

Discussion

John Murray

INTRODUCTION

I cannot think of anyone better suited than John Taylor to give the keynote address at this conference in honour of David Dodge; nor a paper that would be more appropriate for the occasion. David Dodge and Professor Taylor have known each other for many years, and had overlapping terms through much of the late 1990s at their respective treasuries. Not surprisingly, Professor Taylor's paper touches on several critical policy issues that reflect David's own wide-ranging interests. They are also subjects on which David has written and spoken extensively, and provide the perfect start to today's proceedings.

Professor Taylor's paper contains two key messages. The first is that government actions and interventions "caused, prolonged, and worsened the [current] financial crisis." The second is that these policy failings were largely domestic in nature (i.e., mistakes that originated in the United States, not other countries). An impressive and convincing series of charts and empirical tests are presented in the paper to support these claims, and several important policy lessons emerge. They include:

- (i) Traditional monetary policy reaction functions (as captured by the famous Taylor rule) might not be optimal; however, closer adherence to them by monetary authorities would probably minimize the chances of making sizeable errors.
- (ii) Policy-makers should not race to solutions before carefully analyzing the problem. Rapid but premature diagnosis can cause more problems than it solves.
- (iii) Predictable frameworks for official intervention, drawn from recent reform efforts at the International Monetary Fund (IMF), could avoid unnecessary uncertainty on the part of the private sector and lead to more disciplined crisis responses on the part of the public sector.

While I have sympathy for many of the points that Professor Taylor has raised, and would not want to suggest that policy was absolutely perfect during the 2002-08 period that he examines, I do have some reservations about his rapid diagnosis. These reservations do not represent fundamental differences in opinion, but are more a matter of nuance and degree. Professor Taylor, himself, acknowledges that the research presented in his paper

is preliminary, and that more data will need to be collected and analyzed before any firm conclusions can be drawn.

My comments will follow the structure of Professor Taylor's paper, and are framed around a set of questions that I hope the author will find useful. I have not offered comments on every section of the paper, only those where there might be some difference of opinion or interpretation. Silence and omission with regard to the other interesting material reported by Professor Taylor indicate unreserved agreement on my part.

CAUSES OF THE CRISIS

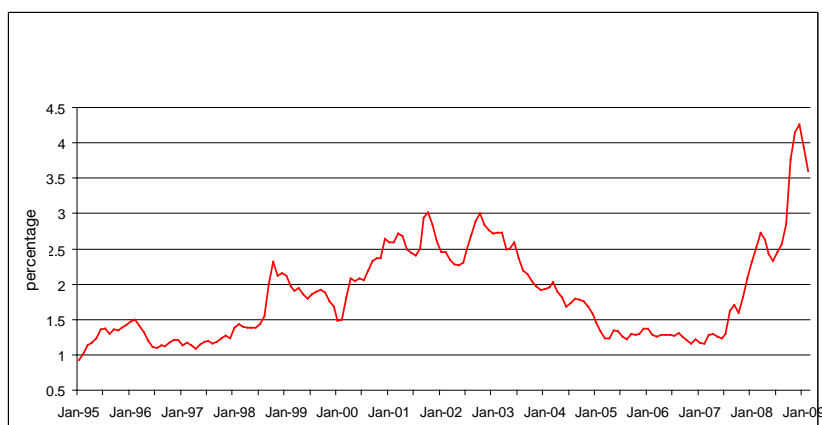
Was U.S. monetary policy as loose as Professor Taylor suggests?

The results that Professor Taylor reports, comparing the actual path of the federal funds rate over the 2002–05 period with the path that would have been recommended by the Taylor rule, are quite dramatic and have since been replicated a number of times by other authors—most of whom reached similar conclusions. U.S. monetary policy over the 5-year period from 2002–06 appears to have been exceptionally loose, thereby feeding the subsequent asset-price bubble.

One counter-argument to this charge that has been raised by various members of the Federal Open Market Committee concerns the sizable interest rate spreads that appeared on a variety of private sector instruments following the collapse of the tech bubble. To the extent that these spreads were uncharacteristically large, one might argue that the federal funds rate gives a misleading impression of how easy U.S. monetary policy actually was. The chart below provides some suggestive evidence in this regard. Adjusting the Taylor rule for these financial headwinds gives a slightly different picture than the one presented by Professor Taylor. The qualitative argument stands; it is just a matter of degree.

Chart 1

Spread between long-term corporate bond and 10-year government bond rates



A second argument that has been put forward in the Fed's defence relates to Greenspan's conundrum and to the fact that long-term interest rates in the United States (and elsewhere) continued to decline well after the Fed had started to raise its target rate. If Fed actions through the early part of the period were the primary cause of easy credit

conditions, why did the market choose to ignore the Fed's actions when it started to tighten? I don't have any conclusive answers to these questions, but the arguments do suggest that we might want to cut the Fed a little slack (i.e., be a little more accommodative ourselves).

If one accepts the argument that U.S. monetary policy was too loose, it is natural to ask what could have been done to avoid the situation. An obvious answer would be to follow a more reliable reaction function, like the one proposed by Professor Taylor. One might also argue that this sad experience strengthens the case for introducing a formal inflation target in the United States. Had such a policy framework been in place, two things would likely have happened. First, inflation expectations would presumably have been more firmly anchored. Second, interest rates would not have had to fall as much to counter the disinflationary pressures. In addition, the Fed might have been more disciplined and quicker to react to the subsequent upswing in activity and inflationary pressures when the economy began to recover.

How can one explain the size and timing of housing booms in other countries?

Housing booms occurred in many countries during the 2000-05 period. Moreover, they were often considerably larger and started much earlier than those in the United States. Central banks in some of these countries also pursued a more conservative monetary policy track than the Fed, and violated the Taylor rule less egregiously.

U.S. monetary policy may well have played an outsized role in determining global credit conditions—overshadowing the actions of other central banks. Flexible exchange rates should have preserved policy independence in these countries, but even if this were not the case, it could not explain why foreign housing prices moved in anticipation of U.S. monetary policy easing. Something more global seems to have been at work—a mania, in Robert Shiller's opinion—that loose U.S. policy might have abetted but did not cause.

Once again, it is important to note that Professor Taylor's results still stand; it is just that the cause of the crisis appears to be more complex. There is more than one smoking gun.

Can falling aggregate savings co-exist with a "savings glut"?

As Professor Taylor correctly reminds us, "there is no global gap between savings and investment," since they are linked ex post by an identity. Any difference between them is simply measurement error. It is impossible, therefore, to judge ex post whether or not there was an ex ante glut in savings that depressed world interest rates. Nevertheless, the near monotonic decline in global savings reported in Chart 3 of Professor Taylor's paper is suggestive of a savings deficiency as opposed to surfeit. The counter to this argument, as Professor Taylor knows, is that there could have been an even larger ex ante investment shortage.

All we know for certain is the net result. The United States ran large trade deficits throughout the 2002-08 period, while China and many other countries around the world ran large trade surpluses. China was the most obvious case of massive net national saving and reserve accumulation, but not the only one. Something had to be done with these funds, and U.S. consumers were happy to oblige.

This is a putative case of monetary policy mismanagement, but not of the kind described by Professor Taylor. To begin, it was caused by a monetary policy that was too rigid and that displayed too little policy independence. Moreover, it was not the fault of the Fed. A quasi-fixed exchange rate, supported by massive sterilized intervention, prevented the international monetary adjustment mechanism from working. Economists can debate about the extent to which the renminbi was misaligned, but not the direction. It was (and is) clearly undervalued, in my opinion, as evidenced by the US\$1.9 trillion in reserves that has been accumulated by the People's Bank of China.

WHAT PROLONGED THE CRISIS?

WERE AUTHORITIES PURSUING A BLACK SWAN OR A CHAMELEON?

Events during the past few months appear to support the black swan hypothesis advanced by Professor Taylor and John Williams (2007) in their prescient study. Problems in the global financial system are far more serious than originally assumed by most policy-makers, and are more closely tied to fears of insolvency and counterparty risk than to illiquidity.

Misdiagnosis may have delayed necessary asset writedowns and recapitalization efforts, as policy-makers raced to find new and more creative ways to provide liquidity to the collapsing financial system. Once again, however, the evidence is not unambiguous. The first thing to note in this regard is that the distinction between liquidity and credit problems is very fine, with one problem quickly morphing into the other unless it is aggressively dealt with.

As Professor Taylor states, the 3-month LIBOR-OIS spread did improve noticeably soon after the introduction of the Term Auction Facility, but started to climb again a short time after. Alternative reasons for this, which perhaps amount to saying the same thing in two different ways, are: (i) that too little liquidity support was provided, too late; and (ii) that the underlying problem had shifted from a shortage of liquidity to a full-blown credit crunch. In other words, both elements had always been present, but the balance suddenly moved.

I realize that this interpretation might strike some as overly generous, and that a faster and more credible assessment of the true state of financial institutions' balance sheets would have resolved the issue or, at a minimum, have done no harm. But hindsight, as they say, is always perfect. Full and comprehensive transparency was promised early in the process but never delivered. This was the real problem. Careful identification of the animal we were dealing with would have been helpful. Perhaps it was a chameleon that changed its colour over time, as opposed to a black swan.

THE LACK OF A PREDICTABLE FRAMEWORK FOR INTERVENTION: IS THE IMF A GOOD ROLE MODEL?

Professor Taylor's final recommendation concerns the need for greater policy discipline and an explicit framework for crisis resolution—modelled after the arrangements at the IMF. One of the factors that has exacerbated the effects of the crisis is uncertainty regarding how and when the official sector would intervene. Constructive ambiguity in this case was not very helpful.

During the late 1990s, two significant reforms were introduced in the way that international sovereign debt crises were handled. The first involved a more explicit framework for the provision of extraordinary financing by the Fund, which outlined the conditions under which it would be made available. This framework helped avoid unnecessary uncertainty on the part of creditors and debtors. The second involved the introduction of collective action clauses on new sovereign bonds, to facilitate the restructuring of debt if future payment problems emerged.

Both innovations are widely viewed as significant and positive developments. And their successful introduction owed much to the active support of Professor Taylor during his tenure as Under Secretary of the Treasury. It is always helpful to have a game plan.

The only point that I would raise in this regard relates to the incomplete nature of the IMF's metamorphosis and how governance problems have severely limited its effectiveness in two critical areas. The main functional responsibilities of the Fund are to provide candid and timely surveillance (i.e., a reliable macro-stability diagnosis) and to provide emergency liquidity financing, when warranted. Although the reforms described by Professor Taylor are potentially useful in concept, their application, especially with regard to the disciplining effect on extraordinary lending, are more honoured in the breach than in the execution. Keynes's "ruthless truth telling" remains an aspiration. Indeed, many of the difficulties recently made apparent on the domestic front are also endemic to the Fund. There is a natural reluctance to attack problems head-on and in a first-best manner. Instead, "catalytic financing" is the first recourse in the hope that the problem will recede. Only when this proves not to be the case are more serious remedies, such as debt restructuring, considered. These and many other related issues have been explored at length in several of David Dodge's speeches.

CONCLUSION

I would like to conclude by thanking Professor Taylor for his thoughtful and at times provocative contribution to David Dodge's Festschrift. It is difficult to dispute many of the points that he raises and the problems that he has identified. As I have tried to make clear, any disagreement I might have with his arguments is a question of scale and severity as opposed to concept. I would also like to take this opportunity to thank Professor Taylor for all his contributions to the macroeconomics profession over the years, and to the practice of central banking more specifically. His contributions have been enormous.

REFERENCE

Taylor, J. B. and J. C. Williams. 2009. "A Black Swan in the Money Market." *American Economic Journal: Macroeconomics* 1 (1): 58–83.

