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The Shifts and the Shocks: What we've learned – and have yet to learn – from the financial crisis, by Martin Wolf, (Penguin books, 2014)

A Review, by Kenneth Rogoff, Harvard University.

Martin Wolf's new book, *The Shifts and the Shocks*, is an extraordinary work that deserves to be widely read and discussed. It takes the reader across the landscape of contemporary debates on macroeconomic and financial policy and, as one would expect from the premier financial journalist of our era, it presents deep analysis with remarkable fluidity and nuance. Whether or not one agrees with Wolf's take on all the issues one must recognise that this is a thoughtful and deeply researched piece of work. That said, Wolf's analysis and conclusions underemphasise crucial points, and overstate key conclusions.

How is this book different from the dozens of others out there on the financial crisis? It is profoundly different in four ways. First and foremost, *The Shifts and the Shocks* is an ambitious attempt to offer a truly comprehensive analysis of the seeds, outbreak and aftermath of the crisis. Wolf rightly believes that one needs to look at the entire global economic system to understand what happened. Second, Wolf tackles both the financial and regulatory side of the crisis, along with its macroeconomic and development dimensions.

Third, in his recommendations, Wolf eschews the usual approach of giving one or two pet reforms, often quite anodyne ("better regulation," for example). Instead, he endorses concrete and sometimes quite revolutionary changes. For instance, Wolf essentially concludes that there will be no long-run financial stability without kicking banks out of the money creation business, and leaving it as a government monopoly, much as leading "Chicago Plan" economists first suggested in the 1930s.

Fourth, Wolf incorporates a broad range of other people's ideas, and does so with integrity and balance. Although his own voice rings strongly across the pages, Wolf explains each author's view, mostly in a way they would find reasonable. The views of Ben Bernanke, Lawrence Summers, Nassim Nicholas Taleb, Raghuram Rajan and many others are summarised, supported or critiqued here, with many earlier thinkers including Hyman Minsky, Knut Wicksell and of course John Maynard Keynes. The book will have a long shelf life as a desk reference for students, researchers and policymakers.

Rather than try to tackle Wolf's book chapter by chapter, it is perhaps more useful to highlight a selection of critical issues. I agree with much of what Wolf writes, but I will focus on a few areas where I see things differently. I will take up three topics in particular: fixing the financial system (where Wolf undercuts his important ideas on the need for radical reform by waffling on whether saving Lehman would have solved most of the problem); the Eurozone crisis (where he overstates how much greater German fiscal stimulus would have helped the periphery, and understates how much early debt restructuring would helped.); and the austerity debate as it pertains to the United States and the United Kingdom (where his argument that a larger and much more sustained fiscal stimulus would have helped immeasurably is far too monocausal.)

Fixing the financial system

The genesis of the crisis, of course, was an enormous build-up of credit in the financial sector, much of it funded by borrowing that was either explicitly or implicitly government-guaranteed. Unfortunately, the public nature of some "private borrowing" only becomes apparent when a crisis unfolds, as Carmen Reinhart and I have emphasised in our work. Wolf gives a wide-ranging analysis of the policy issues, including critical but complex topics that he cannot afford to visit too regularly in his *Financial Times* columns.

In many ways, financial regulation and design are the whole ballgame, perhaps even more than Wolf seems to recognise as I shall later explain. Wolf tackles everything from the dense Basel accords (intergovernmental agreements that set standards for international banks) to the thoughtful UK Vickers Commission (Wolf was a member), to Anat Admati and Martin Hellwig's 2013 book, *The Bankers' New Clothes*, where they argue that banking regulators could bypass a lot of ponderous problems by simply requiring banks to finance themselves more like normal firms.

Admati and Hellwig, in particular, argue that forcing banks to move away from their near exclusive reliance on debt finance to more conventional plain equity finance would work wonders. (Publicly traded companies can raise money from the public either by issuing stock or by selling bonds and other forms of debt. Banks almost entirely rely on the latter, which is precisely why they are sometimes so vulnerable.) Admati and Hellwig would triple or even quadruple current capital requirements.

There are a number of plans for increasing bank capital. One influential scheme, trialled by Swiss regulators, that is a halfway house between equity and debt, is to introduce "contingent convertible bonds." These are like regular bonds except that they change to equity if banks are suffering a "systemic crisis" that threatens the larger financial system. Wolf is right to worry that contingent convertible bonds involve extremely arbitrary and political decisions—what exactly, is the threshold for a "systemic crisis"? He seems to come down in favour of banks funding themselves more with simple equity, though he rightly worries that there is no magic formula that tells us quite how much is enough.

One problem, of course, is that banks can ingeniously come up with ways to increase the risk they take even faster than regulators can come up with ways to increase the default cushions they are supposed to have. As a result, there is a real chance that taxpayers would still sometimes find themselves making huge transfers to banks.

An important idea to get around this "moral hazard" problem is the clever <u>proposal</u> of Jeremy Bulow, Jacob Goldfield and Paul Klemperer. They would require banks to fund themselves through equity and a new kind of debt that, like contingent convertible bonds, is a sort of hybrid that allows banks to make payments in kind instead of in cash when their share price falls too far.

In the end, Wolf concludes quite plausibly that all these ideas address the symptoms of bank instability, but not the ultimate cause. He argues that any real long-term fix has to end the financial sector's ability to generate money and near-money alternatives. Banks tend to make loans that are long-term, such as mortgages, but finance these loans with short-term debt arrangements. It is

precisely this so-called "maturity mismatch" created by short-term debt that exposes the system to runs and losses of confidence. The most direct way to eliminate this vulnerability, Wolf argues, has to start with some form of "narrow banking" where all short-term debt liabilities have to be fully backed by government assets. Ordinary small business loans would have to be handled through instruments that are explicitly risky, for example through mutual funds that hold pools of loans. Although narrow banking and short-term debt restrictions would be a sea change in how the financial system works in practice, the idea is straightforward in theory.

Indeed, International Monetary Fund (IMF) economists Jaromir Benes and Michael Kumhof offered a detailed analysis in their 2012 paper "The Chicago Plan Revisited," named after the original Chicago Plan advanced in the 1930s by Frank Knight, Irving Fisher and Henry Simons. In his 2011 book *Jimmy Stewart is Dead*, Laurence Kotlikoff offers another modern-day variant of the Chicago Plan. As these authors show, there is no reason in principle why such a system cannot work in our era, though there are many subtleties.

For one thing, there will always be innovators trying to skirt government regulation and issue money-like securities. Finding ways to avoid regulation is arguably a large part of what is going on in the virtual currency world, with Bitcoin a leading example. There is also a great deal of genuine innovation in this space. The bottom line, though, is that as long as the government periodically clamps down before financially disruptive innovations reach systemic proportions, countries should be safe from massive financial crises. True, history suggests that the typical government rarely exhibits backbone in good times when risks are hidden. Yet this self-awareness is hardly an excuse for fatalism.

As Wolf notes, by extending its monopoly over monetary instruments, the government would gain massive funding and revenue potential, since the issuance of money-like instruments is a highly profitable business. Narrow banking would certainly go a long way to ameliorating the long-term public debt problems we will come to later. It might mean bank stocks are worth much less, similar to the way in which the minicab app Uber is likely to reduce the worth of taxi licenses.

There are also serious issues of transition to a Chicago Plan world, not least because most of the largest banks are multi-national and answer to multiple regulators. Moreover, it is important to remember that addressing banking crises does not address all forms of debt crises. Creating a giant super-monopoly government bank with a balance sheet an order of magnitude greater than anything that exists today raises many governance questions.

Although Wolf makes a coherent case for considering this radical reform, he is rather circumspect on just how bad things will be if we don't do it. For one thing, he seems to agree with Chicago economist Robert Lucas (whom he otherwise sharply critiques) that if the US financial firm Lehman Brothers had not been allowed to fail, the financial crisis would have been far less acute (editor's note: read Alex Brummer discussing this on p20). But if one really believes this, then why take all the risks of radical change? Anyone advocating a radical fix, as Wolf does, needs to convert the many politicians, financiers, regulators and even academics who conclude that the real lesson of the crisis should be to never let big banks fail. (This is certainly not my position.) Let's face it, any policymaker who could go back in time would try to find a way to save Lehman.

But would that have been enough? The subprime housing market was already collapsing well before Lehman's fall in September 2008. After rising dramatically for many years, US housing prices had already started to fall in late 2006 and the trend was accelerating by 2008. Hundreds of billions, if not trillions of dollars in bad loans had to be absorbed, and the badly under-capitalised US financial system could not do that without massive taxpayer assistance. Indeed, as early as March 2008, the Federal Reserve had to intervene to prevent a default by the financial firm Bear Stearns, precisely because it had lost so much money on subprime loans. Technically, Bear Stearns was bought by another bank, JPMorgan, but there was huge taxpayer assistance as the Fed took over part of its junk debt portfolio.

The government had also bailed out the supposedly private mortgage giants Freddie Mac and Fannie Mae at the beginning of September 2008. Suppose it had then bailed out the financiers at Lehman. Would the bailouts really have stopped there? Who would the government have had to bail out next? Merrill Lynch, Citibank, American International Group? Does anyone seriously think a continuing series of financial bailouts would have been politically feasible?

Without question the best and most effective approach to the problem would have been to bail out the subprime homeowners directly, forcing banks to take losses but keeping them manageable. For an investment of perhaps a few hundred billion dollars, the US Treasury could have saved itself from a financial crisis whose cumulative cost, counting lost output, already runs into many, many trillions of dollars. Instead of "saving Wall Street," a subprime bailout would have been targeted, almost by definition, at lower-income households. But unfortunately, this approach too would have been politically impossible prior to the crisis.

By mulling whether the crisis could have been mitigated simply through better tactics during the weekend of 13th-14th September 2008, Wolf undermines his own case for radical reform. To be clear, I think that a major financial collapse would have been very difficult to avoid regardless of how Lehman was handled. Thus Wolf is fundamentally right: radical change is needed.

The eurozone crisis

Readers of Wolf's *Financial Times* columns will be familiar with some of the major themes of the book (particularly his view that if Germany took more ownership of its role in creating the crisis, the solutions would be easier to see and implement.) He is right that Germany bears its share of responsibility. But he emphasises the potential role of German fiscal stimulus far too much, and correspondingly underestimates the importance of regulatory failures, the rigidity of the 2 per cent inflation target and, above all, northern recalcitrance to restructure and write down southern debts. He regards it as obvious and axiomatic that German surpluses and stability are in large part the mirror image of the woes in the periphery. Periphery wages would not be so overvalued if German wages were not so undervalued. Periphery current accounts would be much stronger if the German current account were weaker, and so on.

Wolf essentially argues that by simple arithmetic, Germany's strong penchant for running trade and current account surpluses necessarily puts pressure on periphery countries to run deficits. This in turn leaves them vulnerable to crisis. Although superficially compelling, it is only correct up to a point and misses some critical nuances that are essential to choosing the right policy response.

The first problem with Wolf's simple arithmetic is that Europe is not a closed economy, and indeed Germany depends vastly more on exports to China and the US than exports to the periphery. The periphery, in turn, commands only a relatively minor share of German imports. A more expansionary German fiscal policy would spill over far more into the German supply chain in central and eastern Europe, not to mention China and the US, than into the eurozone periphery. The IMF demonstrated exactly this in analysis accompanying its 2013 Article IV consultation for Germany. True, very recent work by its chief economist Olivier Blanchard has shown that a generalised fiscal impulse from France, Germany and Italy would have a significantly larger effect than one coming from only Germany. But it is far from clear how well markets would have tolerated a Franco-Italian stimulus at the height of the crisis, and now many French economists see France as badly in need of shrinking its oversized government, not expanding it.

The second way in which Wolf's simple current account framework is misleading is that it ignores the mode of financing. If the capital flows to the eurozone periphery had been mainly in the form of direct foreign investment or equity (instead of short-term debt), they would have been far less problematic. It is simply not true that sustained current account deficits automatically imply an impending debt crisis. Indeed, if the eurozone financial markets had been better regulated, it would have been quite reasonable for the more developed northern countries to run current account surpluses while the faster developing southern countries ran deficits. This is how normal economic unions are supposed to work. Germany's biggest mistakes, by far, were in financial regulation that produced instability.

In fact, one can argue further that given the scale of the regulatory failures in Germany and the periphery, a crisis might well have happened even if the periphery countries ran balanced trade. That is because even without running a deficit, a country can dig itself into a hole by creating a portfolio in which it holds risky assets but is a borrower in short-term debt. Researchers Galina Hale and Maurice Obstfeld have <u>forcefully argued</u> that the seeds of the catastrophe lay in the huge expansion of gross flows between the centre and periphery.

Wolf also argues that German wage flexibility contributed to making the rest of the eurozone uncompetitive. This argument has a core of truth but it is taken way too far. Southern countries such as Italy have been suffering far more from competition with Asia than from Germany. Portugal can only wish it were a competitor to Germany for global exports. Germany, on the other hand, has benefitted from a voracious Chinese appetite for its autos, high-end machinery and other capital intensive goods.

In truth, the southern Mediterranean countries in Europe are a place where there really is secular stagnation of the sort my colleague Lawrence Summers, the former US Treasury Secretary, has worried about, where there is insufficient investment despite low interest rates. Wolf beautifully explains the idea, and generally endorses it. But secular stagnation in the periphery would have been happening with or without the financial crisis, especially given the lack of flexibility in labour markets. Reforms since the crisis, especially in Spain, may provide some relief.

If one rejects the argument that neither a more expansive fiscal policy by Germany nor less competitive German wages would have provided major relief to the periphery, what could Germany have done? It could have taken four steps, none of them easy, all of them very helpful. First, it should have acted earlier to take a euro break-up off the table. Second, it should have found a way to restructure periphery debts at lower interest rates and with more time to repay. Third, it should have moved earlier to endorse a looser monetary policy at the European Central Bank (ECB). Fourth, and more for itself, it should have expanded infrastructure investment at home and abroad. Yes, this last policy is fiscal stimulus also, but of a focused kind that increases long-term output to help support any short-term rise in debt. However, Wolf seems to regard anything which does not include maximum sustained German fiscal stimulus as "austerity."

Point number one is non-controversial, though it was not easy for German leaders to pull off at the high point of the crisis. Wolf rightly points to ECB president Mario Draghi's "whatever it takes" speech in July 2012 as a turning point that finally convinced markets that a eurozone break-up was off the table.

Second, rather than pouring fiscal stimulus into a German economy that has for some time arguably been overheated, it would have been far better to give periphery countries more help. And the best and most sustainable way to accomplish this would have been to write down debt across the periphery, including at the very least Greece, Spain, Ireland and Portugal (a policy I advocated throughout the crisis). The periphery country debt problem is extreme by any historical measures, though Wolf seems to reject the relevance of high public debt for long-term growth. The point that periphery countries suffer from debt overhang should be an obvious one by now, and anyone interested in "progressive" policies should be supporting efforts to alleviate it.

Wolf finds convincing the <u>comparison</u> between Spain and the UK made by the Belgian economist Paul De Grauwe, who argues that Spain would have been in much less trouble if it had had its own currency. True, but misleading. The claim overlooks the fact that, in many ways, Spain has still not completed the transition from being an emerging market to being an advanced economy. The UK has a long history of running stable macroeconomic policy and of honouring its debts. Spain does not. It was only a generation ago that it threw out its dictatorship and became a democracy.

We don't have the counterfactual of what would have happened if Spain, Portugal, Greece, and Italy had not joined the euro. But governance and institutional development can take many generations to unfold. My overwhelming presumption is that these countries would still have had problems containing their debts. My best guess is that in 2014, Italian and Spanish inflation rates would be far closer to the 6 to 9 per cent range many emerging markets have today than to the sub 2 per cent rates of the US and Japan. In sum, the comparison of the UK and Spain is quite dubious. It is ludicrous to think the periphery has a mere liquidity problem. That is why the debts needed to be written down, or more likely stretched out at lower interest rates, which amounts to the same thing.

Third, what about higher inflation? Of course it would have been very helpful and a determined ECB could have done something had it been so inclined. Advanced country central banks should have aimed for a few years of elevated inflation in the range of 4 to 6 per cent after Lehman fell, as

I argued already in 2008. Back then, if not necessarily now, this would have helped deflate the generalised public and private debt problem, potentially taking years off the long deleveraging process that we are still suffering. Higher inflation would also have helped relieve the strong deflationary pressures in the periphery, making it easier to realign wages in the eurozone, with higher wage inflation in Germany and lower wage inflation in the south.

So Germany could have done more to alleviate the crisis in the periphery. But the best way was not to increase spending in Germany, but to help increase spending in the periphery. Even the IMF has finally reached this epiphany, arguing that it should have insisted on "bailing in" private creditors in Europe; that is, making lenders take losses. Instead, too much of its lending effectively just helped to pay off private creditors, and did not provide meaningful budget relief.

Anyone worried about austerity in the periphery should have been first and foremost focused on writing down debt. The idea that arguing for such policies, and that worrying about the effects of debt overhang on growth, amounted to favouring "austerity" is simply ludicrous.

Austerity in the US and UK

The word "austerity" is bandied about in the political debate as if it is completely obvious what it means, but when he comes to address the subject, Wolf is far more precise than most. Throughout the last six decades, government spending has been marching upwards in the advanced economies (see the chart on the right) from below 20 per cent of GDP to above 40 per cent now, with the "austerity" period after the financial crisis being a brief interruption. (This does not include old age security programmes and other transfers.) Comparisons of the present period of austerity to the Great Depression, when government spending was vastly lower, and the social safety net virtually non-existent, is an exaggeration.

Austerity in the periphery eurozone is an entirely different animal to that seen in the US and UK. The eurozone periphery suffered a classic sudden stop in private lending, and although the "troika" of the IMF, European Commission and the ECB did step in to help, they were too limited in their willingness to write down debt. Facing a sudden withdrawal of financing, periphery countries had to reduce expenditures.

For the US and UK, the decision to expand and then gradually reduce deficits gave policymakers considerable discretion over the exit strategy. For these countries, one can meaningfully speak about the trade-off between stability and stimulus. This is true at least in principle, if not politically.

In the US, the best policy would have been to use the federal balance sheet to directly help subprime mortgage borrowers. This would have stabilised financial markets and stimulated demand by helping repair the finances of low income households. As with Europe, higher inflation would also have been part of such a policy, and probably could have been achieved had the Fed been willing to make a more radical change in its communication strategy.

Another key pillar in recovering from a financial crisis should be to boost infrastructure investment. Virtually every economist of every stripe agrees with this recommendation. For a

classical economist, increased infrastructure investment makes sense when the government can borrow at low interest rates and hire underemployed construction workers. Keynesian economists would say it increases short-term demand. Both are right. Infrastructure projects can increase growth in both the short and long run. It does not matter if debt goes up because if a project is truly cost effective, output will go up more than proportionally, and the debt output ratio would fall rather than rise.

It is unfortunate that, initially, the US administration's stimulus policies did not focus adequately on infrastructure. Administration officials privately expressed concern that infrastructure projects would take too long to get off the ground, and by the time they did, the spending would no longer be needed. My book with Carmen Reinhart, *This Time Is Different*, suggested that the recession was likely to be around for a long time, and that infrastructure spending would be extremely helpful. Last, but not least, infrastructure projects typically have a finite lifespan and come to a natural end. By focusing on infrastructure, policymakers could protect themselves from getting into programmes they could not get out of once a recovery had taken hold.

Why were governments in advanced economies so timid about infrastructure projects if most objective observers thought they were a good idea? The answer seems to be politics. Infrastructure is the easiest thing to cut, because the constituencies are diffuse and not necessarily well organised. Another ostensible reason, Wolf states, were worries about debt. But this is a very superficial reading of what happened.

In our 2009 book, Reinhart and I showed that government debt nearly doubles in the three years after the beginning of a financial crisis, which we mark as occurring in 2007 when US housing prices were already falling and financial stress was intensifying. We argued that this debt increase was quite a natural response. In a later series of papers we argued that the resulting explosion of government debt might have very long-term growth and stability consequences. Even so, in our policy statement we were careful to support short term stimulus, albeit we did not argue for stimulus as aggressive as that proposed by Wolf, or by Paul Krugman, the *New York Times* columnist. We argued for a very long-term exit strategy, in conjunction with structural reform to boost long-term growth. We emphasised how private and external debt had grown massively even before the crisis, and how this was central to our concerns about long term growth.

But the hard left has decided that any concern about long-term debt is misplaced, because it is only a problem for the rich and not a big one at that. It is odd that a large political movement has built up around this view. My reading of the historical record is that inflation crises and debt crises have generally been particularly hard on the poor.

Do conservatives dislike debt, as the progressives seem to believe? Not really. Two Republican presidents, Ronald Reagan and George W Bush, built up debt substantially. The 2012 Republican presidential candidate Mitt Romney ran on a platform that called for tax cuts and, on top of that, a massive military build-up. If elected, Romney might well have persuaded a Republican Congress to implement his policies. Debt would have soared and progressives would have complained just as loudly as they did in the early 2000s, when Paul Krugman confidently predicted that Bush-Cheney debt build-ups would lead to crisis.

In fact, the ostensible argument over debt has nothing to do with progressive and conservative differences. It is about the size of government. It is about the usual problem that, whenever one party is in full control, there is a bias towards running up debt to benefit one's own constituency; at the expense of future governments. Economists Alberto Alesina, Guido Tabellini, Torsten Persson and Lars Svensson made this point 25 years ago. Thus, the US "budget sequester" was not an outcome of the Republicans worrying about national debt. If President Barack Obama had proposed a tax cut instead of an expenditure increase, they would have agreed in a heartbeat, and debt would have risen. The sequester that actually happened was an outcome of a fight over the size of government.

The financial crisis does create an additional and very important argument in favour of fiscal stimulus, and Wolf is absolutely correct to highlight it. When an economy is at the zero bound on interest rates, and the central bank is unable or unwilling to stimulate inflation, fiscal policy is more effective in raising output. At the zero bound, it is less likely that interest rates will go up to neutralise the effect. However, the empirical size of the "fiscal multiplier" (how much output rises relative to increased government spending) is widely debated, and the evidence is very thin. Here the debate becomes more nuanced. The fact the UK and US both achieved solid growth in the face of fiscal cuts would seem to contradict the view that multipliers are always and everywhere very large.

Had Wolf simply argued for more productive public investment, as Lawrence Summers does, there really would be nothing to debate. Of course, in practice it is not easy to choose among investments, and political lobbying is fierce. Had governments tried to ramp up infrastructure spending quite quickly after the crisis, there is a good chance that some significant proportion would have been dissipated.

Wolf, in line with Krugman, appears to believe that even wasteful government spending would raise welfare, a claim that is at best debatable. There is also the issue that temporary rises in government spending are seldom temporary in practice. This is not a problem for Krugman who consistently argues that the US government is far too small anyway, and who recurrently praises France as an example to follow. (No one cheered louder than Krugman when France's President François Hollande came to office, and he recently opined that France is doing great.)

As for the resulting debt burden not being an issue, it is far from obvious that governments were wrong to worry about the fiscal burden, as debt more than doubled within a very short time. The ability to issue large amounts of debt in response to crises is a valuable option for governments. But if a country's debt starts to reach a situation that is perceived as risky, the option might not be as available when needed most.

There still remains the question of timing of calibration and timing of fiscal stimulus. Wolf speaks approvingly of Richard Koo's rule of thumb that fiscal stimulus should remain until the private sector recovers. Fine, most economists would agree with that, but at what level should stimulus be maintained as the private sector normalises? Should the deficit go to say 15 per cent of GDP, and then suddenly shut off when private sector financial markets are back to health?

That said, with the benefit of hindsight, the US did withdraw fiscal stimulus much too quickly. One factor, to which Wolf pays surprisingly little attention, is that government forecasters overestimated how quickly the US economy would bounce back. They should have known that economies rarely recover quickly or vigorously after a financial crisis. They should have known that sustained stimulus was needed, but this did not become the conventional wisdom until much later. One only has to look at the pattern of Federal Reserve forecasts—the staff being largely technocratic and apolitical—which repeatedly overstated growth projections. Politicians surely looked at these projections and thought that it was safe to withdraw stimulus.

Also, from early 2010 until at least mid-2012, many government leaders worried constantly that the eurozone would fall apart. This was another oft-repeated and again confident prediction of Krugman and a great many others. Leaders read and were deeply influenced by such predictions. There is no question this led them to be significantly more conservative in their actions. Risk of a eurozone collapse was a huge issue for the UK, given that Europe is the major trading partner, and UK banks held large amounts of debt from Ireland and other periphery countries. A natural, sensible response to an imminent euro break-up would be to do everything possible to avoid being drawn into the melee. Even US leaders worried tremendously about the risk of a eurozone break-up.

As for the UK, certainly those who confidently predicted that the UK would fall apart if it gradually brought down its deficit, Wolf among them, considerably oversimplified and overstated the case. Wolf now argues that of course we all knew there would eventually be a vigorous recovery in the UK. I can only say this was not obvious from reading either the *Financial Times* or the *New York Times*. Again, this is a matter of calibration, and the awful forecasts of those who focused excessively on fiscal policy and nothing else, underscores how difficult real-world policymaking can be. Lawrence Summers has been right about a great many difficult things over the years, but he was not right about this one. In a 2012 op-ed in the *Financial Times* entitled "Britain Risks a Lost Decade Unless it Changes Course," Summers stated:

"It is the mark of science and perhaps rational thought to operate with a falsifiable understanding of how the world works. So it is fair to ask economists a fundamental question: what could happen that would cause you to revise your views of how the economy operates and acknowledge that the model you had been using was flawed? As a vigorous advocate of fiscal expansion as an appropriate response to a major economic slump in an economy with zero or near-zero interest rates, I have for the past several years suggested that if the British economy—with its major attempts at fiscal consolidation—were to enjoy a rapid recovery, it would force me to substantially revise my views about fiscal policy and the macroeconomy."

I can only say there is a great deal of wisdom in these words, and the many who called it big and called it wrong in important ways, should not try to waffle out of them.