NZIER INSIGHT

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Robbing Peter to pay Paul: Okun's Law and labour market reform

Labour and outputs markets: two integrated systems connected through Okun's Law

Okun's Law is a macro-economic empirical relationship between economic output and unemployment, answering Arthur Okun's original 1962 question: "how much output can the economy produce under conditions of full employment". Okun found a negative relationship between a country's 'output gap' and unemployment: as economic activity increases above its economic potential, unemployment falls below its 'natural' level. The "Law" connects the labour and the output markets, illustrating how changes in one market feed into the other. Although 'empirical' (economist-speak for lacking a 'micro-economic foundation'), Okun's Law has been surprisingly robust.

The Government has formed a Fair Pay Agreement (FPA) working group that has recommended a sector-wide bargaining system that would return New Zealand to an occupation-based bargaining system, similar to the labour laws operating under the Industrial Conciliation and Arbitration Act 1897, the predecessor to the Employment Contracts Act 1991. If its recommendations are adopted, Okun's Law suggests that it is the unemployed who will pay the price of protecting the employed workforce through a return to a permanently higher unemployment rate.

Groping for stability: output-gap as a comparative measure

Okun's insight was to express unemployment against the 'output gap': the difference between actual and an economy's potential output if all its resources were fully employed.

Economies are dynamic 'systems' and their constant change complicates statistical interpretation. Statistics New Zealand's quarterly constant-price GDP[1] records New Zealand experienced an economic recession in 1991, but then grew almost continuously for 17 years until 2008. Apart from two weak quarters, the official statistics show a strong and sustained 17-year period of economic growth.

However, between 1992 and 1995, New Zealand was operating firmly 1–2 percent below its economic potential, despite growing at an annual average 4.5 percent in constant price GDP. The economic growth New Zealand experienced between 1992 and 1995 was driven by surplus capital and unemployed labour being re-engaged in economic production following the wide-ranging liberalisation of New Zealand's economy. The liberalisation New Zealand experienced also included its labour market where the Industrial Conciliation and Arbitration Act 1897 was replaced by the Employment Contracts Act in 1991.

The combined effect of the range of structural reforms to the New Zealand economy impacted the country's economic performance. Evidence from Okun's Law suggests New Zealand only started to close its output gap and truly expand its economic production after 1995. Maximum output in the expansionary phase of the business cycle occurred when New Zealand operated at more than 3 percent over its economic potential in 2006 (See Figure 1).

Okun's Law: Evidence for New Zealand

Figure 1 plots New Zealand's 'boom-bust' business over the 1992–2017 period. Okun's "Law" is the negative relationship between unemployment and the output gap indicated by the simple blue linear trend line.

During the first expansion phase, between 1995–2006, unemployment fell from 6.5 percent to 3.9 percent and real GDP increased 47 percent, from $126 billion to $186 billion in 2010 prices.

New Zealand entered a contractionary phase over the 2006–2009 period. During this period, unemployment increased from 3.9 percent up to 5.8 percent, while real GDP increased 5 percent, from $186 billion to $195 billion. The output gap went from the economy producing

[1] Infoshare ID: SNE052AA. For a longer quarterly GDP series back to 1947 see https://data1850.nz/chart/compare/7-12-98

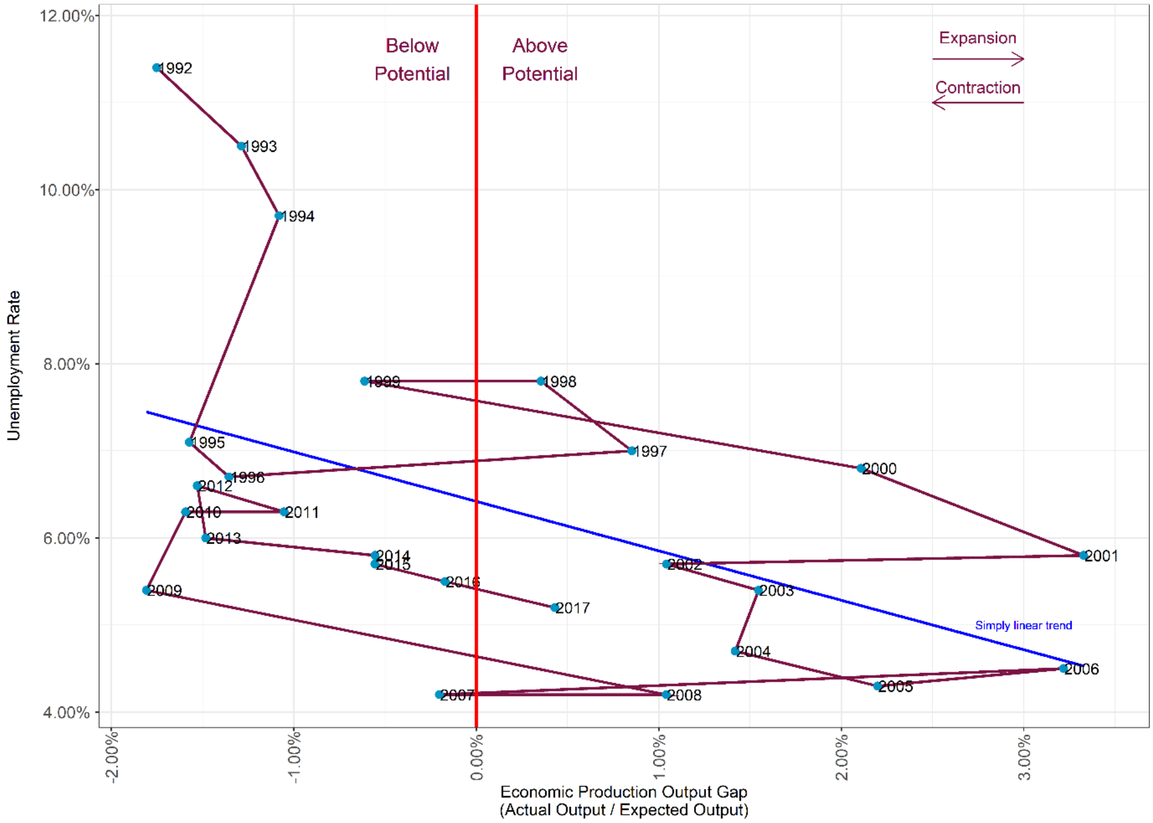
approximately 3 percent over its potential output, to the economy producing approximately 2 percent less than its potential output.

The economy went through a transitional four years phase from 2010–2013 where, compared to its economic potential the economy operated about 1.5 percent below its economic potential and unemployment hovered just around 6 percent.

Since 2013, New Zealand has been on its second expansionary phase. Unemployment fell from 5.8 percent in 2013, to an average 4.7 percent over the 2017 calendar year. Real GDP increased 14 percent, from $206 billion to $236 billion in 2010 prices.

Figure 1 Okun's Law for New Zealand

New Zealand business cycle over time



Source: NZIER

Evidence why labour market regulations matter

New Zealand entered its strong 1995–2006 expansionary phase, four years after the Employment Contracts Act 1991 (ECA) restructured New Zealand's labour rules. New Zealand was still adjusting to reforms to its financial system, the stabilisation of price inflation, and the 1991 "Mother of All Budgets" which reduced government fiscal economic stimulus. However, the ECA also restructured the labour market negotiating framework through removing the labyrinth of industrial relations cludge and complexity generated under the effects of the Industrial Conciliation and Arbitration Act 1897, the Labour Disputes Investigation Act 1913, and the Industrial Relations Act 1973 and amendments.

Labour relations, pre-ECA, centred around a complex system of "Awards" decreed by the Industrial Commission, a 5-member body comprising three appointees from the Minister of Labour, one from the Central Organisation of Employers, and one from the Central Organisation of Workers. Awards set occupational employment terms, conditions, and entitlements. All employers of workers in occupations within an Award were obliged to honour the employment terms and conditions of the Award.

The "Central Organisation of Employers" was the New Zealand Employer's Federation – the predecessor to Business New Zealand.[2] On the employee side, the "Central Organisation of Workers" was the Federation of Labour which morphed into the Council of Trade Unions in 1987.[3]

The ECA promoted direct bargaining between employer and employee and unions had no special status in the process. With the flexibility of enterprise-based bargaining and freed of the one-size-fits-all compulsory Award system, labour supply and demand readjusted to more flexible labour market terms and conditions. Unemployment fell from around 10.7 percent in 1992 to 6.5 percent in 1996. The labour market 'structural adjustment' lowered unemployment but did not significant increase economic output compared to New Zealand's economic potential.

Looking ahead

The "full employment" level of unemployment between the two expansionary phases suggests there may have been a structural change in the aggregate labour market between each expansion phase period. In the first phase, when actual economic output equalled the economy's potential economic output (in 1999), unemployment was approximately 7 percent. In the latest expansionary phase, actual economic output equalled the economy's potential economic output in 2016, and unemployment was approximately 5 percent.

The Employment Relations Act 2000 (ERA) was enacted during the first expansionary phase recorded in this data. In 2001, the measured output 'gap' experienced a negative 'shock' where output fell dramatically from approximately 3.2 percent over potential, to approximately 1 percent over potential. However, after 2001, the actual output increased over potential output for a further 4 years until turning in 2006. Whether the negative output 'shock' and the apparent structural change in the labour market's 'full employment' level relates to the ERA is not immediately clear.

Based on our estimates for Okun's Law, if the labour market really has undergone a structural change in 2001, then unemployment could be expected to fall to approximately 2.6 percent. However, if a structural change to the labour market has not occurred, New Zealand's currently low unemployment rate might act as a constraint to its economic growth, suggesting a business cycle "turning point" might be initiated early in this expansionary phase through a rapidly tightening labour market.

Fair Pay Agreements: the unemployed will pay the price of protecting the employed

More importantly for policy-makers, Okun's Law for New Zealand shows the potential impact labour market regulation has on economic output and economic growth. While undoubtedly, New Zealand's economy was still adjusting to other aspects of economic liberalisation, the labour market reforms of 1991 may have contributed to the four years' worth of adjustment to a new normal before the economy could once again expand. However, the consequence of labour market reforms was a permanently lower 'natural rate' of unemployment.

The Government's FPA working group will provide recommendations on the design of a sector-wide bargaining system, in order to establish minimum terms and conditions for all workers in an industry or occupation.[4] The Group's recommendations were reported back to the Minister of Labour in December 2018. They recommended a FPA bargaining process, initiated by unions, triggered by either 1000 or 10 percent of the workers in a sector or occupation choose it. Once triggered, ***all employers*** in the defined sector or occupation would, as a default, be covered by the agreement.[5]

The Group's recommendations risk introducing a rigid, and potentially protracted, negotiation process into New Zealand's labour market that cannot reflect the variety of economic conditions experienced by individual businesses. It risks returning the labour market to a form of occupational-based labour negotiations, as opposed to the current enterprise-based bargaining. Okun's Law would suggest the Group's recommendations might once again lead to a permanent increase in New Zealand's 'natural' rate of unemployment. The unemployed will pay the price of protecting the employed through permanently higher unemployment.

Caveats

- Industry potential output is modelled through estimating a Cobb-Douglas production function for each industry where constant price gross output is

2 https://natlib.govt.nz/items/22385628

3 https://teara.govt.nz/en/unions-and-employee-organisations/print

4 https://www.mbie.govt.nz/business-and-employment/employment-and-skills/employment-legislation-reviews/fair-pay-agreements/

5 https://www.mbie.govt.nz/assets/695e21c9c3/working-group-report.pdf on page 5

regressed against industry measures of net capital stock and labour employed. Labour quantity measures derive from Statistics New Zealand's Quarterly Employment Survey Average Weekly Paid Hours (FTEs) by Industry (ANZSIC06) and Full-Time Equivalent Employees by Industry (ANZSIC06).

- The Quarterly Employment Survey labour input data sources omits New Zealand's agricultural sector, resulting in agriculture's economic potential output being unidentified and is omitted in the process.
- Nominal gross output by industry is deflated by the Producers Price Index (outputs) for modelling industry output potentials. Central Government production – a non-market economic activity – lacks output price measures and is omitted in the process.
- In our view these caveats do not materially affect our interpretation of New Zealand's economic history.

This Insight was written by James Hogan and peer-reviewed by John Yeabsley and Christina Leung at NZIER, in May 2019.

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