NEW ZEALAND COUNCIL OF TRADE UNIONS
Te Kauae Kaimahi

CTU Monthly Economic Bulletin
No. 195 (November 2017)

Information Section p.8

Commentary

This is the last Bulletin for the year. The commentary is a little longer than usual, but you will have longer to read it! The next Bulletin will be published on Wednesday 31 January 2018. I hope you have a good break and come back ready for exciting times under our new Government.

Wage-led growth: how low wages hold back progress

Summary

Wages are important socially and economically, but wages are low in New Zealand. We are in a low wage rut, dependent on low wage industries like agriculture and tourism.

Low wages contribute to New Zealand's high income inequality which has many negative effects. We have evidence that high inequality can lead to social breakdown as we see happening in the US; it can create excessive indebtedness among wage earners and a bloated financial system risking instability and financial crises; it can worsen economic growth.

The standard answer from employers and economists when people complain about our low wages is: "You can't raise wages before you raise productivity." But wages have not followed productivity growth for long periods, here (particularly since the end of effective collective bargaining in 1991) and in other high income countries. And in any case, employers have not been investing, improving their management skills, training their employees and doing the research and development needed to raise productivity. Why not?

What if low wages are the cause and not just the result of poor productivity? Could raising wages trigger a rise in productivity, which in turn (given better collective bargaining systems) could fund further wage rises, with a virtuous upwards spiral, lifting us out of the low wage rut? Rising real wages can raise productivity at three levels.

First, higher wages and fair treatment lead to better motivated workers who put more effort and thought into their work. The body of research on the "Efficiency Wage" explains why.

Second, higher wages encourage employers to invest more in productivity-raising production processes and technology. This is the basis of the "Swedish model" which has created a high wage, high productivity economy and one of the best countries in the world to live in.

Third, higher wages increase spending creating greater demand for goods and services. This encourages employers to invest in their firms, raising productivity and employment.

To start this virtuous spiral needs strong and coordinated pay rises that only the government (such as through minimum wage rises) and widespread collective bargaining can provide.

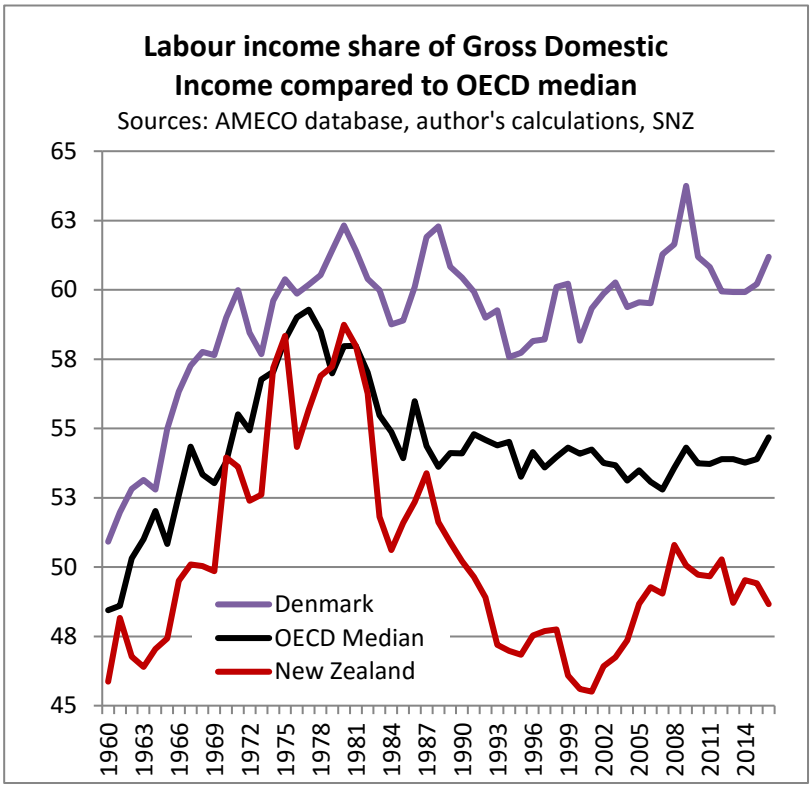
By themselves, ambitious wage rises are not a silver bullet to high productivity growth: a number of policies need to be aligned. But regarding higher wages solely as a cost to employers, is short term, short sighted and poor policy. Higher wages are an ingredient which produces great social and economic benefits.

Wages and salaries are in the news with strong rises in the minimum wage announced by the new Government, changes in employment law, and new statistics out showing that the share of New Zealand's income going to wage and salary earners has fallen again and has been falling since 2009, back to the level it was at in 2006 (see the item in the section on the Economy below) and much lower than it has been historically.

There have been predictable reactions to the announcement on the minimum wage, and plentiful ill-informed discussion on changes in employment laws. Both of these should lead to rising wages. We'll be told "You can't raise wages before you raise productivity" but productivity is barely rising: employers are not investing to raise it. Why not? Perhaps they don't feel the need to *because* wages are kept low. Perhaps raising wages would encourage productivity to rise, funding new wage rises and creating a virtuous spiral of rising wages and productivity. As I show below, there is good logic and evidence that that could be true.

Wages are important socially and economically …

Wages (from here on I include salaries when I write 'wages') are important socially as well as economically: they should never been seen solely as a cost, as many politicians and business commentators portray them. That is because they are easily the single most important way that the fruits of employees' work ('the economy') are transferred to them so they and their families can live decent lives. As other new data in the Economy section below shows, 60 percent of the average incomes of New Zealand households comes from wages.



… but low

It is now widely accepted that New Zealand's wages are low compared to other otherwise high income countries. There are a number of indications of that. New Zealand's low share of income going to labour in wages is one as the figure on the right shows. Another is the dominance of low wage industries in our economy, particularly in the export sector – agriculture and tourism. Qualifications, particularly vocational ones, are poorly rewarded in higher wages (e.g. Crichton, 2009; Crichton & Dixon, 2011; Zuccollo, Maani, Kaye-Blake, & Zeng, 2013), contrary to the rhetoric that education is the way out of poverty and inequality. We have too many working poor (four out of ten children living in poverty come from working families according to Perry (2017, p. 144)) and we would have many more if not for income support in the form of Working for Families tax credits, accommodation supplements and so on.

Low wages contribute to high income inequality …

The wage problem is partly about absolute income levels and partly about how they are distributed: income inequality remains high in New Zealand (see Perry again). In the August *Bulletin* I summarised recent research showing growing wage inequality (Rosenberg, 2017). Gender pay inequality plays an important part too. Because wages are such an important part of people's incomes, raising wages and reducing wage inequality would have a powerful impact on overall inequality. There is ample evidence that deunionisation, which depresses wage rises, has been a significant cause of rising income inequality (e.g. D. E. Card, Lemieux, & Riddell, 2003; D. Card, Lemieux, & Riddell, 2004; DiNardo, Fortin, & Lemieux, 1995; Jaumotte, Lall, & Papageorgiou, 2013; Koske, Fournier, & Wanner, 2012; Western & Rosenfeld, 2011). With low wages, the tax and benefit systems have much more work to do to redistribute income, and run into resistance to the tax rates required.

… which has bad social and economic effects

It's worth remembering some of the reasons high levels of inequality are bad.

- It can lead to social breakdown. There's evidence from both common experience and carefully designed experiments that people dislike unfair shares. With high inequality, people feel they are being treated unfairly, social tensions rise, cohesion as a society breaks down. We can see that happening in the US, one of the most unequal high income countries, right now. Those tensions can create the forces needed for positive change and progress, but they can also lead to intolerance, racism and authoritarianism – the breakdown of democratic values.
- Inequality is highly correlated with, and likely contributes to many other social, mental and physical ills. As Wilkinson and Pickett (2010) demonstrated in their book *The Spirit Level: Why More Equal Societies Almost Always Do Better*, "almost all problems which are more common at the bottom of the social ladder are more common in more unequal societies". They included lowered life expectancy, poorer mathematical achievement and literacy, worse infant mortality, more homicides, high imprisonment rates, more births to teenage mothers, lowered trust, more obesity, poorer mental health, drug and alcohol addiction, and decreased social mobility.
- It can increase financial instability and crises. For example IMF researchers Michael Kumhof and Romain Rancière (2010a, 2010b, 2011) find evidence of increasing instability as inequality grows. They suggest that as income inequalities have increased, low and middle income earners have increasingly borrowed in order to make ends meet, raising their indebtedness. Those with the highest incomes (the "1%") put their increasing wealth in financial rather than productive investment, inflating asset prices. The financial sector grows, acting as cheerleader and intermediary in these increasingly risky investments. Eventually some event triggers a financial crisis. Kumhof and Rancière's solutions are either orderly debt reduction – which they find is difficult to do short of a major crisis – or restoring workers earnings through strengthening collective bargaining. Other evidence shows reverse causality too: that beyond a certain level, more finance (and more international financial openness) creates greater inequality and poorer economic growth (e.g. Arcand, Berkes, & Panizza, 2012; Cecchetti & Kharroubi, 2012, 2015, Furceri & Loungani, 2013, 2015; International Labour Office, 2013; Jaumotte et al., 2013; Stockhammer, 2009). We could have a vicious downward spiral of inequality creating debt, creating greater inequality, poor economic growth and instability.

- It can worsen economic growth. As inequality rises, there is evidence for both more intermittent growth (e.g. A. G. Berg & Ostry, 2011, 2011; A. Berg, Ostry, & Zettelmeyer, 2008) and for slower growth (e.g. Cingano, 2014; Wade, 2013). Financial crises are of course devastating for growth too.

There are therefore strong economic and social reasons for improving wages in order to reduce inequality.

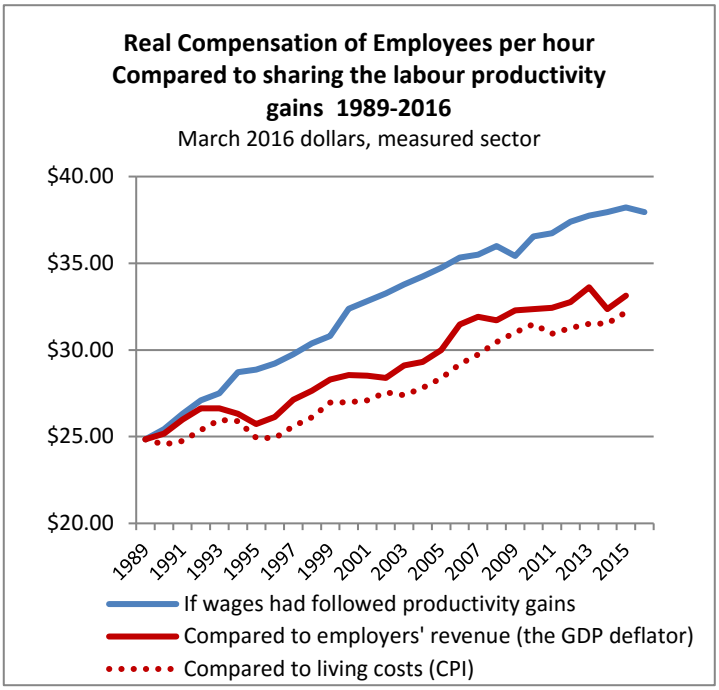
A low wage rut

New Zealand has fallen into a low wage rut. The dependence on low value tourism and commodity exports suggests that. When wages are low, employers' business models become dependent upon wages remaining low. It becomes risky and difficult for any of them individually to break out of the rut because it frequently takes time, additional investment, and new management skills to do so. While that transition occurs, competitors can undercut them with the low wage model. It is safer to stay with the model they know. The problem is intensified when industries work on a competitive contracting model. It is most obvious with government contracts such as public bus and rail transport and many health and social services. But it is also widespread in the private sector such as in forestry, cleaning services, call centres and construction. Contractors are forced to compete on cost-cutting, including wages, short term cutting of corners.

Wages and productivity – really?

The standard answer from employers and economists when people complain about our low wages is: "You can't raise wages before you raise productivity."

That has demonstrably not been true in New Zealand – see the graph to the right[1]. Neither has it been true in the US or other parts of the world.



Productivity does need to rise for sustainable increases in wages – but there is nothing automatic about wages (actually, real wages) following productivity. During the post war period when the award and industrial conciliation and arbitration system was working effectively, from around 1947 to 1974, as well as I can calculate, wages did follow productivity (see the June *Bulletin*). But since the collective wage setting system was largely destroyed in the 1991 Employment Contracts Act, that has not been the case as the graph to the right illustrates. So to say wages must follow productivity is simplistic. Wages can fall behind productivity growth – and they can rise faster to

[1] This compares productivity rises to a wider measure of wages including superannuation, ACC and other employee benefits: Compensation of Employees per hour. Compensation of Employees comes from the National Accounts (Statistics New Zealand).

catch up with it.

… and productivity growth is chronically weak

But New Zealand has another problem: chronically weak productivity growth, which has got even worse (almost static) in the last few years. Enormous effort has been spent in diagnosing why this is, without shedding much light (for a review, see Conway, 2016). The usual diagnosis includes poor R&D spending, the need for education, training and research to be more connected to industry needs, and inflexible labour laws. The last is clearly untrue: New Zealand now ranks as the most "flexible" in the OECD by its own measures (OECD, 2017, p. 53) and this is creating its own problems for working people. Undoubtedly we could do with more R&D spending, there are certainly real problems in vocational and work-based training though our tertiary institutions rank remarkably well internationally despite their relatively low funding, and our workforce rates well internationally for its level of qualifications. But the question remains why industry doesn't do these things itself in order to raise productivity and profits. Why does it not invest more in new equipment and technology, raise its generally low-ranking management standards, train its workers for its needs, and make better use of the skilled workforce available?

There is no single simple answer to these questions, but perhaps the standard diagnosis is incapable of asking the right ones. Perhaps an important reason is low wages itself.

Are low wages the *cause* of low productivity as well as the result?

What if low wages are the cause and not just the result of poor productivity? Could raising wages trigger a rise in productivity, which in turn (given better collective bargaining systems) could fund further wage rises, with a virtuous upwards spiral, lifting us out of the low wage rut? This question is never asked here but commonly discussed in the U.K. and Europe.

Rising real wages can raise productivity at three levels.

Motivating workers

First, it works at the level of individual workers. Higher wages and fair treatment lead to better motivated workers who put more effort and thought into their work, raising productivity and efficiency. There is a long and well established body of research on the "Efficiency Wage" that explains why employers may set wages higher than would be predicted in a pure competitive market model (I can provide a paper summarising these findings). There are four main ways the Efficiency Wage research says it works, though not all are necessarily present in any one case. It can attract a larger pool of applicants to positions, allowing the employer to choose more able employees (e.g. Weiss, 1980). It may reduce turnover by reducing the attractiveness of jobs in other firms, reducing costs including recruitment and training (e.g. Salop, 1979; Stiglitz, 1974). It will tend to encourage effort and workers will tend to avoid behaviour that threatens dismissal (e.g. Shapiro & Stiglitz, 1984). It will improve morale and this in turn encourages better quality work (e.g. Akerlof, 1982). These rather material views miss the additional important point of the value of workers' knowledge, expressed this way by Dutch academics Storm and Naastepad (2011, p. 206):

> Productivity improvements in general depend crucially on the cooperation of workers and upon their tacit knowledge, ideas and suggestions, which will be withheld if workers feel their jobs are at risk as a consequence. This is an important paradox: the more "rigid" (using the conventional

label) is the industrial relations system, the more flexible and open to technological progress is the social organization of production. This means that the more cooperative are the social relations of production, the more strongly workers will reciprocate firms by providing higher productivity – and the higher will be the rate of productivity growth.

Examples that have been studied include the famous case of Henry Ford doubling his workers' wages to $5 a day in 1914 (Raff & Summers, 1987), reduced turnover and quit rates in 5,000 firms in 11 US states (Campbell, 1993), the effects of a minimum wage rise (Georgiadis, 2013; Zelenska, 2011 and many others), reducing supervision requirements for non-unionised staff (Walsh, 2012) and a metastudy (study of studies) (Krassoi Peach & Stanley, 2009).

Behavioural economics which uses laboratory and field experiments to test the effect of perceived unfairness on people's behaviour (Fehr, Goette, & Zehnder, 2008 review evidence from a large number of these studies). Among their findings is that in the short run, a sizeable pay increase can motivate more effort. However this is short-lived. "Pay for performance" regimes have limited application – to the firm's senior management and a relatively few employees – because finding effective incentives is problematic, particularly with complex, multi-dimensional responsibilities, and there is justified employee distrust that effort will lead to ever-increasing performance requirements ("the ratchet effect"). Instead, fixed hourly wages and regular salaries are much more common.

Fairness of treatment is much more important. Fairness is highly valued by most people, and they are willing to make personal sacrifices (forgo a payment that they consider unfair for example) in the interests of fairness. Fairness includes, for employees, making a fair effort, but that requires reciprocation of fairness by employers. The negative response to unfairness is much greater than the positive response to fairness: for example a nominal pay cut is seen as much more unfair than a similar sized pay rise is seen as fair. Trust in both directions is also an important part of the relationship. These findings confirm the importance of fair treatment to the motivation of employees. Fair pay is part of that, and while higher pay acts as a motivator, it should not be seen as sufficient in an ongoing employment relationship: that requires ongoing fair treatment. On the other hand, pay which is seen as being so low as to be unfair is a greater demotivator.

Motivating employers

Second, higher wages can encourage productivity increases at the firm level. Higher wages encourage employers to invest more in productivity-raising production processes including equipment and technology, and for investment to move to higher productivity firms. Storm and Naastepad (2011, p. 208) list 17 studies, 15 of which show increases in productivity as a result of either increases in the real wage or improved worker rights.

This is the basis of the "Rehn-Meidner" or "Swedish model" which Sweden has followed since the 1950s and was subsequently adopted in various forms by other Scandinavian countries. It has created a high wage, high productivity economy and one of the best countries in the world to live in. Gösta Rehn and Rudolf Meidner were two economists at the research department of the Swedish Trade Union Confederation (LO, the counterpart of the NZCTU). It has led to the high value, high wage economies they now have. The model encouraged "solidaristic" labour policies which encouraged wage rises in concert with those in the higher productivity areas of the economy, reducing inequality. This requires tripartism and a strong role for unions to negotiate collectively. It is accompanied by appropriate fiscal

policies and effective social policies to support people through change: income support at a level that ensures workers do not bear the cost of industry change (typically 80 to 90 percent of their former wages), assistance with career planning and retraining, relocation subsidies, job centres to help displaced workers find jobs that match their skills, and job subsidies to create jobs if necessary. It needs industry policies to encourage investment to move into productive industries. These policies are required in any case if we are to cope positively with changes that are occurring in industries and in the nature of work due to technology, globalisation, climate change, the aging population and other major transformations.

Creating an economy that encourages investment

Third, higher wages can encourage productivity increases at the economy-wide level. This has been known for decades. If wage rises are widespread, particularly among lower paid workers who are more likely to spend their income, the increased spending creates greater demand for goods and services, encouraging employers to invest in their firms, install new technology and raise productivity and employment. Storm and Naastepad list 10 studies plus a review of 80 more that "find a causal link from demand growth to productivity growth".

How do we start this virtuous spiral of increasing wages raising productivity and thus funding more wage rises? Individual employment agreements cannot do it: each individual employee's bargaining power is too weak and in any case coordination of rises is needed for the effects at the firm and economy level. The government could mandate rises: the minimum wage rises are helpful in doing that, but have limited reach. To have widespread, coordinated increases we need widespread collective bargaining. Hopefully the new Government's plans will lead to that. Alongside these developments we need the other policies I sketched above.

I am not suggesting that by themselves, ambitious wage rises are the silver bullet to high productivity growth. Life is more complicated: a number of policies need to be aligned. But I am suggesting that shying away from higher wages, regarding them solely as a cost to employers, is short term, short sighted and poor policy. Higher wages are an ingredient which produces great social and economic benefits.

Bill Rosenberg

References are at the end of the *Bulletin.*

Information

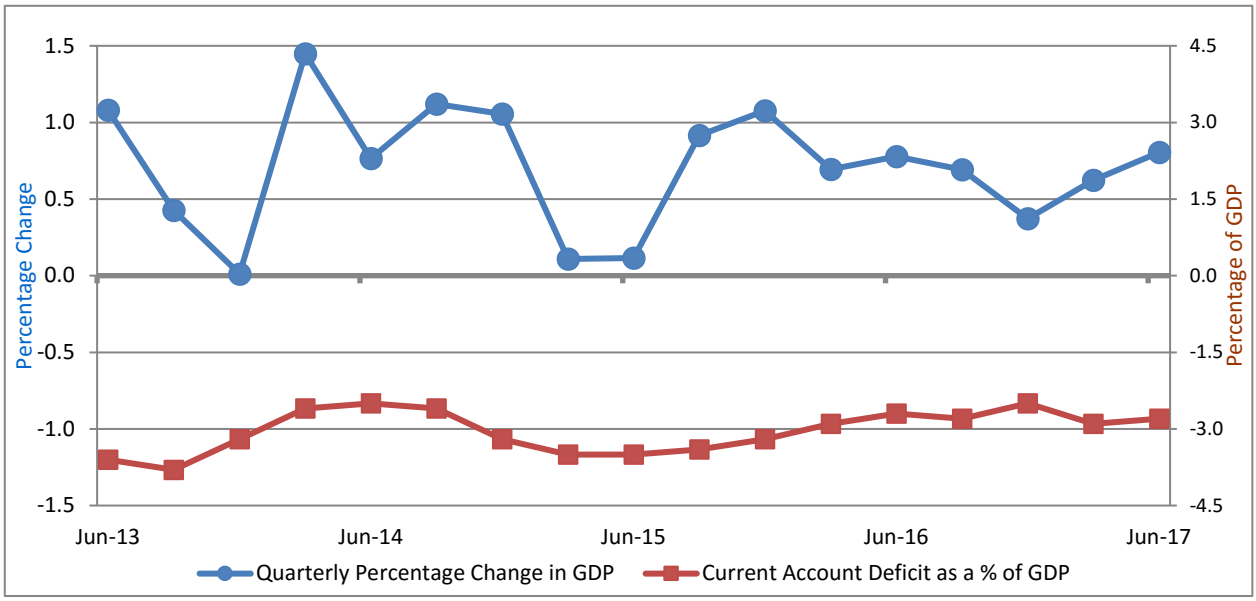
A ★ indicates information that has been updated since the last bulletin.

Forecast

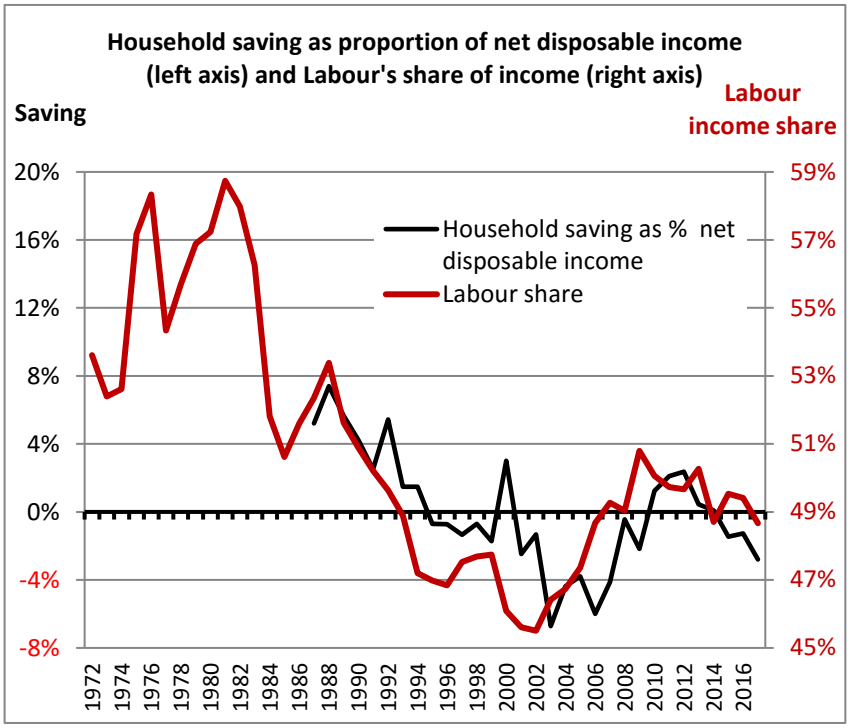
- This NZIER consensus forecast was released on 11 September 2017.

Annual Percentage Change (March Year)	2017-18	2018-19	2019-20	2020-21
GDP	2.9	3.4	2.9	2.4
CPI	1.1	1.9	2.0	2.0
Private Sector average hourly wage	2.2	2.9	3.2	3.1
Employment	2.2	2.0	1.5	1.4
Unemployment rate (% of labour force)	4.7	4.6	4.6	4.6

Economy



★ **Wage and salary earners' share of New Zealand's income** can be calculated from the annual National Accounts Income and Expenditure figures for the year to March 2017, released in November. It showed a sharp fall in the share of the nation's income (gross domestic income) going to employees or wage and salary earners – **the labour income share**. It fell to 48.7 percent of the nation's income from 49.4 percent in the year to March 2016. It has been falling since 2009 when it was 50.8 percent. The main beneficiaries have been local corporate shareholders, though the self-employed have gained share slightly. The OECD median labour income share at the same period was 54.7 percent, Denmark had 61.2 percent, and Australia 51.7 percent (it crashed from 54.8 percent a year earlier)[1]. The labour income share is now at the lowest it has been since 2006 when it was rising. Each percentage point difference is worth $1,157 per year on average to each of New Zealand's 2,030,900 wage and salary earners employed at March 2017. The labour income share reached a peak in 1981 when it was a full 10 percentage points higher at 58.7 percent. If the labour income share was still 58.7 percent, each wage and salary earner would average $11,650 per year better off. The same release showed **household saving** falling deeper into the negative: expenditure outstripped disposable income by $4.1 billion in the March 2017 year, or 2.8 percent of net household disposable income. It was in the negative for all but one year between 1995 and 2009. Household saving fell by $2.3 billion while government saving increased by $3.2 billion and total national saving increased $3.4 billion.



★ The Household Economic Survey for 2017 showed wages and salaries made up 59.6 percent of average annual household income over the year to June 2017, which had fallen from 66.8 percent in 2007. Self-employment income made up 18.1 percent. It rose sharply in 2016 from 12.0 percent of average household income in 2015 to 17.4 percent in 2016. It had been 11.7 percent in 2007. Investment income made up 4.8 percent of household income, or $3,010, but under half of households had any such income: the median was zero. New Zealand Superannuation and war pensions were 6.7 percent of household income, private superannuation 0.9 percent, other government benefits 3.2 percent, other sources of regular income 3.8 percent and irregular sources

[1] OECD and Denmark are calculated from the European Commission's AMECO databases (GDP (Income approach), Labour costs), last updated 9 November 2017 (https://ec.europa.eu/info/business-economy-euro/indicators-statistics/economic-databases/macro-economic-database-ameco/download-annual-data-set-macro-economic-database-ameco_en). Australia is calculated from Australia Bureau of Statistics, 5206.0 Australian National Accounts: National Income, Expenditure and Product, Table 7.

of income 3.0 percent, totalling $100,892 per household, including $97,882 in regular income. Average total income increased 0.8 percent in real terms from 2016, and regular income 1.2 percent, but average household wages and salaries fell 0.1 percent while average self-employed income rose 4.8 percent, and investment income 8.0 percent. Median household income was $76,728, including $75,412 regular income.

- Growth in New Zealand's economy in the three months to June 2017 was close to Treasury and Reserve Bank forecasts, with Gross Domestic Product rising by 0.8 percent, compared to 0.6 percent in the previous quarter. Average growth for the year ended June 2017 was 2.7 percent (and 2.5 percent between June quarters). However growth in GDP per person continues to be weak with a rapidly growing population: GDP per person rose only 0.3 percent in the June quarter, and 0.6 percent over the year, worse even than recent performance. GDP per person has been increasing at far below the rate in the 2000s when GDP per person was increasing at an average 2.6 percent a year. Since 2012 it has averaged 1.2 percent. Real gross national disposable income per capita, which takes into account the income that goes to overseas investors, transfers (such as insurance claims) and the change in prices for our exports and imports, grew somewhat more strongly: it rose by 0.9 percent over the quarter and 1.8 percent over the year to June. Its average performance has also been lower than the 2000s. I estimate[1] that labour productivity measured by production per hour worked in the economy was unchanged in the year to June compared to the same period a year ago, continuing weak labour productivity growth which is bad for future wage growth. It is little different in June 2017 than it was in June 2013. It fell 0.1 percent in the June quarter in seasonally adjusted terms. Business investment in the three months fell by 0.4 percent compared to the March quarter though the annual growth was strong at 3.6 percent, driven by construction, transport equipment and intangible fixed assets. Investment in housing fell 1.0 percent in the quarter following a 1.3 percent fall in the previous quarter. However it grew 10.3 percent year on year. Household consumption growth weakened to 0.9 percent in the June quarter in real terms, after rising 1.2 percent in the previous quarter, and rose a strong 4.0 percent over the same quarter in the previous year. Inflation in the economy as a whole is higher than CPI with the GDP deflator (a price index for expenditure on the economy's production) rising 2.8 percent from the June quarter last year, but it fell 0.8 percent in the June 2017 quarter.
- By industry, the largest contributors to growth in the latest quarter were Manufacturing (up 1.8 percent), Retail trade and accommodation (up 2.8 percent), Transport, postal and warehousing (up 3.5 percent), Rental, hiring and real estate services (up 0.5 percent), Professional, scientific, technical, administrative and support services (up 1.1 percent) and Public Administration and Safety (up 1.6 percent). They were offset by falls in Mining (down 5.2 percent) and Construction (down 1.1 percent). Compared with the June quarter last year, the biggest rises were in Retail trade and accommodation (up 6.6 percent), Professional, scientific, technical, administrative and support services (up 5.1 percent), Public administration and safety (up 4.7 percent), Transport, postal and warehousing (up 4.5 percent), Arts, recreation and other services (up 4.1 percent), Health care and social assistance (up 3.7 percent), and Wholesale trade (up 3.5 percent). They were offset by falls in

[1] Because of the changes to the Household Labour Force Survey, there is a break in the hours-worked series in June. I estimated the increase for June 2016 using a recent Statistics New Zealand estimate that the changes in the survey created a jump in the series by 50,000 people or 2,550,000 actual hours worked per week: see Anand-Kumar, V., Penny, R., & Gordon, M. (2017). *Investigation on the impact of the 2016 redevelopment on the Household Labour Force time series.* Wellington, New Zealand: Statistics New Zealand, p.11. Available at http://on-cue.co.nz/Vinyak%20Anand-Kumar.pdf

Mining (down 8.4 percent), Agriculture, forestry and fishing (down 0.9 percent) and Construction (down 0.1 percent).

- New Zealand recorded a Current Account deficit of $1.6 billion in seasonally adjusted terms for the June 2017 quarter (but an actual deficit of $618 million) following a $2.8 billion deficit for the March quarter. There was another deficit in the goods trade ($446 million, seasonally adjusted) following a $1.1 billion deficit in the March quarter, with deficits in all quarters back to September 2014. There was a seasonally adjusted surplus of $834 million in goods and services (compared to an unusual $138 million deficit in March) including a record $1.3 billion surplus in services, while the deficit on primary income (mainly payments to overseas investors) improved to $1.9 billion from $2.3 billion in March (seasonal adjustment not available). For the year to June 2017, the current account deficit was $7.5 billion or 2.8 percent of GDP compared to a $7.7 billion deficit in the year to March (2.9 percent of GDP). The deficit on investment income was $8.0 billion for the year.

- The country's Net International Liabilities were $154.2 billion at the end of June 2017, up from a revised $153.0 billion at the end of March but down from $163.4 billion a year before. The June net liabilities were equivalent to 57.5 percent of GDP, compared to a revised 57.8 percent in March and 64.5 percent a year before. They would take 2.14 years of goods and services exports to pay off, down from 2.31 years a year before. The rise in net liabilities over the quarter was due to $1.1 billion in valuation changes (mainly due to $2.8 billion in market price valuations) plus a $110 million net inflow of investment. Without the valuation changes, the net liabilities would have been $153.1 billion. Statistics New Zealand explains the net inflow of investment as follows: "The $1.2 billion increase in New Zealand's net liability position was driven by a $2.8 billion change in net market price movements. Foreign investors saw the value of their shares in NZX-listed companies increase along with the value of government bonds. Net financial transactions increased the net liability position by $110 million, as foreigners increased their investment in New Zealand more than New Zealand did with the rest of the world. The New Zealand dollar appreciated against most of its trading partners' currencies between 31 March and 30 June 2017. This decreased the value of New Zealand's liabilities by $2.2 billion and decreased the value of our assets by $2.1 billion, resulting in little effect on the net liability position." New Zealand's international debt was $290.9 billion (108.5 percent of GDP), of which 30.4 percent is due within 12 months, compared to $144.9 billion in financial assets (other than shares; 54.1 percent of GDP), leaving a net debt of $145.9 billion (54.4 percent of GDP). Of the net debt, $4.5 billion was owed by the government including the Reserve Bank (equivalent to 1.7 percent of GDP and down from $5.9 billion in March) and $110.3 billion by the banks (41.1 percent of GDP), which owed $157.8 billion gross. Total insurance claims made on overseas reinsurers from the Canterbury earthquakes are estimated at $21.1 billion, and at 30 June 2017, $19.8 billion of these claims had been settled, leaving $1.3 billion outstanding. For the Kaikōura earthquakes, out of an estimated $1.1 billion of claims, $75 million had been settled leaving $991 million outstanding.

- Overseas Merchandise Trade for the month of October saw exports of goods rise in value by 16.2 percent from the same month last year while imports rose 15.0 percent. This created a trade deficit for the month of $871 million or 19.1 percent of exports, which is similar to the previous two years to this month. There was a trade deficit for the year of $3.0 billion or 5.8 percent of exports, lower than the 6.7 percent deficit in the year to the same month in 2016. In seasonally adjusted terms, exports rose 4.9 percent or $216 million over the month (compared to a 3.8 percent rise the

previous month) led by rises in Meat (up 20.8 percent or $98 million), Logs, wood and wood articles (up 7.0 percent or $28 million), Dairy products (up 2.1 percent or $25 million), and Crude oil (up 74.8 percent or $24 million, not seasonally adjusted), offset by falls led by Fruit (down 12.7 percent or $24 million), Aluminium and aluminium articles (down 7.5 percent or $8 million, not seasonally adjusted) and Mechanical machinery and equipment (down 4.9 percent or $7 million). Seasonally adjusted imports rose 7.1 percent or $333 million over the previous month, creating a trade deficit of $366 million following a $249 million deficit in the previous month. The rising imports were led by Mechanical machinery and equipment (up 4.6 percent or $34 million, not seasonally adjusted), Electrical Machinery and Equipment (up 3.8 percent or $14 million), and Plastic and plastic articles (up 4.3 percent or $7 million), offset by falls led by Petroleum and products (down 10.4 percent or $44 million, not seasonally adjusted), and Textiles and textile articles (down 6.5 percent or $15 million). In the year to October, 21.8 percent of New Zealand's exports went to China, 16.8 percent to Australia, 10.1 percent to the US, and 62.5 percent went to the top seven countries buying $1 billion or more of New Zealand exports. This was up from 19.0 percent going to China in the year to October 2016, and 61.9 percent still went to the top seven destinations. Over the same period, 19.5 percent of New Zealand's imports came from China (compared to 19.8 percent in 2016), 12.5 percent from Australia and 10.2 percent from the US, and 63.6 percent from the top seven countries selling to New Zealand, compared to 61.7 percent a year before.

★ The Retail Trade Survey for the three months to September 2017 showed retail sales rose 4.1 percent by volume and 5.4 percent by value compared with the same quarter a year ago. They rose 0.2 percent by volume and 0.1 percent by value in the quarter, seasonally adjusted. The fastest rises by seasonally adjusted value over the quarter were in Non-store and commission-based retailing (which includes online sales, up 8.7 percent), Clothing, footwear and accessories (up 4.0 percent), Liquor (up 3.9 percent), Department stores (up 1.9 percent) and Electrical and electronic goods (up 1.9 percent). There were falls led by Fuel (down 3.2 percent), Food and beverage services (down 2.2 percent; Statistics New Zealand says its 3.1 percent fall in sales volume was a record), Furniture, floor coverings, houseware and textiles (down 1.3 percent), Recreational goods (down 1.2 percent) and Motor vehicles and parts (down 1.0 percent). Supermarket and grocery stores, easily the largest single sector, rose 1.6 percent by value and 0.5 percent by volume. Statistics New Zealand notes that this is the first quarter where they have collected retail trade data under a new design which uses GST data wherever possible, surveying only the larger retail businesses.

★ The Performance of Manufacturing Index for October 2017 was 57.2, a fall from 57.6 in the previous month. The employment sub-index was at 51.0, a small rise from 50.8 in the previous month.

★ The Performance of Services Index for October 2017 was 55.6, a fall from 55.9 the previous month. The employment sub-index was 51.2, down from 53.7 in the previous month.

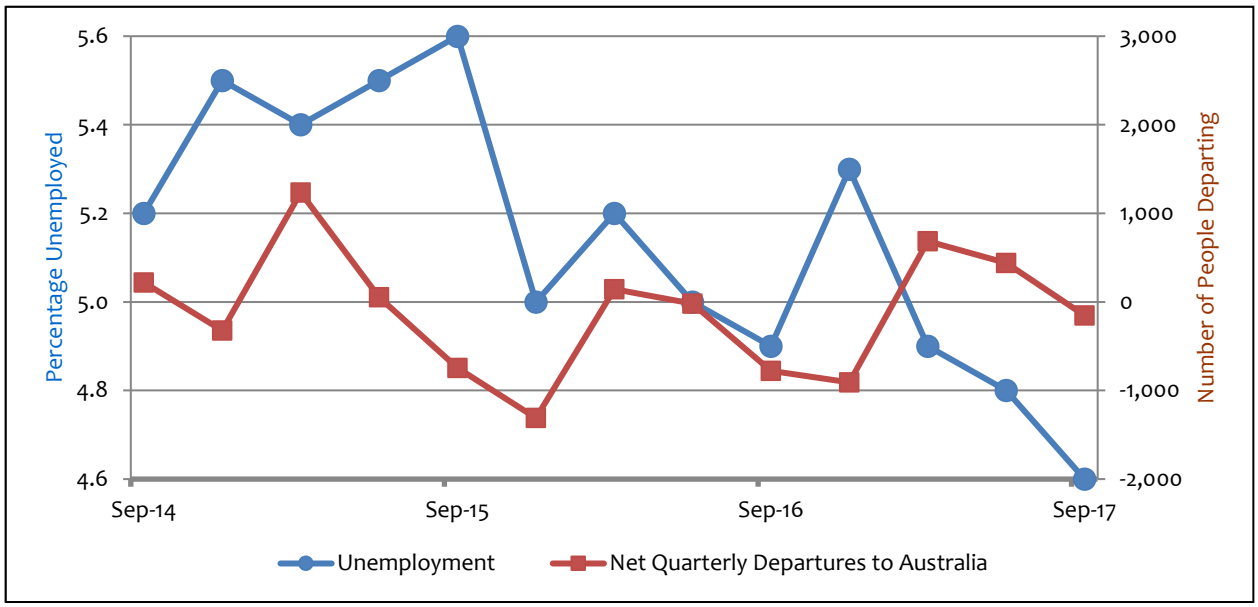
For these indexes, a figure under 50 indicates falling activity, above 50 indicates growing activity. Previous figures are often revised and may differ from those in a previous Bulletin.

★ On 9 November 2017 the Reserve Bank left the Official Cash Rate (OCR) at its record low of 1.75 percent. The Bank indicated, as it has for many months, that the rate is likely to be in place for a considerable time unless there were unforeseen events: "Monetary policy will remain accommodative for a considerable period. Numerous uncertainties remain and policy may need to adjust accordingly". It continued its more relaxed view of the international situation, though no

longer noted 'surplus capacity' (which still exists in many countries shown by high unemployment): "Global economic growth continues to improve, although inflation and wage outcomes remain subdued. Commodity prices are relatively stable." It again commented on low interest rates and record high share prices. "Monetary policy remains easy in the advanced economies but is gradually becoming less stimulatory." It was happier about the exchange rate: "The exchange rate has eased since the August Statement and, if sustained, will increase tradables inflation and promote more balanced growth." That is well overdue but partly the result of election uncertainty and partly due to financial dealers' distaste for a progressive government. GDP growth in New Zealand in the June quarter grew "in line with expectations, following relative weakness in the previous two quarters. Employment growth has been strong and GDP growth is projected to strengthen, with a weaker outlook for housing and construction offset by accommodative monetary policy, the continued high terms of trade, and increased fiscal stimulus." While not stated as such, on the RBNZ's assessment, the new Government's housing policies are already adding to the success of the Bank's constraints on borrowing by housing speculators: "House price inflation has moderated due to loan-to-value ratio restrictions, affordability constraints, reduced foreign demand, and a tightening in credit conditions. Low house price inflation is expected to continue, reinforced by new government policies on housing." However it still has uncertainties about the incoming Government's policies: "The Bank has incorporated preliminary estimates of the impact of new government policies in four areas: new government spending; the KiwiBuild programme; tighter visa requirements; and increases in the minimum wage. The impact of these policies remains very uncertain." With annual CPI inflation at 1.9 percent in September, "Overall, CPI inflation is projected to remain near the midpoint of the [1 to 3 percent] target range and longer-term inflation expectations are well anchored at 2 percent." The next OCR announcement will be on 8 February 2018 and will be accompanied by a Monetary Policy Statement.

★ According to REINZ, over the year to October the national median house price rose $20,000 or 3.9 percent to $530,000 and REINZ's house price index rose 1.6 percent. (The house price index adjusts for the type of house, such as its size and land area, and seasonal price patterns.) Over the month, the median price rose 1.2 percent seasonally adjusted while the house price index rose 0.2 percent. In Auckland over the year the median price was down $28,500 or 3.2 percent at $850,000 while the house price index fell 1.2 percent. Over the month Auckland's median price rose 0.8 percent seasonally adjusted, and the house price index rose 0.2 percent. Excluding Auckland, over the year the national median price rose $34,500 to $440,000 or 8.5 percent while the house price index rose 6.5 percent. Over the month the median price excluding Auckland was up 0.9 percent on the previous month seasonally adjusted, and the house price index was up 0.3 percent. There were record median prices in Waikato (up 9.9 percent over the year to $500,000), Manawatu-Whanganui (up 11.5 percent to $290,000), Canterbury (up 4.7 percent to $450,000) and Otago (up 14.4 percent to $412,000, in the face of sales numbers falling 25.7 percent). Median prices fell in 5 of the 14 regions over the month, seasonally adjusted, and sales fell in 8 of the regions. Over the year, sales fell in all regions, averaging a sharp 17.3 percent fall.

Employment



★ According to the Household Labour Force Survey (HLFS) the **unemployment** rate in the September 2017 quarter fell to 4.6 percent or 126,000 people, compared to 4.8 percent in June (128,000 people), seasonally adjusted. If it were the 3.3 percent it was in December 2007, 36,000 more people would have jobs. The seasonally adjusted female unemployment rate rose to 5.3 percent from 4.9 percent in September and was considerably higher than for men (4.1 percent) which fell from 4.7 percent. Māori unemployment fell from 10.6 percent in September 2016 to 9.9 percent in September 2017, while Pacific people's unemployment fell from 10.1 percent to 9.4 percent over the year (though the changes are not statistically significant). Compared to OECD unemployment rates, New Zealand had 13th lowest (out of 35 countries), one position worse than in June. However New Zealand had the third-highest employment rate at 77.4 percent for 15-64 year olds, compared to 4th highest in June.

★ **Youth unemployment** for 15-19 year olds was 19.3 percent in September, down from 20.6 percent in June, and little changed from 19.1 percent a year before (these and the other statistics for the whole youth population are seasonally adjusted, but those for Māori and for Pacific Peoples are not). For Māori 15-19 year olds in September 2017 the unemployment rate was 23.7 percent, down from 26.6 percent a year before. For 15-19 year old Pacific Peoples it was 30.1 percent, down from 31.1 percent a year before. For 20-24 year olds, youth unemployment was 9.0 percent, up from 8.5 percent in June but down a little from 9.2 percent a year before. For Māori 20-24 year olds in September 2017 the unemployment rate was 13.2 percent, a fall from 15.2 percent a year before. For 20-24 year old Pacific Peoples it was 15.2 percent, up from 11.1 percent a year before. The proportion of 15-19 year olds "not in employment, education, or training" (the NEET rate) was 7.2 percent, down from 8.7 percent in June but little changed from 7.3 percent a year before. For Māori 15-19 year olds in September 2017 the rate was 10.4 percent, down from 11.6 percent a year before and for Pacific Peoples it was 10.2 percent, down from 11.2 percent a year before. For 20-24 year olds the NEET rate was 14.8 percent, up from 13.3 percent in June and unchanged from 14.8 percent a year before. For Māori 20-24 year olds in September the rate was 25.3 percent, down a

little from 26.7 percent a year before, and for Pacific Peoples it was 30.0 percent, up sharply from 19.3 percent a year before. For the whole 15-24 year old group, unemployment was higher for those in education (15.3 percent) than those not in education (10.9 percent). There were 76,000 people aged 15-24 years who were not in employment, education, or training (NEET), seasonally adjusted, little changed from 75,000 in June and 75,000 a year before.

★ By **region**, in the North Island, unemployment rates rose compared to a year ago in four out of the eight regions, but only Gisborne / Hawke's Bay's rise from 6.5 percent to 8.8 percent was statistically significant. In the North Island, Gisborne / Hawke's Bay has the worst unemployment rate at 8.8 percent, while Northland is at 6.6 percent (from 7.6 percent a year ago), Manawatu/Whanganui is at 5.5 percent (4.6 percent a year ago), Taranaki is at 4.9 percent (4.7 percent a year ago), Bay of Plenty is at 4.7 percent (5.1 percent a year before), and Waikato is at 3.7 percent (4.5 percent a year before). Auckland is at 4.6 percent (from 5.3 percent a year before) and Wellington is also at 4.6 percent (from 4.6 percent a year before). The South Island looks better with Tasman/Nelson/Marlborough/West Coast at 2.2 percent (from 2.8 percent a year before), Canterbury at 3.6 percent (3.9 percent a year before), Otago at 3.9 percent (3.7 percent a year before), though Southland had 5.2 percent unemployment (5.3 percent a year before).

★ There were 42,900 unemployed people in September 2017 who had been **out of work for more than 6 months** compared to 43,500 a year before. The numbers appear to have increased sharply compared to quarters before June 2016, a possible contributor being a change in the survey questions from that date. This is 34.9 percent of the unemployed compared to 34.6 percent a year before, and is a level that has not previously been reached in a September quarter since 2000. Those out of work for more than a year are 15.0 percent of the unemployed compared to 14.6 percent a year before, the highest in a June quarter since 2001.

★ The unemployed were not the only people looking for work: "**underutilisation**" includes the officially unemployed as above, people looking for work who are not immediately available or have not looked for work sufficiently actively to be classed as officially unemployed, plus people in part time work who want more hours ("underemployed"). In the September quarter there were a total of 332,000 people looking for work classed as "underutilised", or 11.8 percent of the labour force extended to include these people. Of them, 108,700 were underemployed, 126,000 were officially unemployed, and 97,000 were additional jobless people looking for work. The 11.8 percent underutilisation rate is the same as in the previous quarter (seasonally adjusted) and down on 12.3 percent a year before. It is higher for women at 14.7 percent than for men (9.0 percent).

★ The number recorded as **employed** rose by 56,000 between the June and September 2017 quarters (seasonally adjusted). It rose by 102,700 over the year. The employment rate rose to 67.8 percent from 66.7 percent over the three months. It was 62.5 percent for women and 73.4 percent for men. Similarly the participation rate (the proportion of the working age population, those aged 15 years and over, either in jobs or officially unemployed) rose from 70.1 percent to 71.1 percent, all in seasonally adjusted terms.

★ **By industry**, the actual rise in employment of 44,200 since the June quarter was made up of both gains and losses. The biggest gains were of 13,300 in Agriculture, forestry, and fishing, 12,800 in Construction, 11,000 in Public administration and safety, and 9,900 in Health care and social assistance. The largest falls were of 8,100 in Information media and telecommunications, 6,300 in

Wholesale trade, and 5,400 in Arts, recreation, and other services. These are not seasonally adjusted.

★ In the September 2017 quarter, total **union membership** was estimated at 381,500, a 2.5 percent increase from 372,200 in the June quarter and up 1.6 percent from 375,400 a year before. The membership is 18.2 percent of employees compared to 18.0 percent in the June quarter and 18.7 percent a year before. Women make up 58.6 percent of the membership compared to them being 49.2 percent of all employees. As a result, the proportion of women employees who are in unions is higher than for men – 21.7 percent compared to 14.9 percent. There may be seasonal variations in union membership which are not yet apparent, so quarterly comparisons may not represent annual trends. Regarding coverage by a **collective employment agreement**, 18.1 percent of employees (378,000) said their employment agreement was a collective in September compared to 18.2 percent in June and 19.5 percent (391,800) a year before; 68.5 percent (1,432,600) said it was an individual agreement compared to 67.8 percent in June and 65.0 percent a year before, and 6.9 percent or 144,400 said they had no agreement (which is illegal), compared to 7.6 percent in June and 7.9 percent a year before. A further 6.5 percent of employees didn't know what kind of employment agreement they had. Coverage by collective agreement was 15.1 percent for men and 21.2 percent for women. Again, these figures could be affected by seasonal variations in numbers.

★ By **employment relationship**, in the September 2017 quarter, 90.7 percent of employees (1,898,500) reported they were permanent, 4.9 percent casual (102,300), 2.3 percent fixed term (48,800), 1.1 percent seasonal (23,000), and 0.3 percent employed through a "temporary agency" (6,400). The proportion reporting they were permanent was up from 90.6 percent (1,873,000) in June and 89.9 percent (1,804,100) a year before. Women were slightly less likely to be permanent employees: 89.6 percent of women were permanent compared to 91.8 percent of men in June. Instead, women were more likely to be casual (5.7 percent of them compared to 4.1 percent of men) or fixed term (3.0 percent of women compared to 1.7 percent of men). However more men were in seasonal work than women – 1.4 percent of men (14,400) compared to 0.8 percent of women (8,700). Of the temp agency employees, 2,800 were men and 3,600 women. Employment relationships may have seasonal variations, so we should be cautious about seeing trends in quarterly comparisons. In addition, small differences may not be statistically significant.

★ By **duration of employment (job tenure)**, in the September 2017 quarter, 24.2 percent of those in the labour force (including the self-employed) had been in their jobs for less than a year. Another 31.8 percent had been in their job for at least a year but less than five years, so a majority had been in their jobs less than five years. A further 16.8 percent had been in their job for at least five but less than ten years, and 25.7 percent had been in their jobs for 10 years or more. Women appeared to be somewhat more likely to have been in their jobs for a shorter time than men. For example, 27.4 percent of men had been in their jobs for more than 10 years, but only 24.2 percent of women. Age is a significant factor as would be expected: 56.1 percent people aged 15 to 24 had been in their jobs for less than a year, and 31.9 percent of 25-34 year olds, but only 13.7 percent of 45-54 year olds and 10.6 percent of 55-64 year olds. Small differences may not be statistically significant.

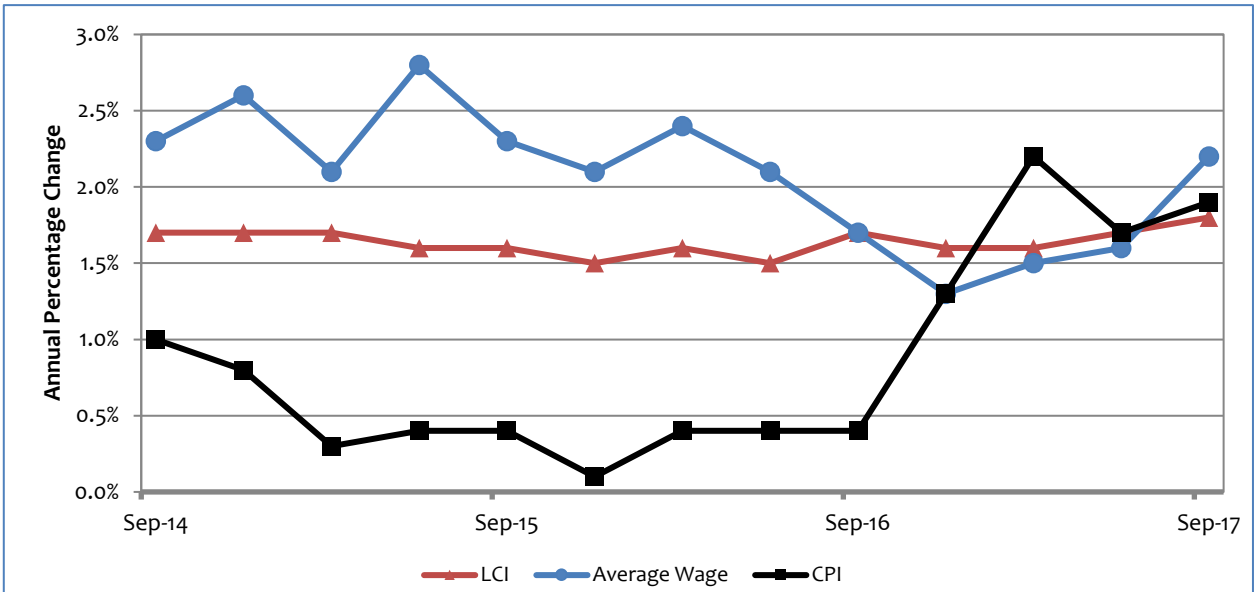
o The Ministry of Social Development reports that at the end of September 2017 there were 120,726 working age people on the Jobseeker benefit, 1,558 fewer than a year before but a rise of 1,950 from 118,776 in June. At September 2017, 64,299 were classified as 'Work Ready', and 56,427 were

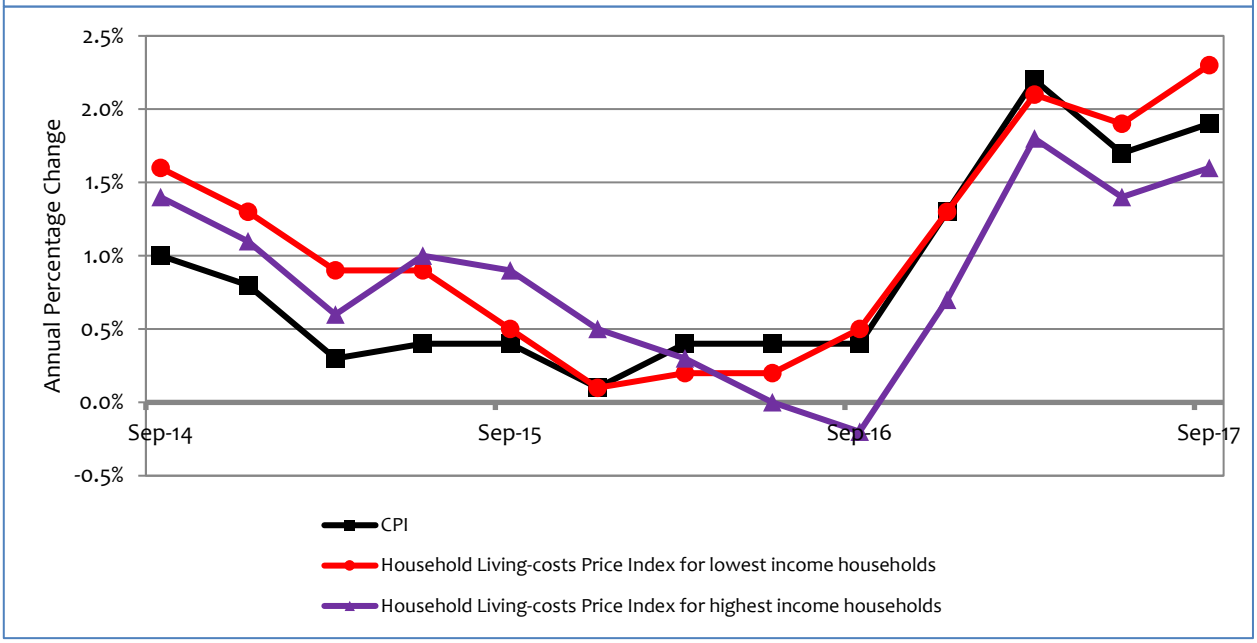
classified as 'Health Condition or Disability'. A total of 277,220 were on 'main' benefits, 6,655 fewer than a year before, mainly due to 4,870 fewer on Sole Parent Support, and 889 more than June, mainly because of the increased number on Jobseeker benefits. Of the 40,544 benefits cancelled during the three months to September, 17,567 or 43.3 percent of the people obtained work, 13.8 percent transferred to another benefit and 6.1 percent became full time students. A further 2,892 (7.1 percent) left on their 52 week reapplication or annual review. A total of 14,724 suffered sanctions, the majority (11,522) on a Jobseeker benefit. Of the total, 41.6 percent were Māori, though 35.8 percent of working-age benefit recipients are Māori.

★ Job Vacancies Online for October 2017 showed the seasonally adjusted number of job vacancies rose by 6.1 percent in the month and rose 8.0 percent over the same month a year previously, in seasonally adjusted terms. Over the year, vacancies in Northland rose 26.1 percent (and fell 3.7 percent over the previous month), Auckland rose 2.5 percent (and rose 7.8 percent over the month), Waikato rose 20.3 percent (rose 5.5 percent), Bay of Plenty rose 17.8 percent (rose 13.2 percent), Gisborne-Hawkes Bay rose 9.1 percent (rose 0.9 percent), Manawatu-Whanganui-Taranaki rose 23.8 percent (rose 10.7 percent), Wellington rose 4.6 percent (rose 4.5 percent), Marlborough-Nelson-West Coast rose 42.5 percent (rose 6.4 percent), Canterbury rose 1.3 percent (fell 1.0 percent) and Otago-Southland rose 26.1 percent (rose 3.2 percent). By industry, the fastest annual increases were in Healthcare and medical (up 10.9 percent), Construction and engineering (up 12.1 percent), and "Other" (up 20.3 percent). IT (down 12.6 percent) and Sales, retail, marketing and advertising (down 3.8 percent) fell. Over the month, all industries rose in a range between 4.9 and 6.2 percent except for Construction and engineering (up 2.0 percent) and Education and training (down 3.2 percent). By occupation, the fastest rises over the year were for Machinery Drivers (up 30.3 percent), Labourers (up 30.1 percent), Managers (up 8.0 percent) and Community and Personal Services (up 7.1 percent). None fell. Over the month, the fastest rises were for Managers (up 10.1 percent) and Community and personal services (up 7.5 percent) and all others rose at least 3.6 percent.

★ International Travel and Migration statistics showed 10,900 permanent and long-term arrivals to New Zealand in October 2017 and 5,320 departures in seasonally adjusted terms, a net gain of 5,580 which was up from 5,220 the previous month. There was a seasonally adjusted net gain from Australia of 70, compared to a gain of 20 a year before. It was made up of a net loss of 400 New Zealand citizens offset by a net gain of 470 citizens of other countries. There was an actual net gain of 70,694 migrants in the year to October, down from 70,986 in the year to September. Net migration to Australia in the year was 22 departures, with 25,008 departures and 24,986 arrivals. However there was a net loss of 5,187 New Zealand citizens to Australia over the year and a net loss of 1,417 to all countries. In October, 11.0 percent of the arrivals had residence visas, 12.9 percent student visas, 42.9 percent work visas, and 5.1 percent visitors. A further 27.8 percent were New Zealand or Australian citizens.

Wages and prices





★ See item on the falling share of New Zealand's income going to wages and salaries under *Economy* above.

★ The Labour Cost Index (LCI) for salary and ordinary time wage rates rose 0.6 percent in the three months to September 2017 and increased 1.8 percent in the year, a little less than the 1.9 percent increase in the CPI. The LCI increased 0.4 percent in the public sector and 0.7 percent in the private sector in the three months. Over the year it rose 1.5 percent in the public sector and 1.9 percent in the private sector. During the year, 47 percent of jobs surveyed did not receive a pay rise, and 49 percent of private sector jobs got no rise. For the 53 percent of those jobs surveyed which received an increase in their salary or wage rate during the year, the median increase was 2.2 percent and the average increase was 3.4 percent. For those jobs in the public sector that received increases, the median increase was 2.0 percent and in the private sector 2.4 percent; the average increase in

the public sector was 2.5 percent and in the private sector 3.7 percent. We estimate that over the year, jobs on collective employment agreements were 2.2 times as likely to get a pay rise as those which were not, and are more likely to get a pay rise of any size ranging from less than 2 percent to 5 percent but are equally likely to get one of more than 5 percent. Only 45 percent of jobs that were not on a collective got a pay rise during the year whereas the Centre for Labour, Employment and Work reports 99 percent of those on a collective got a pay rise.

- The Quarterly Employment Survey for the three months to September 2017 found the average hourly wage for ordinary-time work was $30.45, up 1.2 percent on the previous quarter and up 2.2 percent over the year, a little more than the 1.9 percent rise in the CPI. Female workers (at $28.38) earned 11.9 percent less than male workers (at $32.21) for ordinary time hourly earnings. The average ordinary-time wage was $28.37 in the private sector (up 1.2 percent in the quarter and 2.0 percent in the year) and $38.69 in the public sector (up 0.6 percent in the quarter and 3.3 percent in the year). In September, average total hourly wages (including overtime) ranged from $19.29 in Accommodation and food services and $21.29 in Retail trade, to $41.94 in Finance and insurance services, and $40.87 in Information, media and telecommunications. In Accommodation and food services, 57.9 percent of employee jobs were part time, and in Retail trade, 42.1 percent were part time; 43.5 percent were also part time in Health care and social assistance, 36.8 percent in Arts, recreation and other services, and 32.4 percent in Education and training. Together these five industries made up 68.5 percent of all part time work. (However the QES does not include agriculture or fishing and excludes very small businesses.)

- The Consumer Price Index (CPI) rose 0.5 percent in the September 2017 quarter compared with the June 2017 quarter, and rose 0.3 percent in seasonally adjusted terms. It increased 1.9 percent for the year to September. For the quarter, the largest single upward influence was Vegetables (up 6.2 percent), and Food group together accounted for 42.6 percent of the rise. The largest group contribution however came from Housing and household utilities, which accounted for 53.5 percent of the rise. All parts of this other than Household energy (which rose 0.3 percent) rose faster than the total rise in CPI: Rents were up 0.6 percent in the three months, new housing up 1.1 percent, property maintenance up 1.1 percent, and 'Property rates and related services' up 3.1 percent, mainly due to a 3.5 percent rise in local authority rates and payments which tend to be announced during this quarter. House insurance was up 6.1 percent, contents insurance 2.7 percent and Real estate services up 1.7 percent, so the prices of many aspects of housing rose much faster than prices in general. Alcoholic beverages and Tobacco contributed 10.7 percent of the rise (up 0.7 percent), and 'Miscellaneous goods and services', which includes personal care (like hairdressing and related appliances), personal effects (including jewellery), insurance, credit services (not including actual interest payments), and other services such as professional services, contributed 19.6 percent (up 1.3 percent). Transport prices fell 1.1 percent (a negative contribution to the overall rise of 30.0 percent), half due to a fall in petrol prices (down 1.7 percent) and more than a third due to falling international air transport prices (down 5.5 percent) though domestic air transport prices rose 4.0 percent. Communications fell 1.3 percent, with Telecommunication services down 1.5 percent, and Recreation and culture was down 0.1 percent mainly due to a 1.6 percent fall in the prices of Audio-visual and computing equipment and a 1.1 percent fall in 'Other recreational equipment and supplies'. Over the year, Housing and household utilities was the biggest driver in the rise, up 3.0 percent and contributing two-fifths (39.9 percent) of the CPI increase with new housing up 5.4 percent and all the other components except Household energy

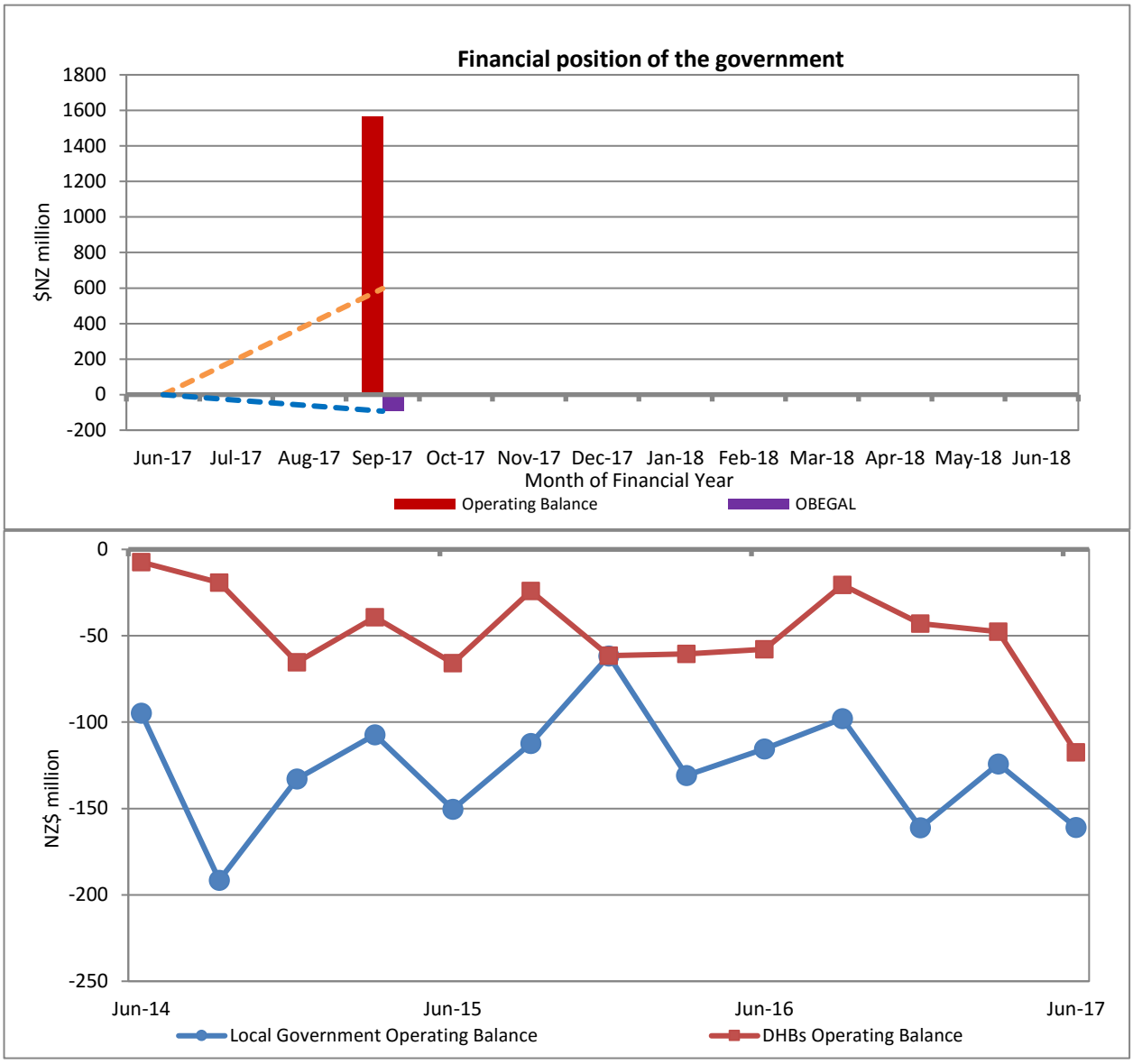
(up 1.7 percent) rising faster than overall CPI: rents (up 2.2 percent), Property maintenance (up 3.0 percent), and Property rates and services (up 3.4 percent). House insurance was up 12.1 percent, and Real estate services were up 8.1 percent. Professional services were also up 8.0 percent. Not part of the CPI (though in the Household Living Cost Indexes) is Interest, which was still falling in September (down 0.5 percent in the quarter and 4.6 percent over the year). Other major contributors to the annual increase were Food (up 2.8 percent, accounting for over a quarter or 27.3 percent of the increase), Cigarettes and tobacco (up 9.9 percent, accounting for 14.8 percent of the increase), and petrol which accounted for a tenth (9.7 percent) of the total, rising 4.5 percent. In seasonally adjusted terms, the CPI rose 0.3 percent from June, Food rose 0.6 percent, Alcoholic beverages and tobacco rose 1.4 percent, Clothing and footwear rose 0.3 percent, Housing and household utilities rose 0.8 percent, Communications fell 1.4 percent, Recreation and culture fell 0.8 percent, and Education rose 0.6 percent. Over the year, in Auckland prices rose 2.0 percent, Wellington 1.7 percent and they rose 2.3 percent in the North Island other than Auckland and Wellington. Inflation in Canterbury for the year was 1.0 percent and it was 1.9 percent in the rest of the South Island. Auckland's housing costs rose 3.3 percent over the year, Wellington's rose 3.0 percent, and in the North Island (outside Auckland and Wellington) housing costs rose 3.5 percent, the fastest in the country. Canterbury's rose 0.9 percent and rest of the South Island rose 2.9 percent, with the national average movement of 3.0 percent exceeded by Auckland and the rest of the North Island (outside Auckland and Wellington).

- The Household Living-costs Price Indexes (HLPIs) for the year to September 2017 again showed lower income households experiencing faster price rises than higher income households. Lowest spending households saw their living costs rise 2.6 percent over the year while prices for the highest spending households rose only 1.5 percent. The difference occurs because they spend their money on different things. Prices for the necessities of housing and food dominate low income households' spending and dominated the price rises, though relieved somewhat by falling prices for petrol and telecommunication services. On the other hand, higher income and higher spending households also benefitted from falls in the prices of the relative luxuries of international air travel and electronic goods, and a fall in interest rates for mortgages. Over the year, the All households HLPI index rose 1.9 percent, the Beneficiary households index rose 2.3 percent, the Māori households index rose 1.2 percent, and the Superannuitant households index rose 2.3 percent. By income quintile, the index for the lowest income households (quintile 1) rose 2.3 percent, quintile 2 rose 2.1 percent, quintile 3 rose 1.8 percent, quintile 4 rose 1.8 percent, and quintile 5 (the highest incomes) rose 1.6 percent. By expenditure quintile, the index for the lowest expenditure households (quintile 1) rose 2.6 percent, quintile 2 rose 2.1 percent, quintile 3 rose 1.8 percent, quintile 4 rose 1.7 percent, and quintile 5 rose 1.5 percent. Over the September quarter, the All households HLPI index rose 0.6 percent, the Beneficiary households index rose 0.5 percent, the Māori households index rose 0.6 percent, and the Superannuitant households index rose the most, at 0.9 percent. By income quintile, over the year the index for the lowest income households (quintile 1) rose 0.7 percent, quintile 2 rose 0.7 percent, quintile 3 rose 0.6 percent, quintile 4 rose 0.6 percent, and quintile 5 rose 0.6 percent. By expenditure quintile, the index for the lowest expenditure households (quintile 1) rose 0.8 percent, quintile 2 rose 0.6 percent, quintile 3 rose 0.7 percent, quintile 4 rose 0.5 percent, and quintile 5 rose 0.5 percent.

HLPIs show price increases like the CPI (above) but are designed to be better at showing the costs faced by households, and to show the different costs faced by different types of households. There are fourteen indexes: for "all households", Beneficiary households, Māori households, Superannuitant households, five for households ranked by income (five "income quintiles"), and five for households ranked by expenditure ("expenditure quintiles"). See the commentary in the November 2016 Bulletin for more detail.

★ The Food Price Index fell 1.1 percent in the month of October 2017 (and fell 0.1 percent in seasonally adjusted terms). Food prices rose 2.7 percent in the year to October. Compared with the previous month, fruit and vegetable prices fell 6.8 percent (and fell 1.3 percent seasonally adjusted); meat, poultry, and fish prices rose 0.8 percent; grocery food prices fell 0.8 percent (and fell 0.8 percent seasonally adjusted); non-alcoholic beverage prices did not change overall; and restaurant meals and ready-to-eat food prices rose 0.1 percent. (There are no significant seasonal effects for the categories without a seasonal adjustment.)

Public Sector



★ According to Treasury's Financial Statements of the Government of New Zealand for the three months to 30 September 2017, core Crown tax revenue was just $5 million (0 percent) higher than forecast in the previous Government's 2017 Budget Economic and Fiscal Update (BEFU 17). Source deductions (PAYE income tax) were $120 million higher than expected, offset largely by Customs and Excise duties which were $80 million under forecast. Overall core Crown revenue was $73

million or 0.4 percent higher than forecast. Core Crown expenses were $138 million (0.7 percent) higher than forecast, mainly because of timing issues, including expenditure from the financial year ended June 2017 being moved into the current year. As a result, the Operating Balance before Gains and Losses (OBEGAL) was $3 million better than forecast, with a $90 million deficit instead of the $93 million forecast. However there were substantial unforecast gains and losses, with $1.2 billion more than forecast net investment gains offset by $0.2 billion in reduced estimates of ACC's valuation due to lower than expected discount rates. The result was that the Operating Balance was $959 million better than forecast with a $1.6 billion surplus. Net debt at 22.8 percent of GDP ($61.1 billion) was $3.1 billion lower than forecast. Gross debt at $87.5 billion (32.7 percent of GDP) was $2.6 billion less than forecast. The Crown's net worth in financial terms was $11.4 billion higher than forecast at $112.1 billion.

- District Health Boards had 75 fewer full time equivalent staff than planned at the end of June 2017 (62,883 compared to 62,959 planned). While all categories of staff were affected except Nursing (which was 472 over plan), the largest shortfalls were in Allied Health Personnel (228 short), Medical Personnel (doctors – 129 short), and Management/Administration staff (128 short). Average costs per full time equivalent staff were close to those planned ($93,900 compared to $93,500). The DHBs had accumulated combined deficits of $117.5 million in the twelve months to June (unaudited full year accounts). This is $58.8 million worse than their plans. The Funder arms were in surplus by $171.9 million, $59.2 million more than planned, and Provider arms (largely their hospitals) in deficit by $284.3 million, $113.4 million worse than planned. The Northern region was $23.0 million behind plan with a deficit of $7.5 million and two of the four DHBs in deficit. The Midland region was $18.7 million behind plan with a deficit of $10.6 million and three of the five DHBs in deficit. Central region was $1.7 million behind plan, a combined $28.3 million deficit and four of the six DHBs in deficit. The Southern Region was $15.4 million behind plan with a $71.1 million deficit and three of the five DHBs in deficit, with Canterbury showing a $51.8 million deficit and Southern $21.8 million. In all, 8 of the 20 DHBs were in surplus but only five ahead of plan. The DHB furthest ahead of plan was Capital and Coast by $2.9 million, and Counties Manukau was furthest behind, by $17.4 million. Capital expenditure across all DHBs was behind plan with $569.8 million spent out of $760.4 million planned.
- Local Government in the June 2017 quarter recorded a 0.5 percent ($11.7 million) increase in operating income in seasonally adjusted terms and a 1.9 percent rise in operating expenditure ($48.5 million) including a 0.2 percent rise in employee costs (up $1.3 million) compared to the March 2017 quarter. This resulted in an operating deficit of $160.9 million in the June quarter, compared with a deficit of $115.4 million in the June 2016 quarter, and deficits in all the quarters back to June 2007 with the exception of June 2010. Note that the latest quarter results are provisional and seasonally adjusted figures are revised with each release.

Notes

This bulletin is available online at http://www.union.org.nz/economicbulletin195.

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References cited in the Commentary

Akerlof, G. A. (1982). Labor Contracts as Partial Gift Exchange. *The Quarterly Journal of Economics*, *97*(4), 543–569.

Arcand, J.-L., Berkes, E., & Panizza, U. (2012). *Too Much Finance?* (Working Paper No. WP/12/161). Washington DC, USA: International Monetary Fund. Retrieved from https://www.imf.org/external/pubs/cat/longres.cfm?sk=26011.0

Berg, A. G., & Ostry, J. D. (2011, September). Equality and Efficiency. *Finance and Development*, *48*(3), 12–15.

Berg, A., Ostry, J. D., & Zettelmeyer, J. (2008). *What Makes Growth Sustained?* (Working Paper No. WP/08/59) (p. 35). International Monetary Fund. Retrieved from http://www.imf.org/external/pubs/ft/wp/2008/wp0859.pdf

Campbell, C. M. (1993). Do Firms Pay Efficiency Wages? Evidence with Data at the Firm Level. *Journal of Labor Economics*, *11*(3), 442–470.

Card, D. E., Lemieux, T., & Riddell, W. C. (2003). Unionization and Wage Inequality: A Comparative Study of the U.S, the U.K., and Canada. *SSRN ELibrary*, 58.

Card, D., Lemieux, T., & Riddell, W. C. (2004). Unions and Wage Inequality. *Journal of Labor Research*, *25*(4), 519–562. https://doi.org/10.1007/s12122-004-1011-z

Cecchetti, S. G., & Kharroubi, E. (2012). *Reassessing the impact of finance on growth* (Working Paper No. 381). Bank for International Settlements. Retrieved from http://www.bis.org/publ/work381.htm

Cecchetti, S. G., & Kharroubi, E. (2015). *Why does financial sector growth crowd out real economic growth?* (Working Paper No. 490). Bank for International Settlements. Retrieved from http://www.bis.org/publ/work490.htm

Cingano, F. (2014). *Trends in Income Inequality and its Impact on Economic Growth* (Working Paper No. 163). Paris, France: OECD. Retrieved from http://www.oecd-ilibrary.org/social-issues-migration-health/trends-in-income-inequality-and-its-impact-on-economic-growth_5jxrjncwxv6j-en

Conway, P. (2016). *Achieving New Zealand's productivity potential* (Research Paper No. 2016/1). Wellington, New Zealand: New Zealand Productivity Commission. Retrieved from https://www.productivity.govt.nz/research-paper/achieving-new-zealands-productivity-potential

Crichton, S. (2009). *Does workplace-based industry training improve earnings?* Wellington, New Zealand: Statistics New Zealand and the Department of Labour. Retrieved from http://www.dol.govt.nz/publications/research/publication-view.asp?ID=318

Crichton, S., & Dixon, S. (2011). *Labour Market Returns to Further Education for Working Adults* (p. 99). Wellington, New Zealand: Department of Labour. Retrieved from http://www.dol.govt.nz/publication-view.asp?ID=380

DiNardo, J., Fortin, N. M., & Lemieux, T. (1995). *Labor Market Institutions and the Distribution of Wages, 1973-1992: A Semiparametric Approach* (Working Paper No. 5093) (p. 64). National Bureau of Economic Research. Retrieved from http://www.nber.org/papers/w5093

Fehr, E., Goette, L., & Zehnder, C. (2008). *A behavioral account of the labor market: the role of fairness concerns* (Discussion Paper No. 3901) (p. 48). Zurich: Institute for the Study of Labor (IZA). Retrieved from http://ideas.repec.org/p/zur/iewwpx/394.html

Furceri, D., & Loungani, P. (2013). Who Let the Gini Out? Capital account liberalization and fiscal consolidation confer benefits but also lead to increased inequality. *Finance & Development*, *50*(4), 25–27.

Furceri, D., & Loungani, P. (2015). *Capital Account Liberalization and Inequality* (Working Paper No. WP 15/243). Washington DC, USA: International Monetary Fund. Retrieved from http://www.imf.org/external/pubs/cat/longres.aspx?sk=43414

Georgiadis, A. (2013). Efficiency Wages and the Economic Effects of the Minimum Wage: Evidence from a Low-Wage Labour Market*. *Oxford Bulletin of Economics and Statistics*, *75*(6), 962–979. https://doi.org/10.1111/j.1468-0084.2012.00713.x

International Labour Office. (2013). *Global Wage Report 2012/13: Wages and equitable growth* (Global Wage Reports). Geneva, Switzerland: International Labour Organization. Retrieved from http://www.ilo.org/global/research/global-reports/global-wage-report/2012/WCMS_194843/lang--en/index.htm

Jaumotte, F., Lall, S., & Papageorgiou, C. (2013). Rising Income Inequality: Technology, or Trade and Financial Globalization? *IMF Economic Review*, *61*(2), 271–309. https://doi.org/10.1057/imfer.2013.7

Koske, I., Fournier, J.-M., & Wanner, I. (2012). *Less Income Inequality and More Growth – Are They Compatible? Part 2. The Distribution of Labour Income* (Working Paper No. 925) (p. 54). Paris, France: OECD. Retrieved from http://dx.doi.org/10.1787/5k9h2975rhhf-en

Krassoi Peach, E., & Stanley, T. D. (2009). Efficiency Wages, Productivity and Simultaneity: A Meta-Regression Analysis. *Journal of Labor Research*, *30*(3), 262–268. https://doi.org/DOI 10.1007/s12122-009-9066-5

Kumhof, M., & Rancière, R. (2010a). *Inequality, Leverage and Crises* (Working Paper No. WP/10/268). USA: IMF. Retrieved from http://www.imf.org/external/pubs/cat/longres.cfm?sk=24378.0

Kumhof, M., & Rancière, R. (2010b, December). Leveraging Inequality. *Finance and Development*, *47*(4), 28–31.

Kumhof, M., & Rancière, R. (2011, September). Unequal = Indebted. *Finance & Development*, 25–27.

OECD. (2017). *Back to work, New Zealand: improving the re-employment prospects of displaced workers*. Paris, France: OECD Publishing. Retrieved from http://dx.doi.org/10.1787/9789264264434-en

Perry, B. (2017). *Household Incomes in New Zealand: trends in indicators of inequality and hardship 1982 to 2016*. Wellington, New Zealand: Ministry of Social Development. Retrieved from https://www.msd.govt.nz/about-msd-and-our-work/publications-resources/monitoring/household-incomes/

Raff, D. M. G., & Summers, L. H. (1987). Did Henry Ford Pay Efficiency Wages? *Journal of Labor Economics*, *5*(4), S57–S86.

Rosenberg, B. (2017). *Shrinking portions to low and middle-income earners: Inequality in Wages & Self-Employment 1998-2015*. Wellington, New Zealand: New Zealand Council of Trade Unions Te Kauae Kaimahi. Retrieved from http://www.union.org.nz/wage-and-salary-earners-below-the-average-wage-lost-out-on-income-growth/inequality-wages-self-employment-1998-2015/

Salop, S. C. (1979). A Model of the Natural Rate of Unemployment. *The American Economic Review*, *69*(1), 117–125.

Shapiro, C., & Stiglitz, J. E. (1984). Equilibrium Unemployment as a Worker Discipline Device. *The American Economic Review*, *74*(3), 433–444.

Stiglitz, J. E. (1974). Alternative Theories of Wage Determination and Unemployment in LDC's: The Labor Turnover Model. *The Quarterly Journal of Economics*, *88*(2), 194–227. https://doi.org/10.2307/1883069

Stockhammer, E. (2009). *Determinants of functional income distribution in OECD countries* (IMK Studies No. 5/2009) (p. 59). Düsseldorf: Hans-Böckler-Stiftung. Retrieved from http://www.boeckler.de/6299.htm?produkt=HBS-004499&chunk=3

Storm, S., & Naastepad, C. W. M. (2011). The productivity and investment effects of wage-led growth. *International Journal of Labour Research*, *3*(2), 189–217.

Wade, R. (2013). Inequality and the West. In M. Rashbrooke (Ed.), *Inequality: a New Zealand Crisis -- and what we can do about it* (p. 279). Wellington, New Zealand: Bridget Williams Books.

Walsh, F. (2012). Efficiency wages and bargaining. *Oxford Economic Papers*, *64*(4), 635–654. https://doi.org/10.1093/oep/gpr060

Weiss, A. (1980). Job Queues and Layoffs in Labor Markets with Flexible Wages. *Journal of Political Economy*, *88*(3), 526–538.

Western, B., & Rosenfeld, J. (2011). Unions, Norms, and the Rise in U.S. Wage Inequality. *American Sociological Review*, *76*(4), 513–537. https://doi.org/10.1177/0003122411414817

Wilkinson, R. G., & Pickett, K. (2010). *The spirit level: why greater equality makes societies stronger*. New York: Bloomsbury Press.

Zelenska, T. (2011, July 5). *Channels of Adjustment in Labor Markets: The 2007-2009 Federal Minimum Wage Increase* (PhD Thesis). Georgia State, Georgia, USA. Retrieved from http://digitalarchive.gsu.edu/econ_diss/70/

Zuccollo, J., Maani, S., Kaye-Blake, B., & Zeng, L. (2013). *Private Returns to Tertiary Education - How Does New Zealand Compare to the OECD?* (Working Paper No. WP 13/10) (p. 53). Wellington, New Zealand: The Treasury. Retrieved from http://purl.oclc.org/nzt/p-1568