

MONETARY POLICY AFTER THE CRASH

Lessons Learned?

Anthony J. Evans



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EXECUTIVE SUMMARY

- Conventional monetary policy has serious flaws and contributed to the 2008 Global Financial Crisis. Since then, emergency monetary policy has been relatively successful but lacks clarity. We should take the opportunity to reform policy such that the same rules apply in good times and bad.
- The Bank of England's Open Market Operations (OMO) should be reformed to reduce discretion and provide financial markets with greater certainty.
- We should replace the Bank of England's 2% CPI Inflation target with a nominal income (NGDP) target. Under current policy, the Monetary Policy Committee (MPC) must distinguish between demand shocks and supply shocks. Moving to an NGDP target resolves this problem as nominal income is aggregate demand, reducing the epistemic burden on the MPC.
- Central bank intervention should be restricted purely to managing the money supply.
- Open Market Operations should be as neutral as possible, focusing primarily on gilts. Financial markets should know in advance which margins the Bank of England intends to exploit. For example, if the Bank of England owns more than a certain percentage

of gilts of a specified maturity, they then extend asset purchases to a pre-announced basket of investment-grade bonds.

- Monetary policy can buy policymakers time, but it is unable to solve underlying problems of low productivity. The Bank of England cannot raise the Natural Rate of Interest in the long-term, but free market supply-side reforms should be a priority for government.
- Stress tests, designed to measure the ability of banks to withstand market shocks, are complex. This makes them vulnerable to being gamed and it leads to risks that can be felt across the financial system. Prediction markets provide the best chance we have of avoiding future bailouts by boosting market competition and punishing excessive risk taking.

MONETARY POLICY AFTER THE CRASH

INTEREST RATES

The primary objective of monetary policy is to achieve a 2% inflation target. The Bank of England have operational independence with which to achieve this, using pre-authorised tools. Originally this involved control of the bank rate of interest, but since the financial crisis this has been expanded to include asset purchases (i.e. quantitative easing). This change was necessary because once interest rates approach zero, they become less effective as a policy tool. People can escape negative interest rates by switching to cash, and although several central banks have adopted negative rates there is a limit to how low they can go.

Low interest rates can have negative unintended consequences, beyond their use as means for conducting monetary policy. For example, it's possible that low rates cause some people to increase rather than decrease their savings. So called 'target savers' have a fixed financial goal and respond to lower returns by having to save more

of their income. Draghi contests that this applies to the Eurozone by pointing out that savings rates have generally fallen.¹ Carney shows that the UK savings rate has returned to pre-crisis levels.² However this implicitly acknowledges a prior increase in the savings rate during the implementation of emergency monetary policy, which may well have undermined previous policy decisions.

It seems likely that any loss of fixed income due to low policy rates have been offset by increased asset prices, however a McKinsey Global Institute report pointed out that this ignores a worsening of people's cash flow; gives people a bigger stake in any bubble activity; and is non-voluntary (and therefore makes people subjectively worse off).³ In other words even if the gains from higher asset prices outweigh the reduction in savings accounts, it changes the investment decisions that people would otherwise wish to take. For some savers their ex post returns may be higher, but this ignored the value they place on greater liquidity, and a lower risk profile.

QUANTITATIVE EASING

Central banks routinely trade government (and other) securities as a means to expand or contract the supply of central bank reserves, and this is referred to as Open Market Operations (OMO). In 2009 the Bank of England began tying OMO to a specified quantity of money, i.e. QE.

The consensus evidence on the impact of QE seems to be positive, albeit with marked differences between countries. Haldane et

1 Draghi, M., (2016) "Stability, equity and monetary policy" 2nd DIW Europe Lecture, German Institute for Economic Research (DIW)

2 Carney, M. (2016) "The Spectre of Monetarism" Roscoe Lecture, Liverpool John Moores University

3 "QE and ultra-low interest rates: Distributional effects and risks" McKinsey Global Institute Discussion Paper, November 2013

al show that QE is more effective when used as a form of monetary policy rather than liquidity provision.⁴ As they say, “it is not the balance sheet expansions per se, but their purpose and, prospectively, method of execution that matters for determining their impact on nominal spending”. Indeed given that OMO are the main instrument of monetary policy regardless of the intermediate target (be it broad money growth or inflation targets), it should be treated as standard policy rather than an emergency tool. Indeed I believe QE would have been even more effective had it been tied to a clear nominal income target. The discretionary and ad hoc nature limited its effectiveness.

There are many options to extend OMO in different directions. They can be used to buy more assets (quantitative easing); private sector/ lower quality assets (credit or qualitative easing); longer dated assets (operation twist); or from a broader range of counter parties. The critical issue is that market participants know in advance which margins would be exploited, and under which circumstance. For example if the Bank of England own more than a certain percentage of gilts of a specified maturity, they extend asset purchases to a pre-announced basket of investment grade bonds.

Forward Guidance can be Odyssean (i.e. publicly committing the central bank to future action) or Delphic (i.e. provide a forecast about where the economy is moving). The Bank’s use of a 7% unemployment threshold backfired because markets took that to be an Odyssean commitment rather than part of a Delphic claim. When the threshold was breached earlier than expected, instead of following through the goalposts were shifted. So although the communication strategy will be more effective if it extends into future time periods, it also becomes more complex and could increase uncertainty. The

4 Haldane, A., Roberts-Sklar, M., Wieladek, T., and Young, C., (2016) “QE: the story so far” Staff Working Paper No. 624

solution is to remove as much discretion as possible from the decisions being made.

UNINTENDED CONSEQUENCES OF MONETARY POLICY

Although inflation is always and everywhere a monetary phenomenon, it is not necessarily always a consumer price one. In the years prior to the financial crisis the Consumer Price Index (CPI) systematically underreported the inflationary pressure in the UK.⁵ More attention should be given to indices that include asset prices (including the housing market). Although such indices are harder to construct, the economic rationale for measures of inflation, which include cash flows of future consumption purchases is strong.⁶

Long-term implications of monetary policy are impossible to forecast. Haldane draws attention to the rise of Agent-Based Modelling (ABM) and its usefulness as a modelling device.⁷ For example, he provides convincing evidence that economic distributions aren't normal (pp. 25-26.) This is valid, but we shouldn't be looking for the 'new normal'; we're 'post' normal. If we take radical uncertainty seriously (and we should), whilst ABM serves as a useful microeconomic input into policy considerations, macroeconomic policy decisions should be grounded in an alternative methodological terrain. Namely scenarios.⁸ The difference is that whilst forecasts attempt to predict the future (and plan accordingly), scenarios imagine alternate

5 Evans, A., (2016c) "M+V=P+Y: An Austrian Application of the Quantity Theory to the UK" Forthcoming [<http://econ.anthonyjevens.com/books/mvpy/>]

6 Posen, A., (2011) "Monetary Policy, Bubbles, and the Knowledge Problem" *Cato Journal* 31(3):461-473

7 Haldane, A., (2016) "The Dappled World" GLS Shackle Biennial Memorial Lecture

8 See Tables B and C in "The distributional effects of asset purchases" Bank of England, Quarterly Bulletin 2012 Q3.

ones (and plan broadly). A 2012 Quarterly Bulletin utilises scenarios to consider the impact of QE on various alternative pension schemes. More attention should be given to these approaches.

Monetary policy has generated malinvestment. Although it can be hard to identify we have a strong theoretical basis for expecting easy money to generate various forms of capital misallocations. Vertical malinvestment is intertemporal, and a shift towards capital investment (for example housing and construction, white elephant infrastructure, export capacity, and reduced savings rates). Horizontal malinvestment occurs when capital is directed to the wrong sectors (e.g. construction, the financial industry, or renewable energy).⁹

The downsides of zombie firms are that they mask underlying problems and make future rationalises more painful. Capital misallocations and zombie companies are not the only dangers of easy money. Other risks include:

- **Destabilising capital flows:** Low interest rates have prompted investors to search further afield for returns, causing large increases in bond purchases in other countries. When the Kazakh currency fell by 19% in February 2014 many commentators blamed capital flight driven by QE.¹⁰
- **Pension deficits:** Lower bond yields increase the costs of pension provision, forcing savers to devote larger shares of income for the same expected return. From June 2011 to June 2012 the deficit of UK pensions rose from £24.5bn to £312bn.¹¹

9 For more see White, W (2012) "Ultra Easy Monetary Policy and the Law of Unintended Consequences", Federal Reserve Bank of Dallas

10 See "Tenge Fever". The Economist, February 22nd 2014.
<https://www.economist.com/news/asia/21597005-anger-devaluation-hints-broader-malaise-tenge-fever>

11 See "Stuck in the middle" The Economist, May 5th 2012

- **Commodity price volatility:** Low rates encourage speculative investments, and in 2014 the commodity foodstuffs index rose by 16%.¹²
- **Dynamics of intervention:** Since QE increases the discretionary scope of the Bank of England's activities, the future scope is uncertain. If at some future point the focus on government securities is deemed to be ineffective, there would be pressure to move into other asset types. But this would conflict with the Bank's remit of being independent from political concerns. When the Fed decided to bailout AIG their decisions constrained future action and necessitated further interventions.
- **Regime uncertainty:** Investors typically want stability however when central banks alter their activities this introduces uncertainty. The S&P 500 didn't collapse following Lehman Brothers declaring bankruptcy, but after the joint testimony of Henry Paulson and Ben Bernanke to congress. It could be argued that their scaremongering did more damage to confidence than the underlying economic news of the time. The prospect of large ad hoc interventions can reduce investor confidence and damage the economy.
- **Exit risks:** The Bank of England failed to outline a clear plan for how QE would be unwound. The intended exit path can introduce its own risks to the system.

The Bank of England's large balance sheet has generated concerns over the relationship between monetary policy and the Treasury. It diminishes the accountability of elected officials and reduces financing constraints. When the then Chancellor surprised markets by requesting £35bn of the Bank's interest payments in 2012, this exposed the extent of uncertainty over the exit strategy. I don't have

12 See: <http://www.mindfulmoney.co.uk/mindful-news/expert-opinion/inflation-at-breakfast-time-and-in-food-prices-but-disinflation-elsewhere/>

a strong opinion on this matter, but there should be more coherence and clarity on the following questions:

1. Should the Treasury take interest payments?
2. Should QE be unwound before raising interest rates?
3. Should the gilts be sold or written off?

The fact that we are speculating about these questions demonstrates why QE had muted impact: when launched we simply didn't know if it constituted a permanent increase in the monetary base.

It is impossible to expect macroprudential or fiscal policy to counteract unintended consequences of monetary policy. Indeed the manner in which banks are regulated should be changed. In the final section of this paper I set out new framework using prediction markets.

PROSPECTS FOR MONETARY POLICY

The natural interest rate has probably fallen over time. My own estimate put it at 2.34% as of Q2 2016.¹³

As Draghi points out reasons include a secular slowdown in productivity¹⁴; global savings imbalances; and a debt overhang. Undoubtedly there are structural problems that affect this, but previously inappropriate monetary policy (i.e. allowing nominal income to contract in 2008) is also a causal factor.

Tightening policy in the near-term is appropriate even if there are short-term costs. A basic dashboard of monetary conditions (such as real interest rates; inflation expectations; the stock market; com-

13 Evans, A., (2016b) "Special report on natural interest rates" Kaleidic Economics

14 Ibid

modity prices; industrial production; and the exchange rate), collectively suggest that policy is too loose. Whilst nominal income growth is muted it is robust and consistent with less loose monetary policy.

Switching to a nominal income target (as opposed to an inflation target) would rectify the problem identified by Broadbent.¹⁵ Current policy needs to distinguish between demand and supply shocks when choosing a policy response. The whole point of a price system is to reflect real scarcities and so supply shocks should be reflected in inflation data and policymakers should ‘see through’ them. By contrast the central bank itself is the primary cause of demand shocks and need to ensure stability. Since nominal income is aggregate demand this avoids the problem and reduces the epistemic burden on policy makers.

Monetary policy is not out of ammunition provided a clear pathway for extending OMO are decided upon and communicated. At the extreme we could imagine the central bank owning the entire stock of corporate debt. Whilst this would hardly be a welcome policy outcome, it’s precisely because they can credibly threaten to do so that people recognise their control over nominal spending, and thus have confidence in the central bank’s commitment to their nominal targets.

Draghi is right that although monetary policy can buy time, if the root cause of problems are fiscal and structural then central bankers can’t provide the answers.¹⁶ It is not the job of monetary policy to raise the natural rate of interest, but boosting potential growth should

15 Broadbent, B., (2016) “The distributional implications of low structural interest rates and some remarks about monetary policy trade-offs” Society of Business Economists Annual Conference

16 Ibid

be a priority for any government. For the UK economy some critical issues are:

- **Greater competitiveness:** Providing an institutional framework conducive to productivity is key and this should be a holistic approach that covers the micro (e.g. business environment, cluster development and management capabilities); and macro (policy framework, social infrastructure and political institutions) levels.
- **Lower marginal tax rates:** To incentivise economic activity and reduce deadweight loss.
- **Fewer regulatory barriers:** To generate contestable markets which reduce monopoly power and allow value creating enterprises to grow.
- **More liberal planning laws:** To allocate land more efficiently and reduce rent seeking behaviour.
- **Increased labour market flexibility:** To help the economy adjust to new shocks and match workers with skill appropriate employment opportunities.

PREDICTION MARKETS

If there's widespread acceptance that existing regulation has failed we need to stop and ask why. Harford provides an excellent account of the evolution of banking regulations, and how greater detail pushes risky behaviour into the same loopholes, which creates systemic danger.¹⁷ The more complex the regulations are, the harder it is to anticipate how they'll be gamed and what the downside risks are. In Andrew Haldane's 2012 speech at Jackson Hole he praised the use of heuristics (i.e. rules of thumb) rather than ever more complex regulatory measures.¹⁸ As he says, "you do not fight fire with fire, you do not fight complexity with complexity".

Whilst stress tests provide an impression of resilience, they can be gamed.¹⁹ Harford makes the link to the Volkswagen emissions scandal: if tests are predictable behaviour will change to pass the tests,

17 Harford, T., (2016) *Messy*, Riverhead

18 Haldane, A., (2012) "The Dog and the Frisbee" Federal Reserve Bank of Kansas City's 366th economic policy symposium

19 See Dowd, K., (2015) "No Stress II: the flaws in the Bank of England's stress testing programme" and Dowd, K., (2016) "No Stress III: the flaws in the Bank of England's 2016 stress tests" Adam Smith Institute

but not necessarily remedy the underlying problems that the tests are supposed to prevent. Harford refers to ‘randomly timed tests of arbitrarily chosen areas’ and uses the analogy of an examination. If students don’t know what they’re going to be tested on, the best strategy is to cover all bases. Haldane likens this as a SWAT team rather than an army.²⁰

However there is a problem. Despite Haldane’s speech drawing upon FA Hayek, it doesn’t fully capture the knowledge problem that exists at the heart of Hayek’s work - it still suffers from an assumption that regulatory agencies know more than the banks. After all, in an examination the goal of the student is to demonstrate knowledge of the material. The examiner is expected to have superior knowledge, and so if there’s a conflict we know who is “right”. By contrast there’s no reason to assume that regulators understand risk better than financial market participants. And when participants get too clever about dealing with the risk being checked for, they will inevitably introduce other types. A genuinely Hayekian approach would be to consider which institutional mechanisms will improve the flow of knowledge. Not between participants and regulators, but between participants and the market.

The source of the problem is that we don’t know in advance who has the relevant information, therefore we need measures to encourage anyone and everyone to share information, and a system that aggregates that information. Relying on traditional communication between concerned insiders and the outside world (i.e. whistleblowing) is important but contains many problems. In particular, there are weak incentives to speak out, and no guarantee that the outsiders will agree with, or act upon the claims being made. An alternative to

20 Haldane, A., (2012) “The Dog and the Frisbee” Federal Reserve Bank of Kansas City’s 366th economic policy symposium

top down measures where regulators seek information is a bottom up approach where those holding information can act on it.

Many organisations use internal prediction markets as a way to understand complex, uncertain issues, and these could be deployed for regulatory uses.²¹ For example, in 2011 a prediction market using SciCast set the following question, “Will there be a lab-confirmed case of the coronavirus Middle East Respiratory Syndrome (MERS or MERS-COV) identified in the United States by 1 June 2014?” Traders were able to bet on whether they believed the event would occur, and the strength of their confidence was factored into the market ‘price’.²² This provided a useful warning because the event did in fact occur. Questions could be posed relating to the banks objectives, and bank employees and members of the public could trade on an array of important issues. Stress test scenarios could be reworded to serve as questions, providing real time probability estimates based on the wisdom of the entire market.

I am neither a bank executive nor a regulatory agent, and I don’t like to see a ‘game’ being played between the two. This cat and mouse charade is destined to fail because it rests on an assumption that government knows best. In truth, the knowledge required to know what is excessive risk isn’t given to anyone. I want market competition to penalise excessive risk taking, and the allure of long-term profitability to encourage sensible decisions. I also want freedom for banks to experiment with alternative business models, giving customers choice and reducing systemic danger. One way to move towards this

21 Wolfers, J. and Zitzewitz, E. (2004) “Prediction markets”, *Journal of Economic Perspectives*, 18(2):107–126 and Dye, R. (2008) “The promise of prediction markets: A roundtable” *McKinsey Quarterly*, April.

22 See Mann, A (2016) “The power of prediction markets” *Nature News Feature* (<https://www.nature.com/news/the-power-of-prediction-markets-1.20820>)

is to supplement existing regulatory measures with Bank of England endorsed prediction markets.

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