TSC Pre Appointment Questionnaire

Kristin Forbes

External Member of the Monetary Policy Committee

A. PERSONAL AND PROFESSIONAL BACKGROUND

1. Do you have any business or financial connections or other commitments which might give rise to a conflict of interest in carrying out your duties as a member of the MPC?

I do not have any business or financial connections or other commitments which might give rise to a conflict of interest. There are several connections and commitments which I have reported to the Exchequer and BOE and which I will maintain while serving as a member of the MPC. Also, after being notified of my selection as a member of the MPC, I resigned from several roles and affiliations in order to avoid any conflicts and/or as I would have insufficient time to fulfill these roles.

- I will maintain my status as Professor of Global Economics and Management at the Sloan School of Management at the Massachusetts Institute of Technology. I will initially be on leave and then resume a part-time affiliation after I have a better sense of my time availability as a member of the MPC.

- My husband is an analyst at Fidelity Investments. He covers commodity and agricultural equities. He does not own or advise on any investments related to banks or other financial institutions. As an employee, he also owns shares in Fidelity investments, but does not have any discretion over how the investment is allocated. I also own fixed-term Fidelity bonds which I must hold to maturity. We will both abide by the BOE Code of Conduct for Financial Transactions and BOE procedures for Disclosure of Financial Positions.

- I will maintain my affiliation with several research institutions and non-partisan policy organizations. The organizations and my status will be: National Bureau of Economic Research (as a Research Associate), Bellagio Group (as a participant), Council on Foreign Relations (as a member), and Peterson Institute for International Economics (as a member and co-chair of the academic advisory board).

- The organizations and roles from which I have resigned are: Governor's Council of Economic Advisers for Massachusetts (as a member), U.S. Congressional Budget Office (as a member of the advisory board), the Trilateral Commission (as a member), and the Center for Global Development (as a member of the academic advisory board).

2. Do you intend to serve out the full term for which you have been appointed?

Yes

3. How has your experience to date equipped you to fulfil your responsibilities as a member of the MPC? In particular, which areas of the MPC's work do you feel especially capable of contributing to, and which will require you to undertake additional research?

My background as an academic researcher, senior policy maker, and teacher have all provided invaluable skills to help me contribute to the MPC.

First, as a Professor of Economics and Management at MIT since 1998, I have researched and written extensively on topics important to monetary policy in the United Kingdom. Key areas of my research include: macroeconomic vulnerabilities, capital flows, financial constraints (for small firms as well as multinationals), contagion, financial crises, and implications of tax holidays. This research is discussed in more detail in my response to question #5 below. This background should allow me to contribute to the MPC's understanding of these topics by bringing insights from my own research and other academics in my various networks. This should be particularly helpful in improving the MPC's understanding of global and financial factors in the formulation and impact of monetary policy.[1]

Second, I have held senior policymaking jobs that have provided me with hands-on experience forming and discussing economic policy. From 2003-2005 I served as a member of the White House Council of Economic Advisers (1 of 3 members), focusing on international macroeconomic issues. From 2001-2002, I served as a Deputy Assistant Secretary in the U.S. Treasury Department, heading a new office which focused on quantitative research projects (including assessing country vulnerabilities, helping develop a new foreign aid program, and responding to emerging market crises). More recently I have served on the Governor's Council of Economic Advisers for Massachusetts. This background has provided substantial experience analyzing macroeconomic data, using this analysis to make policy decisions, and then explaining these decisions to the public.

[1] As Governor Carney stated in his response to question #27 in the Treasury Committee Questionnaire for his pre-appointment hearings, "Developments in the global economy are profoundly important for the UK economy…." See his full response to this question for details of how my research papers are highly relevant to the formulation of monetary policy at: http://www.bankofengland.co.uk/publications/Documents/other/treasurycommittee/other/carneytsc.pdf

Finally, teaching at the Sloan School of Management at MIT has provided me with excellent training in communicating complicated economic concepts and ideas using non-technical terms to a general audience. I have received a number of teaching awards at MIT. I also regularly speak before various groups of investors, business people, policymakers, and the general public. This background should facilitate my ability to communicate the decisions of the MPC to the Committee and to various constituents.

One area on which I look forward to working with the staff at the BOE and my new colleagues on the MPC is deepening my understanding of the U.K. economy. My response to question #4 below provides more details on how I plan to strengthen this understanding.

4. Do you consider yourself to be fully up to speed on the UK economic situation, and if not, how do you intend to rectify this?

I have substantial experience tracking macroeconomic data and evaluating policy options during periods of recovery, although much of this hands-on experience has been focused on the United States and broader international economy. I have a good background of U.K. economic statistics and the broader macroeconomic aspects of the U.K. economy. Some of this results from following the United Kingdom as an important country in the global economy. Some of this comes from a deep understanding of different data and statistics from my work in policy positions and academic research. For example, when serving as a member of the White House Council of Economic Advisers, I was immersed in statistics related to employment, productivity, inflation, manufacturing, growth, exports, current account balances, etc. in an effort to understand the economic recovery and challenges in the labor market.

I fully appreciate, however, that I still have much to learn about the U.K. economic situation. I plan to rectify this by working with the staff at the BOE, my new colleagues on the MPC, members of the FPC, and other groups in the BOE. I am looking forward to talking to businesses and other groups, including trips outside of London to learn about the economic situation and challenges in various regions of the United Kingdom. I also plan to engage private-sector analysts and economists at institutions based outside the BOE and outside the U.K. (such as the International Monetary Fund and OECD) in order to ensure that I am exposed to a range of views.

5. Which of your publications or papers are of most relevance to your future work on the MPC?

My academic research has focused on using the best data and econometric techniques available to answer policy-related questions in international macroeconomics. I have a long list of publications in a range of venues—from top academic journals to edited books to conference volumes to short policy comments. I have attached a full list of publications in the Appendix and will also briefly provide some examples of the different themes in my research and papers below. I have also helped organize and run three research projects which yielded books, policy symposia, and research publications—all of which are mentioned below. I would be happy to provide copies of any of these papers to members of the Committee. All papers are also available on my website at: http://web.mit.edu/kjforbes/www

Financial Vulnerabilities, Contagion, and Crises

The "Big C": Identifying and Mitigating Contagion (2013).*The Changing Policy Landscape.* 2012 Jackson Hole Symposium hosted by the Federal Reserve Bank of Kansas City, pgs 23-87.

No Contagion, Only Interdependence: Measuring Stock Market Co-Movements (2002) with Roberto Rigobon. *The Journal of Finance* LVII (5, October), pgs. 2223-2261.

The Asian Flu and Russian Virus: The International Transmission of Crises in Firm-Level Data (2004). *Journal of International Economics* 63(1, May), pgs. 59-92.

Pick Your Poison: The Choices and Consequences of Policy Responses to Crises (2013) with Michael Klein. MIT-Sloan Working Paper 5062-13.

Capital Flows & Global Linkages—including foreign financing of current account deficits

Why do Foreigners Invest in the United States? (2010). *Journal of International Economics* 80(1): 3-21. Lead article.

Capital Flow Waves: Surges, Stops, Flight and Retrenchment (2012) with Francis Warnock. *Journal of International Economics* 88(2, Nov): 235-251.

A Decomposition of Global Linkages in Financial Markets Over Time (2004) with Menzie Chinn. *Review of Economics and Statistics* 86(3, August), pgs. 705-722.

Financial Constraints of Companies

Financial Constraints and Growth: Multinational and Local Firm Responses to Currency Crises (2008). Joint with Mihir Desai and Fritz Foley. *Review of Financial Studies* 21(6): 2857-2888*.* Runner-up for Michael Brennan Award.

One Cost of the Chilean Capital Controls: Increased Financial Constraints for Smaller Traded Firms (2007). *Journal of International Economics* 71(2), pgs. 294-323

Firm-level Implications of Tax Holidays and Currency Movements

Watch What I Do, Not What I Say: The Unintended Consequences of the Homeland Investment Act (2011). Joint with Dhammika Dharmapala and C. Fritz Foley. *Journal of Finance* 66(3): 753-787*.*

How Do Large Depreciations Affect Firm Performance? (2002). *IMF Staff Papers* 49, pgs. 214-238*.*

Macroprudential Regulations and Capital Controls

Capital Controls and Macroprudential Measures: What are They Good For? (2013) with Marcel Fratzscher and Roland Straub. MIT-Sloan Working Paper 5061-13.

The Microeconomic Evidence on Capital Controls: No Free Lunch (2007). In Sebastian Edwards, ed. *Capital Controls and Capital Flows in Emerging Economics: Policies, Practices, and Consequences.* Chicago: University of Chicago Press, pgs. 171-199.

Manufacturing and Tapering

U.S. Manufacturing: Challenges and Recommendations (2004). *Business Economics* (July), pgs. 30-37.

"Turmoil in Emerging Markets: What's Missing from the Story?", In VoxEU, February 5, 2014**.**

"Don't Rush To Blame the Fed," *New York Times/International Herald Tribune***,** February 5, 2014**.**

Three Research Projects I helped direct:

The Global Financial Crises. (2012) with Charles Engel and Jeffrey Frankel. An NBER research conference and two policy symposia on the Global Financial Crisis and Euro Crisis. Published in the *Journal of International Economics* 88(2, Nov), pgs. 215-436.

Symposium on Global Linkages (2004). Series of papers from a conference organized by Robin Brooks, Ashoka Mody and Kristin Forbes. Published in the *Review of Economics and Statistics* 86 (3, August), pgs. 641-734.

International Financial Contagion (2001). Volume edited by Stijn Claessens and Kristin Forbes. Kluwer Academic Publishers.

B. OPENNESS, ACCOUNTABILITY AND PERFORMANCE

6. How important do you think it is for MPC members to be subject to ex-post parliamentary accountability? What do you think are the strongest and weakest parts of the current procedures in the UK?

Accountability and transparency is extremely important for all policymakers—and especially for non-elected officials such as members of the MPC. Parliament and the general public should expect to regularly receive information explaining key policy decisions—such as through the Minutes from the MPC, the Inflation Report, and regular speeches by members of the MPC. Parliament should also have the ability to ask direct questions and request additional information, such as through the public testimony of members of the MPC before the Treasury Committee and any additional appearances if useful.

In my policy experience as a Member of the White House Council of Economic Advisers, I participated in several mechanisms that shared similarities to the procedures in place for the MPC. For example, I helped prepare the *Economic Report of the President,* which explained the economic analysis behind the President's policies. I also regularly gave speeches discussing key economic issues and testified before Congress to discuss the *Economic Report of the President* and economic issues such as the U.S. relationship with China.

I am looking forward to participating in this process in the United Kingdom, including appearing before Parliament, providing an annual report of my activities, and delivering speeches explaining my analysis of monetary policy on a timely basis. As I have not yet participated in this process, however, I would like to reserve judgment on additional strengths or weaknesses of the current procedures and if they satisfactorily provide the appropriate level of accountability and transparency.

7. Do you believe there is merit in recording MPC meetings and making transcriptions of these available to the public at a later date?

I believe that there is merit to recording MPC meetings in order to ensure that those responsible for writing the published minutes have an accurate source to which to refer and supplement their personal notes.

Whether the transcripts should then be made publicly available, however, is a difficult question. Transparency is very important, especially for the purposes of explaining policy decisions that affect so many individuals and businesses. The Minutes and Inflation Report are likely to be more effective at achieving this type of transparency, however, than a long, recorded transcript of unscripted discussions and questions. Publishing the transcripts may improve a different type of transparency by holding individual members of the MPC directly accountable for how they contribute to MPC meetings. On the other hand, a public release of transcripts could limit the ability of the MPC to have a free-flowing discussion that allows members to ask questions and express views that are not fully formed. My experience in senior policymaking discussions has clearly shown that when every question or statement is recorded and released publically, participants often resort to written, pre-cleared, formal statements—which can quickly limit the candor and substance of discussions. Such a result could undermine the effectiveness of the MPC.

Given that I have not attended an MPC meeting and do not fully understand how a public release of the transcripts could affect the quality of the discussion and decision-making process, I do not yet feel qualified to give a recommendation. I look forward to reading the results of the review which has already been commissioned by the Bank and will be led by U.S. Governor Kevin Warsh on this issue. (See http://www.bankofengland.co.uk/publications/Pages/news/2014/074.aspx.)

8. What activities do you intend to undertake in order to add to the public's understanding of the role and decisions of the MPC? Were your opinion to differ from the majority, would you be prepared to explain publicly the reasons for your dissent?

Following the tradition already established by members of the MPC, I look forward to giving speeches explaining the view of the MPC as well as my own views and understanding of the data if they differ. This should provide information on what has informed my past decisions, as well as what I will be watching and using to make my future decisions. I particularly look forward to bringing insights from my academic research and broader policy and research network to the analysis and discussion at the BOE and with the general public.

In addition to delivering regular analysis and discussion in my speeches, I look forward to writing op-eds, providing interviews through various outlets, and meeting with constituents as part of my regular regional visits. My experience teaching as a professor and speaking to various groups as a policymaker should help contribute to my ability to effectively communicate the decisions of the MPC to the public.

If my opinion differs from the majority, I would certainly explain my reasons for the dissent publically. If I were to have a different view, it would undoubtedly result from a different economic interpretation of the data releases, forecasts, or risks relevant to the BOE mandate. Explaining any such differences in economic analysis and judgment would be important to broaden public understanding of monetary policy decisions.

9. Do you believe that there is merit in having individual paragraphs in the minutes of MPC decisions in which members can explain their votes?

If members agree with the views expressed in the minutes and vote unanimously, then I do not believe it is necessary to reiterate those views in individual paragraphs. This could add unnecessary noise and confusion to the message delivered in the minutes. I also do not believe that it should be necessary for individual members to provide their own forecasts if they generally agree with the BOE forecasts and/or do not have any particular forecasting expertise that would make their forecasts more accurate than those of the experienced BOE staff.

If a member does not agree with the majority view and delivers a dissenting vote, however, then I believe that there would be merit in giving the member the option of explaining his/her decision and underlying analysis in an individual paragraph.

This view is supported by my reading of the Minutes of the Monetary Policy Committee Meeting on 5 and 6 June 2013. This was the last date on which there was a split vote on the MPC. The Minutes raise a number of important economic considerations—but it was difficult to discern which of the many considerations mentioned were the most important factors determining individual votes—especially for those members which were in the minority. Having an opportunity to explain exactly why a member reaches a different view could be helpful in improving the transparency of the process and understanding by the public, as well as for holding individual members accountable.

10. What do you think will be the main challenges the MPC will face in the next three years? What criteria do you suggest should be used to assess your individual record as an MPC member?

I believe that the main challenge facing the MPC over the next three years will be deciding when and how to begin the process of normalizing monetary policy without undermining the current recovery and without fully understanding key economic relationships. The last several years have presented unprecedented economic challenges. The crisis may have affected standard economic relationships and variables (such as the economy's potential rate of economic growth). The economy is now beginning to recover, but it is unclear if the current sources of growth and employment gains are sustainable (as discussed in more detail in question #11 below). More specifically, many of the statistics and macroeconomic relationships which are key to understanding the future path of the recovery are showing unusual patterns—such as the very low rate of productivity growth and unusual increase in new jobs categorized as "self-employed". Understanding exactly what is driving these trends is critically important in assessing how much slack exists in the economy and exactly when monetary policy should start to be normalized.[2]

In addition to challenges interpreting key economic variables, there are a number of additional considerations that will further complicate the decision of how and when to normalize monetary policy. Changes in monetary policy affect the broader economy with a lag, so any adjustments may need to begin to be made before any cost pressures or imbalances reach problematic levels. Delaying any adjustments in order to gather more information could increase the risk that any subsequent adjustments in monetary policy would need to occur more abruptly. Starting any adjustments at an earlier date could provide more flexibility to make any adjustments more gradually, but increase the risk that a premature adjustment unnecessarily slows the recovery.

A final challenge for the MPC over the next three years will be to work closely with the FPC to ensure that the current division of macroprudential regulation to the FPC and monetary policy to the MPC is successful in addressing systemic risks to the financial system. Macroprudential regulation has received a substantial amount of attention after the recent crisis showed shortcomings in the previous framework at addressing systemic financial risks and asset bubbles. A range of macroprudential tools have been rapidly adopted and could prove to be powerful. These regulations, however, are largely untested and it will inevitably take time and experience for countries to learn exactly how to structure and apply them effectively.

This challenge of effectively coordinating monetary policy and macroprudential policy and assessing if the new structure is effective will be an imminent issue given the recent increase in U.K. housing prices and

[2] The Office for National Statistics will announce revisions to the GDP data in September. These may help improve our understanding of some of these puzzles, but are unlikely to resolve all the issues and may generate even more questions.

corresponding increase in debt held by homeowners and financial institutions. As discussed in question #13 below, any initial response to concerns about housing prices is in the mandate of the FPC and would be addressed through macroprudential regulations. The MPC must still carefully monitor the housing market, however, to assess if the FPC has been successful in addressing financial stability concerns and if any debt held by consumers and financial institutions related to housing could make them vulnerable to changes in interest rates. Given not only the current risks, but also the new BOE structure and division of responsibilities, it will be important to establish a precedent of the appropriate level of interaction and coordination between these two committees. It will also be necessary to assess if the coordination is effectively addressing systemic risks to the financial system.

I would use three criteria to assess my individual record as an MPC member: my individual voting record, the performance of the MPC in fulfilling its mandate, and my speeches and other forms of communication that improve the discussion and understanding of monetary policy (to Parliament as well as the general public). The performance of the MPC, and not just my individual voting record, is important because a successful member of the MPC should seek not just to be correct individually, but also to be able to work within the committee to better improve all members' understanding of key issues. Speeches and other forms of communication with Parliament and the public are also critically important as a key role of the MPC is to improve broader understanding of monetary policy and related economic issues on a timely basis.

C. MONETARY AND ECONOMIC POLICY

11. What do you regard as the major risks to the outlook for the UK economy and the sustainability of its recovery?

Recent economic performance has been stronger than expected according to many measures. For example, unemployment has fallen to 6.8%, and the IMF is predicting that GDP growth in 2014 will be 2.9% (the strongest of any G-7 country) while headline inflation settles a little below target.[3] This improvement in several headline macroeconomic statistics, however, masks several risks and challenges. These risks can be broadly grouped into seven main categories:

1. <u>Rate of productivity growth</u>. Productivity growth has been unusually weak−especially for a recovery (during which productivity growth generally improves as businesses initially tend to increase production before hiring). The recent recovery in business investment and strengthening of the banking system should help improve productivity growth in the future—but we have not yet

[3] See the *World Economic Outlook,* International Monetary Fund, April 2014.

seen evidence of any such improvement. As Paul Krugman wrote, “Productivity isn’t everything, but in the long run it is almost everything.”[4] An improvement in productivity is crucial in order to sustain strong economic growth while keeping inflationary pressures contained. This is especially critical for raising real wages and living standards.

2. Basis for consumer spending. A key factor supporting growth during the recovery has been consumer spending. This is a healthy and natural trend during the early phases of a recovery. Increased consumer spending, however, has recently been financed primarily by lower savings rather than growing incomes. Although some decline in the savings rate is natural due to the wealth effect from increased house prices (and to a lesser extent equity prices), this trend cannot be sustained without presenting major risks.

3. Strength in business investment. Business investment was slow to recover after the crisis. It appears to finally be recovering, with business investment at the end of the first quarter reaching its highest level since 2008. A sustained recovery in business investment is key to supporting balanced and thereby sustainable growth. Any increase in economic uncertainty (as discussed below) could quickly cause businesses to delay investment and undermine this key buttress of the recovery.

4. Housing prices and the corresponding increase in debt held by homeowners and financial institutions. This is discussed in more detail in question 13 below.

5. Increased current account deficit. The trade balance has been in deficit in every quarter since the late 1990’s. This deficit has not previously raised serious concerns as the U.K. partly balanced this through positive net earnings on past investments. The current account deficit, however, has increased sharply to over 5% in the last two quarters. Some of this deterioration can be explained by temporary factors (such as losses on investments in the Euro Area), and short-term fluctuations in the current account balance are generally not a cause of concern. The U.K. could probably run a moderate current account deficit for an extended period of time with little risk, especially if GDP growth remains robust or if the international investment position benefits from positive revaluation effects. If the current account deficit remains at current levels, however, it will merit close vigilance and a better understanding of its causes.

6. Spillovers from events in other countries, including both economic and geo-political developments. The United Kingdom is closely linked to the global economy through trade and financial flows—as are most countries in this interdependent world. A number of events in other

[4] Paul Krugman, *The Age of Diminished Expectations (1997).*

countries could quickly affect the economy through various channels for contagion. A key focus over the last few years has been the challenges in the euro area, and although there are recently many positive developments in the region, there continue to be many risks that could quickly derail the recovery. Additional institutional reforms will be required to ensure a healthy euro area over the longer term. There are also numerous macroeconomic challenges in major emerging markets (such as China's financial system and the sharp growth slowdown in Brazil) and major geopolitical challenges (such as in the Ukraine and Middle East). The normalization of monetary policy in major economies will aggravate these risks in major emerging markets (as evidenced by the sharp reaction in many markets to the discussion of U.S. tapering last year). Any negative events in any of these countries could cause "contagion" by affecting trade patterns, bank flows, and other forms of investment flows in and out of the U.K. Even if there are no major surprises—economic uncertainty around any of these events could reduce business investment and household spending and therefore slow growth.

7. Level of risk and uncertainty being priced into financial markets. Measures of uncertainty and risk (such as the VIX) indicate that investors are currently very sanguine about the future. This is particularly surprising given the risks outlined above. Many assets that were previously seen as risky (such as bonds of periphery euro-area countries or equities in major emerging markets) have seen unusually strong recoveries and are being priced at levels that do not seem to incorporate the risks inherent in these investments. Although pricing in these markets is not a direct concern for the MPC, it is important to assess any related vulnerabilities that may develop, especially if investors in these markets accumulate debt too quickly, become highly leveraged and/or are not able to withstand any sudden price adjustments.

Although each of these challenges is unlikely to present an imminent risk that could derail the current recovery, they all present longer terms challenges which could undermine its sustainability over the longer term.

12. To what extent is the banking system holding back the UK recovery?

Challenges in the banking system undoubtedly played a significant role during the recession and early phases of the recovery. Banks had to rebuild balance sheets—which would have forced them to reduce lending and therefore contribute to lower aggregate investment, demand, and output (even after controlling for a reduced loan demand resulting from the recession and increased uncertainty).

Banks also may have been more willing to rollover loans and forbear delinquent loans in order to avoid putting additional stress on their balance sheets. This could have reduced productivity by slowing a healthy reallocation of funds to more efficient businesses. Although it is difficult to assess the magnitude of these effects due to the substantial changes occurring in the economy over this period (as well as other factors that would have simultaneously reduced the demand for bank loans), these challenges in the banking system undoubtedly held back the recovery.

More recently, however, as the economy has rebounded and banks have made substantial progress in strengthening their balance sheets, any such effects have been diminishing. For example, risk-weighted capital ratios in the banking system have more than doubled in recent years and the UK's major banks are ahead of the minimum Basel III requirements. Data from several BOE surveys indicate that bank loan growth has improved.[5]

One important caveat, however, is that although access to bank lending for larger and well-established firms appears to be less of a constraint on the recovery, there is evidence that smaller, newer, and less well-established companies may still have limited access to bank loans. As discussed in my own research, small enterprises are more reliant on banks to obtain credit. Limited access to financing for small and medium firms can be a substantial hindrance to growth, productivity, and job creation.[6] Programs such as the Funding for Lending Scheme could hopefully help alleviate any such financing constraints of smaller companies.

13. What consideration do you think should be given to asset prices, including house prices, within the framework for inflation targeting? In particular, how should monetary policy react to asset price bubbles, and does the current MPC remit provide sufficient scope for such action?

I believe that asset prices should not be targeted (either by the MPC or any other institution), but asset prices should be monitored—as should all prices. One lesson that was clearly learned during the recent Global Financial Crisis is the importance of financial markets to the broader economy and the complexity of these linkages. They should be analyzed and assessed in the context of three primary questions, however, with each implying a different role for the MPC given its current remit:

- **To what extent do asset price changes contribute to overall inflation?** If any increases in asset prices began to feed through into higher goods prices (whether by affecting demand or wages and prices more generally) and therefore affect the MPC's targeted measure of inflation

[5] For example, see the *Credit Conditions Survey (CCS)* and discussion in the BOE's *Inflation Report,* May 2014.
[6] Kristin J. Forbes, (2007), "One Cost of the Chilean Capital Controls: Increased Financial Constraints for Smaller, Traded Firms", *Journal of International Economics,* vol. 71, pgs. 294-323

and inflation expectations, then they should be carefully considered. Even though housing prices are not included in the current inflation target, these types of effects are included in the current remit of the MPC and the MPC has scope to respond as it would to any increase in its primary measures of inflation and inflation expectations.

- **To what extent do asset price changes contribute to financial instability**? If any increases in asset prices undermine financial stability, this is currently under the remit of the FPC and not the MPC.[7] This division of responsibilities and greater emphasis on macroprudential tools to deliver financial stability is fairly new and all countries are learning about the effectiveness of these tools. It is still an open question whether this new use of macroprudential tools and division of responsibilities will be sufficient to address all risks related to asset price bubbles. Jeremy Stein at the Federal Reserve Board has written several speeches that have been particularly thoughtful on this issue. As a member of the MPC and as a researcher who has worked on macroprudential regulations, I look forward to monitoring the effectiveness of the current remit.[8]

- **To what extent do asset price changes affect the tradeoff between achieving the inflation target and supporting the economy?** If any increases in asset prices make sectors of the economy significantly more vulnerable to traditional monetary policy tools, this should be monitored carefully by the MPC. For example, if housing price increases generate rapid debt accumulation, and the holders of this debt are not adequately prepared for any changes in interest rates, this could complicate the ability of the MPC to satisfy its remit. These types of concerns should be continually assessed as they can affect how monetary policy works.

14. Do you think the first phase of the MPC's forward guidance policy was a success? Do you support the second phase of forward guidance?

The first phase of forward guidance appeared to increase awareness by businesses that interest rates were not likely to be increased soon.[9] This may have contributed to increased hiring or investment spending—but it is difficult to assess the magnitude of any such impact.

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[7] See http://www.bankofengland.co.uk/publications/Documents/speeches/2014/speech725.pdf for a thoughtful speech on this issue.

[8] For example, see my recent paper, "Capital Controls and Macroprudential Measures: What Are They Good For?" (2013), coauthored with Marcel Fratzscher and Roland Straub. For a thoughtful speech on this issue, see Christine Lagarde, the Managing Director of the International Monetary Fund, "Navigating Monetary Policy in the New Normal", May 25, 2015. Her comments draw on a series of papers, research projects, and conferences that the IMF has written and held on this topic. Her speech is available at: http://www.imf.org/external/np/speeches/2014/052514.htm

[9] See evidence cited *Inflation Report,* May 2014, pg. 12.

The second phase of forward guidance clarified that interest rates would not be increased until the recovery was solidified and balanced, and that when rates were increased, any such increases would only occur slowly and gradually. This may also have reduced some uncertainty about the future path of monetary policy and made businesses more comfortable pursuing investment plans. Again, it is difficult to assess the magnitude of any such impact.

The two phases of forward guidance may have contributed to the recent recovery by helping manage expectations about the future path of monetary policy, especially through dampening financial market expectations of an imminent increase in interest rates. Guidance was helpful in communicating and clarifying the factors that would play a prominent role in future monetary policy decisions—thereby reducing uncertainty about the reaction function of the MPC. This reduction in uncertainty should have supported business investment and consumer spending. Forward guidance is unlikely to have had any substantial negative effects. This period also shows, however, the inherent challenges of designing and communicating forward guidance when future monetary policy decisions will be affected by future data releases and information—which are inherently uncertain and difficult to forecast.

15. What is your assessment of the effectiveness of the policy of quantitative easing in the UK? What, in your view, are the principal challenges of unwinding quantitative easing?

Assessing the effectiveness of QE is also challenging as it is impossible to know the counterfactual of what would have occurred in the economy without QE—especially over the past few years. There are a number of theoretical models explaining ways in which QE could generate economic effects, such as through: portfolio rebalancing (shifting demand and increasing prices of higher-return assets), wealth effects (higher asset prices boost wealth and therefore consumption and demand), reduced cost of capital (which increases investment), and exchange-rate depreciation (which raises exports and the demand for domestically-produced items that compete with imports). There are also a number of reasons why QE may be more effective during periods when interest rates are at the zero bound and/or when financial markets are not functioning well.

There is also starting to be a body of academic literature which assesses the importance of each of these channels during various phases of QE in different countries using different frameworks and empirical approaches.[10] My reading of this literature is that QE can be effective in terms of reducing interest rates for the securities purchased under QE. The magnitude of this effect can initially be significant and meaningful, but generally fades with additional rounds of QE. The reduction in interest rates is generally

[10] For a nice summary of the estimates in these studies, see a table prepared by the Federal Reserve Bank of San Francisco and available at: http://www.frbsf.org/our-district/press/presidents-speeches/williams-speeches/2013/october/research-unconventional-monetary-policy-financial-crisis/

believed to affect the broader economy, although assessing the effect on demand and growth is extremely challenging as it requires having a good measure for the counterfactual of what would have occurred in the economy during this tumultuous period.

Analysis by the BOE generally supports the broader evidence from the cross-country literature.[11] This analysis suggests that the first round of QE lowered gilt yields by about 100 basis points, also affected other asset prices, and that these changes in turn affected output and inflation. The analysis also confirms, however, the uncertainty around these estimates. Therefore, although it is difficult to precisely state the magnitude of any effects of QE, the direction of the effects appears to be non-controversial.

I hope to be able to use some of the econometric approaches which I have been using in my research to work with the research team at the BOE to see if it is possible to better evaluate the effects of quantitative easing on the UK economy.

When QE is unwound, several different factors will need to be balanced. Last spring when members of the U.S. Federal Reserve Board first mentioned that they would begin to "taper" their purchases of U.S. Treasuries and agency bonds, there was a sharp market reaction—not only in the United States, but in equity markets and the cost of borrowing for many countries around the world.[12] This episode suggests that any unwinding of QE in the UK should be carefully communicated in advance and initially proceed at a gradual pace in order to minimize any market disruption and allow the MPC to evaluate any impact. At the same time, waiting too long to unwind could contribute to a lack of sufficient risk assessment (as discussed above in the answer to question #11), which could leave borrowers and financial institutions vulnerable when the unwinding occurs. The MPC will need to carefully and continually evaluate each of these risks as it decides when and how to unwind.

16. Are there circumstances where you might tolerate higher than target inflation for wider economic reasons?

The latest remit for the MPC from the Chancellor of the Exchequer provides clear guidance on the priority of achieving the inflation target, as well as the circumstances under which other factors should be considered.

[11] See "The United Kingdom's Quantitative Easing Policy: Design, Operation, and Impact," by Michael Joyce, Matthew Tong and Robert Woods, *Quarterly Bulletin,* 2011 Q3.
[12] See Kristin Forbes, "Turmoil in Emerging Markets: What's Missing From the Story?", VoxEU, 05 February, 2014, available at: http://www.voxeu.org/article/understanding-emerging-market-turmoil

More specifically, the mandate states the priority to the inflation target: "I confirm that the operational target for monetary policy remains an inflation rate of 2 percent, measured by the 12-month increase in the Consumer Prices Index. The inflation target of 2 per cent applies at all times. This reflects the primacy of price stability and the inflation target in the UK monetary policy framework."[13]

In the same remit, the Chancellor also stated that: "Circumstances may also arise in which attempts to keep inflation at the inflation target could exacerbate the development of imbalances that the Financial Policy Committee may judge to represent a potential risk to financial stability. The Financial Policy Committee's macroprudential tools are the first line of defence against such risks, but in these circumstances the Committee may wish to allow inflation to deviate from the target temporarily, consistent with its need to have regard to the policy actions of the Financial Policy Committee."

[13] http://www.bankofengland.co.uk/monetarypolicy/Documents/pdf/chancellorletter140319.pdf

APPENDIX: PUBLICATIONS

Published Books and Organized Conference Symposia

The Global Financial Crises. (2012) with Charles Engel and Jeffrey Frankel. An NBER research conference and two policy symposia on the Global Financial Crisis and Euro Crisis. Published in the *Journal of International Economics* 88(2, Nov), pgs. 215-436.

Symposium on Global Linkages (2004). Series of papers from a conference organized by Robin Brooks, Ashoka Mody and Kristin Forbes. Published in the *Review of Economics and Statistics* 86 (3, August), pgs. 641-734.

International Financial Contagion (2001). Volume edited by Stijn Claessens and Kristin Forbes. Kluwer Academic Publishers.

Published Academic Papers

The "Big C": Identifying and Mitigating Contagion (2013).*The Changing Policy Landscape.* 2012 Jackson Hole Symposium hosted by the Federal Reserve Bank of Kansas City, pgs 23-87.

Debt- and Equity-Led Capital Flow Episodes (2013) with Francis Warnock. In Miguel Fuentes and Carmen M. Reinhart, eds. *Capital Mobility and Monetary Policy*. Santiago: Central Bank of Chile, forthcoming.

Capital Flow Waves: Surges, Stops, Flight and Retrenchment (2012) with Francis Warnock. *Journal of International Economics* 88(2, Nov): 235-251.

Watch What I Do, Not What I Say: The Unintended Consequences of the Homeland Investment Act (2011). Joint with Dhammika Dharmapala and C. Fritz Foley. *Journal of Finance* 66(3): 753-787.

Why do Foreigners Invest in the United States? (2010). *Journal of International Economics* 80(1): 3-21. Lead article.

Financial Constraints and Growth: Multinational and Local Firm Responses to Currency Crises (2008). Joint with Mihir Desai and Fritz Foley. *Review of Financial Studies* 21(6): 2857-2888*.* Runner-up for Michael Brennan Award.

One Cost of the Chilean Capital Controls: Increased Financial Constraints for Smaller Traded Firms (2007). *Journal of International Economics* 71(2), pgs. 294-323.

The Microeconomic Evidence on Capital Controls: No Free Lunch (2007). In Sebastian Edwards, ed. *Capital Controls and Capital Flows in Emerging Economics: Policies, Practices, and Consequences.* Chicago: University of Chicago Press, pgs. 171-199.

Trade Linkages and Output-Multiplier Effects: A Structural VAR Approach with a Focus on Asia (2005) with Tilak Abeysinghe. *Review of International Economics* 13(2), pgs. 356-375.

A Decomposition of Global Linkages in Financial Markets Over Time (2004) with Menzie Chinn. *Review of Economics and Statistics* 86(3, August), pgs. 705-722.

Capital Controls: Mud in the Wheels of Market Discipline (2004). In William Hunter, George Kaufman, Claudio Borio, and Kostas Tsatsaronis, eds. *Market Discipline Across Countries and Industries.* Cambridge, MA: MIT Press, pgs. 197-210.

The Asian Flu and Russian Virus: The International Transmission of Crises in Firm-Level Data (2004). *Journal of International Economics* 63(1, May), pgs. 59-92.

Cheap Labor Meets Costly Capital: The Impact of Devaluations on Commodity Firms (2002). *Journal of Development Economics* 69 (2, December), pgs. 335-365.

No Contagion, Only Interdependence: Measuring Stock Market Co-Movements (2002) with Roberto Rigobon*. The Journal of Finance* LVII (5, October), pgs. 2223-2261.

How Do Large Depreciations Affect Firm Performance? (2002). *IMF Staff Papers* 49, pgs. 214-238*.*

Are Trade Linkages Important Determinants of Country Vulnerability to Crises? (2002). In Sebastian Edwards and Jeffrey Frankel, eds. *Preventing Currency Crises in Emerging Markets.* University of Chicago Press.

Skill Classification Does Matter: Estimating the Relationship Between Trade Flows and Wage Inequality (2001). *Journal of International Trade and Economic Development* 10(2, June), pgs. 175-209*.*

Contagion in Latin America: Definitions, Measurement, and Policy Implications (2001) with Roberto Rigobon. *Economia* 1(2*,*Spring), pgs. 1-46. Lead article.

How are Shocks Propagated Internationally? Firm-Level Evidence from the Asian and Russian Crises (2001). In Reuven Glick, Ramon Moreno, and Mark M. Spiegel, eds. *Financial Crises in Emerging Markets.* Cambridge University Press, pgs. 106-159.

Measuring Contagion: Conceptual and Empirical Issues (2001) with Roberto Rigobon. In Stijn Claessens and Kristin Forbes, eds. *International Financial Contagion.* Kluwer Academic Publishers, pgs. 43-66.

International Financial Contagion: An Overview (2001) with Stijn Claessens. In Stijn Claessens and Kristin Forbes, eds. *International Financial Contagion.* Kluwer Academic Publishers, pgs. 3-17.

A Reassessment of the Relationship Between Inequality and Growth (2000). *American Economic Review* 90 (4, September), pgs. 869-887.

Published Discussions, Book Reviews & Shorter Articles

Turmoil in Emerging Markets: What's Missing from the Story? In VoxEU, February 5, 2014.

Policymaking in Crises: Pick Your Poison, with Michael Klein. In VoxEU, December 24, 2013.

Comment on "Boom, Bust, Recovery: Forensics of the Latvia Crisis" by Olivier Blanchard, Mark Griffiths and Bertrand Gruss (2013). In *Brookings Papers on Economic Activity: Fall 2013*.

Comment on "Capital Controls: Gates and Walls" by Michael Klein (2012). In *Brookings Papers on Economic Activity: Fall 2012*, pgs. 356-363.

Introduction to the Special Issue on the Global Financial Crisis. (2012) with Charles Engel and Jeffrey Frankel. *Journal of International Economics* 88 (2, Nov): 215-218.

Comment on "Global Imbalances and Global Liquidity" by Pierre-Olivier Gourinchas (2011). In Reuven Glick and Mark Spiegel, eds., "Asia's Role in the Post-Crisis Global Economy." From the Asia Economic Policy Conference sponsored by the Federal Reserve Bank of San Francisco on Nov 29-30, 2011. Pgs. 341-346.

"Capital Flow Waves" (2011), with Frank Warnock. Special Feature in Monetary Authority of Singapore's *Macroeconomic Review,* October, pgs. 77-81.

Comment on "The Initial Impact of the Crisis on Emerging Market Countries" by Olivier Blanchard, Mitali Das, and Hamid Faruqee (2010). In *Brookings Papers on Economic Activity: Spring 2010*, pgs.308-315.

Financial Deepening and Global Currency Usage (2009). In Jean Pisani-Ferry and Adam Posen, eds. *The Euro at Ten: The Next Global Currency?* Washington, DC: Peterson Institute of International Economics, pgs. 41-51.

Capital Controls (2008).*The New Palgrave Dictionary of Economics, 2nd edition*.

Global Imbalances: A Source of Strength or Weakness? (2007). *The Cato Journal* 27(2): pgs. 193-202.

Comment on "The Unsustainable U.S. Current Account Position Revisited" by Maurice Obstfeld and Kenneth Rogoff. (2007). In Richard Clarida, ed., *G-7 Current Account Imbalances: Sustainability and Adjustment*. Chicago: University of Chicago Press, pgs. 367-75.

The Microeconomic Evidence on Contagion, Capital Controls and Capital Flows (2006/7). *NBER Reporter* Winter, pgs. 13-15

A Shock-Smoothing Facility for the IMF (2006). In Edwin Truman, ed. *Reforming the IMF for the 21st Century.* Washington, DC: Institute of International Economics, pgs. 365-84.

Comment on "Addressing Global Imbalances: The Role for Macroeconomic Policy" by Otmar Issing (2005). In *Productivity, Competitivity and Globalisation.* Paris: Banque de France, pgs.123-127.

A Perfect Storm? (2006). In Global Agenda – Publication at the Annual Meetings of the World Economic Forum, pgs. 98-99.

Financial Market Integration, the Euro, and the Role of Growth (2005). In Adam Posen, ed. *The Euro at Five: Ready for A Global Role?.* Washington, DC: Institute of International Economics, pgs. 99-110.

Capital Controls: Mud in the Wheels of Market Efficiency (2005). *The Cato Journal* 25(1), pgs. 153-166.

U.S. Manufacturing: Challenges and Recommendations (2004). *Business Economics* (July), pgs. 30-37.

"Dancing in Unison?: Economists Lack Evidence of Increasing Synchronization of the World's Economies" (2003), with Robin Brooks, Jean Imbs, and Ashoka Mody. *Finance and Development,* June, pgs. 46-49.

Comment on "Securities Transaction Taxes and Financial Markets" by Karl Habermeier and Andrei Kirilenko. (2003) *IMF Staff Papers, 50,* pgs. 181-186.

Global Linkage Pre-Conference (2002)**,** with Robin Brooks and Ashoka Mody. *IMF Research Bulletin*, September.

Comment on "Long-Term Capital Movements" by Gian Maria Milesi-Ferretti and Philip Lane (2002). In Ben Bernanke and Kenneth Rogoff, eds., *NBER Macroeconomics Annual 2001.* Cambridge, MA: MIT Press, pgs. 116-126.

How do Currency Crises Spread Internationally? (2000). *Corporate Finance Review* 5 (3, Nov/Dec), pgs. 3-10.

Review of *New Theories in Growth and Development* (1999). Edited by F. Coricelli, M. di Matteo, and F. Hahn. In *The Economic Journal*, 109(459), pgs F806-807.

Working Papers

Capital Controls and Macroprudential Measures: What are They Good For? (2013) with Marcel Fratzscher and Roland Straub. MIT-Sloan Working Paper 5061-13.

Pick Your Poison: The Choices and Consequences of Policy Responses to Crises (2013) with Michael Klein. MIT-Sloan Working Paper 5062-13.

Bubble Thy Neighbor: Portfolio Effects and Externalities of Capital Controls (2012) with Marcel Fratzscher, Thomas Kostka and Roland Straub. NBER Working Paper #18052 and MIT-Sloan Working Paper #4962-12.

Capital Flow Volatility and Contagion: A Focus on Asia (2012). MIT-Sloan Working Paper #4979-12.