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RODNEY'S RAVINGS

Inflation causes, costs and cures

EXECUTIVE SUMMARY

There is a common perception that Don Brash was too harsh a taskmaster when he was Governor of the Reserve Bank (RBNZ). Comments like, “we were just starting to get ahead and he would hit us with higher interest rates” and “surely a bit more inflation would help lubricate growth”, reflect the common view that a bit more inflation would be a good thing.

Stronger economic growth can be achieved for a period of time without causing the sky to fall on Chicken Licken's head, especially if the starting point is one of under employed resources. But attempts to boost economic growth on a permanent basis by running more inflationary economic policies will eventually backfire because the costs of higher inflation will come home to roost. Sustainable advancements in economic activity come about by doing things smarter, by introducing new technology and from population growth, not via larger increases in prices. Higher inflation just means larger annual increases in the general level of prices, including both labour costs and the prices of goods and services.

This Raving reviews what caused New Zealand's current domestic inflation problem and takes a holistic look at the costs associated with even a relatively small increase in the average inflation rate. On reading this report proponents of a bit more inflation should realise that they are barking up the wrong tree. The focus should be on achieving a bit more productivity growth or a bit more population growth.

The best way to solve an inflation problem is to identify the cause and stamp it out. This issue is addressed in depth in our **Interesting Times** and **Monetary Policy Briefing** reports.



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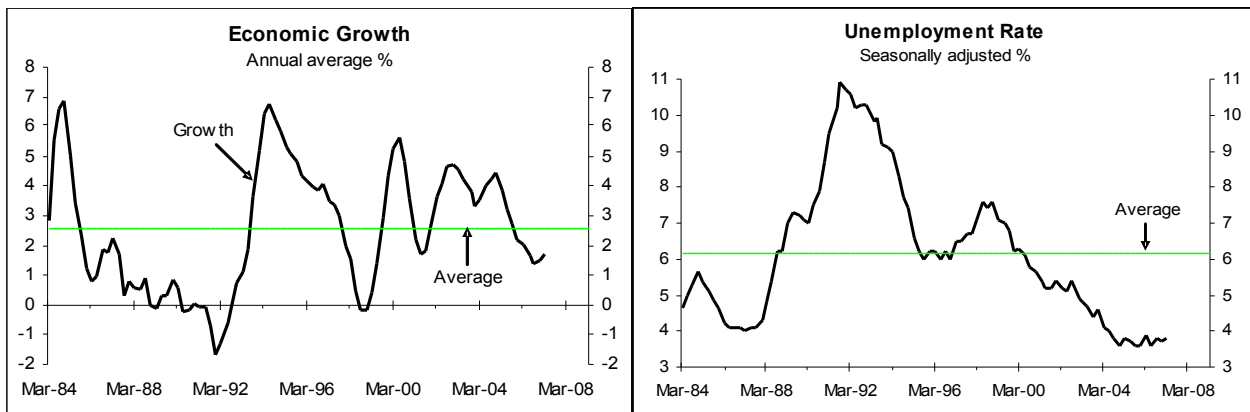


Inflation causes

Inflation is best measured as the annual % change in the general level of prices for the goods and services that consumers buy. The cause of higher inflation is straight forward. Prices rise if demand is high relative to supply, although in some parts of the economy prices are slow to respond to excessive demand.

Economic or GDP growth can be considered as a measure of growth in demand for goods and services in the whole economy. If economic growth is too high, demand grows faster than the ability of producers to increase supply and prices will increase at a faster rate. The Raving, “**How strong can the economy grow on a sustainable basis**” (accessible from <http://www.sra.co.nz/literacycentre.html>), addressed the issue of how strong the economy can grow without inflation problems emerging.

If economic growth runs persistently faster than the historical average rate of around 2.5% it will fuel an inflation problem, while if economic growth runs persistently below around 2.5% then inflation will fall materially (see the left chart below, where economic growth is measured in volume or real terms). When economic growth runs above the average rate in the left chart, as it largely has since mid-1999, it results in a falling unemployment rate (the right chart), as it largely has since 1999. While if economic growth runs below the sustainable rate then the unemployment rate will increase (e.g. 1987-92).



If the unemployment rate is pushed below a certain level, which I believe to be close to the historical average of just over 6%, then employees have the upper hand in bargaining and labour cost increases end up exceeding the level justified by productivity growth (i.e. labour costs per unit of production increase). This is great for employees in the short-term, but firms inevitably pass excessive labour cost increases on to consumers in the form of higher prices. This undermines employees’ pay increases and sends them back to the bargaining table in search of pay increases to compensate for the rising cost of living. And the next thing you know the economy is trapped in a no-win wage-price spiral. New Zealand’s welfare “safety nets” mean the equilibrium unemployment rate (i.e. the rate consistent with balance bargaining power between employees and employers) is relatively high at around 6%, but this is not particularly different from other developed economies with similar welfare nets.

Monetary policy is the ultimate determinant of economic growth. If the other drivers look like pushing economic growth above the sustainable rate, the RBNZ is supposed to push up interest rates to moderate growth and keep them up until inflation is back under control. While if economic growth looks like running too low it is the RBNZ’s job to cut interest rates to boost growth. Unfortunately, the RBNZ has tried a new monetary policy experiment with low interest rates since around 2001 – see “**The Costs of the latest monetary policy experiment**” Raving in the **Literacy Centre** – and as a result NZ has experienced a sustained period of above average economic growth. Consequently, the unemployment rate has fallen well below the equilibrium level and NZ is looking down the barrel of a mindless wage-price spiral.

For the moment the fall in the unemployment rate below the equilibrium level has not been fully reflected in higher CPI inflation for a number of reasons. This is partly because labour costs are slow to respond to a falling unemployment rate, so we have not yet seen the full inflation consequences of the low unemployment rate. The great job Don Brash did at keeping inflation low, which meant inflation expectations became reasonably entrenched at low levels, is also part of the reason we have not seen the full inflationary consequences of the excessive economic growth, but inflation expectations are now being revised up. Thirdly, the strong economic growth was a key factor contributing to a rising NZ dollar over the last several years (see the “**What really drives major cycles in the NZ dollar**” Raving), which pushed

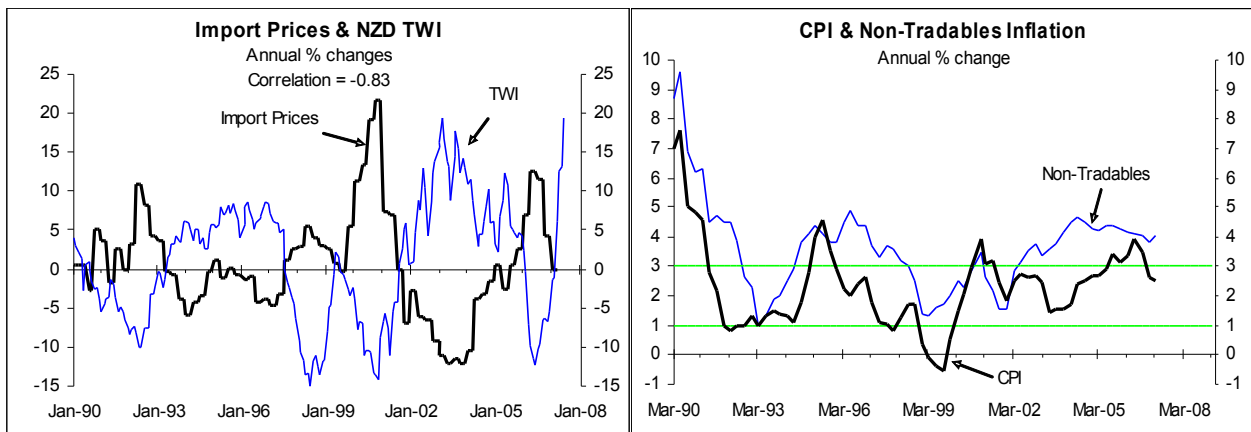


down import prices (see the left chart below). Since 2002 the NZ dollar, as measured on a trade-weighted or TWI basis, has more often than not appreciated on an annual basis (the blue line), with the rising NZ dollar leading to falling import prices when measured in NZ dollar terms (the black line).

Falling import prices have filtered into lower prices for imported consumer goods, which is a key reason why overall CPI inflation has generally been below the top of the RBNZ's 1-3% target range over the last several years (see the right chart below, the black line measure annual CPI inflation and the two green lines reflect the extremes of the RBNZ's target range).

While CPI inflation has been reasonably well behaved over the last several years, for the reasons given above, inflation in the domestic economy has been running above 3% since 2002 and generally above 4% since 2003 (the blue line in the right chart below). The RBNZ initiated the measurement of non-tradables inflation, which measures what is happening to the prices of domestically produced and consumed goods and services, and abstracts from the direct impact of exchange rate movements on consumer prices.

The monetary policy experiment, and the associated above average economic growth and falling unemployment rate, have resulted in a domestic inflation problem. This inflation problem will end up being largely mirrored in CPI inflation as the inflationary consequences of the tight labour market unfold, as inflation expectations rise and when the NZD experiences its next inevitable fall. This means the RBNZ is living on borrowed time in terms of the medium term inflation outlook.



Isn't a bit more inflation good for growth?

There is a common perception that Don Brash was too harsh a taskmaster when he was Governor of the Reserve Bank. Comments like, "we were just starting to get ahead and he would hit us with higher interest rates" and "surely a bit more inflation would help lubricate growth", reflect the common view that a bit more inflation would be a good thing.

However, sustainable advancements in economic growth come about by doing things smarter and by population growth, not by a general increase in the level of prices. Higher inflation just means larger annual increases in the general level of prices, including both labour costs and the prices of goods and services.

For example, if an employee gets an annual pay increase of 6% and his/her cost of living goes up by 4% per annum, is he/she any better off than if he/she got a 4% annual pay increase and his/her cost of living went up 2% per annum? Equally, is an employer any better off if its revenues go up by 4% per annum and its labour costs go up by 6% per annum (4% after adjusted for productivity growth), than if its revenues go up by 2% per annum and its labour costs go up 4% per annum (2% after adjusted for productivity growth)?

At face value both employees and employers should be no better or worse off if CPI inflation increases from 2% per annum to 4% per annum. I can see two situations in which having 4% inflation could be better than 2% (see pages 5-6), but many more reasons why the majority of people will end up worse off as a result of even a relative small increase in the average inflation rate.

Winners and losers from higher inflation

Higher inflation can make some groups better off (borrowers, the government and beneficiaries of government handouts) and some worse off (savers and tax-payers).

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For example, a retired person who invests in a 10-year bond with a yield of 6% will see the real or inflation adjusted value of the capital invested in the bond fall 18% over the 10 year period if inflation averages 2%, but by 32% if inflation averages 4%. In addition to that the value of the interest income will fall 18% in real terms by the last year if inflation averages 2%, but it will fall 32% if inflation averages 4%.

From another perspective, consider a person saving for their retirement and investing in a 10-year bond at a 6% yield and reinvesting the interest income – assuming they can reinvest at the original yield for simplicity. At the end of the 10 years the real or inflation adjusted value of their investment will be 21.7% higher than at the start of the period, assuming they are paying 33% tax on their interest income and inflation averages 2% per annum. However, if inflation turns out to average 4% per annum then after the 10 years the real value of their investment, including reinvested interest, will not have increased at all.

So what many would perceive to be a relatively small unexpected increase in the average inflation rate – from 2% to 4% - can have a major negative impact on people living off fixed interest incomes and savers. Given NZ's poor personal savings record, economic policies, like the latest monetary policy experiment, that advantage borrowers over savers are not in the national interest.

Like borrowers, the government is a major beneficiary of higher inflation. If, for example, pay increases average 4% per annum it will take 11 years for someone starting on an annual income of \$40,000 to surpass \$60,000 annual income and start facing the top marginal tax rate of 39%. However, it will take only seven years for this to happen if pay increases average 6%. In the case of someone starting with an income of \$30,000 per annum, it will take 18 years for them to start facing the 39% marginal tax rate if annual pay increases average 4% per annum, but only 12 years if pay increases average 6% per annum.

Again, only a relatively small increase in inflation means that over a number of years the average tax rate faced by the average tax payer will increase significantly, providing windfall gains to the government. In the 1970s and early 1980s when inflation was much higher this issue was well understood and was called “fiscal drag”. Effectively, the government has an incentive to promote higher inflation, which is why we live in constant danger that a less than scrupulous government will water down the focus of monetary policy on inflation (see “**Monetary policy and political conspiracy theories**” for a discussion of this topic).

If I lived off government handouts I would also be in favour of higher inflation. However, as a taxpayer, I see inflation as an unwelcome additional siphon on my hard-earned income. Rodney Hide's calculations of how many days a year the average tax payer has to work to pay his/her tax bill comes to mind. Higher inflation is an insidious way of increasing the number of days the average tax payer has to work each year to pay for government services and government handouts.

The costs of higher inflation

Most of my first year at the RBNZ was spent working on a research project aimed at calculating the costs of inflation. This was done by using mathematical equations to try and test whether economic growth was impacted adversely when inflation was high. But the most sophisticated maths around can't estimate the true costs of inflation because of the complexities involved. However, 25 years of subsequent experience, including having lived in high and low inflation periods, and building an in-depth understanding of how people behaviour in an economic context, have provided a much better basis for assessing the costs of higher inflation.

There are the straight forward costs, like firms having to re-price their goods and services more often when inflation is higher. This is called the “menu” cost, associated with restaurants having to reprint menus more often when inflation is higher. This is a “dead-weight” cost that unnecessarily soaks up some of the economy's scarce resources.

Much harder to measure but also more important is the psychological impact of higher inflation and the related deadweight costs. When prices rise regularly, like the prices of the chocolate bars and chocolate Wave milk drinks I consume regularly when I am on the road, it engenders a general feeling of disquiet and distrust. Equally, when employers regularly have to top up employees remunerations under threat of losing them to competitors, this creates disquiet. Higher inflation undermines the social fabric, which is a pretty wishy-washy statement, but has real costs associated with it.

Higher inflation results in employees and employers battling harder to protect their share of the national pavlova. When inflation is low the way to get ahead is to focus most on productivity and creating a bigger pavlova, but when the inflation component of pay increases significantly outweigh the productivity component then most focus by employees and employers goes on getting their share rather than growing

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the cake. One consequence is that staff turnover rates increase, which is a major deadweight cost. Too much valuable thinking time gets focused on the battle for the share of national income at the expense of time spent being innovative and growing national income.

For example, faced with relentless increases in labour costs firms will spend valuable management time trying to find ingenious ways of putting up prices, which in many cases will be achieved by degrading the quality of the goods and/or services they sell. Some time ago I used the example of my sushi lunch to show how this worked. Faced with rising costs the supplier of my daily sushi fix responded by progressively making the sushi rolls smaller while keeping the price fixed. I guesstimated that over a period of a year or so the size of the rolls shrunk by around 14%, which meant I had to buy a bit of cake because the eight piece sushi pack no longer filled the gap. The next stage was to introduce a new, double avocado sushi roll, for which the price was 17% higher, which got the sushi rolls back to the original size.

This sort of behaviour was rife in the 1970s and will be in the process of being re-invented in many firms. However, like higher staff turnover, time and resources spent on such efforts are a deadweight cost and distract management from the real value-adding issues.

Most discussion of the costs of inflation is focused too much on after the event issues, like the menu costs and other deadweight costs of inflation. Just as important is consideration of what caused inflation and what other bad things are associated with this. The cause of the increase in inflation will inevitably distort where the economy's scarce resources are directed. In the 1970s the main cause of higher inflation was the government writing cheques on the RBNZ and using the funds to invest in low returning "Think Big" and other projects. Investing in low returning projects is a sure way of trapping the economy in a low growth potential and leaving tax payers with massive debts.

The penultimate cause of NZ's current elevated level of domestic inflation is the RBNZ's experiment with low interest rates. Again, the Raving, "**The costs of the latest monetary policy experiment**", addresses some of the undesirable implications of the cause of the current inflation problem:

"It is about exporters not only facing an excruciatingly high exchange rate, but also labour costs that are rising faster than their international competitors, low to negative labour productivity growth, and over the top construction costs. It is about the thousands of gullible investors who will see their dreams go down the tube at the hands of a central bank that experimented with low interest rates and fuelled the speculative bubble in the property market that the investors found irresistible." And it is about a "large number of small businesses that set up to service the booms in house sales, house building, apartment building and subdivision activity that find demand for their services plummet. And about the financiers that get burnt."

There will be a significant group of people currently approaching retirement, or finally starting to take saving for retirement seriously, who will have been sucked into the speculative bubbles fuelled by the RBNZ's latest experiment. Some of these people will end up losing large amounts of money when the bubbles burst. Some of the valuation charts in our **Housing Prospects** report provide eye-opening insights into the extent to which house and section prices have got out of line with affordability and, where relevant, future income streams.

While the boom times that were associated with the latest monetary policy experiment have been great for many people, the multi-faceted costs of the associated inflation problem now lie ahead. Going for growth and not worrying about higher inflation can generate some initial gains in economic activity, but in time the inevitable hangover will set in and the costs of the higher inflation will end up outweighing the initial gains.

Higher inflation might help relative prices change

It is normal for different industries to experience significantly different fortunes (e.g. one industry may be in a growth phase driven by new technology, while another is dying because lower cost overseas competitors are taking over its markets). Ideally labour costs in dying industry would fall relative to those in the industry of the future, encouraging a smooth flow of staff from the former to the latter.

However, prices/wages can be "sticky" in the labour market. Even in its death throes the industry in decline will pay roughly the going market rate for staff to retain them, slowing down the flow of staff to the industries of the future. Only when it is forced to close its doors will it free up staff.

There is an idea that higher inflation will make it easier for winning industries to attract staff from dying ones. It is argued that if inflation is higher the dying industry can still give pay increases but they are likely



to be smaller than those on offer by the industries of the future, so relative labour costs can change between the dying industry and other industries, which could even prolong the life of the dying industry.

I think there is some merit in this argument. It has some conceptual appeal and in the real world it is likely that many staff in dying industries will remain loyal even if they get lower pay increases than staff in winning industries. But this effect will not be indefinite. Loyalty only goes so far. In time lower annual pay increases will mount up and the dying industry will have to start paying closer to the general market rate to retain staff or attract replacements for the staff that leave.

Higher inflation helps get housing affordability down after a speculative bubble

The national median house price roughly doubled in the early 1970s on the back of a commodity price boom, massive immigration, low real interest rates and a generous government. As shown in our **Housing Prospects** reports, rental yields collapsed in the early 1970s (although not as much as they have collapsed over the last four years). House prices were seriously over the top, especially in light of the generally worse economic times to be faced in the second half of the 1970s, including negative net migration.

Like labour costs, house prices tend not to fall much, even when supply clearly exceeds demand, unless there are large numbers of forced or mortgagee sales. Despite clearly being out of line with “fundamentals” in the early 1970s the national median house price did not fall, but rose at 5% per annum on average in the second half of the 1970s. However, prices in general rose 15% per annum over the second half of the 1970s, so in real or relative terms house prices fell 10% per annum over a five year period.

The high level of inflation in the second half of the 1970s meant that income levels and house rents could catch-up with the over inflated house prices relatively quickly, if you call five years quickly. Without the high inflation it would have taken much longer for house prices to come back into line with prices in general. The faster adjustment to the bubble in house prices was possibly a good thing from a general economic efficiency perspective, although it will have generated some losers along the way. But I find it hard to justify having higher inflation just to solve problems associated with over the top house prices.

Inflation cures

The best way to solve an inflation problem is to identify the cause and stamp it out. This issue is addressed in depth in our **Interesting Times** and **Monetary Policy Briefing** reports.

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