Innovation, Productivity and Growth: The New Zealand Response to a Changing Labour Market.

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Ashleigh Lee – Innovation, productivity and growth: The New Zealand response to a changing labour market.

The labour market is constantly evolving. Previously stable jobs have all but disappeared whilst technology improvements have given rise to jobs that never existed even a decade ago. This transitioning labour market has implications both good and bad for the New Zealand economy; it is important that policymakers stay ahead of the game and are proactive rather than reactive in recognising and responding to threats and opportunities. This essay will discuss the risks and opportunities associated with the evolution of the labour market, as well as further exploring possible policy responses to these future trends.

Transitioning labour markets is hardly a new phenomenon. As technology and innovation continue to revolutionise the way work is done, and indeed what work is done, so the labour market must continually adapt. The motivation for such transformations spring from our desire to do better, be faster, and continue improving living standards. But despite the best intentions, it is not the case of a rising tide which lifts all boats; there will be winners and losers, and already we have seen that people with skills that have become less valuable have seen their wages fall as a result. Thus unemployment, and a greater dependency on social welfare is one of the economic risks.

There is also the risk that the redistribution of labour towards the more highly-skilled deepens the level of income inequality in the country. Dixon and Maré (2013) find that during the global financial crisis the incidence of cyclical job loss and unemployment fell disproportionately on young and unskilled workers, highlighting the risk of inequality and the social risk of a greater burden on our youth. This is a significant risk considering that the youth will also bear the burden of supporting an aging baby boomer population as they move into retirement. Despite the fact that historically new jobs have been created to replace those which are eliminated, there is still a period of disruption whilst this is happening (Dubner, 2016). Dixon and Maré (2013) found that workers who left or lost their jobs spent longer out of work and settled for lower earnings growth when they did find a job, emphasising the aforementioned economic risks.

Identifying risks is important, but of course does not represent the whole picture. An evolving labour market offers opportunities in equal measures. The most obvious gain, is that of productivity. Speaking about productivity Blinder and Baumol (as cited in Conway & Meehan, 2013) state that "nothing contributes more to the reduction of poverty, to increases in leisure, and to the country's ability to finance education, public health, environment and the arts". The same technology and process improvements that disrupt the labour force, offer potentially substantial gains in productivity, an opportunity that will be discussed further in this essay.

Gains in productivity contribute to economic growth, and so in turn, can present further opportunities such as improving equality through greater social welfare, and improving the average quality of life through improved healthcare and other services. It also offers us the opportunity to remain competitive internationally and promote foreign direct investment. In terms of sustainability, an evolving labour market offers both risks and opportunities, depending on the nature of the

technological improvements. Where we can develop more sustainable technologies and improve the efficiency of the production process, we can make more sustainable use of resources.

People in employment are likely to have improved wellbeing and participation in society (Halliwell, Layard, & Sachs, 2012). So what should policymakers do to protect those who lose their jobs or receive a lower wage due to transitioning labour markets? The answer is two-fold. Firstly, preventative measures should be undertaken, recognising the need for the population's skill-base to keep up with the needs of employers. Secondly there is a need to enact policy to support those people who are adversely affected, and to help them to upskill or find alternative work.

Increasing job-seeking resources is important, and programs such as Vocational Pathways, which focus on skill development for those most in need are wanted (OECD, 2015). Increasingly New Zealand suffers from a divergence between skills demanded by employers and those supplied by the education sector (OECD, 2013). Addressing this would involve increasing the participation of disadvantaged youth in apprenticeship programmes, and enhancing such programmes' training and skills components (OECD, 2015). Further linkages between tertiary education providers and employers, as well as quality careers guidance could further assist the labour force in keeping up with labour market trends. Two potential caveats associated with these proposals are that they could promote an element of inequality (given that the focus is on assisting only the less-skilled, possibly to the detriment of high-achievers), and secondly that as with any policy involving cost to the government, there is an inherent opportunity cost of the expenditure.

The equally important but more controversial policy, is the need for social welfare to help those who are not in work, or not earning sufficient wages. This would require greater government transfers, and most likely a more progressive income tax regime to finance this spending. As before, one of the implications of such a policy is that it's effects are felt differently across society. It could however help to address the growing inequality problem in New Zealand. If we were to subscribe to the opinion of techno-optimists, this policy need would become even greater, as they predict a future in which full-time work is not required by everyone in the labour force due to significant progress in technology and artificial intelligence. Taking this into consideration, a more radical policy, which should be considered in long-term economic planning, is that of a guaranteed minimum income.

A guaranteed minimum income could come in various forms; for example a payout regardless of income, or only for low-income earners, or a negative income tax where benefits decrease as your income increases (but less than proportionately). Whilst such a policy may seem unrealistic, similar proposals are under consideration in countries such as Switzerland, Finland and Canada (Dubner, 2016). The obvious benefit of this minimum income is that it would ensure a basic quality of life for everyone in New Zealand, no matter what changes occurred in the labour market. The main criticism is that it disincentivises work; but this does not necessarily have to be the case, and indeed a study done in Canada offering

a guaranteed annual income to residents of a particular town found that primary earners didn't reduce the number of hours worked significantly (Dubner, 2016). Another obvious issue is how it would be funded, whether by increased taxation, from the simplification of the welfare state, or from the productivity gains which brought about the labour market transformation.

I have mentioned several times, the role of productivity and innovation in this debate. The greatest opportunity presented by technological improvements, and a transforming labour market, is the opportunity for gains in productivity and innovation which would promote economic growth and thus improve living standards. Overall, New Zealand's productivity performance has been poor relative to other developed countries, with one of the lowest rates of productivity growth in the OECD. On average, we work about 15% longer while producing 20% less output than the OECD average per person (Conway & Meehan, 2013). Over half of this productivity gap can be explained by weakness in our international connections and access to large markets and global value chains. Significant also is our quality of management, and underinvestment in "knowledge-based capital" (de Serres, Yahiro, & Boulhol, 2014). Policymakers should make the most of the productivity opportunity presented by technological improvements, by attempting to combat these issues.

International trade should be encouraged, as well as foreign direct investment, as these help knowledge and technology improvements to cross borders and increases the prospects for commercialising innovative New Zealand ideas (de Serres et al, 2014). Trade is unfortunately hindered by our relative geographical isolation, and thus it could be advantageous to trade more with closer, emerging markets such as Asia and Latin America. We would also benefit from greater integration into global value chains, particularly in innovation-intensive industries; however this would not be an easy undertaking (de Serres et al, 2014). In combatting the issue of international connectedness, policy should also take into account the following considerations: the impact of domestic policy on international connections, future global trends in labour mobility, the rise of the service sector, and regional economic integration (Blakely et al, 2009). Also worth considering, is encouraging more high-skilled immigration, which would assist the flow of knowledge and help to combat the problem of an aging population. Nevertheless additional immigration does have sustainability implications, and would likely put further pressure on an inflated Auckland housing market.

Knowledge-based capital encompasses product design, networks, research and development (R&D), and organisational know-how. R&D intensity in New Zealand is unfortunately among the lowest in the OECD and industries in which we specialise tend to have low R&D intensity (de Serres et al, 2014). Policymakers should seek to promote adaptability of business practices to new technologies; policies that reduce barriers to the efficient reallocation of labour and capital are also important (de Serres et al, 2014).

The receipt of an R&D grant has been found to significantly increase the probability that a firm in manufacturing or services applies for a patent, and that receiving a

grant almost doubles the probability of new goods and services being introduced (Jaffe & Le, 2015). It is however important to note that any government expenditure displaces private spending, and that crowding out can occur. As with all the policies discussed, promoting the accumulation of knowledge-based capital would require significant fiscal expense, and thus carries an economic opportunity cost. It is important that a thorough cost-benefit analysis is carried out, and that policymakers are able to correctly identify areas of future growth. Considering incentives is also important in R&D policy, given that typically the wider social benefit is greater than the economic benefit to the firm (Lewis, 2008). R&D offers an opportunity for sustainability, where grants can be focused also in research which promotes sustainability and is not damaging to the environment. Productivity in general can also help to offset the implications of labour market shocks, as strong productivity growth has been found to sustain growth in real wages (Conway, Meehan, & Parham, 2015).

Overall a transitioning labour market presents both threats and opportunities to New Zealand. There are steps that policymakers can take, focusing on productivity, vocational training, and social welfare, which can help to not only mitigate the risks, but also take advantage of the opportunities. If the New Zealand Government is proactive, then there is a lot which can be gained from harnessing future trends in innovation, productivity and growth. Focusing on economic growth, managing risks, social cohesion, and increasing equity, I certainly believe that a comprehensive approach across a range of policy areas will promote an improvement in living standards for New Zealanders.

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