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## Nominal GDP targeting

### INFLATION TARGETING HAS PASSED ITS USE-BY DATE

*The time has come to replace the Reserve Bank of Australia's (RBA's) mandate to keep inflation between two and three percent per annum with a 'nominal GDP' growth target of five and a half percent per annum. Nominal GDP (or nominal income) provides a better proxy for what consumers, businesses and governments actually care about than inflation. Nominal GDP also provides a better indicator of how the economy is travelling than inflation. Obliging the RBA to keep nominal GDP growing at a steady rate is likely to promote better short and long term outcomes for the Australian economy than continuing with an outmoded inflation target.*

### HISTORY OF INFLATION TARGETING

Over the last several decades, the conduct of monetary policy in most developed countries has changed significantly. Central banks in Australia and elsewhere have been granted formal independence from the executive branch of government in relation to their day-to-day decisions. The role of government has become limited to setting or agreeing an explicit target or framework for central banks to conduct monetary policy. The most widely-adopted framework for monetary policy in advanced economies is 'inflation targeting', whereby the central bank uses the instruments at its disposal to ensure that the price of a basket of consumer goods and services (tracked in Australia by the Consumer Price Index, or CPI) rises at a steady but modest rate. In Australia, this rate is 2 to 3 percent per annum over the medium term.<sup>1</sup> The Reserve Bank of New Zealand was the first central bank in the world to formally adopt an inflation target in 1990.<sup>2</sup> Others now include the central banks of Sweden, Canada, England, the Eurozone, Japan and Australia. The United States Federal Reserve (or 'Fed') has a 'dual mandate' to promote both maximum employment and price stability, with price stability interpreted as a rate consumer price inflation of two percent per annum.<sup>3</sup>

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<sup>1</sup> <http://www.rba.gov.au/education/monetary-policy.html>

<sup>2</sup> <http://www.nber.org/digest/apr98/w6126.html>

<sup>3</sup> [https://www.federalreserve.gov/faqs/money\\_12848.htm](https://www.federalreserve.gov/faqs/money_12848.htm)

The rationales for targeting inflation at a low level are often described in terms of avoiding distortions to economic decisions and protecting citizens living on fixed incomes.<sup>4</sup> However, the underlying motivation for targeting low inflation is to help preserve macroeconomic stability – that is, to avoid volatile booms followed by painful slumps.<sup>5</sup> As former Fed Chairman, Ben Bernanke, said:<sup>6</sup>

*The rationale for this emphasis [on low and stable inflation] goes well beyond the direct benefits of price stability for economic efficiency and growth, important as these are. The maintenance of price stability--and equally important, the development by the central bank of a strong reputation for and commitment to it--also serves to anchor the private sector's expectations of future inflation. Well-anchored inflation expectations (by which I mean that the public continues to expect low and stable inflation even if actual inflation temporarily deviates from its expected level) not only make price stability much easier to achieve in the long term but also increase the central bank's ability to stabilize output and employment in the short run.*

In other words, price stability makes it easier for the central bank to stabilise the economy over the short term, thereby minimising variations in economic growth and employment.

Inflation targeting performed relatively well on this front from the early 1990s up to the global financial crisis (GFC) of 2008. But in September to October 2008, a number of central banks around the world erred by holding interest rates steady in the face of collapsing business and consumer confidence following the failure of financial institutions such as Lehman Brothers in the United States. In particular, the Fed held its official interest rate at 2 percent when it met two days after the Lehman failure, an event that is widely viewed as precipitating the most severe phase of the GFC. In the following weeks, the US share market and equity markets worldwide fell in the order of 30%. The Fed's reason for holding rates steady was that at that point it held equal fears about recession and inflation.<sup>7</sup> As it happened, the world economy entered a 'Great Recession' and central banks' worries about rising inflation rapidly dissipated. This inaction in the face of collapsing confidence is the reason why some commentators regard the Fed as having 'caused' the GFC.<sup>8</sup> To the extent one accepts this view, the blame for the GFC can be attributed to the Fed's preoccupation with inflation.

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4 <http://www.rba.gov.au/education/monetary-policy.html>

5 <http://www.federalreserve.gov/Boarddocs/speeches/2003/20030325/default.htm>

6 <http://www.federalreserve.gov/Boarddocs/speeches/2003/20030325/default.htm>

7 <https://www.federalreserve.gov/monetarypolicy/fomcminutes20080916.htm>

8 <https://www.cis.org.au/app/uploads/2015/04/images/stories/policy-magazine/2013-winter/29-2-13-scott-sumner.pdf>

## WHAT'S WRONG WITH INFLATION (TARGETING)?

There are several problems with inflation targeting. The first problem is defining inflation itself. While the Australian Bureau of Statistics (ABS) reports the CPI on a quarterly basis, it does not just report 'raw' changes in prices. The ABS seeks to make quality adjustments from time-to-time, to account for the fact that goods like cars, televisions, computers and mobile phones are much better today than they were even a few years ago.<sup>9</sup> Also, in addition to publishing a 'headline' CPI figure, the ABS publishes several 'underlying' or 'core' measures that attempt to strip out the impact of volatile items.<sup>10</sup> These volatile items may include petrol (after a sudden change in the world oil price), fruit & vegetables (after a drought or cyclone), cigarettes (due to an excise increase) and so on. The result is that the core CPI figure presents a picture of inflation that may be quite different to most people's sense of how prices have changed.

The second problem with targeting inflation is that whatever the CPI measures, it frequently bears little resemblance to people's sense of how their living standards have changed. This is because prices may rise for one of two reasons:

- An increase in the demand for goods and services – often referred to as 'demand-pull inflation'.
- An increase in the cost of providing or supplying goods and services – often referred to as 'cost-push inflation'.

The distinction between these two drivers is important because the impact of rising prices on how consumers and businesses experience economic conditions is very different, depending on whether inflation is due to demand-side or supply-side factors.

When demand-pull inflation occurs, it is normally a consequence of a positive demand 'shock', such as a consumer spending or business investment boom. Employment and incomes across the economy tend to be growing, as do corporate profits and government taxation receipts. The economy-wide value of total output – real gross domestic product (real GDP) – and the value of output per capita (real GDP per capita) are also generally rising at these times. Accordingly, consumers and businesses (and governments) are typically in a buoyant mood and feel themselves becoming better off even though prices are rising.

However, if prices rise due to supply-side cost-push pressures – such as an increase in petrol or electricity prices – consumers and businesses usually feel themselves becoming worse off. People's incomes may be stagnant or rising sluggishly and company profits may be flat or falling. Employment growth could be declining and unemployment rising. In this environment, price rises are felt keenly as a direct reduction in living standards.

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<sup>9</sup>

<http://www.abs.gov.au/ausstats/abs@.nsf/Products/6461.0~2011~Main+Features~Chapter+9,Quality+change+and+new+products?OpenDocument>

<sup>10</sup> <http://www.abs.gov.au/ausstats/abs@.nsf/exnote/6401.0>

If macroeconomic stability is the ultimate objective of monetary policy, the appropriate policy response to inflation differs according to what is causing prices to rise. In the event of a positive demand shock, the appropriate response is for the central bank to tighten monetary policy in order to prevent the economy from overheating. Monetary policy works by steering consumers' and businesses' nominal or money demand for goods and services. Therefore, if demand is rising too rapidly, tighter monetary policy is the right tool for bringing both demand and price rises back under control.

Conversely, in the event of a negative supply shock, tighter monetary policy will only compound the problem. This is because a negative supply shock – such as a rise in global oil prices or the introduction of a carbon price on electricity – will cause economic output, employment and investment to weaken. Tighter monetary policy will cause demand to fall, after the negative supply shock has already pushed output and employment down. The reduction in demand will therefore cause the economy to be hit by a 'double-whammy', which could result in a sustained contraction in real GDP growth – known as a recession.

The most fundamental problem with inflation targeting is therefore that the level of inflation on its own does not provide a reliable guide as to whether the economy is overheating (due to strong demand) or slumping (due to higher-cost supply). The RBA is aware of this and generally tries to 'look through' price increases caused by negative supply shocks.<sup>11</sup> For example, the RBA refrained from raising interest rates in 2000 when the introduction of the GST caused the CPI to rise by 6 percent.<sup>12</sup> Similarly, the RBA did not hike interest rates when the carbon price was introduced in 2012. However, it is not always easy for a central bank to discern whether CPI increases are due to demand or supply shocks. For example, electricity prices in Australia rose strongly throughout the period 2007 to 2014, due in large part to increases in regulated network charges.<sup>13</sup> Ideally, the RBA would have disregarded the impact of these electricity price increases on the CPI, because the higher electricity prices were attributable to an increased cost of delivering power (a negative supply shock) rather than to stronger nominal demand for electricity. However, it is not clear if the RBA was aware of this dynamic given the network price rises occurred gradually and were not caused by a single event (like an easy-to-identify one-off tax increase). There have doubtless been other similar cases.

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<sup>11</sup> <http://www.rba.gov.au/education/monetary-policy.html>

<sup>12</sup> <http://www.rba.gov.au/speeches/2009/sp-ag-150509.html>

<sup>13</sup> <http://www.aer.gov.au/publications/state-of-the-energy-market-reports/state-of-the-energy-market-2015>

## WHY NOMINAL GDP TARGETING?

Targeting nominal GDP rather than inflation provides a more robust basis for central banks to conduct monetary policy if their ultimate aim is macroeconomic stability. This is because nominal GDP growth provides a much more reliable indication as to whether the economy is experiencing excess demand (and hence is at risk of overheating) or experiencing a shortfall of demand (and hence is at risk of not creating enough jobs to prevent unemployment from rising).

Nominal GDP refers to the nominal or money value of total spending, income or output in an economy, without any adjustment for price changes. It represents the total dollar value that an economy generates each year – the total amount available to pay wages, profits and taxes – the variables that matter to consumers, businesses and governments. In Australia’s case, nominal GDP expanded by 5 to 7 percent per annum from the early 1990s until the mid-2000s (see Figure 1). It then grew faster for a few years due to the terms of trade boom that resulted from sharp rises in our export commodity prices.

In the post-mining boom era, with falling commodity prices and a falling terms of trade, nominal GDP has been growing at a much slower pace of 2 to 4 percent per annum. This has manifested as slow growth in most nominal macroeconomic variables, such as prices, wages, profits and tax revenues. Slow growth in nominal variables can cause slower growth in real variables such as employment and real GDP, due to the ‘downward-stickiness’ of nominal wages (most employees are reluctant to accept a reduction in their nominal wage). This makes it harder for the labour market to clear and so holds back employment and economic growth. Given the strong relationship between growth in incomes (wages and profits) and taxes paid, weak growth in nominal GDP is the single most important reason for the current state of the Federal Government Budget. It is also likely the key explanatory factor for the current (and the previous Labor) governments’ poor standings in the polls and struggles to be re-elected.

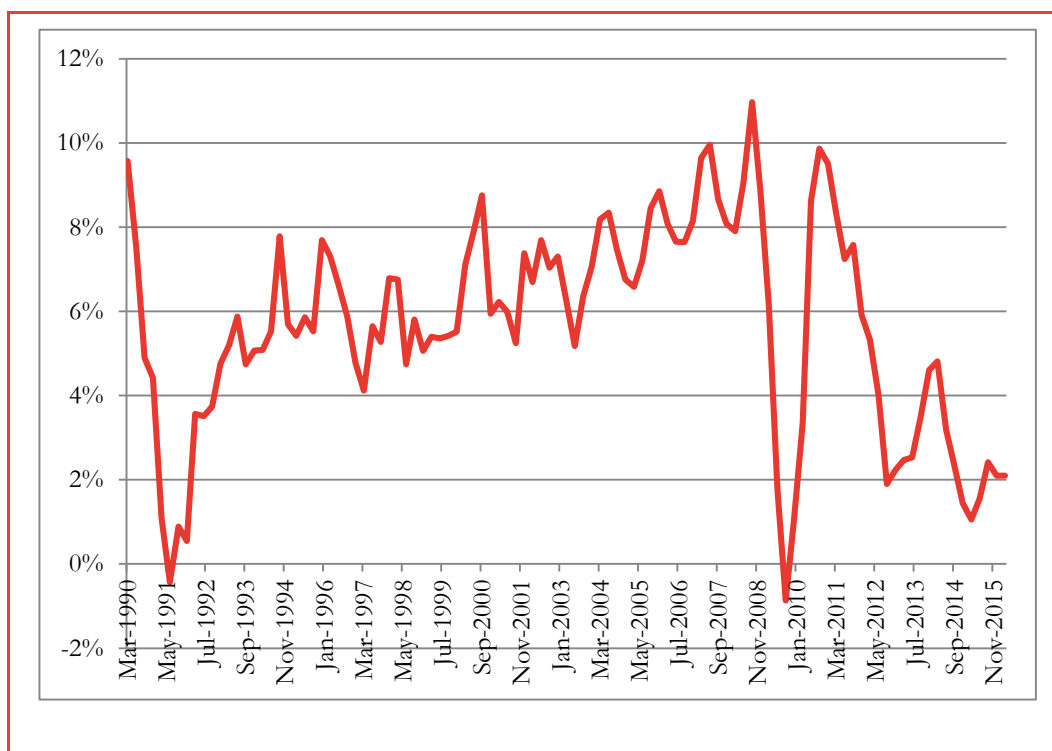
To be fair, the RBA has responded to actual and expected weakness in economic growth and employment by cutting its official cash interest rate repeatedly since late 2011.<sup>14</sup> However, it has generally cut rates reluctantly and in arrears of market expectations.<sup>15</sup> Part of the reason for the RBA’s reluctance may be due to the fact that the cash rate is already at historical lows, and the RBA is keen to ‘keep some ammunition’ (ie scope to cut rates further) in the event of a large negative shock to the economy. Another concern may have been fear of inflating a house price bubble and subsequent crash.

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<sup>14</sup> <http://www.rba.gov.au/statistics/cash-rate/>

<sup>15</sup> <http://www.afr.com/opinion/rba-backs-jobs-and-spending-to-spur-economic-growth-20151105-gkrya4> <http://www.smh.com.au/business/the-economy/rba-in-a-bind-when-it-comes-to-interest-rates-20160607-gpd5xf.html> <http://www.evidente.com.au/blog/2016/5/3/rba-delivers-a-pleasant-surprise>

Figure 1: Australia year-on-year growth in GDP at current prices (seasonally adjusted)



Source: ABS 5206

However, the GFC experience of the United States and Europe have shown two things:

- First, a central bank is never truly ‘out of ammunition’, even if official interest rates hit zero. Central banks can engage in a range of other policies, such as ‘forward guidance’,<sup>16</sup> ‘quantitative easing’,<sup>17</sup> negative interest rates<sup>18</sup> and ‘level targeting’.<sup>19</sup>
- Second, while financial stability is part of the RBA’s mandate, both the United States and Europe experienced far deeper recessions than Australia, despite nowhere near the level of house price growth in the lead-up to the GFC. England did experience a housing boom similar to Australia’s over the decade prior to the GFC, but its unemployment rate has subsequently fallen far more quickly than Europe’s. Moreover, other measures such as ‘macro-prudential’ tools can be – and have been – used to raise banks’ capital adequacy requirements and to clamp down on lending for perceived speculative purposes.

<sup>16</sup> <http://www.economist.com/blogs/economist-explains/2014/02/economist-explains-7>

<sup>17</sup> <http://www.economist.com/blogs/economist-explains/2015/03/economist-explains-5>

<sup>18</sup> <http://www.bloomberg.com/view/articles/2016-06-09/negative-interest-rates-are-nothing-to-fear>

<sup>19</sup> <http://voxeu.org/article/inflation-targeting-vs-price-level-targeting>

Part of the RBA's reluctance to trim rates further may also stem from a view that the impact or 'stance' of monetary policy is already stimulatory (also known as 'easy' or 'loose'). The RBA's monthly statements frequently allude to its view that global monetary policy is presently 'remarkably accommodative'.<sup>20</sup> However, a historically low cash rate does not imply that monetary policy is easy, properly understood. As Nobel Prize-winning economist, Milton Friedman noted, the level of interest rates is a poor indicator of the stance of monetary policy. This is because interest rates are often low *as a consequence* of previously tight policy. In 1998, in the context of discussing Japan's 1990s experience, Friedman said:<sup>21</sup>

*After the U.S. experience during the Great Depression, and after inflation and rising interest rates in the 1970s and disinflation and falling interest rates in the 1980s, I thought the fallacy of identifying tight money with high interest rates and easy money with low interest rates was dead. Apparently, old fallacies never die.*

Similar views were espoused by Ben Bernanke in 2003, prior to his appointment as Fed Chairman:<sup>22</sup>

*As emphasized by Friedman (in his eleventh proposition) and by Allan Meltzer, nominal interest rates are not good indicators of the stance of policy, as a high nominal interest rate can indicate either monetary tightness or ease, depending on the state of inflation expectations. Indeed, confusing low nominal interest rates with monetary ease was the source of major problems in the 1930s, and it has perhaps been a problem in Japan in recent years as well. The real short-term interest rate, another candidate measure of policy stance, is also imperfect, because it mixes monetary and real influences, such as the rate of productivity growth...*

*Ultimately, it appears, one can check to see if an economy has a stable monetary background only by looking at macroeconomic indicators such as nominal GDP growth and inflation.*

These comments suggest that while both nominal GDP growth and inflation remain at generational lows, there is no good reason to consider that monetary conditions in Australia are particularly easy at present. More stable monetary conditions are likely to require, in the short term, lower official interest rates potentially supplemented by other policies.

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<sup>20</sup> <http://www.rba.gov.au/media-releases/2016/mr-16-17.html>

<sup>21</sup> <http://www.hoover.org/research/reviving-japan>

<sup>22</sup> <http://federalreserve.gov/boarddocs/speeches/2003/20031024/default.htm>



## SCHOLARLY SUPPORT FOR NOMINAL GDP TARGETING

Many economists internationally and in Australia have suggested that inflation-targeting should be replaced by nominal GDP ‘level’ targeting.<sup>23</sup> Michael Woodford from Columbia University, one of the world’s leading macroeconomists, proposed nominal GDP level targeting in his influential speech at the Kansas Fed conference at Jackson Hole in 2012.<sup>24</sup> Woodford’s speech was preceded by support for nominal GDP targeting from the former Chair of President Obama’s Council of Economic Advisors, Christina Romer.<sup>25</sup> Before becoming Bank of England Governor, but after being Governor of the Bank of Canada, Mark Carney offered some support for a nominal GDP target.<sup>26</sup> And just recently, former US Treasury Secretary, Larry Summers, commented:<sup>27</sup>

*I cannot see how policy could go wrong by setting a level target of 4 to 5 percent growth in nominal gross domestic product and think that there could be substantial benefits.*

In Australia, former RBA Board member, Warwick McKibbin, has written in support of nominal GDP targeting, particularly in the context of significant fiscal consolidation.<sup>28</sup> Professor John Quiggin of the University of Queensland has also blogged in favour of nominal GDP targeting to replace inflation targeting.<sup>29</sup>

Outside of the policy sphere, the chief economist of Goldman Sachs, Jan Hatzius, has strongly advocated nominal GDP targeting.<sup>30</sup> Ryan Avent of the Economist newspaper has similarly argued the case.<sup>31</sup> However, perhaps the strongest advocate of nominal GDP targeting has been Scott Sumner, Director of the Program on Monetary Policy at the Mercatus Center at George Mason University, at his blog, [www.themoneyillusion.com](http://www.themoneyillusion.com). Sumner has written extensively about why

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<sup>23</sup> The ‘level’ aspect of the target means that the central bank commits to making up for any over- or under-shoots. This adds credibility to the target and helps avoid excessive market reactions to target misses.

<sup>24</sup> This speech was widely credited with paving the way for the Bernanke Fed to implement ‘QE3’ and adopt the so-called ‘Evans Rule’, which set numerical thresholds for inflation and unemployment before interest rates would be raised.

<sup>25</sup> <http://www.nytimes.com/2011/10/30/business/economy/ben-bernanke-needs-a-volcker-moment.html>

<sup>26</sup> <http://www.bankofcanada.ca/2012/12/guidance/>

<sup>27</sup> [https://www.washingtonpost.com/news/wonk/wp/2016/08/18/larry-summers-what-we-need-to-do-to-get-out-of-this-economic-malaise/?postshare=2471471611496539&tid=ss\\_tw](https://www.washingtonpost.com/news/wonk/wp/2016/08/18/larry-summers-what-we-need-to-do-to-get-out-of-this-economic-malaise/?postshare=2471471611496539&tid=ss_tw)

<sup>28</sup> <http://www.rse.anu.edu.au/researchpapers/CEPR/DP348.pdf>  
<http://www.sensiblepolicy.com/download/msg1.PDF>,  
<http://www.rba.gov.au/publications/confs/2004/mishkin-disc.html>

<sup>29</sup> <http://johnquiggin.com/2012/01/27/inflation-target-tyranny/>

<sup>30</sup> <http://www.goldmansachs.com/our-thinking/archive/case-for-nominal-gdp-level-target.html>

<sup>31</sup> <http://www.economist.com/blogs/freexchange/2011/10/monetary-policy-3>,  
<http://www.economist.com/blogs/freexchange/2011/11/monetary-policy>



nominal GDP provides a more useful indicator of macroeconomic stability than inflation.<sup>32</sup> This is even though Sumner says that for 98% of the time, he identifies as a “Chicago-trained, libertarian, inflation-hawk”.<sup>33</sup>

## POLITICAL ADVANTAGES OF NOMINAL GDP TARGETING

The political advantages of moving to nominal GDP targeting as a way of boosting the performance of the Australian economy are manifold. First, nominal GDP targeting has won support from policy-makers and commentators across the political spectrum. Second, changing the RBA’s target does not appear to require parliamentary approval.<sup>34</sup> Third, a shift to nominal GDP targeting is likely to be popular. In the present Australian context, it is likely that a broad range of interest groups, from job-seekers to businesses, unions, farmers and mortgagees would support a move to a target that would produce faster growth in nominal incomes than that which has prevailed over the last five years.

The most trenchant opposition to a shift to nominal GDP targeting is likely to come from the RBA itself. By simplifying its objective, a nominal GDP target would reduce the RBA’s ‘over-the-cycle’ discretion and increase the RBA’s accountability for policy errors. However, given Australia’s current economic predicament, the economic and political benefits of a change to the target are likely to be worth the difficulty of overcoming such resistance.

## CONCLUSION: A 5.5 PERCENT NOMINAL GDP LEVEL TARGET

The Federal Treasury recently indicated that the ‘natural’ or ‘trend’ real rate of growth of the Australian economy may have fallen from 3 percent to 2.75 percent.<sup>35</sup> In this context, a nominal GDP level target of 5.5 percent per annum would be consistent with average real GDP growth of 2.75 percent per annum and an average rise in prices of 2.75 percent per annum. While such an implied outcome for inflation is slightly higher than the 2.5 percent centre-point of the existing target, it is nonetheless substantially lower than the 4 percent inflation target that has been touted by economic luminaries such as the-then chief economist of the International Monetary Fund, Olivier Blanchard,<sup>36</sup> and Nobel Prize-winning economist, Paul Krugman.<sup>37</sup>

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<sup>32</sup> <http://www.themoneyillusion.com/?p=11607>

<sup>33</sup> [http://www.themoneyillusion.com/?page\\_id=3447](http://www.themoneyillusion.com/?page_id=3447)

<sup>34</sup> [http://www.rba.gov.au/about-rba/accountability.html#consultation\\_with\\_government](http://www.rba.gov.au/about-rba/accountability.html#consultation_with_government)

<sup>35</sup> [http://www.treasury.gov.au/~media/Treasury/Publications%20and%20Media/Speeches/2015/The%20Macroeconomic%20Context/Downloads/PDF/ABE\\_speech\\_Appendix.ashx](http://www.treasury.gov.au/~media/Treasury/Publications%20and%20Media/Speeches/2015/The%20Macroeconomic%20Context/Downloads/PDF/ABE_speech_Appendix.ashx)

<sup>36</sup> <http://voxeu.org/article/case-4-inflation>

<sup>37</sup> [http://krugman.blogs.nytimes.com/2013/05/24/the-four-percent-solution/?\\_r=0](http://krugman.blogs.nytimes.com/2013/05/24/the-four-percent-solution/?_r=0)

The 'level' aspect of the target would mean that if the RBA failed to meet the target in a given year, it would commit to making up any significant undershoot or overshoot in the following year (or years). That commitment would help stabilise or 'anchor' consumer and business expectations, to further assist in minimising cyclical volatility in real macroeconomic indicators such as spending, production and employment

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