IMK
Institut für Makroökonomie
und Konjunkturforschung
Macroeconomic Policy Institute

December 2015 160

Working Paper

Simon Wren-Lewis[1]

The Knowledge Transmission Mechanism and Austerity

Why policy makers, rather than academic economists, made macroeconomic errors in 2010

Abstract

How do economic policy mistakes happen? One view is that policy makers are benevolent, and errors arise because economic theories are inadequate. Another is that policy makers pursue sectional interests that may have no relation to any academic consensus on good policy. This paper examines a third alternative: policy makers want to do the right thing (although they have political preferences), and the academic consensus is correct, but policy makers do not follow it because they rely on imperfect intermediaries. I use this framework to examine the global switch to fiscal austerity in 2010.

[1] Simon Wren-Lewis, University of Oxford, GB, Mail: simon.wren-lewis@bsg.ox.ac.uk.

The Knowledge Transmission Mechanism and Austerity

Why policy makers, rather than academic economists, made macroeconomic errors in 2010

Simon Wren-Lewis

Professor of Economic Policy
Blavatnik School of Government
University of Oxford

I am grateful for comments from participants at the IMK's tenth anniversary conference for helpful comments, but as ever all views are my own.

Abstract

How do economic policy mistakes happen? One view is that policy makers are benevolent, and errors arise because economic theories are inadequate. Another is that policy makers pursue sectional interests that may have no relation to any academic consensus on good policy. This paper examines a third alternative: policy makers want to do the right thing (although they have political preferences), and the academic consensus is correct, but policy makers do not follow it because they rely on imperfect intermediaries. I use this framework to examine the global switch to fiscal austerity in 2010.

0. Introduction

The way many people think about macroeconomic crises is in terms of inadequate or incorrect economic theory. The archetypical case is the Great Depression of the 1930s. Economists who used classical economic theory did not understand how economies could suffer from a prolonged deficiency of demand. It took the General Theory of Keynes to show them how this could happen, and how to prevent this kind of crisis happening again.

With this perspective, our current macroeconomic difficulties must seem strange. In contrast to the 1930s, the key features of the current situation are explicable in terms of textbook macroeconomic theory. Governments are actively trying to reduce their budget deficits through fiscal austerity, and this is having a predictably negative impact on economic activity when monetary policy is unable to offset its effects. So the current macroeconomic crisis does not seem to be the result of lack of macroeconomic understanding.

In this paper I want to explore this further by examining what I call the Knowledge Transmission Mechanism (KTM). This is the process by which the macroeconomic ideas of academics and researchers get translated (or do not get translated) into macroeconomic policy, and is described in general terms in the first section of this paper. The central argument of the paper is that in recent years this mechanism has failed to operate effectively, and I discuss why that might have happened.

Before doing so, in Section 2 I look at two other macroeconomic crises where there are simple stories linking the crisis to errors in mainstream macroeconomic thought: stagflation in the 1970s and the financial crisis. I suggest that in both cases these simple stories are at best too simplistic, and may just be wrong. In both cases the theory to explain how these crises happened was available at the time, and the relevant question becomes why this knowledge was not used.

Turning to the imposition of fiscal austerity from 2010, I argue in Section 3 that while there is clearly not unanimity among academic macroeconomists, because academic economists are subject to political and ideological influence like everyone else, there is a large degree of international consensus around a Keynesian view of business cycles. An important caveat, however, is the minority status accorded to Keynesian economics in Germany.

Section 4 of the paper focuses on the 2010 Eurozone crisis, and coincident developments in the United States and United Kingdom. I argue that on a previous occasion the implications of the consensus New Keynesian model were ignored, and that was in setting up the fiscal architecture of the Eurozone. Research using the consensus framework clearly showed that countercyclical fiscal policy undertaken by national governments could significantly offset the impact on national competitiveness of asymmetric shocks. It is very easy to design simple fiscal rules that allow for such actions, while still bearing down on deficits in the medium term. The

Stability and Growth Pact ignored this advice, and this had a major impact on the severity of the 2010 Eurozone crisis.

When that crisis hit in 2010, the global reaction was to tighten fiscal policy: in the Eurozone as a whole (not just in periphery countries), in the US and the UK. Arguments that this would damage the recovery from the recession were dismissed, often using academic studies that involved either untested ideas or which went against mainstream evidence. Macroeconomic models and analysis suggest that for the Eurozone as a whole, this shift to fiscal austerity may have cost lost resources worth at least 10% of its GDP.

Section 5 of the paper asks why the Knowledge Transmission Mechanism (KTM) failed in 2010. While I consider potential problems involving the media, advice coming from the financial sector, and potential problems with the economic focus in finance ministries, I mainly discuss the particular role that independent central banks did or did not play. Central banks are policy makers for monetary policy, but they are also the locus for our current understanding of how business cycles work, and therefore of the impact of fiscal actions in a liquidity trap. However, senior central bankers have a deep seated concern (perhaps even an obsession) with a potential lack of fiscal backing, and this coloured or distorted the advice they gave about both the impact of fiscal consolidation and their own ability to manage the economy in a liquidity trap. This ranged from a reluctance to speak on fiscal issues, to actively encouraging the fiscal consolidation that they proved unable to counteract.

Section 6 of the paper summarises the arguments, and contains some brief speculation about implications for the future.

1. Policy intermediaries

When I was young I had a very naive idea of what I want to call the 'knowledge transmission mechanism' (KTM). Ideas were generated in universities, or perhaps research institutes, and if these ideas survived academic scrutiny (which included exhaustive testing against the data) they would be used by politicians (or perhaps central bankers) for the greater good. With this naive view, if something went wrong in the real world as politicians applied this knowledge, the problem must be that the knowledge is wrong or incomplete.

As a macroeconomist, my template for this view was the 1930s and the Great Depression. Mistakes were made, with huge costs, essentially because policy makers and economists did not understand how output could remain too low and unemployment too high because of a lack of aggregate demand. That problem was rectified by Keynesian macroeconomics.

This naive concept of the transmission mechanism presumes, of course, that there is a clear consensus among the knowledge creators, and that the policy makers are benevolent: they want to choose the policy that enhances social welfare, rather than the welfare of a particular sub-group. Even if there is no consensus among knowledge creators, a benevolent policy maker can try to get an accurate representation of the range of opinion, and make the best choice they can in the face of uncertain knowledge.

I have been involved in something approximating that ideal once in my life, which was Gordon Brown's analysis in 2003 of whether the UK should join the Euro. Here it was crucial that Brown asked his civil servants to find out what the range of academic opinion was on key issues in an unbiased way, and that they carried out that instruction over a period of more than a year. An important part of that process was that the civil servants did not just ask a wide range of academics, but they also co-opted a macro modeller to help with synthesising these disparate views.

On this occasion much political comment focused on the preferences of the two main political actors involved: Prime Minister Tony Blair (who favoured joining the Euro) and Chancellor Gordon Brown (who did not). Such accounts often assume that the consultation exercise was simply a smokescreen or device for Brown to get his way. If that was really the case, you would expect the documentation published by the Treasury would attempt to slant or distort the academic advice to suit the case for staying out of the Euro. It is very hard to find any evidence of that. For some time after 2003 I used to suggest to students that this documentation provided the most comprehensive and thorough analysis of the pros and cons of joining a monetary union that they were likely to find.

In that case civil servants were an intermediary between knowledge creators (academics) and policy makers (Gordon Brown and his colleagues). That you usually require such intermediaries becomes apparent if we make an analogy with new inventions. It would be unusual for the academic who comes up with the idea that makes possible a new product to also do the selling

to potential firms which might make that product. The same is usually true for macroeconomic knowledge.

There are many possible intermediaries between academics and policymakers. In the example above we had civil servants playing that role. In today's world that role is frequently played by 'think tanks': institutions whose explicit role is to use academic knowledge to formulate and discuss policies, although in practice their role may be more ideological. Some policy oriented academics can act like one person think tanks. Political advisors to politicians can also play this role. Paul Krugman many years ago called such intermediaries 'policy entrepreneurs' (Krugman, 1994). In some countries this role can become institutionalised: the Council of Economic Experts in Germany is an obvious example, and the Swedish fiscal council seems to play a similar role (Calmfors and Wren-Lewis, 2011). In this paper I want to make the boundary of who might be a policy intermediary as wide as possible, so as well as think tanks and civil servants I will also include economists working in financial institutions and (for reasons that will become clear) central banks.

Policy errors, where knowledge appears to be ignored, could simply be the result of non-benevolent policymakers. Policymakers may choose economic policies which suit the sectional interests or ideology they want to serve, even though these policies do not represent an academic consensus or even a majority academic view. The move to fiscal austerity since 2010 could be explained as a back door means to reduce the size of the state, for example. In this paper I want to explore an alternative explanation for policy errors, an explanation that is located in an analysis of how policy intermediaries work. This is not because I think explanations based on the self-interest or ideological position of politicians (or their advisors) is necessarily wrong, but instead wish to explore how the existence of intermediaries between these politicians and academic knowledge could also account for policy errors.

To see how things could go wrong, imagine the following scenario. Following a recession, unemployment has increased, but so has the government's budget deficit. Policymakers are concerned about both. They would like to take action to reduce the deficit, but some people say that to do this would increase unemployment. They seek advice, and the policy intermediaries come into play.

Suppose that there are just two such intermediaries. They have no interests of their own, but simply seek to have their own recommendations acted upon. The first intermediary seeks out the academic consensus, and tells the policy maker that the consensus says action to deal with debt can wait. To act now would reduce output. The second intermediary reports that there is no academic consensus, and finds academic papers that say that debt is reaching a critical level, and that reducing debt will have little impact on unemployment. The policy maker has no means of knowing whether there is an academic consensus or not, but has a personal preference to reduce the deficit. So they choose the second intermediary's advice.

Policy intermediaries, who know the personal preferences of policymakers, understand how this game works. To gain influence, it is better to give advice that panders to policymakers'

preferences, rather than to try and gauge what the academic consensus actually is. In other words, introducing policy intermediaries makes this potential for politics or ideology to mess up the knowledge transmission mechanism much greater. Even if the policy maker would like to be benevolent, the policy intermediary may want to ‘sell their product’ and so will select ideas that pander to the policymakers’ prejudices rather than representing any academic consensus. A policy maker who, if they had to assess what the academic consensus was themselves might well be swayed by it, fails to do so as a result of the existence of intermediaries. (If the game was repeated often, and policy makers suffered the consequences of mistakes, it would make less sense for intermediaries to pander to preferences and ignore the academic consensus. However, in reality for the individuals concerned macroeconomic policy is not such a repeated game.)

The actual knowledge transmission mechanism (KTM) is more complicated than this. For example, making central banks independent actually made the KTM about the consequences of fiscal actions more opaque. But before exploring this, I first want to suggest that recent events are not the first time that errors in the KTM may have occurred.

2. Some earlier global macroeconomic crises

Consider four global macroeconomic crises: the Great Depression, the inflation of the 1970s, the recent financial crisis, and finally the slow recovery from that crisis, which included the second Eurozone recession. Do we need to think about policy intermediaries in any of these cases?

In the case of the Great Depression, the simple view that I mentioned earlier that this crisis stemmed from a basic lack of the appropriate knowledge is probably reasonable, in the sense that the lack of Keynesian theory was a sufficient condition for the crisis. I will not try and speculate on what might have happened if the General Theory had been written in 1918 rather than 1936!

With 1970s inflation and the recent financial crisis there are what I will call ‘folk stories’ which try to cast these in a similar light: that is that inadequate theory led to the crisis. I think both stories are at least a great oversimplification, and more probably simply wrong. While I cannot present an exhaustive discussion here, all I want to demonstrate is that the simple explanation that they resulted from lack of economic knowledge is inadequate.

The folk story about the 1970s is that macroeconomic theory erroneously postulated a long run trade-off between inflation and unemployment, and policymakers tried to exploit that to keep unemployment low, leading to accelerating inflation. Friedman in 1968 (and perhaps also Phelps) showed us the truth, which was that there is no long run trade-off, and after a lag of perhaps a decade monetary policymakers finally saw the light and brought inflation under control.

This is at best only half true. For a start, we should be suspicious about lags. Given his stature, Friedman’s presidential address in 1968 can hardly have gone unnoticed, so why did it take at least ten years for its message to be understood by policymakers. In addition, the folk story is a rather US-centric view. In Germany, for example, there seems to have been no view that low unemployment could be permanently achieved by going for a higher inflation rate. The Bundesbank were (eclectically) following a money supply target, and perhaps a consequence was that inflation responded by much less to both oil shocks than in the UK or US, although no doubt there were other factors at play as well. However it seems unclear whether this folk story is even correct for the US.

James Forder, in a recent book (Forder, 2014), argues that pretty much every part of this story is incorrect. The 1960 paper by Samuelson and Solow that is supposed to have originated the idea of a permanent inflation/unemployment trade off does not in fact do so, and practically no one at the time thought it was doing so. The idea that expectations might make the Phillips curve vertical was widely known before Friedman stated it. As far as policy was concerned in the US and elsewhere, the objective of price stability remained. There was no official suggestion that greater inflation should be tolerated so as to allow lower unemployment.

A more accurate description of policy at the time might be that demand stabilisation was primarily aimed at achieving full employment rather than controlling inflation. The fact that inflation was showing a tendency to rise over time was not generally seen as an indication that the unemployment objective was too ambitious, but a problem that might both have a different cause and an alternative solution: notably in the UK but also in the US, prices and incomes policies. In the 1960s policy discussions were not generally framed by the Phillips curve, and still less with the idea that there was an exploitable long run trade-off.

There is a similar folk story told by some about the recent financial crisis. Macroeconomics either ignored the financial sector, or at least the possibility of a financial crisis, and as a result the financial crisis was not foreseen. Once again, a major crisis stems from the failure of macroeconomic theory and ideas. This story is often told by those who want to argue that the crisis shows that mainstream economics is fatally flawed in some way.

The grain of truth in this story is that macroeconomics had neglected the role of the financial sector. I would argue that the main reason for that was not a belief that financial crises could not happen – after all, after a period of comparative stability in the 1950s and 1960s, later decades had seen a fair number of localised crises. Of course there were always some macroeconomists who took an extreme free market perspective, but even at the height of the New Classical revolution I doubt whether they were a majority, and by the 2000s they certainly were not.

I believe a fairer statement would be that, as a result of that revolution, macroeconomics had focused on reinventing itself as a microfounded discipline, an endeavour which was difficult and which therefore took time. Exploring various ‘frictions’ was central to that programme, but top of the list to be explored were frictions in price and wage setting (for obvious reasons) and labour market frictions (e.g. matching). Financial sector and credit frictions were on the to-do list, and of course they went straight to the top after the financial crisis. It would be legitimate to discuss whether the move to microfounded modelling had been a distraction, without which macroeconomics might have made more progress in integrating financial elements into core macromodels. However, even if that had happened, the idea that these models would have ever been able to predict a crisis seems far-fetched.

It also seems unlikely that the majority of economists, if they had seen data showing the rapid increase in bank leverage in the years before the crisis, would have responded with a shrug and asked what the problem was? Perhaps some financial market economists might have argued that this was nothing to worry about because banks now had better tools to deal with risk, but the last thing macroeconomists would do is ignore systemic risk, which the financial sector was effectively doing.

Those that did see the data on bank leverage, and who failed to ring alarm bells loudly enough, were financial regulators. Once again, it cannot be argued that this failure was due to lack of economic theory. The financial crisis looks like a well understood bank run, except that it was among secondary banks where there was no deposit protection. The incentives that led banks

and others to underestimate risks are well understood using well established economics. The problem was more that in ignoring the clear warning signs, regulators were using inappropriate theories, or failing to appreciate that these theories were vulnerable to systemic risk. There was too great a belief that markets were inherently efficient, and a failure to appreciate the industry wide distortions caused by a belief that governments would ultimately bail out the sector. Financial economists may have been partly at fault because they believed their new models meant that 'this time was different', but the political pressures from the financial sector directly on policymakers should not be under-estimated.

To see the power of these pressures on the policy-making process, you only need to observe what has happened since the crisis. One of clearest accounts of the crisis, together with a convincing analysis of how it might be prevented in the future, is given by Admati and Hellwig (2013). It argues that to prevent future crises banking capital requirements need to rise substantially, and the costs of doing this would not be huge, although bank profits would decline. Other researchers, including UK Monetary Policy Committee member David Miles, have come to similar conclusions (Miles, Yang, and Marcheggiano (2012)). Yet actual changes to banking capital requirements and other additional regulations since the crisis appear marginal by comparison, and in some cases seem already to be in the process of being compromised as a result of political pressure. If some of the best economic research is being ignored by policymakers even after the crisis, it seems rather unlikely that it would have had much impact if it had been published before the crisis.

Both episodes seem very different from the 1930s. There is no equivalent of Keynes's own struggles to wean himself and others off classical ideas, and the novelty of the arguments and framework set out in the General Theory. In both the 1970s and the decades before the financial crisis, the economic theories to understand these events were widely used by economists. To understand why these theories were not taken on board by policymakers may require an analysis of the knowledge transmission mechanism. I will attempt this kind of analysis in looking at fiscal policy since 2010. A first step is to establish just what the macroeconomic consensus was on this occasion.

3. Schools of Thought macroeconomics

In the natural sciences, there is a clear idea amongst nearly all academics about what the consensus view is (if there is one), and where the plurality of opinion lies. That does not mean the consensus goes unchallenged, but the first thing that those who do challenge the consensus want to do is convince their colleagues that the consensus is wrong. As Paul Romer has recently observed[1], the same does not seem to be true in macroeconomics.

In macroeconomics journalists are fond of applying labels to particular macroeconomists. Sometimes it seems that macroeconomists are forever doomed to carry the labels Keynesian or Monetarist or Classical: all that changes are the prefixes, like 'New' or 'Neo' or 'Market'. This greatly exaggerates how much disagreement there is in reality. There is often more disagreement about policy than underlying theories, and journalists typically write about policy. This was probably true in the 1970s in the great battles between Monetarists and Keynesians, because arguably both accepted the IS/LM framework, and what was then called the Neoclassical Synthesis.

However, what does seem to be the case is that, unlike the natural sciences, there is no clear sense of a consensus view among macroeconomists. There are two fairly obvious reasons for this. The first is lack of data (including our inability to do experiments on actual economies), which mean that for long periods of time different theories can co-exist. The second is the influence of ideology and politics. Theories can persist, even if they have trouble with some evidence, because they support a particular political position or conform to some ideological view.

One consequence, which has implications for the KTM, is that policy intermediaries have to work to find out if any kind of consensus view exists on a subject, and when a consensus does not exist, they have to do even more work to find out what the view of the plurality is. Another consequence is that macroeconomists who do not share the consensus view may put as much energy into trying to convince policy makers as they do trying to convince their colleagues. Finally, even when a consensus does actually exist, the lack of a *recognised* consensus makes it easier for politicians to use research which is outside the consensus.

The focus of this paper is on the influence of macroeconomists on fiscal policy decisions in 2010 and beyond. In this case I think we can conclude that there is a clear consensus among macroeconomists, in the following sense. The consensus model of the business cycle is the New Keynesian model. The New Keynesian model says that temporary changes in government spending will have an impact on demand, and therefore output. (The impact of taxes is more complex, and depends in part on the type of tax change and the extent to which Ricardian Equivalence holds.) In principle, monetary policy can normally offset that impact, but if nominal

1 See, for example, this blog post: http://paulromer.net/freshwater-feedback-part-1-everybody-does-it/

interest rates are stuck at their Zero Lower Bound (ZLB) this will not happen, and multipliers could as a result be significantly greater than one (Woodford, 2011).[2]

The key implication of this consensus is that when you have just begun recovering from a major recession and interest rates are at or near the ZLB, you should try to delay any attempt to reduce budget deficits. Fiscal austerity will have negative effects on demand and therefore output. Now for some particular countries, particularly within a currency union, market pressure may imply debt reduction cannot be avoided, depending on the willingness of the central bank to act as a lender of last resort. But for most countries, including the Eurozone as a whole, low interest rates showed there was no market pressure, so policy could aim to control deficits and debt in good times, and not when interest rates are at or near their ZLB.

Why do I think there is this consensus? I have two bits of survey evidence, and one general point to make about central banks. In the US, there is the IFM Forum, which regularly asks a group of distinguished economists - including many macroeconomists - their views on key policy issues. The last poll I have seen suggests that only 5% of this group thought that the costs of the Obama stimulus package exceeded its benefits. In the UK, the CFM survey does a similar thing for a smaller group of academic economists, most of whom are macroeconomists. Only 15% of that group thought that Osborne's austerity policies had a positive impact on output. Although these surveys cover only two countries, academic economics – much like the physical sciences – is an international subject where any national variations are very minor: in practice the US plays a fairly dominant role, although I will return to the partial exception of Germany shortly.

The more general point is that there is one group of macroeconomists who have to put theories of the business cycle into practice on a daily basis, and that is economists working for central banks. If you look at the key macromodels that central banks use to forecast and to analyse policy, they are Keynesian, and most are New Keynesian[3]. For the purposes of this discussion I would want to class many of those economists as academics, and because they are using these models in anger to generally smooth the business cycle I would give them a high weight in establishing what the consensus model is. Central banks also play an important role in encouraging academic work in macroeconomics.

There are two exceptions to this consensus. One is the result of the New Classical (counter) revolution that took macroeconomics by storm in the 1970s and 1980s. This revolution tried to

---

[2] A few economists believe that unconventional monetary policy, like Quantitative Easing, can be an adequate alternative to interest rate changes, and so the impact of fiscal policy can always be offset by monetary policy. Even if this is in principle true, a lack of knowledge about how effective particular unconventional measures are means that relying on this mechanism will increase output and inflation volatility.

[3] This includes the models at the ECB. New Keynesian models will determine expectations – in wage and price setting and in influencing consumption – using rational expectations.

do three things. First, it attempted to introduce some relatively new ideas into macroeconomics that often had significant implications for policy, such as rational expectations. Second, it attempted to change the very methodology of macroeconomics, by hard wiring the microfoundations revolution into macroeconomic model building. Third, it wanted to overthrow Keynesian policy prescriptions.

The revolution succeeded with the first two goals, but only for a brief while with the third. The New Keynesian model that emerged in the 1990s managed to provide a number of theoretical rationalisations for price rigidity, and when this rigidity was added to the Real Business Cycle models promoted by New Classical economists they produced at least some of the results normally associated with traditional Keynesian economics. It was only with the advent of New Keynesian economics, and the transformation of RBC models into DSGE models, that the revolution started by New Classical economists began to have a large impact on central banks.

Although the New Classical revolution failed to provide a fatal blow to Keynesian modelling, it did have a number of important consequences. Although I would argue that the New Keynesian model is essentially Keynesian, to the extent that the New Keynesian model differs from more traditional models, it altered Keynesian economics. It also gave what I have called anti-Keynesian ideas a degree of academic respectability, because what had been in part an anti-Keynesian movement had been successful in its other aims. Finally, the methodology that became dominant after the New Classical revolution downplayed the importance of evidence and gave internal consistency with basic microeconomics a critical role in model selection. This in turn allowed models favoured on ideological grounds (e.g. RBC models) to survive for longer even though they clearly contained fatal empirical flaws.

The second major exception to the current New Keynesian consensus is macroeconomics in Germany. For example, only one of the five economists who are the current members of the Council of Economic Experts is described as a Keynesian. Yet teaching of macroeconomics in Germany is little different from elsewhere. Instead there seems to be a disjunction between policy as implied by macroeconomic analysis, and policy advice in the public sphere.

A number of explanations have been put forward for this: the importance of Ordoliberal ideas, the pre-war history of Germany, or even that the name for debt is also the name for guilt. None is entirely convincing, and what also needs some explanation is why such a national idiosyncrasy should persist. One important point to note is that for more than two decades Germany has been part of a fixed or quasi-fixed exchange rate system. In addition, the German industrial relations system, and notably co-determination, where worker organisations play a role in management and more generally the relatively important role that unions play in the economy, gives greater central leverage over nominal wages. This gives Germany the possibility of obtaining a demand stimulus through internal devaluation, undercutting other countries in the exchange rate system. A clear example where such undercutting took place was during the pre-financial crisis years in the Eurozone (see Bofinger, 2015). Many employers are likely to prefer this form of stimulus to fiscal alternatives.

Hostility to Keynesian ideas among sections of the political right has always been strong. This is partly because at the heart of Keynesian economics is the necessity of state intervention to ensure full employment of resources: with too little aggregate demand you get social waste, with too much you get inflation. For many macroeconomists on the right, including Milton Friedman, Keynesian theory was just how the world worked. (Friedman used, and improved upon, the Keynesian/Hicksian IS/LM framework, and never attempted to suggest aggregate demand did not matter.) But to others on the right a focus on aggregate demand is just a pretext for unnecessary state intervention. Perhaps it is also true that some on the left have been keen to extrapolate from aggregate demand management to other areas of economics. Wikipedia's entry on Keynesian economics still contains "Keynesian economics advocates a mixed economy". As a macroeconomist, I think this is an abuse of language. Keynesian economics is about how the economy works in aggregate, and therefore the necessity for the state in some form to manage aggregate demand. It is not about failure in the market for particular goods.

This hostility from sections of the right to Keynesian economics manifests itself in different ways in different countries. In the UK in the 1950s and 1960s, for example, it was hardly evident, as the 'one nation' conservatism of Harold Macmillan embraced a form of demand management that was largely achieved using fiscal instruments. In the US, by contrast, it has involved attempts - some successful as Colander and Landreth (2007) describe - to have Keynesian textbooks banned. In Germany, although ordoliberal ideas tolerated a degree of intervention in the market economy that some neoliberals might disapprove of, it is generally presumed that this does not extend to intervention to manage aggregate demand. As Keynesian theory describes why such intervention is necessary, and that this is what central banks actually do, this limitation is unfortunate.

A combination of the New Classical revolution's attempt to overthrow Keynesian theory, and this hostility to Keynesian theory on the political right, means that the New Keynesian model does not represent a complete consensus among academics. From the point of view of the subject of this paper, this means that policy intermediaries will have plenty of access to economists that do not share the New Keynesian consensus. If these intermediaries are advising politicians whose natural preferences are also inclined to the right, then we have clear scope for a failure of the KTM to deliver policies that follow the macroeconomic consensus.

4. The 2010 fiscal policy U-turn

In Section 2 I argued that, despite some popular accounts, neither 1970s inflation nor the financial crisis easily fits into the simple idea of a crisis stemming from a theory failure. The nature of the interaction between academic ideas, policymakers and political or ideological pressures was more complex. The focus of this paper, however, is the change in policy that took place around the developed world in 2010. I want to argue this crisis was essentially man made, and it involved not a failure of macroeconomics, but a failure of policymakers to use tried and tested macroeconomics.

It may be helpful to again start with a folk story that is often told by policy makers. In response to the Great Recession that followed the financial crisis, some countries had employed a limited fiscal stimulus to help monetary policy bring the fall in output to an end. However, a combination of this intervention, the recession itself and earlier failures of governments to be fiscally prudent led to a debt-funding crisis. Economies realised that they too could become like Greece, and so were forced to embark on a sharp fiscal contraction, commonly called austerity.

This folk story suffers from some basic problems. In some of the countries concerned, such as the UK, there is no clear evidence that there were serious fiscal problems before the financial crisis. By far the most important reason why debt increased following the Great Recession is because of the impact of the recession itself. There is no evidence whatsoever of a debt funding crisis outside the Eurozone, and the steady fall in interest rates on government debt around the world suggests if anything a shortage of debt.

The story I want to tell is very different, and involves policy makers simply ignoring what macroeconomic theory tells us about when fiscal consolidation is appropriate and when it is not. Before examining events since 2010, it is useful to examine a prior occasion when this theory was ignored, which was in the creation of the fiscal policy architecture of the monetary union. That omission played some part in creating the Eurozone debt crisis, which in turn helped generate the move to austerity in 2010.

The pros and cons of forming a monetary union are well known. There is really only one major argument against forming a monetary union, and that is the cost of countries losing an independent monetary policy when there are asymmetric shocks (or common shocks and an asymmetric structure). Macroeconomic research, using a range of standard models, also shows that these costs can be significantly reduced if fiscal policy is used in a countercyclical way.

I do not think it is unfair to say that this bit of standard macroeconomics was completely ignored when the Stability and Growth Pact (SGP) was formulated. Sometimes it is suggested that this decision involved a choice between using fiscal policy in a countercyclical manner, or controlling debt and deficits. This is nonsense, as it is perfectly possible to do both at the same time. If you want to bring debt and deficits down over the medium term (which the SGP was designed to

do), you establish rules that force governments to run (possibly large) surpluses in the good times. The SGP did exactly the opposite.

Writing such rules is not difficult. If we assume for the moment that the ECB is capable of controlling inflation for the Eurozone as a whole, then ‘good times’ in this context means national inflation exceeding average Eurozone inflation. Writing a rule that links fiscal policy to excess inflation in this way is trivial compared to trying to understand the Eurozone’s current fiscal architecture, or even trying to calculate a structural or cyclically adjusted deficit. The other part of the rule is what happens to the deficit if there is no excess inflation, and this could be agreed at the union level, or perhaps the rule could allow some countries to reduce their deficits more rapidly if they were, for example, concerned by future demographic trends.

Rules of this kind were suggested by many macroeconomists before and after the formation of the Eurozone. Suppose the SGP had embodied such rules. Two things would have happened. First, fiscal policy would have been a lot tighter in the periphery countries. Inflation, measured by the GDP deflator, was at least 1% above the Eurozone average from 2001 to 2007 in Greece, Ireland, Portugal and Spain. I cannot say that if fiscal policy had been much tighter the 2010 crisis would not have happened, but it certainly would have been more manageable.

If countercyclical fiscal policy had been applied in the Eurozone from 2000, fiscal policy could have been looser in Germany. Inflation in Germany was around 1% below the Eurozone average over this period. Part of the Eurozone’s current problem is that Germany remains too competitive in relation to the Eurozone as a whole.

The idea that a country can be too competitive is difficult for many in Germany to understand. In addition, how can any positive inflation rate be too low? But these are not difficult concepts to explain. If the Eurozone was a fixed exchange rate system, and one country devalued its currency against the others just in order to gain a short term competitive advantage, it would be well understood that this was abusing the system. Doing the same through achieving domestic inflation below the central bank’s agreed target is conceptually much the same. I agree that in this case there may be no deliberate intent involved: it could just happen as a result of otherwise valuable supply side reforms, for example. But the impact is much the same.

If the Eurozone was functioning properly, and if initial real exchange rates are appropriate and remain so, then these inflation differentials would have to be reversed in the future. Periphery countries would have to experience below average inflation to regain competitiveness, and Germany would have to experience above average inflation to lose competitiveness. Both are painful, but if fiscal policy is used in a countercyclical way, the pain is considerably reduced.

Normally when a crisis of the magnitude of the 2010-12 Eurozone funding crisis occurs, there is an opportunity to explore what went wrong. Within the Eurozone countries, this opportunity seems to have been completely ignored. Using Greece as a template, the folk story is that problems stem from the SGP not being applied strictly enough. This story just does not work for Ireland and Spain. As countless pieces of analysis have suggested, the problem in most crisis

economies was private rather than public excess. The textbook way of tackling private excess in a fixed exchange rate system is to match private excess with public rectitude, which is what a countercyclical fiscal policy is. So, for this macroeconomist at least, the evolution of the Stability and Growth Pact in the Eurozone represents a continuing puzzle: why is basic macroeconomics being ignored?

Lack of countercyclical fiscal policy in the Eurozone is about getting the right distribution of demand among countries. The Great Recession was about a general collapse of aggregate demand around the world. It is quite reasonable to suggest, as modern macroeconomics would, that a country or monetary union with a floating exchange rate can normally choose its fiscal stance without thinking about the state of the economy. Controlling demand and inflation can be safely assigned to monetary policy. But there is a crucial caveat: this is appropriate as long as monetary policy is able to do its job by varying nominal interest rates.

As we all now know, there is a lower bound to nominal interest rates. We may not know quite where that lower bound is, but we have been at it, or close to it, since the Great Recession of 2009. In these circumstances you cannot determine fiscal policy independently of the state of the economy. Fiscal contraction will reduce demand, and monetary policy will be unable to offset this. From 2010 to 2013 we saw a substantial fiscal contraction in the Eurozone as a whole, alongside similar movements in the US and UK. The second Eurozone recession was a direct result of this. It is true that ECB policy was also far from ideal over this period, but I doubt that even if the ECB had reduced rates to zero in 2010 a second recession could have been avoided.

How can I blame the second Eurozone recession on fiscal austerity with such confidence? There are two reasons. First, it is what basic macroeconomics - the macroeconomics taught to every undergraduate and post-graduate around the world, including in Germany - tells us. Second, it is what every independent model based exercise that I have seen also tells us.

For example, the NIGEM model, a multi-country model used by many institutions and maintained by the National Institute in London, and the QUEST model maintained by the European Commission, both suggest that the cumulative GDP loss of austerity from 2010 to 2013 is of the order of 10% of GDP for the Eurozone as a whole (Holland and Portes, 2012 and In't Veld, 2013). That is a huge figure, but Rannenberg, Schoder and Strasky (2014), using adapted versions of three models, estimate effects that are even substantially larger than this. Large effects are also obtained in Gechert, Hughes Hallett and Rannenberg (2015) which uses multipliers based on a meta analysis.

The consequences of these two mistakes in the Eurozone collide after 2010, but it is important to keep them conceptually separate. The first, about relative inflation rates within the Eurozone, may imply that fiscal policy needs to be looser in Germany than in the zone as a whole if that is necessary for Germany to lose its competitive advantage over other zone members. If, because of the particular social relationships that Germany has, this additional inflation can be achieved without using fiscal policy that is fine too.

The second concerns fiscal policy in the zone as a whole. The move to tighten fiscal policy across all Eurozone countries from 2010 was a huge mistake. There was no macroeconomic need to do this, because once OMT was established by the ECB the fiscal position of most Eurozone countries was not problematic. Debt levels in the Eurozone as a whole are not excessive from an international perspective. If they are thought to be too high, then debt and deficit reduction should have waited until ECB interest rates were well above their lower bound.

I think some outside critics of Eurozone policy make a mistake in combining these two issues. They note that Germany is too competitive and fiscal policy in the zone as a whole is too tight, and put these two together to say Germany should have a fiscal expansion for the sake of other Eurozone countries. This sounds too much like Germany being asked to make sacrifices for the common good. If we keep the two issues separate then it becomes clear that nothing of the kind is being suggested. Fiscal policy is too tight in the Eurozone as a whole: that includes France as well as Germany. The reason that this is not being felt in Germany is that Germany is also too competitive, and therefore German specific action is needed to address this issue.

Having said that, I think Germany should worry about what history will say about this episode. What it may say is that Germany did not want to bear the consequences of having relatively low inflation before 2007, and so attempted to avoid above 2% inflation by opposing easier Eurozone monetary or fiscal policy. This forced the rest of the Eurozone to bear inflation well below the ECB's target. In other words it took advantage of a liquidity trap to redistribute the consequences of its pre-2008 experience on to other Eurozone members. I know that this is not how it is seen in Germany, but it will be very easy for historians to tell that story given what has actually happened, and in particular the opposition from Germany to easier monetary and fiscal policies in other countries.

5. Why did the Knowledge Transmission Mechanism fail?

Things have gone wrong in the Eurozone not because of any inadequacies in macroeconomic theory, but because that theory was ignored by policymakers. What I want to ask is why that has happened. In the US and UK it is possible to tell a simple story involving policymakers with ulterior motives: those on the right see deficit reduction as a means of achieving a smaller state by the back door. That may be the true story, but I think it is worth exploring an alternative: that policy has gone wrong because the knowledge transmission mechanism (KTM) has failed.

Suppose, therefore, that we have completely benevolent policymakers, who in hindsight would have wanted to do things differently but felt that at the time they were just acting on the advice available. Why might they have been getting the wrong advice?

One response is that they asked the wrong people. As I discussed in an earlier section, many academics - although almost certainly not a majority - might have recommended a switch to austerity in 2010. A few might have even gone as far as to suggest that such a move would have little consequence for output - so called ‘expansionary austerity’. It was the expansionary austerity line that appeared to be the one that many policymakers adopted.

If the KTM had been working, then this result could only have been a consequence of policy makers wilfully choosing to adopt a minority academic point of view for political ends. That might well have been what happened. However I think an alternative interpretation is possible, if we look at each element of the KTM in turn.

a) Media

The media is not designed to establish what the view of the majority of academics is. Their natural way of working tends to do the opposite: to set up two-sided debates, which give the impression of controversy even when there is broad consensus. So policymakers will never be able to judge what the majority of academics think from looking at the media. The clearest example we have for this tendency is climate change. Nearly all scientists agree that, at least from a precautionary point of view, significant action is required now to mitigate climate change. However in the US and UK, partly because this issue has become ‘political’, the media often sets up two-sided debates between climate change scientists and their opponents, and partly as a result many people think scientists are much more divided on the issue than is actually the case.

However, I think there is also an additional factor that becomes important in the particular case of fiscal policy. Political commentators in the media are unlikely to be economists. What they can easily relate to, as can their audience, is financial bookkeeping. It is very easy, therefore, to tell stories about excessive borrowing, but rather more difficult to talk about multiplier effects and the ZLB. In the absence of a clear presentation of the consensus macroeconomic view, the

default position is to view government deficits as a problem that needs to be tackled sooner rather than later.

b) Financial sector

The financial sector employs a large number of economists. Many are involved in presenting macroeconomic stories to their firm's clients. A few firms do serious macroeconomic analysis, but there is no quality control of the academic kind. In addition, natural network relationships will often mean that there are good contacts between these economists and political parties, particularly those on the right. Even without these connections, when a country finds it more difficult to sell its debt, the natural question to ask is why the markets are reacting in this way. Who better to turn to, policy makers may think, than economists working in the financial sector.

There are also important interactions between economists working in the financial sector and the media. Part of the job description of most economists working in the financial sector is to have good media exposure. Equally, much of the time economics journalists will be talking or writing about day to day developments in the markets. As a result, contacts between economists in the financial sector and journalists are likely to be stronger than those between journalists and academic macroeconomists.

Unfortunately, there also tends to be a presumption that financial sector economists will be giving unbiased and informed advice. This is incorrect. There is a saying in financial markets: "bond economists never saw a fiscal tightening they didn't like". What this suggests is that at least some financial market economists will not give unbiased advice on fiscal issues. In addition, there is a natural tendency from those who are seen as 'close to the market' to emphasise how unpredictable markets can be, and that they are in the best position to interpret the market's moves. As a result, they may suggest the possibility of a funding crisis where no such possibility exists. Finally, economists working in the financial sector are not employed mainly because of their knowledge of how macroeconomic policy works. If their expertise is required, it will be in predicting where the market will go in the next few days, rather than in the next few months or years. Many will be employed simply because they have a similar world view to the company's clients.

Financial market economists are therefore an important part of the KTM when it comes to macroeconomic issues. A few will attempt to use material produced by academics in an objective manner, but this is the exception rather than the rule. It is possible that in aggregate they displace academic expertise, but to the extent that they are a filter for academic knowledge they are likely to be a biased filter. In the case of fiscal policy there are two clear biases: an overemphasis on the unpredictability of the markets and a desire to see fiscal contraction. Both are likely to have played a significant part in leading to the macroeconomic policy errors in 2010.

c) Civil servants

I gave an example in section 1 of an exercise I was involved with as an academic that I regarded as an exemplary example of how the KTM should work, which was Gordon Brown's decision in 2003 about whether to join the Euro. One of the important reasons that it worked so well was that the analysis took place over an extended period of time (more than a year). That enabled civil servants to consult widely among senior academics, and get a good feel for who had the expertise and how their views were regarded by fellow academics. They also co-opted a macroeconomist with modelling expertise as an additional resource.

In most cases having that amount of time is a luxury that few civil servants would even dream about. In a crisis, decisions are taken much more rapidly. It is virtually impossible with such short time horizons for civil servants to judge where any academic consensus - if it exists - might lie. In that case any knowledge must exist prior to the crisis.

Here there may be an unintended consequence of the emergence of independent central banks. In the period often called the Great Moderation, prior to the financial crisis, it was not necessary for finance ministries to have staff with a good knowledge of how business cycles worked. That job had been contracted out to central banks. Instead economists working for finance ministries need a good microeconomic background. More generally, the focus of finance ministries was on tax regimes and expenditure control rather than macroeconomics. In the German finance ministry, for example, lawyers rather than economists occupy many senior positions, and of course Germany has had a long-standing independent central bank.

All this meant that when an unexpected crisis emerged where macroeconomic knowledge was required, many civil servants would have been unable to access in-house expertise to help analyse events.

I suspect, however, that in the case of 2010 a more important factor was a natural bias already present within finance ministries. One of the stylised facts about the 30 years before the Great Recession was 'deficit bias': the tendency for government debt as a share of GDP to drift up over time (see Calmors and Wren-Lewis, 2011, for example). There are various explanations for deficit bias, but one is a common pool type of explanation: government ministers tend to push for more spending in their own departments. The government department that must resist this is typically the finance ministry. So for many civil servants working within a finance ministry, the possibility of a debt funding crisis may be seen as too good an opportunity to miss. Of course finance ministries are also concerned about the overall health of the economy, but without the expertise available to point out the problems of the ZLB, officials may have convinced themselves that this was a problem for their central bank.

The same point could be made at an international level about the International Monetary Fund (IMF). The IMF was important in pushing the case for fiscal expansion in 2009, but as many observed at the time, this went ‘against the grain’ for the IMF, which is more used to imposing fiscal rectitude or advocating fiscal restraint. When the global recession appeared to be bottoming out, it was perhaps natural that this more familiar role should come to the fore.

d) Central banks

Independent central banks are of course policy makers in their own right. As a result, they have also become the natural location to look for the received wisdom on how the business cycle works. As I have already noted, economists in central banks generally use variations on New Keynesian models to analyse monetary policy. So they would also be a natural source of wisdom on what the impact of fiscal policy would be in those models. As we have also noted, New Keynesian models suggest that, when interest rates are at their lower bound, austerity can have a large impact on output, with multipliers in excess of one.

I do not know the extent to which those advising on policy (in finance ministries or elsewhere) asked these economists directly questions like this. I suspect not much: the central banks I know tend to be fairly hierarchical, and careful to limit what their employees say externally on policy matters. So any advice would probably have been mediated through the central bank hierarchy, and if so then this is where things start to go wrong.

Central banks in some countries (the ECB is a clear exception) are reluctant to advise on fiscal policy (at least in public), as a quid pro quo for politicians not telling central banks what to do with interest rates. This seems fair enough when it comes to policy actions, but the reluctance often seems to extend to analysing the impact of policy. Among the governors of the three major central banks, only Ben Bernanke seemed prepared to say publicly that a severe fiscal contraction would make his job much more difficult.

Central banks also seem far too optimistic, at least when they talk publicly, about the impact of unconventional monetary policy measures. One reason for this I will note shortly, but another may simply be that having been assigned a task (controlling inflation), they are rather reluctant to say that they are unable to do it adequately. As a result, at least as far as much of the media is concerned, Quantitative Easing (QE) became almost equivalent to making interest rate changes. In reality, even if QE was capable in theory of replicating the impact of negative nominal interest rates, central banks had virtually no idea of the amount of QE that was required to do this job. An instrument that has a highly uncertain impact, partly because of lack of past experience and partly because of uncertainty about how and why it worked, is hardly a reliable instrument.

However, it seems to me that the main reason why central banks failed to give good advice on fiscal consolidation is that, among their leaders at least, there is a deep seated fear of fiscal dominance. They fear that if deficits are large, then at some stage they will be asked (or required) to monetise those deficits and that inflation will increase as a result. As Mervyn King, Governor of the Bank of England in 2010, once said: "Central banks are often accused of being obsessed with inflation. This is untrue. If they are obsessed with anything, it is with fiscal policy."

Without this fear, it is difficult to make sense of the ECB's constant public exhortations on the need for fiscal discipline. The ECB's own research (Allard et al, 2012) confirms that "the ECB communicates intensively on fiscal policies in both positive as well as normative terms. Other central banks more typically refer to fiscal policy when describing foreign developments relevant to domestic macroeconomic developments, when using fiscal policy as input to forecasts, or when referring to the use of government debt instruments in monetary policy operations." (In the case of the UK, it is widely believed that Mervyn King did support the Conservative Party's policy of a more rapid fiscal tightening in 2010, although he was a little bit more circumspect than the ECB in saying so publicly.[4])

If such fears of fiscal dominance were justified, then perhaps such advice from the ECB or other central banks might be warranted. However, only a very small minority of academic macroeconomists would argue that deficits need to be brought down sharply now because otherwise future inflation will rise rapidly. Deflation continues to be a problem in Japan, despite a very high level of government debt in relation to GDP. Five years after government debt across the globe rose rapidly as a result of the Great Recession inflation remains well below target in most countries and interest rates remain at or close to their lower bound.

The importance that the ECB gives to the need for fiscal consolidation is particularly ironic for two reasons. First, most central banks may legitimately fear loss of independence from their own governments, but the ECB has unique protections. Even the wildest imagination would find it hard to imagine the ECB being instructed to break its inflation target by a majority of the Eurozone member country governments. Second, of the three major central banks the one that has failed most completely in fulfilling its own mandate is the ECB. How the ECB can continue to encourage governments to take fiscal or other actions that their own models tell them will reduce output and inflation at a time when the ECB is failing so miserably to raise both must be one of the great paradoxes of our time!

[4] It possible to argue that King's role in 2010 was actually quite pivotal. The UK election in 2010 produced a coalition government. While its senior partner, the Conservatives, had argued for fiscal austerity, the junior partners, the Liberal Democrats, had not. It is said by some that during crucial coalition negotiations immediately after the election, both King and Treasury briefing played an important role in persuading the junior partner to concede on this issue. Others have suggested that the Liberal Democrat leadership was inclined to concede in any case.

Central banks therefore played a crucial role in the failure of the KTM in 2010.[5] They were naturally seen as a source for macroeconomic received wisdom, and indeed they were, if those seeking advice had talked directly to those involved in modelling the business cycle. In practice, however, advice was received from central bank governors, and in most part that did not convey received macroeconomic wisdom.

[5] It might be possible to argue something similar for why countercyclical fiscal policy was ignored when the Eurozone was established. It is generally acknowledged that Germany played a key role in designing the Stability and Growth Pact, and the Bundesbank's views would have been important in this respect. In addition, as was noted earlier, the majority of German macroeconomic policy advice is unusual compared to most other countries in having a clear anti-Keynesian stance.

6. Summary and implications

There is a simple or naive view of macroeconomic crises. They result from policymakers using bad or inadequate theory, theory that represents at the time the consensus or majority view among academics. To trace the origins of a macroeconomic crisis we therefore need to ask what was wrong with macroeconomic theory at the time.

That view is tenable for the Great Depression. However, similar stories told about the inflation of the 1970s or the recent financial crisis seem less convincing. In the case of 70s inflation, it is suggested that the incorrect theory is the idea that there is a permanent inflation/unemployment trade-off. In other words policy was based on the wrong kind of Phillips curve. However this idea does not seem to have been a consensus view among either academics or policymakers at the time, and instead errors occurred because policymakers, their advisors and some academics either had little faith in a Phillips curve of any kind, or did not want to accept its implications, or erroneously believed they could by-pass its implications.

In the case of the recent financial crisis, it is argued that macroeconomics failed to adequately model the many imperfections in the financial sector, and as a result failed to predict the crisis itself. Inadequate modelling is true enough, but it is far from clear that this had any impact on the emergence of the crisis itself. Instead this reflected deregulation (or a failure of regulation to keep up with evolving financial institutions and markets) that was a consequence of political pressures rather than macroeconomic deficiencies. Economics already had the tools that can be used to explain the crisis, so the appropriate question is why they were not applied. We can see the same forces at work following the crisis: while economists have argued that substantial increases in capital requirements are needed to prevent another crisis, actual capital requirements have increased by much less.

These two cases suggest that crises can arise not just from bad theory, but also a failure to apply existing theory. The clearest example of this is the Eurozone crisis of 2010. Some of the roots of that crisis lay in the Eurozone's fiscal policy architecture, which ignored the well understood role that countercyclical fiscal policy at the national level could play in offsetting the impact of asymmetric shocks. If simple countercyclical rules had replaced the Stability and Growth Pact, competitiveness imbalances that were allowed to grow before 2007 would have been significantly reduced, and the public debt position of periphery economies would have been in better shape.

The New Keynesian model, which is the dominant framework for analysing business cycles both within academia and within central banks, also clearly shows that changes in government spending can have large impacts on output when interest rates are stuck at their lower bound. However, in 2010 it appeared as if policymakers were relying on the research of just a few economists who suggested that, contrary to the implications of New Keynesian models, fiscal contractions could be expansionary. As a result, policy in the major economies moved towards fiscal austerity, and as a result by 2013 resources in the Eurozone worth at least 10% of GDP were lost.

So why did policy appear to ignore mainstream academic research? It could be, of course, that policymakers were well aware of what they were doing, and were simply using minority academic views as a cover. In this paper I explore an alternative story, which is that there were failures in the knowledge transmission mechanism between academics and policymakers. Although I look at various potential intermediaries between academics and policymakers, including the media, the civil service and economists working in the financial sector, perhaps the most interesting in this case are central banks.

As New Keynesian models are at the heart of monetary policy making within central banks, it would seem natural that these institutions would have given clear advice about the dangers of fiscal consolidation. Instead, governors of central banks either kept relatively silent (perhaps believing that this was part of a quid pro quo for politicians not interfering in monetary policy decisions), or encouraged fiscal consolidation. They tended to downplay the importance of the Zero Lower Bound by encouraging a belief in the reliability of unconventional monetary policy which was quite unwarranted. All this might be explained by a deep seated but somewhat old-fashioned concern about fiscal dominance, and therefore a belief that large budget deficits represented a threat to their independence.

Looking ahead, many of the circumstances that led to these failures in the knowledge transmission mechanism are unlikely to disappear. As real interest rates are likely to remain low for some time, problems in hitting the lower bound for interest rates may recur. In terms of the knowledge transmission mechanism, perhaps the attitudes of central banks to fiscal austerity may change if deflation becomes a persistent problem. If it does not, then under current institutional arrangements there will be a permanent bias towards pro-cyclical fiscal policy during severe recessions, and the Eurozone will remain much more vulnerable than it need be to macroeconomic shocks.

If this analysis is correct, part of the problem stems from the fact that the knowledge to combat recessions lies within central banks (and the KTM between academics and many central banks is good), but central banks do not have an adequate set of instruments to stabilise the economy in all circumstances. In large recessions, governments have to become aware of the implications for output of their fiscal decisions, while in other circumstances they do not. Yet it is precisely in these circumstances that debt may be rising rapidly, and they may be tempted to pursue contractionary policies to control debt. They may be unaware of the damage that this will do because that knowledge is not allowed to escape from central banks. In the absence of independent central banks, money financed fiscal expansions following a sharp recession would be both possible and not inflationary, but independent central banks (or a monetary union) rule this out.

One solution, therefore, is to extend the instruments available to the central bank to include what Friedman called 'helicopter money'. The major central banks have already undertaken large scale money creation as part of Quantitative Easing, and giving this money directly to people to spend would be a much more reliable form of stimulus. (For a related proposal for the

Eurozone, see Watt, 2015.) If the discussion in this paper is correct, there would remain a concern that central banks might not use this instrument because they feared it might jeopardise their independence, but such fears might be diminished if measures were put in place to increase accountability.

References

Admati, A and Hellwig, M (2013), The Bankers' New Clothes: What's Wrong with Banking and What to Do about It, Princeton University Press

Allard, J, Catenaro, M, Vidal, J and Wolswijk, G (2012) Central Bank Communication on Fiscal Policy, ECB Working Paper No 1477

Bofinger, P (2015) German wage moderation at the EZ crisis, VoxEU 30th November.

Calmfors, L and Wren-Lewis, S (2011), What Should Fiscal Councils Do?, Economic Policy, Vol 26, pp 649-695

Colander, D and Landreth, H (2007), Political Influence on the Textbook Keynesian Revolution: God, Man, and Laurie Tarshis at Yale, mimeo

Forder, J (2014), Macroeconomics and the Phillips Curve, Oxford University Press

Gechert, S, Hughes Hallett, A and Rannenberg, A (2015) Fiscal multipliers in downturns and the effects of Eurozone consolidation, VoxEU 26/2/2015

Holland, D and Portes, J (2012) Self Defeating Austerity? VoxEU 1/11/12

In't Veld, J (2013) Fiscal Consolidations and Spillovers in the Euro area periphery and core, European Economy Economic Papers 506

Krugman, P (1994) Peddling Prosperity: Economic Sense and Nonsense in an Age of Diminished Expectations, W.W. Norton & Company.

Lucas, R E and Sargent, T J, After Keynesian Economics, Federal Reserve Bank of Minneapolis in its journal Quarterly Review.

Miles, D, J Yang, and G Marcheggiano (2012), "Optimal Bank Capital", *The Economic Journal*, June.

Rannenberg, A, Schoder, c and Strasky, J (2014) The macroeconomic effects of the European Monetary Union's fiscal consolidation from 2011 to 2013: A quantitative assessment, mimeo

Watt, A (2015) Quantitative easing with bite: a proposal for conditional overt monetary financing of public investment, IMK Working Paper 148

Woodford, M (2011) The Simple Analytics of the Government Spending Multiplier, *American Economic Journal: Macroeconomics*, 3(1): 1-35.

Publisher: Hans-Böckler-Stiftung, Hans-Böckler-Str. 39, 40476 Düsseldorf, Germany
Phone: +49-211-7778-331, IMK@boeckler.de, http://www.imk-boeckler.de

IMK Working Paper is an online publication series available at:
http://www.boeckler.de/imk_5016.htm

ISSN: 1861-2199

Hans Böckler Stiftung

Fakten für eine faire Arbeitswelt.