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Surveillance by International Institutions

LESSONS FROM THE GLOBAL FINANCIAL AND ECONOMIC CRISIS

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**SURVEILLANCE BY INTERNATIONAL INSTITUTIONS:
LESSONS FROM THE GLOBAL FINANCIAL AND ECONOMIC CRISIS**

ECONOMICS DEPARTMENT WORKING PAPERS No. 860

By Kumiharu Shigehara and Paul Atkinson

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ABSTRACT/RESUMÉ

Surveillance by international institutions: lessons from the global financial and economic crisis

This paper reviews key policy messages and warnings about developments in the run-up to the global financial and economic crisis that began in mid-2007 which are contained in the main publications of the IMF, the OECD and the BIS and discuss issues relevant to strengthening their surveillance activities for making appropriate policy recommendations and issuing warnings in order to prevent such crisis in the future.

The review finds that the institutions did not recognize the need for monetary tightening in a timely way for either the US or the UK, two epicentres of the global crisis. While some concerns were expressed at early stages regarding financial market policies and developments, generally when risks seemed abstract or remote, warnings were too few, received too little emphasis in key editorial sections likely to attract attention and were rarely followed up. Important issues, notably the weak capital base and lack of resilience of the banking systems in the two countries, were missed almost entirely.

In the light of this review, suggestions for improving surveillance are offered, relating to (1) strengthening analytical frameworks; (2) improving the current institutional context in which surveillance takes place; (3) staff and management issues; and (4) dissemination and communication. In addition, the need to re-design international frameworks for surveillance to integrate more fully new “major players” in the global economy and financial systems is briefly discussed.

JEL classification codes: E440; E580; E650; F330; F340; G1; G2; N200.
Keywords: BIS; bubble; financial crisis; financial innovation; financial markets; financial regulation; house price; IMF; monetary policy; OECD; prudential policy; securitisation; structured products; surveillance; United Kingdom; Unites States.

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Surveillance internationale : Les leçons de la crise financière et économique mondiale

La présente étude passe en revue les principaux messages et avertissements qui ont paru dans les grandes publications du FMI, de l'OCDE et de la BRI avant le déclenchement de la crise financière et économique mondiale au milieu de 2007, et examine les améliorations qui pourraient être apportées sur plusieurs plans aux activités de surveillance de ces trois institutions, afin que leurs recommandations et mises en garde puissent prévenir une nouvelle crise de ce type dans l'avenir.

S'agissant de la politique monétaire, il apparaît que les institutions en question ne se sont pas rendu compte à temps de la nécessité d'un resserrement, aussi bien pour les États-Unis que pour le Royaume-Uni, les deux épicentres de la crise mondiale. Des préoccupations se sont fait jour assez tôt concernant la régulation et l'évolution des marchés financiers, en général lorsque les risques semblaient abstraits ou éloignés, mais les avertissements ont été rares, ils n'ont pas été suffisamment mis en relief dans les éditoriaux où ils auraient pu attirer l'attention, et ils n'ont guère été suivis d'effet. Plusieurs questions importantes, notamment la faiblesse de la base de capital et le manque de résilience des systèmes bancaires dans les deux pays considérés, ont été pratiquement ignorées.

A la lumière de ce bilan, plusieurs améliorations sont proposées concernant 1) les cadres analytiques de la surveillance ; 2) le contexte institutionnel ; 3) les questions de personnel et d'organisation ; et 4) la diffusion et la communication des informations. En outre, la nécessité de revoir les mécanismes internationaux de surveillance afin d'y faire une plus large place aux nouveaux “acteurs majeurs” de l'économie mondiale et des systèmes financiers est brièvement évoquée.

Classification JEL : E440; E580; E650; F330; F340; G1; G2; N200.
Mots clés : BRI; bulle; crise financière; innovation financière; marchés financiers; régulation financière; prix immobilier; FMI; politique monétaire; OCDE; politique prudentielle; titrisation; produits structurés; surveillance; Royaume-Uni; Etats-Unis.

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Surveillance by international institutions: lessons from the global financial and economic crisis

By Kumiharu Shigehara and Paul Atkinson[1]

I. Introduction

The Queen of England spoke for many in late 2008 when she asked why nobody had noticed the global financial crisis was on its way.[2] In response, the British Academy wrote to her:

"Many people did foresee the crisis. However, the exact form that it would take and the timing of its onset and ferocity were foreseen by nobody."

"… the failure to foresee the timing, extent and severity of the crisis and to head it off, while it had many causes, was principally a failure of the collective imagination of many bright people, both in this country and internationally, to understand the risks to the system as a whole."

In fact, several international institutions have been tasked for many years to assess events or forces that are potentially dangerous or disruptive to global economic growth and financial stability with a view to calling for preventive action by national policy makers. Their reports prepared for this objective are presented at international surveillance fora where representatives of national economic policy making bodies jointly discuss the appropriate course of policy, exerting peer pressure to encourage national policy makers to follow such a course in their capitals. There are two main aspects to such activities: bilateral surveillance, comprising appraisal of and advice on the economic policies of each individual member country, and multilateral surveillance or oversight of international economic and financial developments, including economic linkages and policy spillovers among countries.

A principal organization charged with these responsibilities, in terms of mandate, authority and resources, is the International Monetary Fund (IMF) with virtually universal membership.[3] Separately, for advanced economies with dominant influences on the global economy and international finance, the Organisation for Economic Cooperation and Development (OECD)[4] has been charged with surveillance on both macroeconomic and structural policies to promote economic prosperity within and outside member economies.[5]

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Paul Akinson is a member of the Association and Senior Research Fellow at the Groupe d'Economie Mondiale de Sciences Po, Paris, and former Deputy Director for Science, Technology and Industry at the OECD (for biography, see http://gem.sciences-po.fr/content/research_network/pdf/cv_Atkinson.pdf).

   The views expressed in this paper are those of the authors and independent from those of the OECD and its member countries (for acknowledgements, see page 33). Comments on the paper are welcome by e-mail to office.shigehara@online.fr and patkinson@noos.fr.

2. The British Academy's letter of July 22, 2009 to the Queen in response to the question raised on her visit to the London School of Economics in November 2008. See British Academy (2009).

3. At the time of this writing, the IMF consists of 187 member countries.

4. The OECD membership was expanded to 34 countries in 2010.

5. Shigehara (1996).

Both IMF and OECD officials study a number of economic policy issues, and reports on the result of their work are discussed, in the case of the IMF, at its executive board comprised of 24 members residing in Washington, and in the case of the OECD at meetings of committees and their subsidiary bodies all of which are attended by government and central bank officials coming to Paris from their capitals.

As easier access to information about surveillance activities of the international institutions is considered to assist the private-sector actors in conducting their economic and financial transactions in an increasingly integrated world plagued with uncertainties, they have strengthened their efforts to increase transparency about the results of their work. Thus, confidential surveillance reports, to varying degrees "sanitized" in order to ensure agreement, have been made available not only as paper copies but also, and increasingly, on the internet for information to outsiders.

- At the IMF, two key instruments of global surveillance are semi-annual publications, *World Economic Outlook (WEO),* published since 1980, and the *Global Financial Stability Report (GFSR)*, published since 2002. The former provides global forecasts and detailed analysis of the state of the world economy, addressing global economic issues of pressing interest. The latter replaced an earlier "*International Capital Markets Report*" when a new department was created in the aftermath of the Asian crisis to monitor international financial markets and developments and to provide early warnings of impending disturbances. Bilateral surveillance of economic policies in member countries is conducted by the Executive Board, making use of staff reports on the annual Article IV consultation with national authorities.

- At the OECD, the semi-annual *Economic Outlook (EO),* first issued in June 1967, provides macroeconomic analysis and policy assessment as well as numerical forecasts for all member countries individually and key non-member economies in an international framework. This originates from the secretariat work for multilateral surveillance by the Economic Policy Committee and its subsidiary bodies. *Economic Surveys* on individual member countries, prepared by the secretariat and discussed by the Economic and Development Review Committee (EDRC), are also published at a regular interval. Another semi-annual OECD publication, *Financial Market Trends*, is discussed by a committee attended by representatives of national financial supervisory authorities and central banks.

Unlike the IMF and the OECD, which are inter-governmental organizations, the Bank for International Settlements (BIS), originally established after the first World War to provide services to member central banks, is not mandated to conduct surveillance on national government policies, but has over decades widened and deepened its activities to promote co-operation among central banks and other financial authorities on matters of their mutual concern. Among the Bank's publications, the *Annual Report (AR)* has a long tradition of providing the outside world beyond the central bank community with important messages concerning policies required for global financial market and macroeconomic stability.

Against this background, this paper will first review recommendations that are collected from surveillance reports published by these institutions [6] about policies relevant to economic and

6. In addition to their official flagship surveillance reports, all three institutions release a wide range of commentary and analysis in various forms, including working papers and speeches. These provide vehicles for officials to offer their personal analysis, observations and warnings, normally with standard disclaimers dissociating their employers and member governments or central banks from their views. Some of these, notably Borio and White (2004) and Rajan (2005), made pertinent observations about some of the policies and developments discussed in this paper. To the degree that these differed from or were not reflected in the flagship publications, they can be considered to have offered warnings or recommendations not recognized in this paper. On the other hand, divergence among messages from any single institution serves to blunt their force even though they contribute to thoughtful public debate on the issue. A full review of everything disseminated by the three institutions during the period under review, i.e. 2003 to mid 2007, is beyond the scope of what can be attempted here.

financial stability in the United States, where the global financial crisis originated, and the United Kingdom, another early epicentre.[7] An important focus is their warnings on domestic and external developments leading to the outbreak of the crisis. In the third part, an attempt will be made to appraise their warnings and recommendations. This appraisal enjoys the benefit of hindsight, but it may nevertheless suggest useful lessons for the future. The final part discusses a set of issues for improving surveillance.

II. Main policy recommendations and warnings on developments

A review of policy recommendations and warnings from the international institutions that would have been useful for crisis prevention must include not only those directly related to the emergence of the crisis but also those emanating from their assessment of earlier policies and underlying forces which led to the crisis.

In this context, it is important to note that the crisis was something of a "perfect storm", with a number of interacting forces contributing to its severity. Views on where the greatest emphasis should be placed vary (see Part II.A.1. below for some references). Some of the forces at work were macroeconomic. A number of observers put emphasis on the role of monetary policy in the crisis, arguing that excessively easy monetary policy in the United States in the first half of the first decade of the current century encouraged excessive risk-taking and helped cause the housing market bubble at the root of the crisis. Others, including a number of policy makers, attach importance to international developments, such as the persistence of global current account imbalances and an alleged global "savings glut", since these formed an important part of the context in which monetary policy was set. In particular, they argue that exchange-rate policies followed by China and other emerging economies both acted as a deflationary force which needed to be offset, at least in the US, and facilitated borrowing abroad to finance the US and UK housing bubbles at cheap rates. Not just that, some also suggest that massive capital inflows from these economies into advanced countries may have encouraged risk taking by financial institutions and investors more generally.

Other forces operated at the microeconomic level, including government incentives to home ownership and poorly designed regulatory, tax and governance frameworks, especially as they affected banks, as well as lacunas in prudential oversight. The result was too much poorly considered risk taking, often involving endogenous domestic financial innovations, the inherent riskiness of which were frequently underestimated by the main credit rating agencies. These innovations particularly related to securitisation, derivatives and ways to transfer risk and proved to be supported by too little capital to serve as a buffer for prospective and ultimate losses, especially in the banking system. Different commentators stress different aspects of what happened and a number of detailed analyses have been put forward.[8]

At the level of policy, the review that follows below focuses on:

- Recommendations about domestic monetary policy;
- Recommendations about policies abroad affecting domestic financial conditions; and

7. As this paper was being finalised in late 2010, sovereign debt concerns originally focused on Greece spread to other parts of the euro area. This sovereign debt crisis raises a number of issues similar to those identified here for the United States and United Kingdom, notably as regards the contribution of monetary policy to house price bubbles and the vulnerability of poorly capitalized and inter-connected banking systems. Since extending the analysis here to the euro area would involve a large expansion of the scope of the paper, its focus is confined to the United States and the United Kingdom.

8. For extended discussion of the microeconomic forces contributing to the crisis and references to the emerging literature, see Blundell-Wignall and Atkinson (2008 and 2009).

- Recommendations about policies toward financial institutions and markets.

At the level of developments, particular attention is paid to warnings on:

- Housing boom and household finance;
- Securitisation and structured products; and
- Financial institutions and markets.

II.A.1. Domestic monetary policy

Debate continues in the US on the role played by monetary policy in causing the financial crisis. On the one hand, Bernanke (2010) and Greenspan (2010) strongly deny that the low interest rate policy followed by the Federal Reserve during in the early part of the 2000s was responsible and posited that the "global saving glut" was the main cause of financial imbalances in the US (also see Part II.A.2. below). On the other hand, Taylor (2007, 2009 and 2010) holds the view that easy monetary policy during that period contributed significantly to the housing boom, to excessive risk taking, and thereby to the financial crisis in the US. Referring to a Taylor Rule, Gordon (2009) puts forward a similar view. Obstfeld and Rogoff (2009) also assign some role to monetary policy.[9]

Bernanke (2010) argued that "*interest rate increases in 2003 or 2004 sufficient to constrain the bubble could have seriously weakened the economy at just the time when the recovery from the previous recession was becoming established". He also asserted "monetary policy from 2002 to 2006 appears to have been reasonably consistent with the Federal Reserve's mandated goals of maximum sustainable employment and price stability.*"

In retrospect, it is clear that the Federal Reserve did not succeed in this regard even during the period preceding the crisis (Tables A.1 and A.2 in Annex). Overall CPI inflation edged up from relatively low levels to above 3 per cent in 2005, fluctuated around that level in the subsequent two years and rose sharply in 2008 before collapsing in 2009. During this period, the private consumption deflator showed a broadly similar inflation pattern. Thus monetary policy was too loose even by Bernanke's own standard.

The three institutions' recommendations on the conduct of US interest rate policy were intended to achieve the Fed's mandated goals and not as a tool for constraining the housing bubble. Among them, the OECD and the IMF back up their verbal recommendations with numerical projections of short-term money market interest rates which they consider to be in line with the stated policy objectives of the Federal Reserve (Tables A.1, A.2, A.3 and A.4).

Among the three institutions, it was the OECD which recognized the need for tightening in as early as June 2003 *EO*,[10] and it was the *EO* issue of June 2004 that stated this most clearly: *"(o)n most measures, including by standards of a Taylor rule and the current shape of the yield curve, the fed funds rate would need to rise 300 basis points or more in order to return to neutrality" and* recommended the Fed to *"begin*

9. See also IMF (2010a).

10. OECD *EO* 73, June 2003 stated: "as recovery strengthens in 2004, it will be desirable to start moving the policy rate back to neutrality" (p. 21). Meeting some two months after its publication, the Federal Open Market Committee (FOMC) noted: "(O)n balance, the risk of undesirably low inflation was likely to be the Committee's predominant concern for the foreseeable future." (FOMC minutes, August 12, 2003)

the normalization process early enough to avoid steep increases *with a risk of bond market disruption, …"*.[11]

However, the OECD's June 2004 recommendation was inconsistent with the message in the December 2003 *EO* which argued that the Fed "*should keep its rate low for quite some time."*[12] The IMF offered a similar pattern of advice for the conduct of US monetary policy in 2003 and 2004.

In 2005 both institutions maintained their call for continued policy tightening for 2005 and 2006. In the *WEO* of September 2006, the IMF repeated the same advice, but when the December 2006 *EO* was published, the OECD hinted at some possibility of easing down the road. At the IMF, the Fed policy of holding interest rates steady was supported in the *WEO* of spring 2007.

For the UK, where the central bank is mandated to achieve an inflation target of 2 per cent without any target on output, both the OECD and the IMF in their reports on the UK economy in 2003 recommended a tightening of monetary policy.[13] In both cases the institutions expected UK output growth to be brisk, and for inflation to rise well above the target in 2004, remaining above it in 2005. In both cases, too, the institutions worried that too sharp a tightening would cause house prices to fall, with negative effects on consumption. In the event, although output growth proved to be, if anything, stronger than expected, inflation fell well below target in 2004 and was close to the target in 2005 (Tables A.6, A.7 and A.8).

As the year 2005 advanced, both institutions took a relatively benign view of the immediate inflation prospects for the UK. This was reflected in a bias against tightening. In the *EO* published in December 2005 following the cut in the Bank of England's policy rate in August in response to the slowdown in output growth despite the rise in consumer price inflation to above the 2 per cent target, the OECD argued that the Bank "can afford to wait, while monitoring future output and inflation developments", stopping short of recommending policy tightening[14]. A year later the OECD argued that "(*F*)*ollowing recent monetary policy tightening, the case for further increases in interest rates is not compelling.*"[15] Likewise, in their 2005 report on the UK published in March 2006, the IMF staff assessed the stance of monetary policy as "*broadly within a neutral range*" given that they expected UK inflation to return to the 2 per cent target by end-2007.[16] In March 2007, the IMF staff felt that *"with interest rates now within a broadly neutral range, monetary policy is well-positioned to respond in either direction to unexpected developments"*[17] and that *"the scope for interest rate adjustments to adequately address large shocks appears ample"*. In fact inflation continued rising in both 2006 and 2007, reaching 3.6 per cent in 2008.

In this context it should be noted that, in June 2007 *EO*, the OECD observed that another recovery in house prices then under way was much below the rate of increase at the 2002 house price boom and price

11. OECD *EO* 75, June 2004, p. 24.

12. OECD *EO* 74, December 2003, p. 26.

13. See Table A.5 for the OECD *EO* interest rate projections. The IMF *WEO* does not publish its interest rate assumptions for the UK.

14. OECD *EO* 78, December 2005, p. 65 (see also p. 63). OECD *UK Survey*, published in October 2005, also took the view that rates should not be cut further, stopping short of recommending tightening (Policy Brief page 3).

15. OECD *EO* 80, December 2006, p. 65.

16. IMF *UK Article IV Staff Report*, 2006, p. 15.

17. IMF *UK Article IV Staff Report*, 2007, p. 16.

increases were concentrated in only some parts of the country. There was no clear warning as those found in the *EO* issues of June and December 2003 and June 2004.

As regards monetary policy frameworks, the IMF staff advised the Fed to adopt a numerical inflation target. Among the IMF reports reviewed, this recommendation appeared first in the staff appraisal published in 2003 where it was called for to deal with concern about the risk of deflation:

> "*A quantified statement of the Federal Reserve's inflation objective could further anchor inflation expectations, which might be especially helpful now that interest rates have moved close to zero and deflation is a concern.*"[18]

The IMF staff repeated this recommendation in staff appraisals in the *subsequent* years but its reception at the Executive Board was fairly mixed over the years.

At the OECD, adoption of a numerical inflation target was recommended in the 2004 *US Survey* where it is stated:

> "*the FOMC should consider quantifying its working definition of the price-stability objective mandated by law, specifying a suitable price measure and a desired long-run average value or range.*"

However, this recommendation was not repeated in the subsequent *US Survey*.

An interesting issue in this context is whether adoption of a numerical inflation target set at say 1-2 per cent or so would have induced the Fed to tighten monetary policy earlier and more aggressively, involving a less predictable and "measured" pace of interest rate increases, to contain future inflation pressure. Turner (2010) and Axilrod (2011) both argue that a pattern of tightening during 2004-06 corresponding more closely to the irregular movements of macroeconomic developments might have encouraged more cautious lending standards and less leverage, even given the late start to tightening. This in turn might have moderated the US housing boom and the overall economic upswing and subsequent downturn[19].

In contrast to the US, a formal numerical inflation target has been in use in the UK for quite some time. It has been set at 2 per cent expressed in terms of an annual rate of inflation based on CPI. However, no assessment on the appropriate rate or range for a numerical inflation target was made.[20] In fact, such issue was not examined in any surveillance reports of the international institutions reviewed in this paper.

As noted above, CPI inflation in the UK rose from 1.3 per cent in 2004 to 3.6 per cent in 2008. A question can be raised whether an inflation target at a somewhat lower rate than the one in use and more forward looking monetary policy would have been helpful in preventing or moderating the UK financial excess and its subsequent turmoil. In its *UK Survey*, published in January 2004, the OECD noted the Bank of England argument that monetary policy should not react to asset prices, except to the extent that they

18. IMF *US Article IV Staff Report*, 2003, para.. 66.

19. Jiménez et al. (2007) and Adrian and Shin (2008) call attention to the effects of low interest rate policy on risk taking and credit risk. Turner (2010), however, notes that the underpricing of risk in financial markets was at its worst in 2006 and early 2007 when the fed funds rate was over 5 per cent.

20. Schmitt-Grohe and Uibe (2010).

"affect future inflationary pressures", but welcomed its recent tightening *"on the grounds that inflation is likely to pick up in the context of a vigorous recovery."*[21]

II.A.2. Policies abroad affecting domestic financial conditions

As noted above, Bernanke and Greenspan argued that the unsustainable boom in US house prices was caused by a sharp fall in long-term interest rates in the first half of 2000s as a result of the global savings glut brought about by export-led growth in emerging economies in Asia, especially China. In the UK, a report (2009) published in the name of Lord Turner, chairman of Financial Services Authority, argued that declines in US and UK real long-term government bond yields to historically low levels in the early part of the 2000s were driven by huge investments in US government and government guaranteed bonds by China and other current account surplus countries and they in turn contributed to rapid domestic credit expansion in the US and the UK.[22] King (2009 and 2010), Governor of the Bank of England, also argued that the origins of the UK's debt crisis lay in excess savings from the emerging markets and resultant global imbalances. This line of causality is more plausible for the US than for the UK, as the US dollar was heavily managed by a number of its trading partners intervening to resist dollar depreciation, unlike the UK pound which no country was trying to manage by foreign exchange market intervention.

The causes for the low level of long-run interest rates prevailing worldwide, in the words of the then Federal Reserve Chairman Greenspan, "a conundrum", were examined by the IMF in the September 2005 *WEO*. Referring to Bernanke (2005), the IMF noted that there was a view that the rise in saving in emerging markets had led to a global "savings glut," driving down global interest rates and - through its effects on asset prices - contributing to the steady fall in household saving in industrial countries. But, it considered that other factors were also important: a finding of the IMF was that unusually low investment rates in the corporate sector across the globe were a contributing factor to low real long-term interest rates. It then drew attention to the risk of a significant tightening in financial market conditions leading to a simultaneous weakening in housing markets. However, the IMF considered it likely to be a~~s~~ a result of a jump in inflation expectations rather than a gradual shift in savings and investment patterns.

Around the same time, the OECD discussed the implications of low long-term interest rates for US monetary policy. In the *EO* of June 2005, it argued: "*further tightening is needed to contain emerging inflationary pressures, <u>not least because long-term interest rates have remained low</u>*" (underline added).[23]

This view on the role of US monetary policy is in line with Gordon (2009) who argues that "*the Fed was not powerless to combat the effect of foreign savings on the long-term interest rate, since it always had the power to push short-term interest rates higher and eliminate the incentive to create new mortgages*". A

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21. OECD *UK Survey*, 2004, Policy Brief, p. 3.

22. Short-term household borrowing in the UK amounted to 17 per cent of total debt and 16 per cent of GDP in 2005. Moreover, in addition to about 30 per cent of UK mortgages at short-term fixed rates, some two-thirds was long-term borrowing at variable rates with only less than 10 per cent at long-term fixed rates. Short-term money market rates in the UK which closely reflects the Bank of England policy rate, fell from 6.1 per cent in 2000 to 3.7 per cent in 2003 and rose only modestly to 4.6 per cent in 2004 and 4.8 per cent in 2005. Lord Turner (2009) appears to argue that the major cause of a decline in the UK real long-term government bond yields (by about a half percentage point or so from 2000 to 2006, according to Exhibit 1.3 in the Turner report) was high domestic savings in external surplus countries like China. But, they did not examine reasons why a far sharper decline (of some 2 percentage points) in the UK real long-term government bond yields from 1990 to 1999 occurred with smaller combined current account surpluses of Asian and other countries in that period than between 2000 and 2006, a period in which the fall in long rates was far more moderate in the face of larger current account surpluses of Asia and oil exporting countries than between 1990 and 1999.

23. OECD *EO* 77, June 2005, p. 41.

similar view is expressed by Whelan (2010) who argues that even if official dollar balances of Asian emerging economies held in US Treasury bonds had an effect on long-term interest rates, it was still well within the power of the US Federal Reserve to counteract such effects via its control over short term rates.

In fact, quite a number of reports published by the three international institutions during the period under review discussed the issues of global imbalances and savings surpluses in emerging economies in Asia as well as their exchange rate policies.[24] But none of them did so directly out of particular concern about the housing market boom or risk-taking by financial institutions and investors. Among them, the IMF's concern about rising global imbalances was spelled out in some detail in the September 2006 issue of *WEO*. It stated:

> *"adjustment in the imbalances will in all circumstances require both a significant rebalancing of demand across countries, and a further substantial depreciation of the U.S. dollar and appreciations in surplus countries, notably in parts of Asia and oil producers; the issue is when and how those adjustments occur. While an important part of the adjustment will need to take place in the private sector, a purely market-driven adjustment will succeed only if foreigners are willing to increase their net holdings of U.S. assets substantially in the face of substantial capital losses from future dollar depreciation - which do not appear to be priced into yields on U.S. dollar assets at present - and if protectionist pressures can be held in check. If not, there is a risk of a much more abrupt and disorderly adjustment, accompanied by substantial exchange rate overshooting, a large increase in interest rates, and a sharp slowdown in growth worldwide".*

Correction of global imbalances was thus considered by the IMF as the first among the most important challenge policymakers faced. It then repeated its remarks already made in the Spring 2005 *WEO*:

> *"a coordinated package of policies across major regions - including measures to reduce the budget deficit and spur private savings in the United States; structural and other reforms to boost domestic demand in surplus countries; and greater exchange rate flexibility in China and some other countries to allow necessary appreciations to take place - could significantly reduce risks."*[25]

In short, none of the three international institutions gave clear warnings in their multilateral surveillance that global imbalances were acting as the primary cause of the housing bubbles in the US and the UK.[26] Turning to bilateral surveillance reports, neither IMF Article IV consultation reports nor OECD country surveys on the US and the UK examined the role of exchange rate policies and other external influences on housing credit conditions and risk taking in the two countries.

II.A.3. Policies toward financial institutions and markets

Discussion of the policy framework affecting financial institutions and markets and their implementation was often in the context of general stocktaking and in many cases more descriptive than judgmental. Many issues were covered, among them insurance companies, pensions, unregulated hedge funds and private equity funds. The BIS, in particular, also stressed the desirability of a more

24. For detail, see Part A.2. in Atkinson, Shigehara and Vanston (2010).

25. IMF *WEO*, April 2006, pp. 11-14.

26. Obstfeld and Rogoff (2009) argue that the global imbalances did not cause the leverage and housing bubbles, but they were a critically important codeterminant. In Whelan's (2010) view, lower savings rates in developing countries would not have prevented the global financial crisis.

"macro-prudential" focus for supervision.[27] The two main issues more immediately related to bank behaviour and mortgage lending that received more than passing attention were the Basel II framework, announced in 2004 after several years of discussion, and the US government sponsored enterprises (*GSEs*), [28] which were large enough to pose a systemic threat in the event of problems.

The IMF and the BIS welcomed Basel II, although both called attention to the pro-cyclicality embedded in the framework.

The IMF commented in 2003: "*Developments such as value-at-risk models and the ratings-based approach in Basel II greatly improve risk management. They also, however, carry the risk of pro-cyclicality and amplifying volatility by requiring asset sales as volatility increases.*"[29]

And again in 2004: "*It* [i.e. Basel II] *is likely to improve financial stability.*"[30]

The BIS wrote in 2005:

> "*The new bank capital framework published last year by the Basel Committee on Banking Supervision represents a major step forward. … Excessive risk sensitivity of capital requirements, however, might raise the possibility of inadvertently amplifying the inherent procyclicality in credit availability.*"[31]

Certain other concerns about the accord were expressed by the IMF on at least two subsequent occasions:

> "**Basel II**. …*time was needed [i.e. by US officials] to analyze the surprisingly large effects on capital ratios coming from the latest round of bank self-assessments.*"[32]
>
> And "…*Policymakers need to understand how initiatives such as Basel II, Solvency II, and fair value accounting may alter the behaviour of key market participants, and therefore affect market liquidity and stability.*"[33]

The OECD made no judgments on Basel II but, in its 2004 *US Survey*, highlighted concerns attributed to unspecified US sources:

> "*The proposed bifurcated application of Basel II in the United States has raised a number of concerns. Although the banks remaining under the current regime avoid the costs of adopting the new one, some have argued that Basel II would give the largest banks, if not a lower overall capital requirement, then lower capital charges on certain credits and hence a competitive advantage. Focus has been placed on residential mortgages, small business loans and credit cards.*"[34]

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27. See, especially, BIS *AR,* 2005, Chapter 7, pp. 135-139, and Chapter 8.
28. Mainly the corporations known as Fannie Mae and Freddie Mac.
29. IMF *GFSR,* September 2003, p. 13.
30. IMF *GFSR*, April 2004, p. 41.
31. BIS *AR*, 2005, p.137-8.
32. IMF *US Article IV Staff Report*, 2005, para.. 44.
33. IMF *GFSR*, April 2006, p. 77.
34. OECD *US Survey*, 2004, p. 135.

As regards *GSEs*, perhaps as they are unique to the US, issues were mainly covered in bilateral surveillance exercises. The IMF staff raised the issue in every Article IV consultation between 2003 and 2007, e.g.:

> "*The Administration has raised justified concerns about the large and increasing share of mortgage-backed securities held by the main government sponsored enterprises (GSEs). The growth of these institutions has concentrated interest rate and mortgage prepayment risk, and the Administration's proposal to overhaul the current supervisory regime and establish an independent regulator warrants legislative support*".[35]

The OECD considered the issue in depth in its 2004 and 2007 *US Surveys*, highlighting in the sidebars of its 2004 editorial that:

> "*Restoring financial market confidence would be assisted by … eliminating the special status of government-sponsored enterprises*".[36]

The BIS commented about the *GSEs* in 2004 and 2005. These were mainly descriptive paragraphs in the context of surveys of financial market issues, largely consistent with those of the IMF and OECD. The 2005 discussion of regulatory proposals considered the wider market context, noting that:

> "*A limit on the mortgage holdings of GSEs could, if implemented, encourage the entry of other market participants.*"[37]

The discussion did not, however, pursue the implications of large-scale entry of offshore special investment vehicles (*SIVs*) and conduits.

In addition to Basel II and the *GSEs*, issues that have emerged during the crisis that the institutions touched on, if only sporadically, included the rating agencies,[38] the need for consumer protection[39] and the need for better market infrastructure and transparency as regards credit default swaps.[40]

II.B.1. Developments: the housing boom and household finances

Rising house prices, saving behaviour and household finances, especially but not only in the United States, received considerable attention from an early stage by all three institutions. Indeed, both the IMF's *WEO* (April 2003, September 2004) and the OECD's *EO* (June 2004, December 2005) devoted all or parts of special chapters to issues related to the housing market in light of its increasing prominence in the macroeconomic context. This attention often involved description and general monitoring of developments, sometimes in the contexts of risks to forecasts.[41] However, this analysis generally did not involve calls for policy adjustments that might have served as insurance against the risks an excessive boom would create. These analyses sometimes reinforced other considerations arguing for macroeconomic policy restraint, but general messages sometimes were muted or even mixed.

35. IMF *US Article IV Staff Report*, 2004, para. 72.

36. OECD *US Survey*, 2004, pp. 16-17.

37. BIS *AR*, 2005, p. 125.

38. See, e.g., IMF *US Article IV Staff Report*, 2007, para. 25.

39. See, e.g., IMF *US Article IV Staff Report*, 2007, para. 50.

40. See, especially, IMF *GFSR* April 2006, p. 40.

41. For early examples, see OECD *US Survey*, 2004, p. 26 and 33; BIS *AR*, 2003, p. 142; and IMF *WEO*, September 2003, p. 4.

At the IMF, some worry was expressed as early as April 2003 in the *WEO*:

> "*The potential for housing prices to fall following the heady rises in some metropolitan areas is a further concern, given the stabilizing role of housing wealth in recent years.*"[42]

A similar concern was expressed by the IMF again the *WEO* of April 2005:

> "*If higher U.S. rates led to higher long-run interest rates elsewhere, they would also raise the risk of a synchronized decline in housing markets, which is of particular concern where housing prices are already elevated and household balance sheets are most exposed to rising rates.*"[43]

In some contrast, the IMF was more reassuring in the *GFSR* which was prepared around the time of publication of the April 2005 *WEO*: "In some countries, households have managed to reduce balance sheet or net worth volatility over the long run, despite relatively large holdings of market assets. This appears to be the case in the United States, where household balance sheets appear to have benefited from a relatively well-diversified financial portfolio."[44]

This difference in tone from the *WEO* continued into spring 2006, with the *GFSR* noting:

> "*…. net worth of the U.S. household sector has recovered to close to the all-time high reached in 1999…. All in all, strong balance sheets in the financial, corporate, and household sectors have created substantial financial cushions in practically all major financial systems.*"[45]

Like the *GFSR*, the BIS *AR* was relatively relaxed about these developments. In 2004 it commented positively on housing booms in industrial countries, noting the United States as "*the star performer*":

> *"What can be said with more certainty is that the combination of easy macroeconomic policies and more buoyant financial markets contributed to a pickup in the pace of global economic growth. Among the industrial countries, the United States was the star performer, closely followed by Australia and the United Kingdom. The expected rotation of spending into investment began to materialise under the influence of sharply rising profits, but consumption also held up. Households either withdrew and spent equity arising from higher house prices or refinanced their mortgages so as to lower monthly interest payments."*[46]

And as late as 2006, in the concluding chapter of *AR* which focused substantially on inflation and global imbalances, the BIS recognized but downplayed risks to the household sector:

> *"Not least is the potential for record low household saving ratios to rebound in many countries, particularly in the United States. This could be a spontaneous precautionary response to higher debt levels, or … a reaction to rising interest rates, market stress and uncertainties about future asset values. The fact that house prices have risen to such high levels in so many countries, … increases the likelihood of such an outcome…*

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42. IMF *WEO*, Spring 2003, Executive Summary, p. 22.

43. IMF *WEO,* April 2005, p. 8.

44. IMF *GFSR*, April 2005, p. 87.

45. IMF *GFSR*, April 2006, pp. 2-3.

46. BIS *AR*, 2004, p. 6.

We are, of course, currently not in a situation in which we have to confront such problems, and the likelihood of their occurring remains low."[47]

The OECD did not focus on financial issues in its 2005 *US Survey* but did include a box entitled "A housing bubble?" This was largely a descriptive piece although its tone signalled some concern about the situation:

"…there is no conclusive evidence for a housing bubble... Nonetheless, the risk of a sharp home price slowdown, and outright declines in some regional markets, is significant".[48]

Subsequently the tone became more reassuring. The June 2006 *EO* stated that house prices in the US might be a risk to the forecast but:

"… this may be more an issue for the medium term than for the immediate horizon."[49]

And as late as the 2007 *US Survey*, which contained an extensive discussion of household indebtedness, risks were still minimized:

"The debt run-up of the past decade has triggered fears for macro and financial stability. A sharp fall in house prices would prevent households from extracting further housing equity and would put highly-leveraged borrowers under stress, with possibly large macroeconomic and financial consequences. Despite such fears, risks appear presently well contained...".[50]

On the housing market boom in the UK, both the IMF and the OECD raised concerns from very early in the 21st century. On most conventional measures, UK house prices were well above historical averages and continued to climb, albeit erratically, until the onset of the financial crisis. Commenting on the situation in 2006 in the March 2007 report, the IMF staff noted:

"house price appreciation picked up again in 2006. … As a result, the ratio of house prices to earnings and rents, which were already at historical highs, increased further. However, estimates of house price overvaluation are subject to great uncertainty …".[51]

Thus, the IMF did not regard the housing market as a major risk to the economic outlook. At the OECD also, the June 2007 *EO* observed that another house price hike then under way was much below the pace at the 2002 boom and it was concentrated in the south of England and Northern Ireland rather than a nationwide phenomenon. No clear words of concern were expressed as in the *EO* issues of June and December 2003 and June 2004.

II.B.2. Developments: securitisation and structured products

Risks and possible vulnerabilities associated with the development of new financial instruments and products were identified at an early stage by both the OECD and the BIS.

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47. BIS *AR*, 2006, pp. 143-144.

48. OECD *US Survey*, 2005, p. 26.

49. OECD *EO* 79, June 2006, p. 54.

50. OECD *US Survey*, 2007, pp. 81-82.

51. IMF *UK Article IV Staff Report*, 2006, p. 9.

In early 2003, the OECD's *Financial Market Trends* called attention to "several issues" in comments which now seem far-sighted:

> *"Uncertainties continue to exist regarding the functioning of the relatively new (and rapidly growing) market for credit risk transfer instruments. While these instruments are seen as having enhanced the resilience of the financial system, they could also complicate the task of credit analysts and supervisors to understand the distribution of risks in the last resort, especially when the structures involving them are complex. This could complicate crisis management."*
>
> *"… investors buying collateralized debt obligations (CDOs) have in many cases recently realized that they bought a less diversified portfolio than they initially thought….the contractual framework in some of the markets for new instruments can be improved, e.g. by providing more transparent and standardized documentation."*[52]

Shortly afterwards, the BIS commented more positively on these developments but also warned of risks:

> *"The stability of the financial system to date has commonly been ascribed to its having become a more market-oriented system. In the United States in particular, the share of total lending provided by banks has shrunk dramatically. Markets are more complete, in that they now offer borrowers a growing diversity of channels through which financing can be obtained. By the same token, they also seem more resilient. Losses are now more widely dispersed across the financial markets, most recently through the growing use of instruments for credit risk transfer. The fact that shocks are shared across interrelated markets might also make them easier to absorb. Information about value is now easier and cheaper for users to obtain and evaluate, which presumably reduces counterparty risk and helps keep markets functioning even under stress.*
>
> *"Yet it would be naive to suppose that this system does not have its own shortcomings. The fact that borrowers can go through a wide variety of channels to obtain credit could easily tempt them to overextend themselves. This would seem especially likely if credit originators dispense with due diligence, on the assumption that even bad loans can be passed on via market mechanisms to someone else. The resilience that is presumed to arise from a shifting of risks, particularly out of the banking system, depends on the risks becoming more widely dispersed and ending up in the hands of those who can best bear them. There is, in fact, very little hard evidence to support either hypothesis…. a reasonably satisfactory performance to date should not lull us into complacency about financial stability, nor monetary stability for that matter."*[53]

As the boom gathered pace, however, such concerns seem to have receded. The OECD *Financial Market Trends* concentrated much of its attention from 2004 onwards on issues relating to institutional investors other than banks, only returning sporadically and in passing to securitization, structured products and systemic issues.

The BIS returned to the issue in 2004 with very positive comments and less reservation than it displayed in 2003:

> *"What provides a good measure of comfort in this context is that financial institutions in the major industrial countries, with Japan still a notable exception, have successfully absorbed quite a few such shocks recently, and might now be even better placed than before to absorb new ones.*

52. OECD *Financial Market Trends*, No. 84, March 2003, pp 68-69.

53. BIS *AR*, 2003, p. 148.

> *Bank capital ratios remain high, loan default rates have generally fallen further and profits have also generally improved. Moreover, this has been due in large part to cost cutting, increased fee income and greater attention to the proper pricing of risk. Particularly, but not exclusively, in the United States, banks have managed to redistribute a significant amount of credit risk through a variety of credit risk transfer instruments. While a number of large international banks have sharply stepped up their proprietary trading, it is generally believed that their market risk management systems are adequate to this task. This assumes, of course, that the liquidity required in highly concentrated markets to carry out the requisite transactions would be there even in times of stress."*[54]

Subsequent BIS Annual Reports maintained this generally positive perspective on structured products, while still acknowledging the risks. For example in 2005 it wrote:

> *"Moreover, financial institutions, traditionally the primary holders of credit risk, are now able to hedge and manage risk in a more efficient manner. This has been facilitated, in particular, by the development of CDS-based products and CDOs."*[55]

And as late as its 2007 Report, notwithstanding the turbulence in sub-prime markets in the early part of the year that signalled the emerging crisis, the BIS stated:

> *"Greater securitization has brought about a broader dispersion of exposures among market participants but has also distorted the incentives of mortgage originators, principally in the United States."*[56]

The tone of the IMF's commentary in the *GFSR* varied over time. It frequently stressed the benefits of structured products but in April 2005 it expressed some concerns and returned with an unusually clear warning in April 2006. It contained an extended discussion which identified most of the key issues eventually associated with the crisis. These included, notably, incentives inherent in the originate-to-distribute model,[57] differences between structured products and conventional bonds[58], the essential role of the credit rating agencies,[59] and the influence that at least some of the key regulatory policy initiatives might have on bank behaviour.[60] The discussion is balanced "on the one hand…" analysis, emphasising the positive while cautioning about risks which clearly needed to be taken seriously. This tension is reflected in the final part of the section on structured products:

> *"By transferring and managing more credit risk in the capital markets, the banking system and the overall financial system may not only become more efficient, but also more stable. Of course, history has shown that this may not be a linear process. New challenges to financial stability and market vulnerabilities may arise. <u>In the structured credit markets, we believe the risk of liquidity disturbance is material</u>" (underline added)."*[61]

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54. BIS *AR*, 2004, p. 148.
55. BIS *AR*, 2005, p. 116.
56. BIS *AR*, 2007, p. 126.
57. IMF *GFSR*, April 2006, p. 71.
58. IMF *GFSR*, April 2006, p 79.
59. IMF *GFSR*, April 2006, pp. 71, 79.
60. IMF *GFSR*, April 2006, p. 76.
61. IMF *GFSR*, April 2006, p. 81.

This unusually strong language of the IMF staff, a good year before any clear evidence of the eventual crisis, was lost in the report's summary part of the key messages designed to attract the attention of the Executive Directors, government officials and the wider public. The follow-up was limited.

Issues related to structured products received very little attention in the bilateral surveillance reports of OECD and the IMF for the US and almost none for the UK. The OECD's 2005 *US Survey*, the only one produced during the period of excess but before the crisis broke, did not deal with financial sector issues at all. The 2007 *US Survey*, published in April as the crisis was emerging, devoted a long section to housing and household indebtedness but largely avoided financial sector issues apart from those relating to the *GSEs*. The IMF Article IV US consultations did not cover securitisation or structured products, except in passing, until 2006, when the consultation took place shortly after the April *GFSR* was prepared. The concerns expressed there, notably that the risk of liquidity disturbances were material, were reduced in Article IV consultation reports to some comments by US officials about challenges relating to the complexity of the banking system:

> *"Officials acknowledged that regulators were facing a challenge to respond to the rapid evolution of the financial system. …Given the increasingly complex structure of bank's operations, traditional supervisory activities were being augmented by a stronger analytical focus on large banks and critical market segments."*[62]

Notwithstanding the sub-prime related turbulence earlier in 2007, the IMF consultation report published in July contained relatively few allusions to structured products. The main passage stressed their attractiveness to foreigners:

> *"The system has been highly resilient, including to recent difficulties in the subprime mortgage market. Innovation has helped disperse risk, and has been instrumental in attracting capital inflows, with foreigners increasingly buying U.S. private sector debt securities."*[63]

II.B.3. Developments: financial institutions and markets

While all three institutions noted the deterioration in lending standards that occurred, especially from 2005, the striking feature of this review is the extent to which the institutions misjudged the strength of financial institutions and the likelihood of the systemic problems that have occurred. The IMF generally described a benign picture and, while the BIS consistently viewed the world economy as facing significant macroeconomic risks, it saw most of the financial system as a source of reassurance. The IMF repeatedly described regulated financial institutions as well-capitalized and able to cope with any strains, even if some unregulated institutions, such as hedge funds, might be exposed. As excesses accumulated in 2005 the *GFSR* observed in April:

> *"The resilience of the global financial system has further improved… financial institutions have improved their profitability and strengthened their capital base as well as their risk management systems…Our positive assessment of financial stability is underpinned by the favourable prospect for the world economy."*[64]

And in September it opened its overview chapter by saying:

62. IMF *US Article IV Staff Report*, 2006, para. 27.

63. IMF *US Article IV Staff Report*, 2007, para. 49.

64. IMF *GFSR*, April 2005, p. 1.

"The global financial system has yet again gathered strength and resilience…we expect the resilience of the global financial system to improve even further."[65]

Around the same time the BIS wrote approvingly:

"Healthy capital positions provide comfort that financial systems are well cushioned against immediate risks to their profits."[66]

The concluding chapter did not return to these issues, focusing mainly on external and internal imbalances and on longer-term macro stabilisation frameworks that might help avoid the build-up of such imbalances.

In April 2006, the *GFSR* remained very sanguine:

"A wider dispersion of credit risk has "derisked" [sic] the banking sector…"

"All these structural changes, taken together, have made financial markets more flexible and resilient."

These statements were made flatly in the introductory chapter[67] that highlighted the Report's main messages, notwithstanding the concerns raised later in the body of the report.

Indeed, the "resilience" theme was consistently reflected in IMF staff commentary in the US Article IV consultations, recurring in 2004, 2005 and 2006.

The BIS *AR* in 2006 similarly included several paragraphs[68] which called attention to vulnerabilities to re-pricing in credit markets and declining lending standards in US and UK property markets but were submerged by other discussion. The main editorial chapter, "Introduction: resilience to mounting strains", considered a range of "strains",[69] but vulnerable financial institutions were not among them and concerns about structured products had already largely been put to rest:

"*Another notable development was the continued spectacular growth in markets for the transfer of credit risk, in particular various forms of structured debt obligations backed by a widening range of risky assets, including commercial property. Again this constitutes a significant step towards making markets more complete and efficient, even if it also implies attendant risks. A private sector working group on these markets, which reported last year, drew particular attention to frequent shortcomings in the supporting legal documentation and to other operational risks. Supervisory authorities in New York and London, where these markets operate, immediately responded with forceful steps to encourage improvements."*[70]

Even as late as mid-2007, as the crisis was breaking, the BIS saw any threat to the system as potential rather than imminent:

65. IMF *GFSR*, September 2005, p. 1.

66. BIS *AR*, 2005, p. 120.

67. IMF *GFSR*, April 2006, p. 1.

68. See the chapters "Financial Markets" and "The Financial Sector".

69. These included saving behaviour in "English-speaking" countries, international imbalances, higher energy prices and inflation risks.

70. BIS *AR*, 2006, p. 10.

"A final set of medium-term (underline added) uncertainties has to do with potential vulnerabilities in financial markets and possible knock-on effects on financial institutions."[71]

The IMF was even more confident, judging in the April *GFSR* that "credit risk" was the lowest of all types of risks facing the financial system and that:

"Overall, the US mortgage market has remained resilient, although the sub-prime segment has deteriorated a bit more rapidly than had been expected at this point of the housing downturn."[72]

Later, in the US Article IV consultation in July, it argued that:

"Core commercial and investment banks are in a sound financial position, and systemic risks appear low. Profitability and capital adequacy of the banking system are high by international standards. In particular, for large bank holding companies, the reduced interest margins from low long-term interest rates and a flat-to-slightly-inverted yield curve have been more than offset by rising fee income and near record-low defaults. Reflecting this, and despite a recent uptick following subprime difficulties, market measures of default risk have remained benign."[73]

The UK Article IV consultation reports[74] did not focus on systemic issues, apart from expressing some concern about the insurance industry mainly early in the period under review.

While the OECD substantially ignored the financial sector issues during this period, it touched on the emerging sub-prime problem in the 2007 *US Survey* in the context of discussion of household indebtedness, simply noting:

"There has been recently a sharp rise of delinquencies among sub-prime borrowers, leading to financial difficulties among specialised lenders, which has so far not spread to other markets."[75]

III. Appraisal of the institutions' warnings and policy recommendations

Usefulness and effectiveness of warnings about economic and financial developments prior to the crisis and recommendations on policies relevant to its prevention depend crucially on their timeliness.

In addition, desirable features of warnings and recommendations would have included:

clarity, i.e. limited nuance that goes beyond simply mention as a "risk" or as one part of an "on the one hand…on the other hand" discussion;

consistency within institutions, i.e. global surveillance reports and bilateral Article IV consultations or country Surveys should reinforce each other; and

consistency over time, i.e. the strength and forcefulness of warnings and recommendations should have increased with time as the boom became progressively overheated and downside risks increased.

71. BIS *AR*, 2007, p. 144.

72. IMF *GFSR*, April 2007, p. 2.

73. IMF *US Article IV Staff Report*, 2007, para. 23.

74. IMF *UK Article IV Staff Reports*, 2004 and 2005.

75. OECD *US Survey*, 2007, p. 75.

To have been effective, of course, such warnings and recommendations would have had to have led to policy adjustments which might have at least limited the damage that has ensued.

III.1. Timeliness of warnings and policy recommendations

With the benefit of hindsight, it is now clear that timely recommendations for interest rate policy in the US and the UK were impeded by insufficient understanding about the role of macro-financial linkages such as channels that involve liquidity effects, imperfect asset substitutability, agency costs, credit constraints and other financial frictions as a determinant of economic activity. Furthermore, off-balance sheet exposures proved to be more important than was widely recognized. In conventional tools for macroeconomic analysis and forecasting prevailing prior to the financial crisis, policy interest rates were assumed to affect the real economy essentially through the term structure and financial quantity variables. Other financial market indicators relevant to assessment of frictions were rarely systematically taken into account. In the wake of the crisis, however, it seems clear that greater attention needs to be directed to macro-financial linkages. Moreover, prior to the outbreak of the crisis, not enough rigorous analytical work was promptly carried out to measure the magnitude of the impacts on long-term market interest rates and housing credit and financial market conditions in advanced countries arising from the deployment of increasingly large savings of emerging economies which managed exchanged rates against the US dollar. Efforts of the international institutions to evaluate the importance of exchange rate policies followed by emerging Asian economies relative to low interest rate policy and other domestic forces affecting US and UK housing credit conditions and risk taking by financial institutions and investors might have facilitated a more fruitful search for principal causes of financial excess in the US and UK. This might have helped the national authorities of the two countries find and adopt appropriate corrective monetary and prudential policy actions domestically and in a timely manner.

Furthermore, timeliness of monetary policy recommendations on the basis of conventional tools of macroeconomic analysis was impeded not only by forecasting errors on the demand side but also by those on the supply side.[76] A review of the OECD *EO* projections and monetary policy recommendations (Table A.1) reveals that they systematically under-predicted US inflation[77] and over-predicted output growth from 2004 onwards (Tables A.2 and A.3). Associated with systematic overestimation of potential output growth for the same time period (Table A.4), this compromised the timeliness of the OECD recommendations on US monetary policy. For the UK, the OECD *EO* systematically under-predicted UK inflation from 2005 onwards as a result of underestimation of underlying demand pressure (Tables A.6, A.7 and A.8), [78] and this compromised the OECD recommendations on UK monetary policy from 2005 onwards (Table A.5).

In the area of warnings about developments in financial markets and institutions and recommendations about policies toward them, what little that arrived was arguably timely enough to be useful: mainly some 2004 commentary about incentives for large banks inherent in Basel II and the discussion of structured products in several reports[79]. But there was far too little of this, the messages got

76. For detail, Shigehara (2010), "Multilateral Surveillance of Monetary Policy in the United States and the United Kingdom".

77. It should be noted that the central tendencies of US inflation projections for 2004 onwards provided by the members of the Federal Reserve Board and the Federal Reserve Bank presidents at the first FOMC meeting of each year were also systematically below the actual outcomes (see the Federal Reserve Board, *Annual Reports to Congress, 2003-2008).*

78. The Bank of England's inflation forecasts were similarly too low during this period.

79. See, in particular, OECD *US Survey* 2004; IMF *GFSR* Sept. 2004; OECD *Financial Market Trends*, March 2003; Chapter 2 of IMF *GFSR* April 2006; and Chapter 7 of the BIS *AR* 2006.

lost and follow-up was poor. In addition, the reports produced by all three institutions in the months preceding the collapse of the two Bear Stearns hedge funds in July 2007 and subsequent disturbances in the money markets were notable for either their complacency or obliviousness to the dangers as regards the financial system.

Perhaps most important, other issues were missed entirely. Neither the SEC's 2005 voluntary "Consolidated Supervised Entities" program, which allowed major increases in leverage at the five big US investment banks, nor the "American Dream Down-Payment Act" which effectively endorsed lower lending standards to sub-prime borrowers, received much attention. And essentially no concerns were expressed about the capital base of regulated banks, which were regularly described as "resilient", "well-capitalized" or in similar terms.[80] Nor were immediate systemic threats to financial stability identified. A major question is why? It appears that too much confidence was accorded to regulatory and supervisory frameworks and policies in the financial sector. These should face more rigorous scrutiny in the future.

III.2. Clarity of warnings and policy recommendations

The institutions' commentary often make one appreciate President Truman's desire for a one-armed economist. While good surveillance must consider alternatives, risks and uncertainties, messages can be unclear if conflicting considerations are identified but not weighed against each other to draw a conclusion. Equally, if no indication is given as to what, if anything, should be done to insure against adverse developments, a warning loses much of its force. Too often the institutions identified a wide range of issues and concerns without offering a bottom line.

To take some cases in point:

- Warnings about the housing boom and personal sector finances, the area where the institutions performed best, were often hedged. Sometimes they included reassurances about household finances, which served to weaken any message, and usually they were presented as risks without identifying a policy response or indicating whether any action, or what kind, was necessary.

- Verbal recommendations for US monetary policy by the IMF and the OECD are usually supported by publication of their numerical (central) projections of market interest rates closely related to policy rates which help clarify verbal messages. However, the IMF does not publish its interest rate projections in *WEO* except for the three major economies (US, Japan and the euro area). Among the three institutions reviewed here, the BIS recommendations are the least clear as it does not present macroeconomic forecasts including interest rates in numerical terms even for the three major economies. For example, in 2005, as monetary policy tightening was under way in the US but evidently not finished, the BIS commented imprecisely, that this " ... *will have to be conducted with some delicacy* [as it] *might lead to disruption in financial markets…*".[81] It offered no specific conclusion to deal with this risk.

- The large US current account deficit was seen by all institutions as a potentially disruptive force that needed to be corrected, and all recognized the need for real exchange rate adjustments involving appreciation in many Asian countries and dollar depreciation. At the same time the all three institutions were very concerned that dollar depreciation would be disorderly and disruptive.

80. See e.g. BIS *AR*, 2006, p. 120; BIS, *AR* 2007, pp. 144-145; IMF *GFSR,* September 2005, p. 1; IMF *GFSR,* April 2006, pp. 31-33; IMF *US Article IV Staff Reports*, 2004, para. 71; 2005, paras. 42-43; 2006, paras. 24 and 55; and 2007, p. 1 and para. 23.

81. BIS *AR* 2005, p. 143.

> The message to the US authorities about dollar adjustment must have seemed unclear. Prescriptions for current account adjustment avoided encouraging any expenditure switching policies while stressing expenditure reducing ones, fiscal deflation and measures to raise saving. At the same time, Asian countries were invited to appreciate.

III.3. Consistency of warnings and policy recommendations within institutions

This is mainly an issue for the IMF and OECD since the BIS has no country report. As regards macroeconomic policies and developments, the multilateral surveillance vehicles were generally consistent with the country reports but questions arise as regards financial markets. For the IMF, the key issue here is why the issues identified in Chapter II of the April 2006 *GFSR* relating to financial risks and structured products in particular were not pursued more forcefully in 2006 and 2007 Article IV consultations. At the OECD, the failure to pursue the earlier discussion on similar issues in *Financial Market Trends* in 2003 should raise some questions about communication between the Economics Department, which prepares the *Economic Outlook* and the *Country Surveys*, with the Financial and Enterprise Affairs Directorate, which prepares *Financial Market Trends*. Within the Economics Department, there may be less to say, since only one US *Survey* was prepared during the period of excess but before the crisis was breaking. This was in 2005 and it largely avoided financial sector issues, perhaps because it had covered them in the previous *Survey*.

III.4. Consistency of warnings and policy recommendations over time

Concerns about the clarity of warnings and policy messages noted above are reinforced by some problems with their consistency over time. For macroeconomic developments that change rapidly and policies that influence them, it is fair to note that changing messages may simply reflect acknowledgement of changing realities. But this can work to blunt the force of policy messages. An example is changes in monetary policy recommendations in the OECD *EO* issues from December 2003 to 2004 reviewed above.

Consistency of messages regarding financial market policies and developments warrants particular reflection. The most pertinent OECD commentaries were written in *Financial Market Trends* in early 2003 and the *US Survey* in early 2004, with little attention paid to these issues afterward. The clearest IMF warnings appeared in Chapter 2 of the April 2006 *GFSR.* But not only did these messages receive little profile in the main editorial sections of the publication, subsequent *GFSR*s became increasingly complacent even as excesses accumulated. This pattern may have been less true of the BIS, although the 2007 Annual Report seems remarkably sanguine in the context of the emerging crisis with little apparent concern about the "vulnerabilities" identified the previous year.

The general pattern here is that the most pointed questions and useful warnings were largely made relatively early, when risks may have seemed abstract or highly unlikely. Not only were they generally not reflected in the main editorial sections designed to focus high-level attention, but as excesses accumulated over time concern seems to have diminished rather than increased. This points to the question why so little follows up?

Outside observers can only speculate. Identification of risks, uncertainties and contingencies is a key element of all surveillance exercises and warnings about even unlikely scenarios can be welcome in that context. However, as the world moves on, and staff doing the analytical work change, it is easy for low likelihood risks identified in a previous report to be put aside in favour of more topical issues. Furthermore, discussions of risks and contingencies that would be politically sensitive or unsettle markets if they were realized may be acceptable to senior editors as risks when they seem very far away. But, as they become more plausible, acknowledging them may be felt to make them more likely to materialize. Finally, many people in the surveillance community spend long parts of their careers as policy analysts, insulated from new developments in financial markets. Staff with the requisite expertise and familiarity with the latest developments in financial markets may not constitute the critical mass necessary among policy analysts to maintain continuity in knowledgeable in-depth monitoring and analysis of these developments.[82]

IV. Implications for surveillance going forward

The foregoing review, focused on the three institutions' policy recommendations for the United States and the United Kingdom as well as their warnings on developments leading to the crisis, not only clearly indicates the need for improving the analytical aspect of their surveillance but also raises a number of issues concerning the institutional frameworks in which it is carried out and staffing and management issues within the institutions. In addition, there is a need to review the dissemination process of their work to private-sector actors with the view to making surveillance more effective.

Moreover, while the relative importance of the roles of the global savings glut and other external factors as well as domestic ones in causing the crisis in the two countries is still a matter of debate,[83] there is clearly an issue of how to adapt global surveillance frameworks to fundamental changes in international financial and economic relationships that have developed since the major surveillance mechanisms considered in this paper were designed. More precisely, efforts to make surveillance more effective should include a re-design of the frameworks of surveillance so as to involve more fully new "major players" on the global economic scene in the context of the globalisation of liberalized financial systems. This crucial institutional issue, though not a main subject of this paper, will be touched on in the last section of this Part.

IV.1. Strengthening of the analytical framework for surveillance

The first step in an effective surveillance process is economic analysis. The global financial crisis started with the collapse of the housing market in one country, the US. This clearly points to the importance of the analytical underpinnings for surveillance of individual country situations that need to be strengthened hand in hand with more systematic analysis of their combined performance as a group.

- A specific lesson from the global financial and economic crisis is that monetary policy frameworks need to take greater account of macro-financial linkages described in Part III, above. The influence of regulatory and prudential policies is an important element of these linkages. International institutions should not only benefit from work aimed at better integrating macro-financial linkages in the macroeconomic analysis and forecasting models to be developed at the national level. They also need to improve their own analytical tools to better understand macro-financial linkages in the global framework for more effective multilateral surveillance of both monetary policy and prudential policy.

- Moreover, reinforced analysis of the importance of effects of the policies followed abroad relative to those of monetary and prudential policies of home countries on the latter's domestic credit and financial market conditions should enable national monetary and prudential authorities to better understand the principal causes of financial excess. This should assist them to take appropriate corrective measures domestically in a timely manner. Similarly there is a need to deepen analysis and multilateral surveillance of financial linkages in the global framework. In particular, more attention should be paid to the operation of international adjustment mechanisms in the international monetary system.

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82. These observations also apply to national administrations and central banks.

83. Like a review in this paper, a post-mortem of the IMF's performance before the crisis which is, at the time of this writing, under way at its Independent Evaluation Office will not expound on the relative roles of various factors in bringing about the crisis, noting that "this will be the subject of debate for many decades." See the first para.graph of an issues paper prepared by the Office (IMF, 2010b).

One important specific macro-economic policy issue to be examined more rigorously in the light of the review conducted in this paper is the implications of monetary policy, and in particular those of inflation targets for financial stability (see Part II.A.1.).[84] A set of fundamental macroeconomic policy issues relating to the appropriate choice of inflation objectives was also recently raised in a staff position note of the IMF.[85] There is an urgent need to examine these issues at suitable international surveillance fora.

Turning to the prudential policy area, the task of conducting macro-prudential policy is still at the stage of deliberation in most countries.[86] Conducting it in an internationally coherent manner would require even more careful consideration.

Another general point is that multilateral surveillance will not lead to appropriate policy changes if there are large differences in countries' ideas and views on economic policy. Peer pressure in international surveillance fora is fully effective only if the peers share broadly agreed views on the objectives to be pursued and on the way in which the economic system works.

Even when broad agreement is reached on the economic policy objectives to be pursued, such as numerical inflation targets appropriate for price and financial stability over time, the recent episode of the global crisis has demonstrated the difficulty of accurate numerical macroeconomic forecasts for a sufficiently long time-horizon which are essential for enhancing the credibility of warnings. In an evolving world, it is a daunting task to arrive at central projections and numerical measurement of risks involved in a set of policy assumptions and scenario exercises with model simulation over an extended period ahead. In this context, it is important for international institutions to bear in mind that there are no reasons for them to excel national authorities in such work, except that they have a perspective, overview and global consistency that most individual national administrations and central banks lack and which is part of their raison d'être.

IV.2. Improving the surveillance frameworks within the three institutions

The current frameworks for bilateral and multilateral surveillance by the three international institutions reviewed in this paper are weak in a number of respects.

- Ministerial-level meetings at the IMF and the OECD have rarely been, and cannot be expected to be, suitable fora for effective surveillance on technical policy issues.

- The IMF executive board comprises 24 members residing in Washington and not directly involved in policy making and implementation in capitals.

- At the OECD where peer pressure is to be exercised among representatives coming from capitals, the management of surveillance activities at its plenary meetings of committees and their subsidiary bodies has become more complicated as a result of expansion of membership (now 34 countries) and invitation to such meetings of some non-members not subjected to peer pressure in the same manner as full member countries.

- While BIS committees have extended their membership beyond the G-10, their mission in some cases are more oriented to cooperation and standard-setting than to surveillance. The Committee on the Global Financial System, which draws extensively on input from central banks, is an exception. It produced a number of potentially useful warnings in the run-up to the crisis but, as

84. See for example Bean *et al*. (2010) and Taylor (2010c).

85. Blanchard, Dell'Ariccia and Mauro (2010).

86. See for example, Bank of England (2009) and Yellen (2010)

Davies and Green (2010) observe, these "…were not structured to generate responses."[87] The Committee's language has often been nuanced and dissemination beyond the Committee itself has been limited, with relatively little made public. At minimum, the link with the Basel Committee of Bank Supervisors could usefully be strengthened.

- The BIS also hosts a very small secretariat of the Financial Stability Board (FSB). This was established in 2009 as the successor to the Financial Stability Forum, which was created in 1999 following the Asia crisis to enhance financial stability by bringing government officials of a manageable number (20) of large and globally representative economies together to work through their members. The FSB plays a key role in the G20 process, see below, but its reliance on staff from institutions in member countries may limit its ability to insure independent work of consistent quality.

Some suggestions in this regard would be:

1. The IMF executive board and the OECD committees relevant to surveillance may need to be restructured to ensure effective peer pressure among key countries and central banks with large shares in the global economy and/or important international financial power.[88]

2. Bilateral surveillance of major players (which determines the frequency of publication of resulting reports) both at the IMF and the OECD should be conducted rigorously on an annual basis, with a six-month interval between the two institutions' respective surveillance exercises for each of the same key players in the OECD membership. The length of intervals for such surveillance of other countries should be differentiated according to their relative share in the global economy and their weight in the international financial system, taking into account existing staff resource constraints. Special bilateral surveillance on these countries should be carried out flexibly, when serious underlying problems are detected even if risks are not considered to be imminent. The temptation to play down or cease mentioning such risks over time when they do not materialize should be resisted.

3. At the BIS, restructuring of some committees may enhance their roles in influencing national macroeconomic and supervisory policy decisions to make them more coherent on a global scale.

4. The mismatch between the tasks imposed on the FSB and resources available to it would need to be corrected in parallel with the restructuring of the three institutions considered above.

5. Co-operation between the three international institutions should be strengthened. While representatives from the IMF and the BIS attend OECD committees and their subsidiary bodies relevant to them, the OECD does not participate in IMF board discussion on *WEO* nor Article IV consultation reports on OECD member countries prepared by the IMF staff. Given the nature of the BIS, it may be difficult for the IMF and the OECD to send their representatives regularly and

87. Page 264.

88. Among intergovernmental surveillance fora at the IMF and the OECD, Working Party No. 3 of the OECD Economic Policy Committee used to be the most effective body for multilateral surveillance, see for example van Lennep (1998, p. 117 and p. 213). At this OECD body, representatives at the level of deputies to finance ministers and central bank governors of G-10 countries and Switzerland and those from the European Central Bank and the European Commission as well as from the IMF and the BIS gather to exert peer pressure on the basis of discussion papers prepared by the OECD Economics Department (Shigehara, 1996). But, as its membership structure remains heavily skewed towards European countries without regular participation of key emerging economies, it is now less relevant to global surveillance (Shigehara, 2011).

formally to all of the official meetings of central bankers at the BIS. However, their informal three-way co-operation at the staff level could be usefully enhanced.

IV.3. Staffing and management issues

A challenging issue for improving surveillance is further enhancement of the professional quality of human resources available at the international institutions. Securing a sufficient number of highly qualified officials for monitoring and analyzing developments in the macro-prudential field is a most pressing task for them. In particular, it is essential that a critical mass of staff be familiar with current developments in rapidly changing financial markets and that this critical mass include senior staff in a position to recognize their importance. Dependence on seconded staff from national administrations and central banks to work on their own countries should be limited in order to insure independent analysis and to minimize the problem of "capture". Given budget constraints and efficiency considerations, efforts to improve the quality of human resources would need to be made in parallel with major restructuring of surveillance bodies noted above.

Given the interdependence of the global economy, multilateral surveillance at the IMF and the OECD needs to be conducted in better coordination with bilateral surveillance under IMF Article IV consultations and OECD country reviews. More to the point, at the OECD, both support of global multilateral surveillance at the Economic Policy Committee and country-specific surveillance at the Economic and Development Review Committee are carried out within the Economics Department headed by the OECD chief economist. The role of the post holder is crucial in ensuring coordination and consistency of OECD surveillance activities in their entirety. At the IMF, however, work for Article IV consultation is conducted in area departments, while its *WEO*, i.e. multilateral, work is carried out essentially within the Research Department and the *GFSR* is prepared by the Monetary and Capital Markets Department. Utmost care is required for coordination and consistency across the departments.

IV.4. Dissemination of surveillance work

The final step in the surveillance process is publication. Considerations for improving this process would include:

1. Key policy messages should be presented in a more succinct way. Currently, they are often submerged in long reports with lots of guarded sentences and words.

2. This said, warnings issued in flagship publications of international institutions basically originate from their confidential surveillance reports. Unlike warnings from private market researchers and academic experts, published versions of their confidential documents have often been "sanitized" and as such have unique values but also weaknesses and vulnerabilities. This points to the need for international officials to go outside to provide candid and timely public speech making as and when changing circumstances calls for it.

3. Private market analysts' assessments of new developments in both macro- and micro-economic as well as financial areas can also contribute to political recognition of the need for policy action. These should be encouraged. One contribution the institutions can make would be to ensure analysts' easy public access to statistical data and other information produced and collected by international institutions.

IV.5. Re-design of institutional frameworks for effective surveillance

As indicated above, the institutional frameworks needed for effective surveillance of global economic and financial developments and policies have not kept up with changes in the world economy. New "major players" have emerged in the international economy and the role of liberalized financial markets has greatly increased since the major surveillance vehicles considered in this paper were designed. These developments have created a clear need for surveillance mechanisms to adapt.[89]

The G20 Heads of Government have recognized this by strengthening their commitment to the IMF/World Bank Financial Sector Assessment Program (FSAP) and tasking the Financial Stability Board (FSB) with carrying out robust and transparent peer review of financial systems of G20 countries.[90] While this engages the new major players in the multilateral surveillance process in a more representative way, the contribution that these steps can make seems likely to be limited. FSAPs are narrowly sectoral reviews which do not focus on the wider macroeconomic context and will only take place once every five years. The FSB thematic reviews will be informative but, given their multi-country focus on narrow subject matter,[91] their design seems unsuited to providing early warning of system-wide problems. The FSB country reviews will be designed to complement and support FSAPs, serving as both a follow-up to FSAPs and a review of the FSAP recommendations themselves.[92] They will not be wider reviews of economic and financial developments in the country being examined.

Moreover, the membership of G20 appears to be too large for effective and deep discussion of global economic policy issues. It also lacks a permanent secretariat which should provide independent analytical work needed to assist its deliberation and to ensure continuity and consistency of multilateral surveillance. Pros and cons of establishing a new framework appropriate for exercising peer pressure among truly "key" players need to be examined carefully to make the surveillance process in the new global setting more effective.[93]

Because of geopolitical considerations, fundamental changes in the structure of international surveillance frameworks would not be easy to introduce without the initiative of global political leaders. However, long-run costs of retarding needed reform would be high, even though they might be not all visible immediately.

89. See also Lipsky (2010).

90. See the Toronto G20 Summit communiqué, paras. 22 and Annex II, paras. 32-36.

91. The first thematic review, covering compensation policies, was published in March 2010. Reviews on risk disclosure and residential mortgage underwriting are under way.

92. The first country review, covering Mexico, was published in September 2010.

93. This is discussed at length in Shigehara (2009).

References

Adrian, T. and H.S. Shin (2008), "Financial Intermediaries, Financial Stability and Monetary Policy," Federal Reserve Bank of Kansas City, 2008 Symposium, Jackson Hole.

Atkinson, P., K. Shigehara and N. Vanston, "A Review of Early Warnings Prior to the Outbreak of the Current Global Financial and Economic Crisis: Surveillance Documents of Key International Institutions", available at http://office.shigehara.online.fr/.

Axilrod, S. (2009, revised edition 2011), *Inside the Fed*, the MIT press.

Bank for International Settlements (2003-2007), *Annual Report*.

Bank of England (2009), "The Role of Macroprudential Policy", a discussion paper.

Bean, C., M. Paustian, A. Penalver and T. Taylor (2010), "Monetary Policy after the Fall", in *Macroeconomic Challenges: The Decade Ahead*, Federal Reserve Bank of Kansas City 2010 Symposium, Jackson Hole.

Bernanke, B. (2005), "The Global Saving Glut and the U.S. Current Account Deficit," remarks at the Sandridge Lecture, Virginia Association of Economists, Richmond, Virginia.

Bernanke, B. (2010), "Monetary Policy and the Housing Bubble", the Annual Meeting of the American Economic Association Atlanta, Georgia, January 3.

Blanchard, O., G. Dell'Ariccia, and P. Mauro (2010), "Rethinking Macroeconomic Policy", IMF staff position note.

Blundell-Wignall, A. and P. Atkinson (2008), "The Sub-prime Crisis: Causal Distortions and Regulatory Reform", prepared for the Reserve Bank of Australia Conference Lessons from the Financial Turmoil of 2007 and 2008, Sydney, July.

Blundell-Wignall, A. and P. Atkinson (2009), "Origins of the Financial Crisis and Requirements for Reform", *Journal of Asian Economics*, Volume 20, Issue 5.

Borio, C. and W. White (2004), "Whither monetary and financial stability? The implications of evolving policy regimes", *BIS Working Paper No. 147*, Basle, February.

British Academy (2009), Letter to Her Majesty the Queen, London, July 22, http://media.ft.com/cms/3e3b6ca8-7a08-11de-b86f-00144feabdc0.pdf

Davies, H. and D. Green (2010), *Banking on the Future - the Fall and Rise of Central Banking*, Princeton University Press, Princeton and Oxford.

Gordon, R.J. (2009), “Is Modern Macro or 1978-Macro More Relevant to the Understanding of the Current Economic Crisis?”, paper first presented to International Colloquium on the History of Economic Thought Sao Paulo, Brazil, August 3.

Greenspan, A. (2010), “The Crisis”, paper prepared for the Brookings Panel on Economics Activity, March 9.

International Monetary Fund (2000-2010), *Article IV Staff Report* on the United Kingdom.

International Monetary Fund (2000-2010), *Article IV Staff Report* on the United States.

International Monetary Fund (2000-2010), *World Economic Outlook*.

International Monetary Fund (2002-2010), *Global Financial Stability Report.*

International Monetary Fund (2010a) “Central Banking Lessons from the Crisis”, paper prepared by the Monetary and Capital Markets Department, May 27.

International Monetary Fund (2010b), “IMF Performance in the Run-up to the Current Financial and Economic Crisis: Issues Paper for an Evaluation by the Independent Evaluation Office”.

Jiménez, G., J.S. Salas, S. Ongena, and J.L. Peydro (2007),“Hazardous Times for Monetary Policy: What Do Twenty-Three Million Bank Loans Say about the Effects of Monetary Policy on Credit Risk?”, *CentER Discussion Paper Series* No. 2007–75.

King, M. (2009), Speech to the CBI, Nottingham, January 20.

King, M. (2010), Speech at the University of Exeter Business Leaders’ Forum, January 19.

Lipsky, J. (2010), “Reconsidering the International Monetary System”, in *Macroeconomic Challenges: The Decade Ahead*, Federal Reserve Bank of Kansas City 2010 Symposium, Jackson Hole.

Obstfeld, M. and K. Rogoff (2009), Global Imbalances and the Financial Crisis: Products of Common Causes, November.

OECD (2000-2010), *OECD Economic Outlook*. OECD Publishing, Paris.

OECD (2000-2010), *OECD Economic Surveys: United Kingdom.* OECD Publishing, Paris.

OECD (2000-2010), OECD *Economic Surveys: United States.* OECD Publishing, Paris.

OECD (2000-2010), *Financial Market Trends*. OECD Publishing, Paris.

OECD (2008), “The Implication of Supply-side Uncertainties for Economic Policy”, *OECD Economic Outlook* No. 83, June. OECD Publishing, Paris.

Rajan, R. (2005), “Has Financial Development Made the World Riskier?”, paper presented to the Federal Reserve Bank of Kansas City 2005 Symposium, Jackson Hole.

Schmitt-Grohe, S. and M. Uibe (2010), “The Optimal Rate of Inflation”, *NBER working paper* No. 16054.

Shigehara, K. (1996), “Multilateral Surveillance: What the OECD can offer”, the 1996 Global Finance Lecture at the University of Birmingham, Paris, OECD. Also available as a working paper from University of Birmingham - International Financial Group.

Shigehara, K. (2009), “*Aratana Kokusai Keizaishakai Chitsujo no Kouchiku* (Establishing a New Global Economic and Social Order)” (in Japanese), *Gaiko Forum*, No. 249, Tokyo, April.

Shigehara, K. (2010), “Multilateral Surveillance of Monetary Policy in the United States and the United Kingdom”, available at http://office.shigehara.online.fr/.

Shigehara, K. (2011), “Multilateral Surveillance: the IMF, the OECD and G20”, *la Ligue Européenne de Cooperation Economique*, Paris, http://www.singer-polignac.org/fr/component/notschkafsp/?task=evenement&uid=747.

Taylor, J. (2007), “Housing and Monetary Policy,” in *Housing, Housing Finance, and Monetary Policy*, Federal Reserve Bank of Kansas City 2007 Symposium, Jackson Hole.

Taylor, J. (2009), “The Financial Crisis and the Policy Responses: An Empirical Analysis of What Went Wrong”, *NBER working paper* No. 14631.

Taylor, J (2010a), “The Fed and the Crisis: A Reply to Ben Bernanke”, The Wall Street Journal, January 11.

Taylor, J. (2010b), “Getting Back On Track: Macroeconomic Lessons from the Financial Crisis”, *Federal Reserve Bank of St. Louis Review,* May/June.

Taylor, J. (2010c), “Commentary: Monetary Policy after the Fall”, in *Macroeconomic Challenges: The Decade Ahead,* Federal Reserve Bank of Kansas City 2010 Symposium, Jackson Hole.

Turner, P. (2010), “Perspectives on inflation targeting, financial stability and the global crisis”, *BIS papers* No. 51, March.

Van Lennep, E (1998), “Working for the World Economy - A Personal History by Emile van Lennep”, Netherlands Instituut voor het Bank - en Effectenbedrijf, Amsterdam.

Walsh, C (2009),“Using monetary policy to stabilize economic activity”, Federal Reserve Bank of Kansas City 2009 Symposium, Jackson Hole.

Whelan, K (2010), “Global Imbalances and the Financial Crisis”, Economic and Monetary Policy Affaires, Policy Department A, Economic and Scientific Policies, European Parliament.

Yellen, J. (2010), “Macroprudential Supervision and Monetary Policy in the Post-Crisis World”, the Annual Meeting of the National Association for Business Economics, Denver, Colorado, October 11.

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Annex

Table A.1. United States interest rates

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Federal funds	6.24	3.88	1.67	1.13	1.35	3.22	4.97	5.02	1.92	0.16	
Eurodollar deposits : 3-month (6-month)											
	6.5 (6.6)	3.7 (3.7)	1.7 (1.8)	1.1 (1.2)	1.6 (1.7)	3.5 (3.7)	5.2 (5.3)	5.3 (5.3)	3.3 (3.5)	1.0 (1.5)	
OECD projections: 3-month											
IMF projections: 6-month (in parenthesis)											
00 June (May)	6.8 (5.6)	7.3 (5.5)									
00 Dec (Oct)	6.5 (6.8)	7 (7.4)	7								
01 June (May)	6.5 (6.7)	4.6 (4.5)	4.4 (4.3)								
01 Dec (Sep)	6.5 (6.6)	3.8 (4.1)	2.1 (3.7)	3.1							
02 June (Apr)	6.5 (6.6)	3.7 (3.7)	2.3 (2.8)	3.8 (4.5)							
02 Dec (Sep)	6.5 (6.6)	3.7 (3.7)	1.8 (2.1)	1.6 (3.2)	3.4						
03 June (Apr)		3.7 (3.7)	1.8 (1.9)	1.4 (1.7)	3 (3.5)						
03 Dec (Sep)		3.7 (3.7)	1.8 (1.9)	1.2 (1.3)	1.5 (2.0)	2.7					
04 June (Apr)		3.7	1.8	1.2 (1.2)	1.3 (1.8)	2.9 (3.3)					
04 Dec (Sep)			1.8	1.2 (1.2)	1.5 (1.8)	2.8 (3.6)	3.8 (4.5)				
05 June (Apr)				1.2 (1.2)	1.6 (1.8)	3.4 (3.3)	4.7 (4.1)				
05 Dec (Sep)				1.2 (1.2)	1.6 (1.8)	3.5 (3.6)	4.8 (4.5)	5.1			
06 June (Apr)				1.2	1.6 (1.8)	3.5 (3.8)	5.1 (5.0)	5.3 (5.1)			
06 Dec (Sep)					1.6 (1.8)	3.5 (3.8)	5.2 (5.4)	5.3 (5.5)	5		
07 June (Apr)					1.6 (1.8)	3.5 (3.8)	5.2 (5.3)	5.3 (5.3)	5 (5.1)		
07 Dec (Oct)						3.5 (3.8)	5.2 (5.3)	5.3 (5.2)	4.6 (4.4)	4.7	
08 June (Apr)						3.5	5.2 (5.3)	5.3 (5.3)	2.7 (3.1)	3.1 (3.4)	
08 Dec (Oct)							5.2 (5.3)	5.3 (5.3)	3.3 (3.2)	1.7 (3.1)	2
09 June (Apr)							5.2	5.3 (5.3)	3.2 (3.0)	1 (1.5)	0.5 (1.4)
09 Dec (Sep)								5.3 (5.3)	3.2 (3.0)	0.9 (1.2)	0.3 (1.4)

Source: Federal Reserve Board; OECD Economic Outlook; IMF World Economic Outlook.

Table A.2. United States inflation

Percentage change from previous year

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010
Actual									
CPI	1.8	2.3	2.7	3.4	3.2	2.9	3.8	−0.3	
Priv.Consumtion Deflator	1.4	2.0	2.6	3.0	2.7	2,7	3.3	0.2	
OECD projections : CPI									
IMF projections : CPI (in parenthesis)									
03 June (Apr)	1.6 (1.6)	2.4 (2.3)	1.7 (2.3)						
03 Dec (Sep)	1.6 (1.6)	2.3 (2.1)	1.7 (1.3)	1.8					
04 June (Apr)	1.6 (1.6)	2.3 (2.3)	2.3 (2.3)	2 (2.2)					
04 Dec (Sep)	1.6 (1.6)	2.3 (2.3)	2.6 (3.0)	2.4 (3.0)	2.1				
05 June (Apr)	1.6 (1.6)	2.3 (2.3)	2.7 (2.7)	2.8 (2.7)	2.6 (2.4)				
05 Dec (Sep)		2.3 (2.3)	2.7 (2.7)	3.4 (3.1)	2.8 (2.8)	2.5			
06 June (Apr)		2.3(2.3)	2.7 (2.7)	3.4 (3.4)	3.3 (3.2)	2.4 (2.5)			
06 Dec (Sep)			2.7 (2.7)	3.4 (3.4)	3.3 (3.6)	2.3 (2.9)	2.3		
07 June (Apr)			2.7 (2.7)	3.4 (3.4)	3.2 (3.2)	2.6 (1.9)	2.6 (2.5)		
07 Dec (Oct)				3.4 (3.4)	3.2 (3.2)	2.8 (2.7)	2.7 (2.3)		
08 June (Apr)				:	3.2 (3.2)	2.9 (2.7)	3.9 (3.0)	2.2 (2.2)	
08 Dec (Oct)					3.2 (3.2)	2.9 (2.9)	4.3 (4.2)	1.6 (1.8)	1.5
09 June (Apr)							3.8 (3.8)	−0.6 (−0.9)	0.9 (−0.1)
09 Dec (Sep)								−0.6 (−0.4)	1 (1.7)

Source: OECD Economic Outlook; IMF World Economic Outlook.

Table A.3. United States real GDP

Percentage change from previous year

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010
Actual	1.8	2.5	3.6	3.1	2.7	2.1	0.4	−2.4	
OECD projections									
IMF projections: (in parenthesis)									
03 June (Apr)	2.4 (2.4)	2.5 (2.5)	4.0 (3.6)						
03 Dec (Sep)	2.4 (2.4)	2.9 (2.6)	4.2 (3.9)	3.8					
04 June (Apr)	2.2 (2.2)	3.1 (3.1)	4.7 (4.6)	3.7 (3.9)					
04 Dec (Sep)	1.9 (1.6)	3.0 (2.1)	4.4 (3.6)	3.3 (2.9)	3.6				
05 June (Apr)	1.9	3.0 (3.0)	4.4 (4.4)	3.6 (3.6)	3.3 (3.6)				
05 Dec (Sep)		2.7 (2.7)	4.2 (4.2)	3.6 (3.5)	3.5 (3.3)	3.3			
06 June (Apr)		2.7	4.2 (4.2)	3.5 (3.5)	3.6 (3.4)	3.1 (2.8)			
06 Dec (Sep)			3.9 (3.9)	3.2 (3.2)	3.3 (3.4)	2.4 (2.9)	2.7		
07 June (Apr)			3.9	3.2 (3.2)	3.3 (3.3)	2.1 (2.2)	2.5 (2.8)		
07 Dec (Oct)				3.1 (3.1)	2.9 (2.9)	2.2 (1.9)	2.0 (1.9)	2.2	
08 June (Apr)				3.1	2.9 (2.9)	2.2 (2.2)	1.2 (0.5)	1.1 (0.6)	
08 Dec (Oct)					2.8 (2.8)	2.0 (2.0)	1.4 (1.6)	−0.9 (0.1)	1.6
09 June (Apr)					2.8	2.0 (2.0)	1.1 (1.1)	−2.8 (−2.8)	0.9 (0.0)
09 Dec (Sep)						(2.1)	(0.4)	−2.5 (−2.7)	2.5 (1.5)

Source: OECD Economic Outlook; IMF World Economic Outlook.

Table A.4. United States potential GDP

Percentage change from previous year

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010
OECD projections									
Jun-03	2.9	3	3.1						
Dec-03	2.8	3	3	3.1					
Jun-04	2.9	3.2	2.9	3.2					
Dec-04		2.8	3	3.1	3.3				
Jun-05		2.8	3	3.1	3.2				
Dec-05			2.9	3.1	3.2	3.4			
Jun-06			2.9	2.9	3	3.2			
Dec-06				2.7	2.8	2.8	2.9		
Jun-07				2.8	2.7	2.7	2.7		
Dec-07					2.6	2.5	2.5	2.4	
Jun-08					2.6	2.5	2.5	2.4	
Dec-08						2.6	2.5	2.3	2.3
Jun-09							2.2	1.6	1.1
Nov-09							2.3	1.7	1.4

Note: The OECD method for estimating potential GDP evolved over the period under review. For information, see the Statistical Annex of each issue of the OECD Economic Outlook.

GDP gap*	−0.8	−0.6	0.7	1.2	1.3	0.9	−1.2	−5.1	−3.2

* Deviations of actual GDP from potential GDP as a per cent of potential GDP

Source: OECD Economic Outlook, May 2010.

Table A.5. United Kingdom interest rate

Year	2003	2004	2005	2006	2007	2008	2009	2010
3-month money market rate								
Actual	3.7	4.6	4.7	4.8	6	5.5	1.2	0.6
OECD projections								
Jun-03	3.8	4.3						
Dec-03	3.6	4.4	5					
Jun-04	3.7	4.5	5.6					
Dec-04	3.7	4.6	5.5	5.8				
Jun-05	3.7	4.6	4.8	4.8				
Dec-05	3.7	4.6	4.7	4.5	4.5			
Jun-06	3.7	4.6	4.7	4.7	4.6			
Dec-06		4.6	4.7	4.8	5	4.8		
Jun-07		4.6	4.7	4.8	5.5	5.4		
Dec-07			4.7	4.8	5.9	5.2		
Jun-08			4.7	4.8	6	5.6		
Dec-08								
Jun-09				4.8	6	5.5	1.4	0.6
Dec-09					6	5.5	1.2	0.6

Source: OECD Economic Outlook.

Table A.6. United Kingdom inflation

Retail price index excluding mortgage payments for 2003; consumer price index from 2004, percentage from previous year

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010
Actual	1.3	1.4	1.3	2	2.3	2.3	3.6	2.2	
OECD projections									
Jun-03	2.2	3.1	2.8						
Dec-03	2.2	2.8	2.6	2.7					
Jun-04	1.3	1.4	1.4	1.9					
Dec-04	1.3	1.4	1.3	1.7	2.1				
Jun-05	1.3	1.4	1.3	2	2.1				
Dec-05		1.2	1	1.5	1.7	1.6			
Jun-06		1.4	1.3	2	2.2	1.7			
Dec-06			1.3	2	2.2	2	1.9		
Jun-07			1.3	2	2.3	2.4	2		
Dec-07				2	2.3	2.3	2.2	2	
Jun-08				2	2.3	2.3	3	2.5	
Dec-08					2.3	2.3	3.7	2.7	1.9
Jun-09					2.3	2.3	3.6	1.9	1.2
Nov-09						2.3	3.6	2.1	1.7

Source: OECD Economic Outlook.

Table A.7. United Kingdom real GDP

Percentage change from previous year

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010
Actual	2.1	2.8	3	2.2	2.9	2.6	0.5	-4.9	
OECD projections									
Jun-03	1.8	2.1	2.6						
Dec-03	1.7	1.9	2.7	2.9					
Jun-04	1.6	2.2	3.1	2.7					
Dec-04	1.8	2.2	3.2	2.6					
Jun-05	1.8	2.2	3.1	2.4	2.4				
Dec-05		2.5	3.2	1.7	2.4	2.7			
Jun-06		2.5	3.1	1.8	2.4	2.9			
Dec-06			3.3	1.9	2.6	2.6	2.8		
Jun-07			3.3	1.9	2.8	2.7	2.5		
Dec-07				1.8	2.8	3.1	2	2.4	
Jun-08				1.8	2.9	3	1.8	1.4	
Dec-08					2.8	3	0.8	-1.1	0.9
Jun-09					2.8	3	0.7	-4.3	0
Nov-09								-4.7	1.2

Source: OECD Economic Outlook.

Table A.8. United Kingdom potential GDP

Percentage change from previous year

Year	2002	2003	2004	2005	2006	2007	2008	2009	2010
OECD projections									
Jun-03	2.7	2.5	2.4						
Dec-03	2.7	2.5	2.5	2.4					
Jun-04	2.7	2.5	2.5	2.4					
Dec-04		2.4	2.4	2.5	2.5				
Jun-05		2.5	2.4	2.5	2.5				
Dec-05			2.6	2.6	2.6	2.4			
Jun-06				2.9	2.7	2.5			
Dec-06				2.8	2.8	2.7	2.5		
Jun-07				2.7	2.8	2.7	2.5		
Dec-07					2.7	2.7	2.7	2.6	
Jun-08					2.8	2.6	2.5	2.5	
Dec-08						2.2	1.8	1.6	1.9
Jun-09						2.3	2.2	1.6	1.1
Nov-09							2.3	1.7	1.2

Note: The OECD method for estimating potential GDP evolved over the period under review. For information, see the Statistical Annex of each OECD Economic Outlook.

	2002	2003	2004	2005	2006	2007	2008	2009	2010
GDP gap*	−0.1	0.3	1	0.9	1.5	1.8	0.1	−6.4	−6.2

* Deviations of actual GDP from potential GDP as a per cent of potential GDP.

Source: OECD Economic Outlook, May 2010.

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