, bringing great potential for improvements in global living standards and wellbeing. As with previous waves of innovation, economic adjustment to these profound shocks is disruptive, with new technologies changing the work people do. Technological change does not affect all workers in the same way, with some finding their skills fit well with new technologies while others find their jobs have been automated or rendered redundant.

Ongoing globalisation is also playing a role in labour markets. The internationalisation of production has effectively increased the supply of low- and middle-skill workers, reducing job opportunities and wages for these types of workers in high-income countries. Increased competition from imports has also raised competitive pressures on domestic businesses, encouraging them to be more efficient and constrain their costs, including labour costs.

The New Zealand picture

The LIS has declined within the measured sector of the New Zealand economy since the late 1970s (Figure 1). Much of this decline occurred in three short periods and can be traced to the influence of government interventions and the distortionary impact of high and volatile inflation.

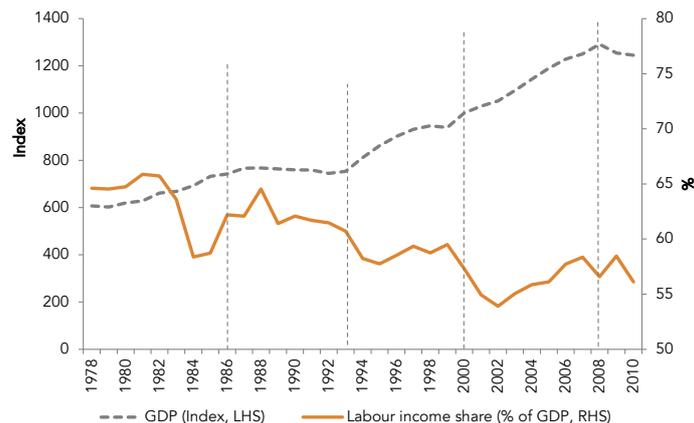
1982-1984	1992-1995	1999-2002
The price and wage freeze led to real wage falls and a sharp increase in the return on capital, causing the LIS to fall. This fall proved to be partly temporary.	Strong productivity growth, coupled with real wage restraint, led to strong returns on capital and the LIS fell markedly.	Increased product price inflation was not anticipated in nominal wage setting and the return on capital increased. This was also largely temporary and the LIS rose on average over the remainder of the 2000s.

Outside these three short sharp falls in the LIS, there is some evidence of a more general decline, consistent with the impact of new technology and globalisation seen in other countries. Although cross-country comparisons are difficult, this trend decline in the LIS may be less marked in New Zealand given that much of the fall occurred over three short periods. New Zealand's LIS has also increased on average since 2002, in contrast to the ongoing fall in some countries.

Policy may have also played a role in New Zealand in that some changes may have altered the balance of bargaining power between workers and capital owners. For example, privatising some firms in New Zealand's utility industries in the early 1990s foreshadowed a period of strong productivity growth in conjunction with employment cuts, adding to the decline in the LIS. While this may indicate over-employment in these firms prior to reform, new technologies that improved labour productivity while at the same time reducing the need for workers may have also played a role.

It is important to reiterate that this estimate of the LIS is only for the measured sector of the New Zealand economy. If the LIS in industries outside of the measured sector – which includes the labour-intensive education and health sectors – is constant or increasing, then change in the LIS at the aggregate economy level will be less negative than is reported here for the measured sector.

Figure 1 GDP growth and the labour income share in the measured sector



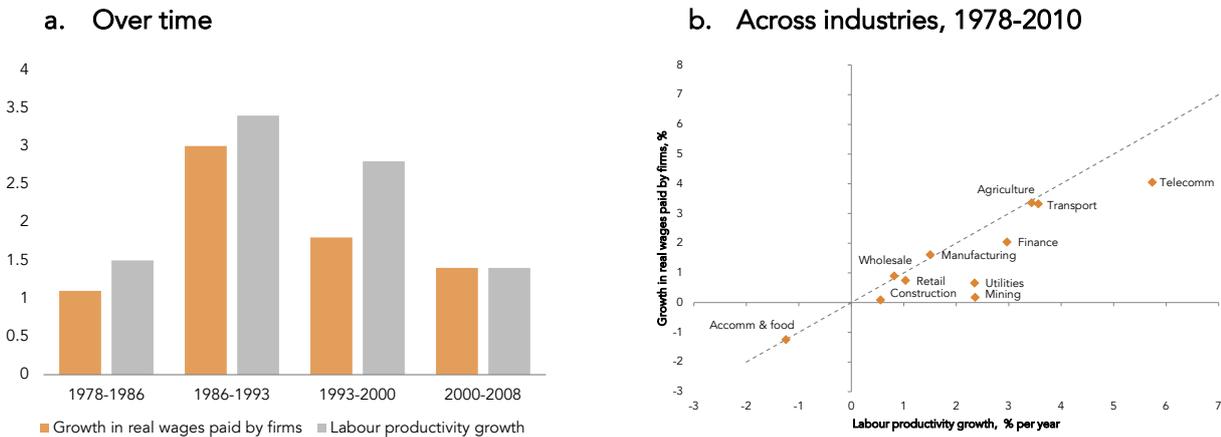
Labour productivity and real wages

If workers sense they are not benefitting adequately from productivity improvements, community acceptance of policies aimed at enhancing general living standards and wellbeing via productivity growth could be undermined. Movements in the LIS show the extent to which changes in labour productivity translate into real-wage growth and provide a useful window to examine this issue.

Although New Zealand's recent productivity performance is looking up, the record over the long term leaves much to be desired. Following a long period of poor performance, productivity growth picked up in the mid-1980s as a programme of economic reforms got underway. Productivity growth slowed in the 2000s before improving over more recent years.

Even though the LIS has fallen overall in the measured sector, the evidence is that the real wages firms pay their workers increase more rapidly when productivity growth is strong. Over time, growth in real wages paid by firms in the measured sector was strongest during New Zealand’s period of high productivity growth from the mid-1980s to 2000 and much weaker when productivity growth was lower (Figure 2a). This link between productivity and real wages paid by firms can also be seen across the industries that make up the measured sector, with higher real-wage increases more likely in high-productivity-growth industries (Figure 2b).

Figure 2 Growth in labour productivity and real wages, New Zealand’s measured sector



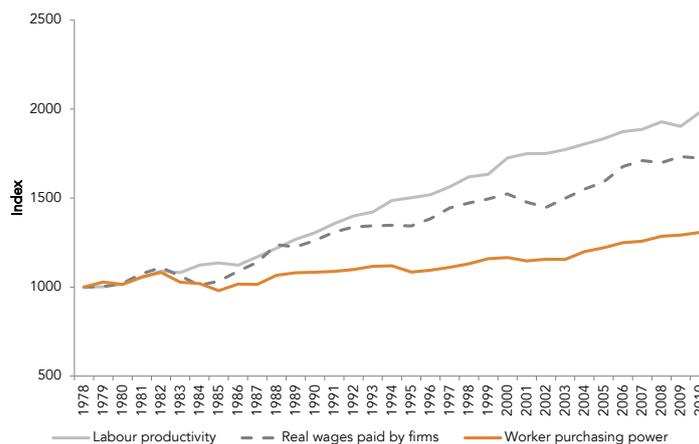
The purchasing power of wages

LIS analysis is conducted from the perspective of real wages as a cost of production for firms and deflates nominal wages by the price of the output workers produce. However, from a personal income point of view, it is the real purchasing power of wages that matters. Because workers consume a much broader range of goods and services than they produce, their purchasing power differs from the real wages paid by the firms that employ them.

For workers in the measured sector of the New Zealand economy, the overall price of the goods and services they consume has increased considerably more quickly than the price of the output they produce. An important reason for this is that some service industries outside the measured sector suffer from relatively poor productivity growth and high price inflation for their output. This feeds into consumer price inflation, reducing the purchasing power of workers in the measured sector.

Of course, this is not the only reason why consumer price inflation can differ from output price inflation in the measured sector. For example, housing-related costs influence worker purchasing power but typically have no bearing on firm output prices. Export and import prices may also have an impact, although rising terms of trade will tend to increase output prices for firms while reducing consumption prices for workers.

Figure 3 Labour productivity, real wages paid by firms and purchasing power



Because CPI inflation has been greater than inflation in the price of measured-sector output, growth in the purchasing power of workers has been weaker than real wage growth as perceived by the firms that employ them (Figure 3). Specifically, from 1978 to 2010, real wages paid by firms in the measured sector increased by 1.7% a year while the purchasing power of the workers they employ grew by a much more modest 0.8% a year.

Conclusions and the role of policy

Although the current wave of new technology has been “labour-saving”, its long-term impact on the labour market is unclear. In the long run, improved technology and higher incomes tend to generate greater demand for products and services, which creates new jobs for displaced workers. New technology may ultimately create as many or more jobs than it destroys. However, getting to that point takes time, as innovation runs ahead of people’s capacity to adjust. So rapid technological progress, while improving productivity and living standards, carries with it the risk of a period of disorienting and uncomfortable change.

In New Zealand, the LIS mostly declined in three short bursts, and then increased on average from the early 2000s, in contrast to further falls in a number of other countries. This could be because earlier reforms increased the flexibility and resilience of the New Zealand economy to adapt to technological shocks. Alternatively, it may also be that factors such as relatively low wages and high capital costs, coupled with small domestic markets and limited international engagement, discourage firms from investing to the same extent in new capital and technology.

Whatever the reason, the potential for new technology to disrupt labour markets is unlikely to end anytime soon. In meeting this challenge, policy should seek to improve the flexibility and resilience of the economy. The emphasis should be on adapting to change, rather than resisting it. For instance, the education system needs to be of high quality and responsive to changing labour-market needs to provide new and displaced workers with the skills to make the most of new technology. Investing in the complementary skills necessary to win the “race between education and technology” is critical to helping people benefit from new technology and minimising harmful effects.

Barriers that prevent workers from moving to where they can work most productively – such as excessive occupational licensing – also need to be removed. How well talent is created and allocated is central to adapting to change and improving productivity. For example, young firms experimenting with disruptive new technologies need to be able to attract workers with the right skills. Reducing barriers will also encourage new technology and innovation to spread through the economy, eventually improving productivity and bringing down costs in less dynamic parts of the services sector. There is also a geographic aspect to improving economic resilience – a limited housing supply can price workers out of economically dynamic places and also reduce people’s capacity to adapt to change.

Even if policy is set just right to ensure that the growth benefits of technology are widely spread, a social safety net will still need to catch people who fall through the cracks. Accordingly, policy must ensure that social support and services function effectively to deal with the side effects of rapid technological change.

Full paper and related research available from www.productivity.govt.nz/research

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