



BANK FOR INTERNATIONAL SETTLEMENTS

## BIS Working Papers

No 200

# The future of central bank cooperation

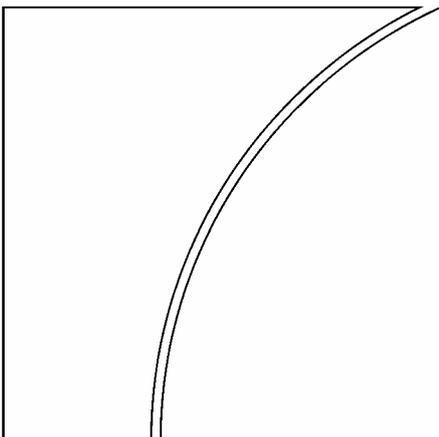
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Monetary and Economic Department

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## Foreword

On 27-29 June 2005, the BIS held its Fourth Annual Research Conference on “Past and Future of Central Bank Cooperation”. This event brought together some 80 senior officials from central banks, academic institutions and the private sector to exchange views on this topic (see the programme attached). This paper was presented at the conference. The conference was part of the BIS 75th Anniversary programme. The views expressed are those of the author(s) and not those of the BIS



## Abstract

Central bank cooperation depends on a few crucial parameters: the extent to which central bankers agree on theory (end means relationships); the extent to which they can agree on goals (social purpose); the capacity (technical and institutional) to achieve their collective goals; and whether the broader political environment facilitates or impedes cooperation. This article explores these questions by first providing an overview of central banks and bankers. Among the G-10 countries, central bankers are likely to share political independence, relatively long term horizons, and (increasingly) academic backgrounds. These conditions may be conducive to high levels of cooperation in the future. Second, I explore the “easiest” form of cooperation – information sharing – and conclude that this is an area in which central bank cooperation will become increasingly routinised. Cooperation to address global financial stability is a more difficult cooperative dilemma, with tensions between the need for efficient regulatory management and the inclusion of a broader range of cooperating institutions. In the area of exchange rate and monetary policy coordination, consensus among the major exchange rate authorities regarding the effectiveness of coordinated exchange market interventions has withered, though this does not preclude a new consensus from emerging in the future. One of the most significant challenges to central bank cooperation in the future will be how to include rising monetary and financial powers, particularly China, into the cooperative management of international monetary conditions.



**Fourth BIS Annual Conference**  
**Past and Future of Central Bank Cooperation**  
**Basel, Switzerland, 27-29 June 2005**

*celebrating 75 years of the Bank for International Settlements, 1930-2005*

**Monday, 27 June 2005**

**Keynote dinner address**

Tommaso Padoa-Schioppa, former member of the Executive Board, ECB

**Tuesday, 28 June 2005**

**Opening remarks**

William White, BIS

***Chairman: Herman Baron Van Der Wee, Katholieke Universiteit Leuven***

**Session 1**

*One hundred and thirty years of central bank cooperation: a BIS perspective*

Claudio Borio, BIS and Gianni Toniolo, University of Rome Tor Vergata, Duke University & CEPR

Discussants: Marc Flandreau, Institut d'Etudes Politiques, Paris  
Miles Kahler, University of California, San Diego

**Session 2**

*Almost a century of central bank cooperation*

Richard Cooper, Harvard University

Discussants: Barry Eichengreen, University of California, Berkeley  
Albrecht Ritschl, Humboldt-Universität zu Berlin

***Chairman: Harold James, Princeton University***

**Session 3**

*Architects of stability? International cooperation among financial supervisors*

Ethan Kapstein, INSEAD

Discussants: Charles Goodhart, London School of Economics  
Peter Praet, National Bank of Belgium

**Session 4**

*The future of central bank cooperation*

Beth Simmons, Harvard University

Discussants: Michael Bordo, Rutgers University, New Brunswick  
Edwin Truman, Institute for International Economics, Washington DC

**Wednesday, 29 June 2005**

**Chairman: Paul De Grauwe, Katholieke Universiteit Leuven**

**Session 5**

*Central banks, governments and the European monetary unification process*

Alexandre Lamfalussy

Discussants: Peter Kenen, Princeton University  
Yung Chul Park, University of Korea

**Policy panel discussion**

Chairman: Malcolm D Knight, BIS

*Reflections on the future of central bank cooperation*

Participants: Andrew Crockett, J P Morgan Chase  
Jacques de Larosière, Paribas  
Allan Meltzer, Carnegie Mellon University  
Paul Volcker, International Accounting Standards Committee  
Yutaka Yamaguchi, former Deputy Governor, Bank of Japan

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# The future of central bank cooperation<sup>1</sup>

Beth A Simmons<sup>2</sup>

Central bank cooperation has a long history. From the episodic efforts to support the 19th century gold standard to the personal interactions of interwar central bankers, to the institutionalised postwar efforts to maintain fixed exchange rates, to the post-Bretton Woods progress in developing standards for prudential bank regulation, central bankers have progressively consulted and coordinated their activities. Such cooperation has always been shaped by a few perennial parameters. Can central bankers agree on theory (end-means relationships)? To what extent can they agree on goals (social purpose)? Do they have the capacity (technical and institutional) to achieve their collective goals? Does the broader political environment facilitate or impede cooperation?

It is easy to assume, in writing a paper on the “future of central bank cooperation,” that such cooperation is (1) easily observable (implicit in the assumption that a non-participant can meaningfully write about it), and (2) a good thing. Neither of these assumptions is without controversy, however. First, central bank cooperation is *factually* controversial. Looking over the historical record, there are important disagreements over *whether*, in fact, central bankers have cooperated at various historical moments. The passage of time does not seem to have settled the debate over whether, for example, central bankers in the 19th century were mutually cooperative or merely opportunistic.<sup>3</sup> Much depends on how one defines cooperation. The dictionary defines it as “joint operation or action;” its antonym is “competition.” Joint action can be shallow or deep; deep cooperation is marked by policy adjustments that differ from those that would have been taken unilaterally, and which are taken specifically to address a collective good or mutual interest (Downs, Rocke, and Barsoom 1996; Keohane 1984).

“Deep” central bank cooperation can be *normatively* controversial as well. Theoretical controversies rage about whether - and the extent to which - exchange rate or monetary policy coordination actually improves outcomes over well-designed unilateral policies (Obstfeld and Rogoff 2002). Moreover, to countries which are excluded from decision-making, policy coordination may look more like a cartel than cooperation. Global standards for the supervision and regulation of internationally active banks for example can be interpreted as serving disproportionately the interests of major banks in the leading jurisdictions. Some of the more profound forms of central bank cooperation can be expected to raise domestic political controversies as well: there are bound to be domestic voices concerned that collective interests might sacrifice an important national interest. The historical reluctance of the United States to officially allow the Federal Reserve to participate in the activities of the BIS largely reflects such a concern.<sup>4</sup>

Despite these concerns, central banks have accomplished a lot through collective effort, which bodes well for the future. Collectively produced and shared information is increasingly rich and user-friendly. Central bank independence from regular government interference is fairly (though not universally)

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<sup>1</sup> I would like to acknowledge the excellent research assistance of Alexander Noonan and Adrian Yung Hwei Ow. All errors remain my own.

<sup>2</sup> Harvard University

<sup>3</sup> Barry Eichengreen, for example, has developed an explanation for the success (stability) of the 19th century gold standard that rests largely on the “linchpin” of international cooperation (Eichengreen 1992). Other scholars have responded that 19th century cooperation was little more than ad hoc specific actions taken for self-gain but lacking any institutionalisation and taken without any perception of supporting a public good (Flandreau 1997).

<sup>4</sup> In deciding not to allow Fed participation in the BIS at its founding, the Hoover Administration felt constrained by Congressional sentiments of this kind. In Stimson’s words, the Fed would be barred from participating “to prevent our friends on the Hill from running amuck.” Stimson to Hoover, 8 June 1929, as quoted by (Costigliola 1973: 478). Similarly in 1994, in hearings that touched on whether or not the Fed should take up its seat on the Board of the BIS, the subcommittee chair expressed concern “whether this would put the Federal Reserve at some point in time ... in conflict with the domestic independence they exercise.” Rep. Paul Kanjorski, Chair, US Monetary Policy. *Hearing of the Economic Growth and Credit Formation Subcommittee of the House Banking Committee*. Witness: Alan Greenspan. Federal News Service, 22 July 1994.

robust, reducing (though not eliminating) political frictions. Cooperation in some areas appears to be cumulative, involving positive feedback loops through which central bankers continue to develop and improve on past achievements, successfully learning while doing despite an increasingly complex global financial environment. In their collective regulatory capacity, for example, it is hard to imagine a return to the free-for-all that existed prior to the 1980s. Additionally, central banks also seem to have developed a reasonably robust response to financial crises, though efforts here have plateaued far short of acting as lenders of last resort. The ability of central bankers to assemble very short-term financial packages to contain crises (as a bridge to more substantial - and more conditional - IMF assistance) has been an important example of the rapid response of which central banks may be uniquely capable. We are a very long way from 1931.

However, in areas such as setting exchange rates or other macroeconomic policies, central bank cooperation is as difficult and controversial as ever. At the theoretical level, there are important debates over whether central banks should do anything other than tend to domestic price stability. Optimism in the 1980s on the joint gains to be made from coordinating monetary policies has given way to greater skepticism that such coordination could ever really “get it right.” Legitimate questions have even been raised about the efficacy of official international intervention in foreign exchange markets of the major floating currencies. Moreover, with the imbalances reflected in rapidly expanding Asian, and particularly Chinese, dollar reserves, the global political economy is changing in ways that will challenge existing institutions and practices.

This essay explores the future of central bank cooperation along a continuum from “easy” to “difficult.” The first section lays the foundation for assessing future collaboration by observing the central banks and governors themselves. The second examines what I have been able to find on the state of the presentation and sharing of information among central banks. The trajectory here, I argue, is really quite positive. The third section discusses cooperative standard setting, and the fourth looks at extraordinary emergency central bank assistance. Finally, I examine the most difficult issue facing central bank cooperation in the near future: imbalance at the core of the international economy. I conclude with some observations about the political-economic and institutional environment.

## I. Players and institutions: an overview

Before we look into cooperation itself, it is useful to have a look at the players involved. The number of central banks has increased tremendously over the past century, as the number of independent countries has grown, and as more countries have established monetary authorities (see Figure 1). Membership in the BIS has grown over time as well, even exceeding overall central bank growth since 1995.

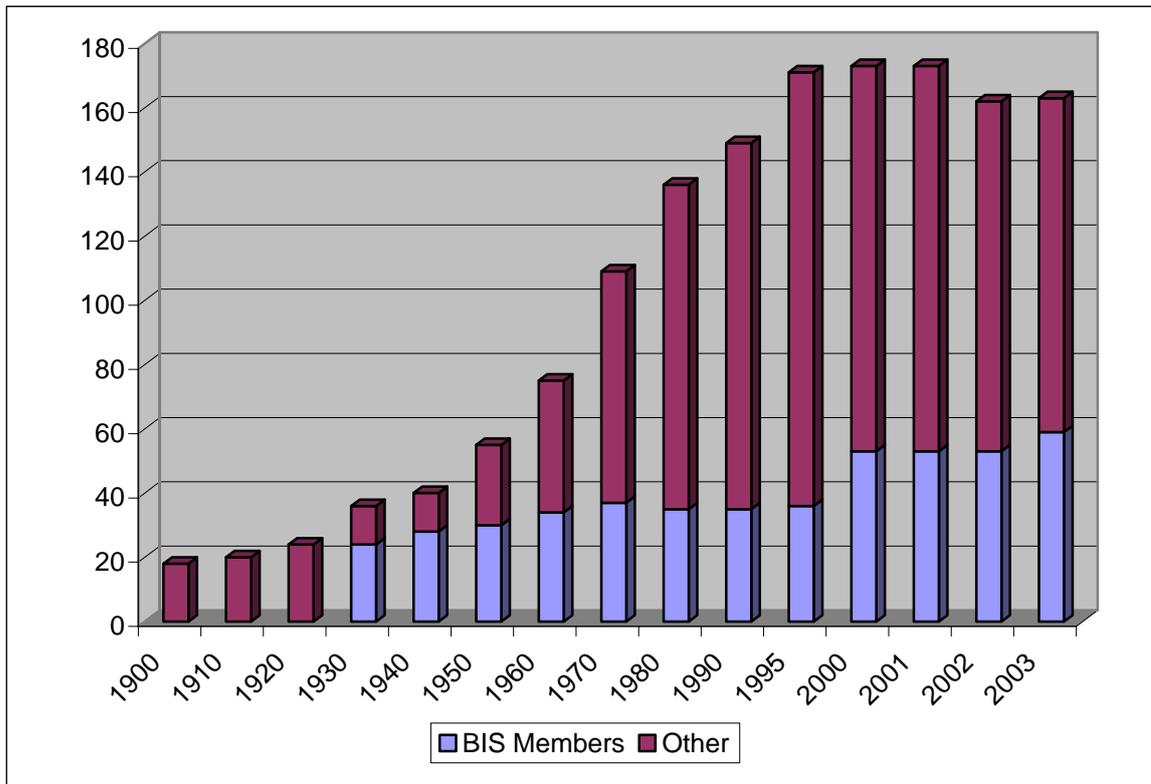
In addition to the number of member banks, the prospects for cooperation are often assumed to depend on the time horizons of the players. Worldwide, most, but not all, central bank governors have a definite term of office ranging from three to eight years, with five-year terms the most common (see Table 1). On the whole, BIS member governors tend to have longer statutory terms than do non-members. Governors that have “indefinite terms” - which I interpret as serving at the pleasure of the government - are much less likely to be BIS members than those with definite terms.

However, actual terms in office can vary significantly from official terms and in recent years more central bank governors have tended to leave office *before the end of their term* (if one is specified) than at the end of their term (see Table 2). Multiple terms and early terminations account for significant deviations from formal term provisions. Figure 2 gives a sense of how long central bank governors of the G-10 and G-20 have actually remained in office during the postwar period. During these years, governors from the G-10 countries have held their posts for a little over an average of eight years. Governors of the remaining G-20 countries, on the other hand, have generally held their positions for under five years. Actual term heterogeneity is much higher among the remaining G-20 members than the G-10 as well.<sup>5</sup>

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<sup>5</sup> The standard deviation for CB governors' terms for the G-10 is 2.55; for the remainder of the G-20 it is 3.24.

Figure 1  
Number of central banks, 1900-2003



Sources: Morgan Stanley, Central Bank Directory (2004); Bank for International Settlements.

Table 1  
Central bank Governors' terms of office  
Number of banks, Worldwide

Term in years	Not available	Indefinite	8 Years	7 Years	6 Years	5 Years	4 Years	3 Years or less
G-20 members	1	2	1	2	3	6	4	0
BIS members, not including G-20	1	2	1	6	15	9	0	1
Non BIS members	24	17	0	4	8	46	9	14
<b>Total</b>	<b>26</b>	<b>21</b>	<b>2</b>	<b>12</b>	<b>26</b>	<b>61</b>	<b>13</b>	<b>15</b>

Data current as of 2004.

Sources: Morgan Stanley, Central Bank Directory (2004); Bank for International Settlements.

Table 2

**How central bank Governors' terms end**

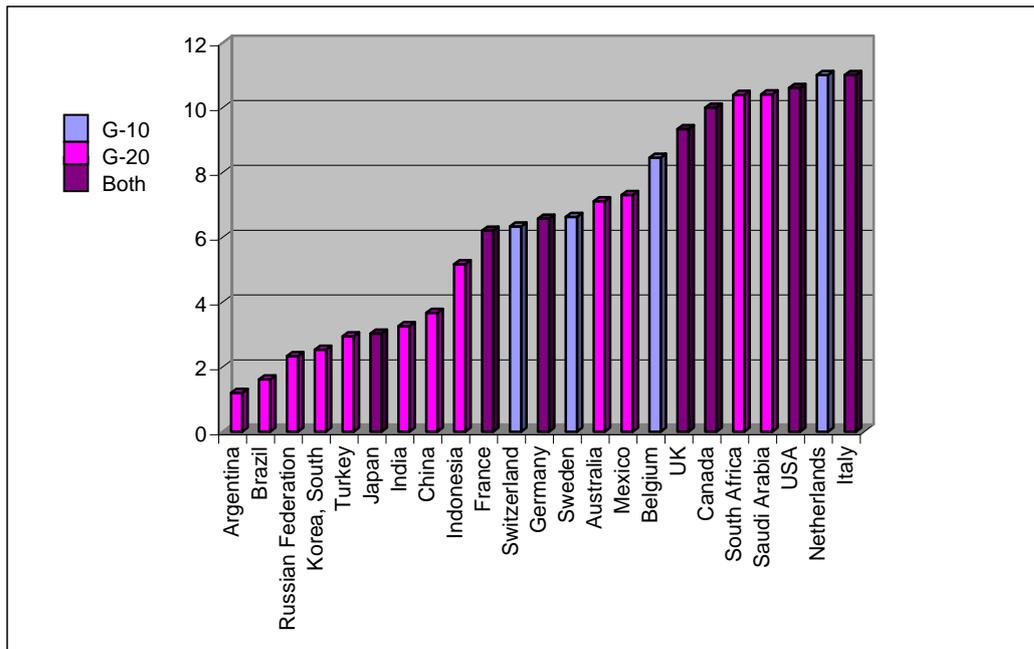
	1997	1998	1999	2000	2001	2002	2003	2004	Average
At end of term	8	11	12	6	7	12	5	11	9
Before end of term	11	5	15	7	6	7	17	14	10.25
Indefinite term	2	5	5	2	3	2	3	3	3.125
Unknown term	4	8	5	8	9	4	1	2	5.125
New Governor	–	–	–	–	–	–	3	2	2.5
<b>Total</b>	<b>25</b>	<b>29</b>	<b>37</b>	<b>23</b>	<b>25</b>	<b>25</b>	<b>29</b>	<b>32</b>	<b>28.125</b>

Source: Morgan Stanley, Central Bank Directory (2004).

Figure 2

**Average tenure in office, Governors of G-10 and G-20 countries**

Post-war period



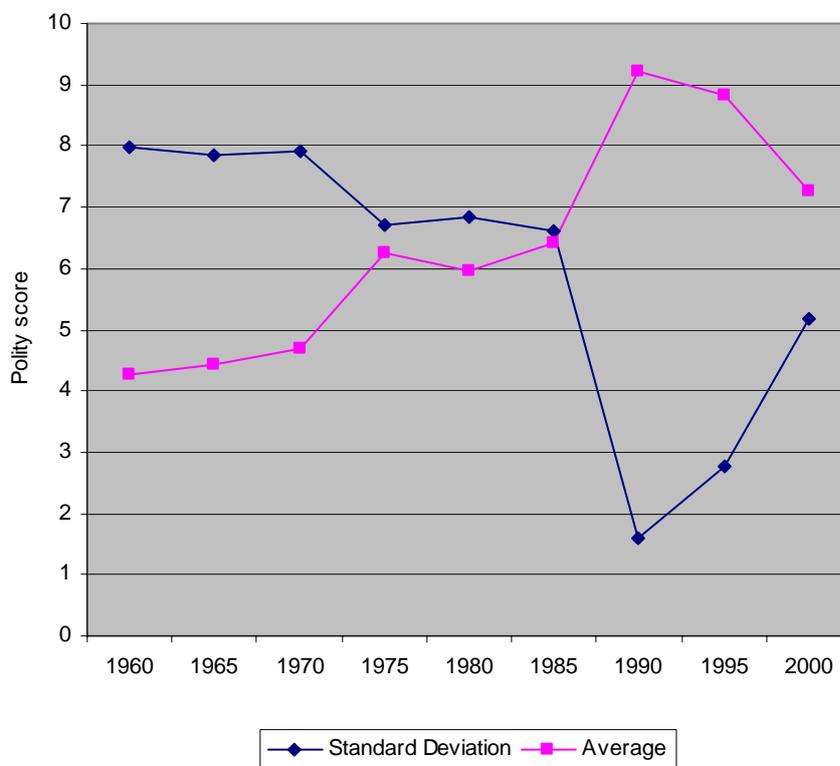
The broader institutional context in which central banks operate has been changing in important ways as well. The home states of BIS member banks for most of the postwar years were converging toward democratic governance. Using a common measure of democratic participation, the “polity score,”<sup>6</sup> we can see that a big positive shift (as well as a strong reduction in the standard deviation) took place with the democratic consolidation of Eastern Europe in the 1990s. Since 1990, however, the significant expansion of membership to Latin American and Asian countries reverses both of these trends (see Figure 3).

<sup>6</sup> The polity score is a commonly used measure of the degree of democracy that includes components measuring the extent of the franchise, political competition, free elections, and checks on executive power. See <http://www.cidcm.umd.edu/inscr/polity/>.

Figure 3

**Democratisation in BIS member countries**

Excluding: Bosnia & Herzegovina, Hong Kong, Iceland, and Serbia & Montenegro



The changing political organisation of BIS member states raises the possibility of some states trying to exert political control over central bank governors. While evidence is hard to come by, it is at least possible to look at the relationship between elections and the turnover of governors (see Figure 4). Among BIS members, election years and replacement of central bank governors appear practically to take a random walk. About 20 percent of all election years are also years in which the governor of the central bank is replaced within six months before or after an election. Never does the number of such coincident years exceed four, consistent with the received wisdom that most of the BIS member banks, at least in the democracies, enjoy a high degree of political independence.

If we focus in for a moment on the G-10 group of central bankers, some other interesting points that are potentially relevant for cooperation emerge. Suppose we take a snapshot of the background characteristics of the 10 (actually 11) governors for 1990, 2000, and 2005, coding for whether each has had experience as the following (note these are not mutually exclusive):

- Staff of the Ministry of Finance/Treasury
- Other government position
- Industry experience
- Private finance experience
- Academic background
- Worked at the IMF
- Worked at the OECD

Coding for each for the G-10 governors and calculating and then summing the standard deviation reveals a noticeable increase in homogeneity of backgrounds over time (see Figure 5).

Figure 4  
**Elections and CB Governor turnover**  
 BIS members only

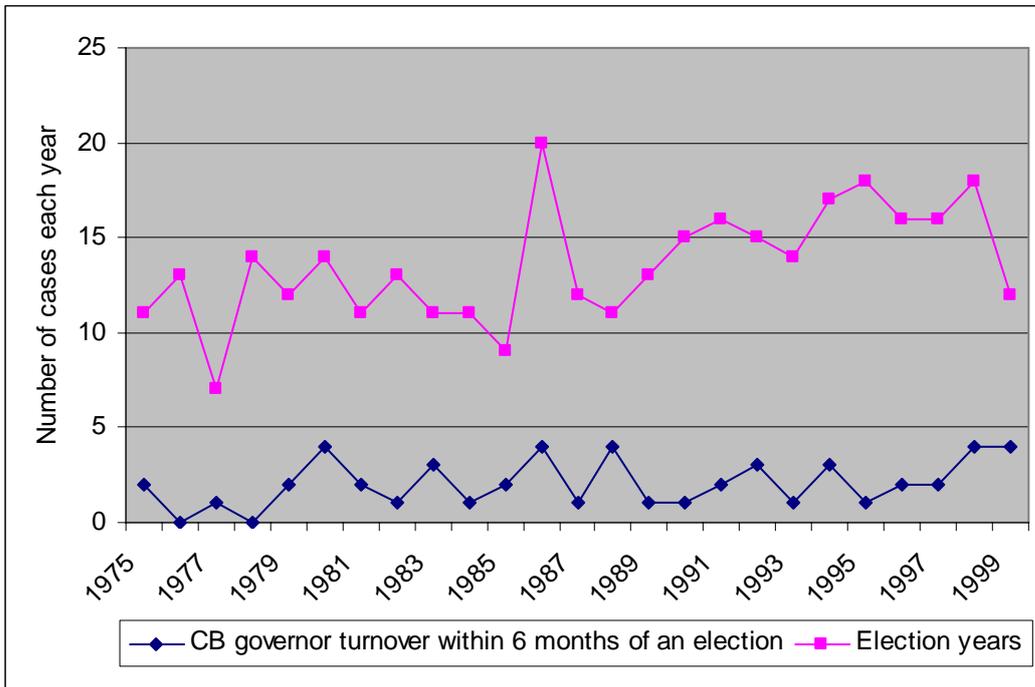
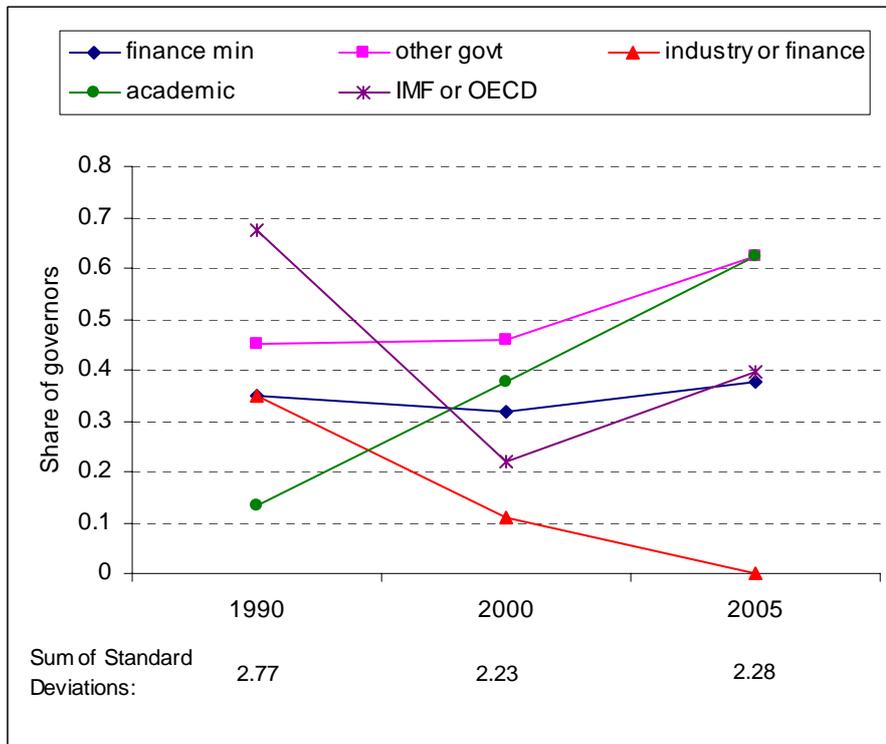


Figure 5  
**Background of G-10 central bank Governors, 1990, 2000 and 2005**



Source: Author's classifications based on various biographical encyclopedias and central bank websites.

The notable shift in the governors' backgrounds, however, is more interesting than the aggregate dispersion. Over these 15 years, G-10 central bank governors are much less likely to have an industry or private financial background. They are somewhat less likely to have worked for an international economic organisation, though there has been a slight increase in this proportion between 2000 and 2005. Experience in the finance ministry has just about held constant, while "other" government experience has increased somewhat. But the most significant trend to be revealed by a look at these bios is the *sharp and persistent rise in academic background*. In 1990, only one out of 10 governors had spent much (post-PhD) time in the academy. Among the current G-10 governors, six were once academics (to some degree).

This survey seems to suggest that central bankers are "structurally" and attitudinally fairly well-placed to take a cooperative approach to monetary and financial problems, and may be even more so in the future. Cooperation seems most likely among the obvious candidates: the G-10, and to a lesser extent the G-20 and the rest of the BIS members. Bankers associated with these institutions, especially the G-10, are more likely to have longer terms (*de jure* and *de facto*) and hence longer time horizons. Their politics and economies are much more homogeneous than are other groupings'. Up to the early 1990s, BIS members increasingly enjoyed the legitimacy that comes with democratic governance, while the political cycles and bank staffing cycles tend to run quite separately within these countries. G-10 governors are increasingly likely to be academics, interested in learning and persuasion; possibly more open than others to the power of evidence and reasoned argument. Of course, as Bordo points out in his comments that follow, the increased sophistication of central bankers may also improve their handling of monetary policy, reducing the *need* for international cooperation in the future.

In any case, this cozy homogeneity alone will not provide ready answers to some of the most difficult problems that will face central bank cooperation in the future. Globalisation has brought a plethora of heterogeneous players to the fore. The interconnectedness of financial markets will make it increasingly difficult to handle systemic risks from a narrow decision-making base. Tectonic plates are shifting in the global economy as China - increasingly powerful, steadfastly heterodox - seeks influence and the protection of her interests. However, rather than delve immediately into an analysis of cooperative approaches to address the East-West economic imbalance, I turn first to a far simpler problem: information sharing.

## II. Shallow cooperation: information sharing

It is hard to imagine central bankers accomplishing much in common without sharing information that is relevant to economic and regulatory policymaking in an increasingly interdependent world. The major central banks have been exchanging policy-relevant information for the better part of a century. In fact, information gathering and dissemination was one of the primary purposes of the BIS; I have argued elsewhere that one of the crucial initial functions of the Bank was to provide credible information about Germany's capacity to pay reparations in order to overcome informational asymmetries between Germany and her creditors (Simmons 1993). Practically every commentary on the BIS acknowledges the continuing role the institution plays with respect to information generation and sharing among central banks (Baer 2000; Bernholz 2003; Fratianni and Pattison 2001; Howell 1993).

Good economic and financial information is something easily taken for granted these days. Financial crises have revealed serious weaknesses, but have also created demands for more transparency and disclosure. The BIS has assisted in the development of principles of transparency in central banking,<sup>7</sup> and the International Monetary Fund has issued a series of "Reports on the Observance of Standards and Codes"<sup>8</sup> that use these principles as a guideline. For their part, IMF members can submit to voluntary reviews, which can be quite revealing. To analyse how well BIS members performed in this regard I read through sections of the reports for the three areas most relevant to central banking: monetary policy, banking supervision, and data dissemination (see Figure 6). Most members of the

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<sup>7</sup> These principles can be found at: <http://www.imf.org/external/np/exr/facts/mtransp.htm>.

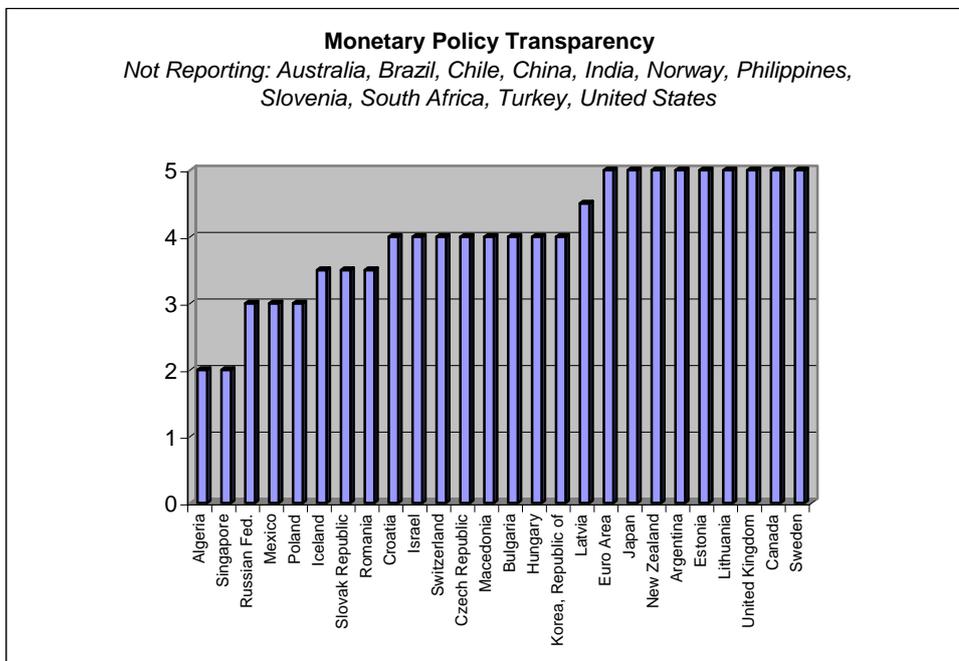
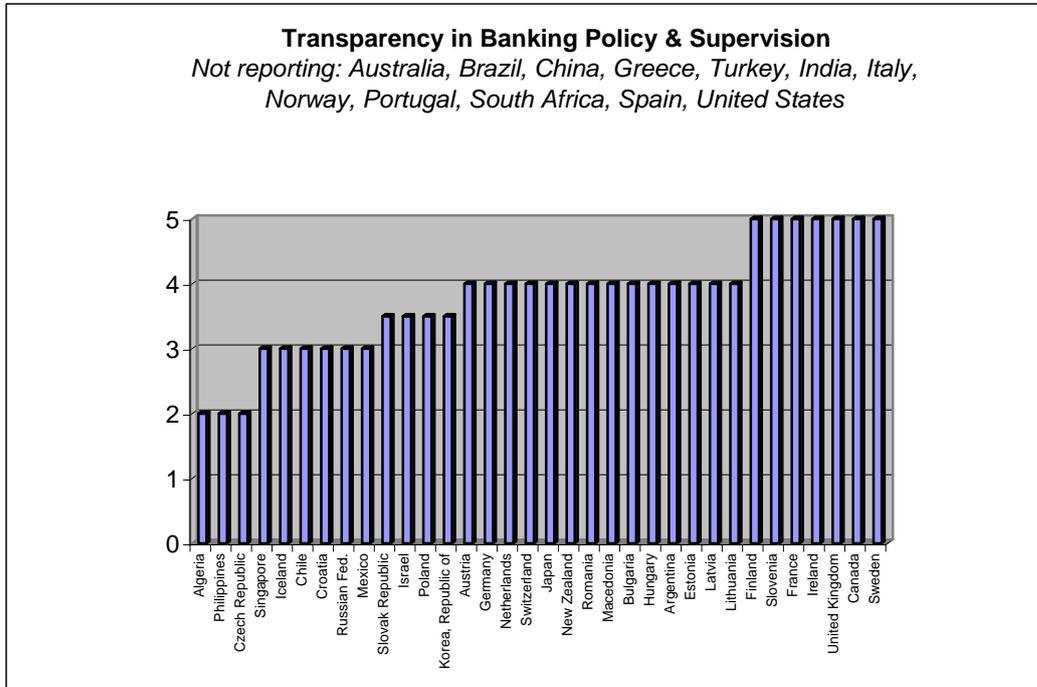
<sup>8</sup> These reports are located at <http://www.imf.org/external/np/rosc/rosc.asp>.

BIS rate in the “good” to “excellent” range when it comes to providing routine information regarding their monetary and financial/supervisory policies as well as accessible economic data.<sup>9</sup>

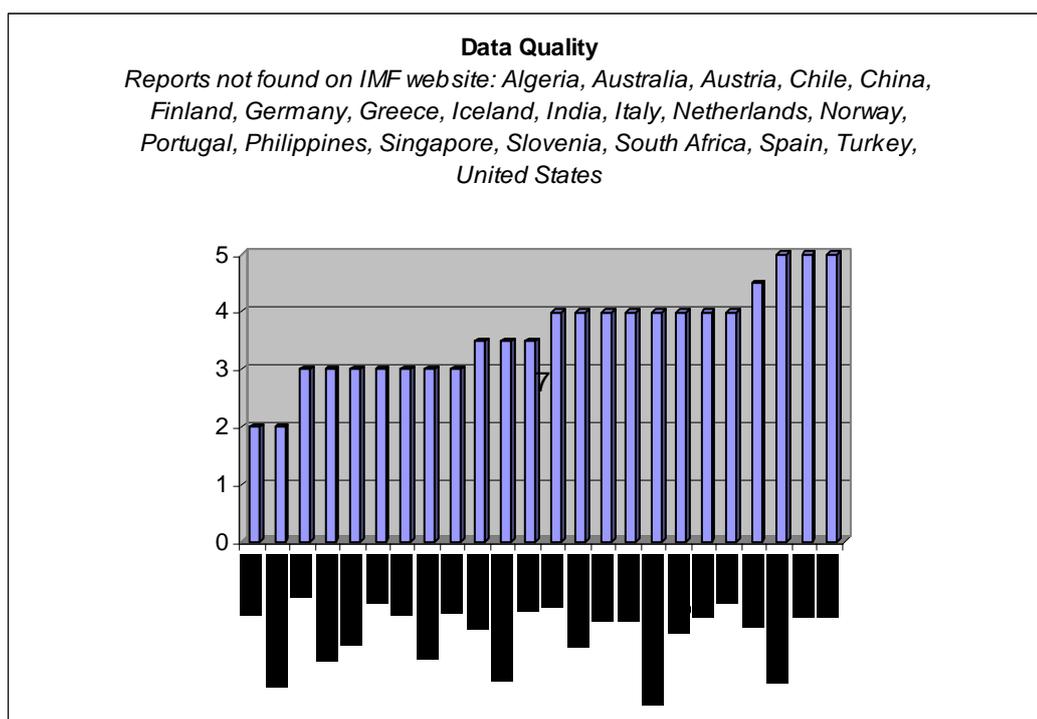
Figure 6

**Central bank transparency**

1 = poor, 2 = many shortcomings, 3 = some shortcomings, 4 = good, 5 = excellent



<sup>9</sup> For a study that argues that cooperation with these standards varies according to the extent of cooperation of private agents, see (Mosley 2003).



Source: Author's ratings based on information provided in reports rendered by the IMF staff. Reports can be found at: <http://www.imf.org/external/np/rosc/rosc.asp>.

**Countries that subscribe to the IMF Special Data Dissemination Standard (SDDS)**

Argentina	Egypt, Arab Republic of	Kazakhstan	Slovak Republic
Armenia	El Salvador	Korea	Slovenia
Australia	Estonia	Kyrgyz Republic	South Africa
Austria	Finland	Latvia	Spain
Belarus, Republic of	France	Lithuania	Sweden
Belgium	Germany	Malaysia	Switzerland
Brazil	Greece	Mexico	Thailand
Bulgaria	Hong Kong, SAR, PRC	Netherlands	Tunisia
Canada	Hungary	Norway	Turkey
Chile	Iceland	Peru	Ukraine
Colombia	India	Philippines	United Kingdom
Costa Rica	Indonesia	Poland	United States
Croatia	Ireland	Portugal	Uruguay
Czech Republic	Israel	Romania	–
Denmark	Italy	Russian Federation	–
Ecuador	Japan	Singapore	–

The SDDS is a standard for the level of coverage, integrity, accessibility, and quality of economic and financial data. Countries that subscribe to the SDDS promise to make public accurate and timely information across 18 categories of economic data, listed on <http://dsbb.imf.org/Applications/web/sddsdatadimensions/>. The list of member countries is available at <http://dsbb.imf.org/Applications/web/sddscountrylist/>.

The main point is that quality information in a standard format is increasingly available so that more and more central bankers are in a better position to compare and discuss economic and financial conditions. Moreover, this relatively new emphasis on transparency may have helped to alter normative expectations about information generation and disclosure more generally. Along with the information the BIS has helped collect and interpret from reporting private banks ever since the early 1960s, these transparency exercises have done a good deal to raise expectations about the quality and availability of information.

Information sharing is not just about data, of course. After all, if all the information central banks ever needed could be posted on a website, there would be much less reason to spend time in Basel. At least two other kinds of information are crucial to cooperation: theoretical information and information about policy plans and preferences. The former involves a discussion about the theories that underlie concepts that are not directly observable in the hard numbers. "Potential output," the "natural rate of unemployment," and the "equilibrium interest rate" are not directly measured; they are theoretical constructs that respond to new theoretical developments (Kozicki 2004). One of the most influential papers on policy coordination in the past 20 years has shown that where various national monetary policy authorities are not working from the same models - the same basic understandings of how the economic world works - they are less likely to be able to improve joint welfare (Frankel and Rockett 1988). Information sharing of this theoretical nature is an opportunity to learn and to persuade, to take a collective look at a situation and draw on broader wisdom to better understand economic reality.

Finally, information sharing is about "showing one's hand." It is about communicating policy preferences and the intensity with which they are held. As such, it is part of the natural bargaining process precedent to policy coordination. Information sharing of this kind is an exercise in giving notice, sometimes subtly, concerning policy choices that are being, or will soon be, implemented. It is important to note that in the absence of efforts to coordinate policies mere notification can reduce rather than enhance joint welfare. After all, an uncoordinated reaction to being informed of an undesired policy choice in another country could be to redouble the efforts to counter its effects - a classic case of working at cross purposes. In the absence of international coordination, it is possible for information to induce governments to pursue their own inefficient policies even more vigorously (Ghosh and Masson 1994: 172).

Generally, *information sharing is the easiest possible form of "cooperation."* Indeed, it is difficult to think of an instance over the course of the past century in which a lack of shared information *alone* led to a breakdown in more profound forms of central bank cooperation on policy.<sup>10</sup> This is not to say there have been no instances of "policy regret" as new information comes to light, but this is a problem in virtually all areas of monetary policymaking where knowledge is uncertain, projected data undergoes significant revision (Kozicki 2004; Orphanides and Williams 2003) or where information of a proprietary nature may be difficult to share. Finally, effective cooperation in today's (and even more so, tomorrow's) global economy will require the efficient and effective use of *real time* information. These are important difficulties, no doubt. Yet I believe that information sharing is likely to continue to be one area in which central bank cooperation will become increasingly routinised. Of course, information alone does not settle difficult issues such as *what constitutes wise policy, who bears the risks and who adjusts*. These issues will continue to complicate central bank policy cooperation in the future.

### III. Global financial stability: information and regulatory coordination

One of the prime innovations in central bank cooperation in the past two decades has been the collective attention given to the problem of the systemic stability of the interbank financial system. The forces that gave rise to this attention are likely to accelerate in the future. Institutional consolidations and the globalisation of financial markets are likely to continue to increase the interdependencies among major organisations, extending and intensifying systemic linkages. It will become increasingly

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<sup>10</sup> There have been cases of hostile policy actions, plans of which presumably central banks did not share with one another before their implementation. Richard Cooper (2005) cites the example of concerted French withdrawal of gold from Germany in 1929 during Young Plan negotiations. One might also include French conversion of dollars into gold in the 1960s. These are cases of hostile intent, rather than informational failure.

difficult to think in terms of “national banking systems,” as the complex web of connections across institutions, markets, and countries intensifies. With these changes we are likely to witness new sources of systemic risk and financial instability that private firms simply do not have the incentive to internalise (Hoenig 2004). As many analysts have noted, central banks - acting in their regulatory and supervisory capacity - can provide a real public service by devising and disseminating standards and practices that minimise the systemic risks associated with highly leveraged and highly interdependent banking institutions.

Critiques of the Basel Accord are easy to come by, but beginning in the 1980s central banks have successfully agreed to standards that address systemic risks.<sup>11</sup> Some say the original Accord was foisted upon a reluctant G-10 by the Anglo-Americans (Kapstein 1989; Kapstein 1992; Oatley and Nabors 1998); others note that it was hardly appropriate for banks in emerging markets, where much of the instability was likely to originate. Practically everyone has acknowledged the crude bluntness of the original Accord, with its undifferentiated 8% prudential capital requirement (Ferguson 2003).

What is interesting, however, is that the combination of external standard setting and internal enforcement has “caught on” in a rather convincing way. In my view, a surprising number of countries - many of which did not participate in fashioning the original Basel Accord (or its successor) and are not formally obligated to adopt it - indeed have done so (Ho 2002; Simmons 2001). It is widely viewed as having broadly achieved its primary purpose: the promotion of stability in world financial markets (Ferguson 2003).

Cooperation among central banks in the supervision and regulation of internationally active banks is not as “easy” as information sharing, though we shall continue to see a lot of progressive and, for the most part, successful activity (despite the varying roles central banks have in bank supervision and regulation). The key to this issue area is that standards of this nature are a *coordination problem*. The initial regulatory decision involves important distributive issues, but once these are resolved and a standard is accepted by an important core set of regulators, peripheral regulators have no interest in eschewing the core’s standard. Admittedly, market power and expertise play a huge role in the initial decision of *which* standard ought to become global, but once that is decided by a group as influential as the Basel Committee on Banking Supervision (which in turn is influenced by the preferences of a powerful subset), the incentives to strike out in another regulatory direction are relatively weak.

As for why, the central reason is the perceived nature of market pressures that encourage the adoption of “global standards.” International banking is characterised by information asymmetries that provide an opening for opportunistic behaviour. The adoption of a stringent regulatory and supervisory regime conveys information on the quality of a firm as a counter-party to an agreement. In this environment, an appropriate prudential and supervisory regime is a competitive advantage that other jurisdictions have an incentive to copy. In describing why they chose to adopt the original 1988 Accord on capital adequacy standards, for example, Bernard W. Fraser, governor of the Reserve Bank of Australia, remarked that, “there is considerable [market] pressure on others to follow - otherwise their banks risk being perceived as somewhat inferior institutions in competitive situations” (Fraser 1995). The same perceptions seem to surround adoption of the revised Basel II framework. Standard and Poor’s website claims that, “firms can use the regulatory imperatives of Basel II as an opportunity to push ahead of the competition... By using Basel II and other mandates as the catalyst for an enterprise-wide examination and refinement of its infrastructure and processes, a firm can achieve significant operational efficiencies and improvements.”<sup>12</sup> Similarly, Canadian consulting firms urge Canadian banks to adopt Basel II to “give themselves a competitive, high-performance advantage.”<sup>13</sup>

This is not the place (and I am not the person) to debate the technical merits of various approaches to the supervision and regulation of internationally active banks.<sup>14</sup> Rather it is the place to make the point

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<sup>11</sup> For a good review of the theoretical literature see (Santos 2001). For a discussion of the domestic politics underlying the harmonisation of regulatory approaches, see (Singer 2004).

<sup>12</sup> See <http://www.gtnews.com/article/5891.cfm> (accessed 30 May 2005).

<sup>13</sup> [http://www.accenture.com/xd/xd.asp?it=caweb&xd=locations%5Ccanada%5Cinsights%5Cpov%5Cbasel2\\_rewards.xml](http://www.accenture.com/xd/xd.asp?it=caweb&xd=locations%5Ccanada%5Cinsights%5Cpov%5Cbasel2_rewards.xml) (accessed 30 May 2005).

<sup>14</sup> The literature is immense. For a discussion of precommitment approaches versus “formulas” see (Estrella 1998). On the macroeconomic effects of Basel II see (Tanaka 2003) and (Griffith-Jones and Spratt 2001).

that the *politics* of coordinated approaches to systemic risks are reinforced to some extent by competitive market forces. Still, two kinds of problems remain. The first is that claiming to have adopted “international standards” and “best practices” may very well be a pooling equilibrium, a cheap signal that officials in both well-regulated and not-so-well-regulated jurisdictions may have an incentive to try to send. Thus, the reinforcing competitive mechanism I describe cannot work without a high degree of transparency regarding the extent of domestic implementation of these standards. While enforcement is generally recognised to be domestic, cooperative institutions such as the Basel Committee should continue to stand ready to verify (and publicise) compliance.

The second issue that may plague cooperation in this area is the nature and legitimacy of the standards themselves. Essentially, a small core of powerful and technically sophisticated regulators with input from the largest internationally active banks have defined what “international standards” and “best practices” mean.<sup>15</sup> I have no doubt the Basel Committee has the regulatory and financial expertise to develop such standards. I have somewhat less confidence that its standards are viewed universally as legitimate, or even appropriate, for banks the world over.<sup>16</sup> Canadian and Australian bank regulators may readily succumb to “competitive pressures” to adopt the recommendations of the Basel Committee, but will Indonesia (banking crises, 1992-99), Malaysia (banking crises 1985-1988, 1997-98), or India (banking crises 1991-98)? Will Chinese<sup>17</sup> or Islamic regulators<sup>18</sup> adopt Basel recommendations? Commentators have noted that developing countries lack not only the technical capacity to implement the new accord (Basel II) but the “political will” as well (Chami, Khan, and Sharma 2003). “Political will” may well remain weak as long as standards are propagated without the serious participation of regulators from developing country jurisdictions.

These questions will come to the fore in the future because the further integration of financial markets will push them there. One of the key findings of the research on banking crises is that these crises are typically preceded by capital account liberalisation (Kaminsky and Reinhart 1999).<sup>19</sup> Economists now have a pretty good idea of the factors that lead countries into banking crises: problems ensue following a period of expansion built on credit fueled by strong capital inflows and an overvalued currency, followed by a recession. Capital account liberalisation - on the agenda in the (distant?) future in China, for example - will create conditions that will challenge developing country banks. In the future, systemic consequences stemming from consolidation, which some predict as the result of more stringent reporting requirements, and intensification of these banks’ international activities will be potentially important.

Of course, financial stability requires concerted efforts that go beyond central bank cooperation. It will involve central banks, but also other bank and securities regulators - hence the creation of the Financial Stability Forum (FSF) in 1999. The FSF’s purpose is to promote international financial stability through information exchange and international cooperation in financial supervision and surveillance. To this end, it primarily involves authorities from the “significant international financial

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<sup>15</sup> The Committee’s members come from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

<sup>16</sup> It is important to note that the actual standards adopted have serious distributed implications. The original Basel Accord, some have maintained, was politically biased in granting OECD members a 0% weight for their country credit risk, while non-OECD countries had a 100% weight. This led to the financially difficult-to-justify situation in which Turkish debt would get a 0% weight and Singaporean debt a 100% weight. See (Fратиanni and Pattison 2001: 208).

<sup>17</sup> In China, for example, the China Banking Regulatory Commission (CBRC) has said that it will wait until China’s banks are fully compliant with Basel I before making the second stage a requirement. The lack of regulatory take-up in the region is one reason that, overall, its banks are behind those in other parts of the world in implementation. KPMG, the accounting firm, surveyed banking clients around the world last year on the status of their Basel II implementations. It found that 16 percent of Asian financial institutions surveyed had no Basel II implementation plans, the highest for any region. Another roadblock for the Asian financial institutions is that, even if many desire to opt for the more sophisticated, IRB approach, they lack the information required to build the databases for the credit risk models. According to Peter Poon, EDS sales director for Hong Kong SAR: “Credit assessment, particularly among small- to medium-sized enterprises, is still based on the relationship between the loan officer and the client - not a very systematic tool.” See article by Niles Lo, “Late for the Basel,” *CFO Asia*, May 2005; at <http://www.cfoasia.com/archives/200505-05.htm>.

<sup>18</sup> On the appropriateness of Basel type approaches to Islamic banking systems see (Muljawan, Dar, and Hall 2004).

<sup>19</sup> For a review of the literature on currency and banking crises see (Breuer 2004).

centres<sup>20</sup> as well as international financial institutions, sector-specific international groupings of regulators and supervisors, committees of central bank experts, and well-organised “special interest groups.”<sup>21</sup> Creating a permanent meeting forum for major regulators is an important achievement (Crockett 2001), but in the future there is likely to be a growing tension between the need for efficiency, which calls for an intimate gathering of the major players (Crockett 2001);<sup>22</sup> and global authority, which calls for much wider participation, especially on the part of Asian and Latin American representatives (Fратиanni and Pattison 2001).

Financial stability will also require monitoring much more information than seems to be currently available, which is not principally a problem of central bank cooperation as much as it is the ability of central banks and other regulators to get useful information from private financial entities. The Special Data Dissemination Standard examined above is a start, and the high frequency data this standard requires may eventually be forthcoming from firms. As long as reporting remains voluntary, however, central banks’ ability to address global financial stability will depend on the kind of cooperation they are able to elicit from firms operating in their own jurisdictions.

#### **IV. Urgent action: emergency liquidity**

Central banks have a long, if episodic, history of coming to one another’s aid in a liquidity emergency. Early examples include the Baring Crisis of 1890, the sterling crisis of 1906, and the American financial panic of 1907 (Eichengreen 1992). Within a year of its founding, the BIS had extended short-term credits to the central banks of Austria, Yugoslavia, Hungary, and Germany totaling some 750 million Swiss francs (\$145 million), although such funds were recognised as paltry compared to the looming financial disasters that avalanched throughout Central Europe in 1931 (Fraser 1936). In addition, the BIS organised informal consortia of central banks to extend emergency credits and, by the late 1930s, had developed facilities for reciprocal credits among central banks (BIS 1938). As well as a range of liquidity schemes arranged during the Bretton Woods period (Cooper 2005), the BIS arranged special support credits for the Italian lira (1964) and the French franc (1968), alongside two so-called Group Arrangements (1966 and 1968) and a third back-stop agreement (1976) to support sterling. In the 1980s and 1990s, the BIS extended short-term liquidity to central banks in Eastern Europe, Latin America, and Africa - whether or not they were members of the organisation at the time (Howell 1995) - in anticipation of longer-term loans under negotiation with the IMF.

Short-term credits to central banks in immediate need of liquidity is one of the things central banks are advantageously positioned to provide (Fратиanni and Pattison 2001). Decisions on these kinds of arrangements can be made quickly, and without the political scrutiny that government loans might receive. These loans, in contrast to those made by the IMF, do not include any explicit policy conditionality, making them easier to negotiate. Central banks hardly have a monopoly in this area, however. In Asia, for example, the Chiang Mai Initiative - an agreement to provide reserve swaps to increase liquidity in case of currency attacks - is primarily a product of cooperation between the ministries of finance, merely to be executed by their central banks.<sup>23</sup>

Meanwhile, in the West, central banks are increasingly recognising the need to reach understandings on access to liquidity in non-financial crises. After the terrorist attacks on 9/11, the Federal Reserve

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<sup>20</sup> Australia, Canada, France, Germany, Hong Kong SAR, Italy, Japan, the Netherlands, Singapore, the United Kingdom, and the United States.

<sup>21</sup> The International Monetary Fund, World Bank, Bank for International Settlements, Organisation for Economic Cooperation and Development, Basel Committee on Banking Supervision, International Accounting Standards Board, International Association of Insurance Supervisors, International Organisation of Securities Commissions, Committee on Payment and Settlement Systems, Committee on the Global Financial System, and European Central Bank.

<sup>22</sup> On the issue of expanding membership, Andrew Crockett comes down clearly on the side of keeping the Forum small: “Expanding the membership would [be] at the cost of increasing the size of the Forum, and therefore reducing the informality and making it more difficult to discuss.”

<sup>23</sup> For the series of bilateral arrangements negotiated by Japan’s Ministry of Finance see <http://www.mof.go.jp/jouhou/kokkin/pcmie.htm>. As of late 2003, 13 bilateral swap arrangements had been concluded worth a combined \$32.5 billion - a relatively small amount given the magnitude of borrowing during the Asian crisis.

established 30-day reciprocal swap arrangements with the European Central Bank (ECB), which drew on the swap facility on September 12, 13, and 14, 2001, and the Bank of England, and temporarily augmented its existing swap facility with the Bank of Canada (Board 2001). Because global capital markets are tightly integrated and because these markets respond negatively to major attacks and terrorist events, central banks in the future will have to develop disaster recovery plans - including but not limited to the appropriate provision of liquidity - in case of surprise cataclysmic events of a political nature (Chen and Siems 2004).

As a result, it may very well fall to central bankers to act as financial “first responders” well into the future. Rapid financial and capital account liberalisation may mean more currency crises in the future, reinforced by the unpredictable self-fulfilling behaviour of market actors (Wyplosz 1998: 71). In the event of political attacks, which are even more difficult to forecast, central banks may increasingly play the role of lender of *first* resort.

## **V. “Macro-management:” exchange rates and monetary policy coordination**

The future of central bank cooperation is the least certain in the broad area of “macro-policy,” by which I mean both exchange rate policy and, more ambitiously, monetary policy. Cooperation in these areas raises a number of issues that are difficult to resolve. Varying theoretical perspectives lead to different policy prescriptions. Evidence that coordination in these areas has “worked” as expected is mixed. Most importantly, since cooperation implies implementing policies with serious economic consequences that might not have been chosen on domestic grounds alone, the issues involved tend to be much more politically charged than any of those discussed so far. Now we are wading into issues of truly “deep” coordination, and the prospect of central bank cooperation is concomitantly less likely.

The actual coordination of macro policies has always been difficult for central banks to engineer. The Federal Reserve cooperated to facilitate Britain’s return to gold in 1924-25 by reducing interest rates, but was not willing to do so in 1928-29 when speculative profits were drawing money to New York (Clarke 1967: 151). Exchange rate commitments went by the wayside in the early 1970s because they were inconsistent with the basic orientation of United States monetary and fiscal policies. Anna Schwartz bluntly opines, “Coordination is a fair-weather instrument because countries have independent interests that they will not sacrifice for the sake of the collectivity” (Schwartz 2000: 23). Many would agree with Kenneth Rogoff’s assessment, that “Currency volatility is the price we pay for having independent monetary policies” (Rogoff 2005). The recent trajectory of economic theory, policy experience, and the reassertion of national priorities suggest central bank cooperation in these areas will be difficult to pull off.

### **Coordinated intervention - managing exchange rates and their volatility**

Monetary authorities may consider foreign exchange intervention to influence exchange rates for a number of reasons: when markets are perceived to be disorderly, when the medium-term level of the exchange rate is perceived to be too high or too low, and sometimes at the behest of foreign authorities who want to coordinate policies (Neely 2000; Schwartz 2000). Of course, relative to the size of foreign exchange markets, any single authority’s intervention resources are likely to be small, and in some cases unilateral intervention may be too difficult for market actors to interpret. Coordinating intervention with foreign central banks is supposed to improve the impact of the intervention, not only by increasing the resources used, but more importantly by sending a clearer signal to the market that the central banks have credible “inside information” about the economy and that they want to convey it as clearly and truthfully to the market as is possible to do.<sup>24</sup> They may also want to coordinate intervention in order to avoid working at cross purposes: that is, to preclude the

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<sup>24</sup> Some have even argued that central banks may “agree to coordinate intervention operations in order to free-ride off other central banks’ reputations for providing informative signals” (Dominguez 1990: 7).

possibility that their own signals will be offset or overpowered by signals from other, more credible central banks (Dominguez 1990: 7).

For starters, it is important to note that central banks are not institutionally at liberty to design and execute exchange rate policies in an unconstrained way. Policies are typically designed in treasury departments or finance ministries; central banks may be thought of as the “junior agency” in the management of exchange rate regimes (Schwartz 2000).<sup>25</sup> In fact, managing the exchange rate is not an explicit part of the mandate of the major central banks; rather their primary charge is price stability. According to its statutes, “The primary objective of the ESCB shall be to maintain price stability.” And: “without prejudice to the objective of price stability, the ESCB shall support the general economic policies in the Community with a view to contributing to the achievement of the objectives of the Community as laid down in Article 2 [of the Treaty on European Union]” (Treaty Article 105.1).<sup>26</sup> The Bank of Japan’s statutes stipulate that “The Bank of Japan’s missions are to maintain price stability and to ensure the stability of the financial system, thereby laying the foundations for sound economic development.”<sup>27</sup> And as for the Federal Reserve: “The Board of Governors of the Federal Reserve System and the Federal Open Market Committee shall maintain long run growth of the monetary and credit aggregates commensurate with the economy’s long-run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates.”<sup>28</sup> Since none of these banks are specifically tasked to defend or stabilise a currency, exchange rate policy coordination is likely to take a back seat to their primary mission.

Consensus regarding the usefulness of coordinated exchange rate intervention seems to have withered over the past decade. First, there is often no clear consensus on what constitutes an “appropriate” exchange rate, largely due to a lack of robust models of exchange rate determination to inspire coordinated action (Truman 2005). Second, the empirical research has turned up quite mixed results concerning the “success” of intervention,<sup>29</sup> though coordinated intervention seems to have somewhat larger effects than unilateral operations.<sup>30</sup> The effects of intervention (US, Europe, and Japan) do not seem to be as significant post-1989 as they were in the 1980s and the ability of intervention to reduce volatility has even been questioned recently.<sup>31</sup> Some research suggests that market players have been skeptical of the effects of intervention: the stability following the Louvre Accord was largely attributed by market actors to fundamentals, not exchange rate management (Rosenberg 1993). Third, theoretical developments in macroeconomics over the past decade (Obstfeld and Rogoff 1995) have thrown the assumption of gains from cooperation into question (Clarida, Gali, and Gertler 2001). Meanwhile, the debate over exchange rate price “pass-through” has led many to wonder if volatile exchange rates are really such a problem. Empirical research has revealed that exchange rate volatility greatly exceeds consumer price volatility and, to a lesser degree, import price volatility (Bacchetta and van Wincoop 2002; Betts and Devereux 2000). If exchange rate

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<sup>25</sup> For a good comparison of the relative responsibilities in the United States, Japan, and Germany (now irrelevant with the creation of the ECB), see (Henning 1994).

<sup>26</sup> The objectives of the Union (Article 2 of the Treaty on European Union) are a high level of employment and sustainable and non-inflationary growth. See ECB website, <http://www.ecb.int/ecb/orga/tasks/html/index.en.html>.

<sup>27</sup> Bank of Japan website, [http://www.boj.or.jp/en/about/about\\_f.htm](http://www.boj.or.jp/en/about/about_f.htm).

<sup>28</sup> 12 USC 225a. As added by act of 16 November 1977 (91 Stat. 1387) and amended by acts of 27 October 1978 (92 Stat. 1897); 23 August 1988 (102 Stat. 1375); and 27 December 2000 (114 Stat. 3028); as found at the Federal Reserve website, <http://www.federalreserve.gov/generalinfo/fract/sect02a.htm>.

<sup>29</sup> For a general review of the effects of central bank intervention on exchange rates, see (Sarno and Taylor 2001). Recent research on effectiveness of CB intervention on exchange rates includes (Evans and Lyons 2001; Kearns and Rigobon 2002).

<sup>30</sup> Coordinated intervention has been shown to have larger and longer-lasting effects, at least for the 1985-87 period (Dominguez 1990). Recent research in the dollar yen market also suggests that small unilateral operations are not likely to be an effective policy tool, though coordinated intervention sometimes delivers significant effects on the exchange rate in the short run (less than a month) (Fatum and Hutchison 2003).

<sup>31</sup> Dominguez’s results suggest that reported Fed intervention reduced volatility in the period 1985 through 1988 and *increased* volatility over the period 1989 through 1991 (Dominguez 1998). Since 1989, she finds there is little to no evidence that central bank intervention in the foreign exchange markets delivers noticeable reductions in market uncertainty, at least when measured as volatility in rates (Dominguez 2003).

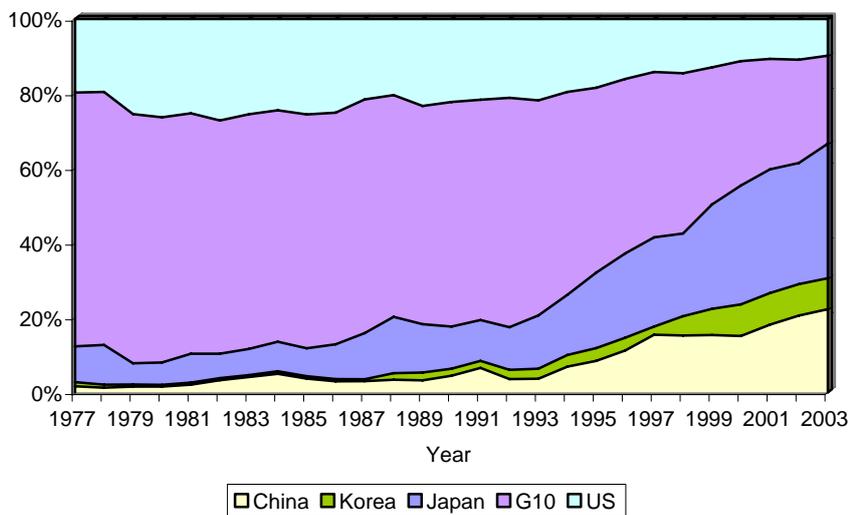
volatility does not have much effect on price stability,<sup>32</sup> why should it be a high priority of central banks?

Precisely which of these considerations is influencing decisions to intervene is not clear, but what is clear is that both the Federal Reserve and the ECB have drastically cut back on the practice. The last major coordinated intervention by the Fed, the ECB, and the Japanese MOF - to support the euro - was in September 2000. Prior to that, no coordinated intervention had occurred since August 1995,<sup>33</sup> when the United States Treasury coordinated intervention with the central banks of Japan, Germany, and Switzerland to keep pushing the dollar higher by buying the currency on the exchange markets. Proposals to stabilise “tripolar” exchange rates exist, but given current trends they are not likely to inform central bank cooperation in the foreseeable future.<sup>34</sup>

**The problem of China: a coordinated move to flexibility?**

“Quadra-polar” exchange rates (among the dollar, euro, yen, and Chinese yuan) are a distinct and serious issue. In essence, it is a problem of extreme global imbalance among the major economies, not just an exchange rate issue. The ingredients in this imbalance include the burgeoning US fiscal and current account deficits, Europe’s relatively slow growth, and Asia’s (especially China’s) relatively high savings rates. The imbalance has accumulated at least partially because the yuan remains linked to the dollar, at the cost of massive purchases of low yielding US debt by the Chinese central bank. At these exchange rates, a massive inflow of capital from abroad - totaling some \$2 billion every working day, and growing - finances American consumption. The dramatic shift over the past few decades in the proportion of reserves held by major central banks can be seen by comparing the reserves of Japan, China, and the Republic of Korea against those of the rest of the G-10 (see Figure 7).

Figure 7  
**Share of total reserves held  
 by the major economies**



<sup>32</sup> While many doubt the relevance of the “direct” effect of exchange rate volatility for the achievement of price stability, the indirect effects - sometimes referred to as “second round” effects - and aggregate demand effects might be more important. This is an unresolved empirical issue.

<sup>33</sup> The United States also bought yen in 1998.

<sup>34</sup> Among the best known are the target zone schemes of Williamson (1986, 1994, 1998), McKinnon (1998), and Bergsten (1999; <http://financialservices.house.gov/banking/52199ber.htm>). Economic critiques of these kinds of goals are well-known (Schwartz 2000). Thinking futuristically, Richard Cooper has proposed a common currency for Europe, Japan, and the United States (Cooper 2000). The instability of a “tripolar” exchange rate system has long drawn proposals for some form of nominal anchor; see for example the discussion in (Berner 1993).

The basic facts of this imbalance are undisputed. Where policymakers and analysts disagree is over its seriousness, its sustainability, and how best to (and *who* should) adjust. Optimistic assessments view the imbalance as sustainable, even logical, given China's need to attract high quality capital in the form of foreign direct investment (Dooley, Folkerts-Landau, and Garber 2004a; Dooley, Folkerts-Landau, and Garber 2003). The central bargain is stable, some have argued, since many Asian central banks (especially China's) are willing to intervene on a massive scale to prevent currency revaluation and finance the US deficit (Dooley, Folkerts-Landau, and Garber 2004b). The only real alternative for the Asian countries is to hold dollars (and finance US deficits) since the basically unhedgeable exchange rate risk for dollar asset holders would be intolerable were Asian currencies to appreciate (McKinnon and Schnabl 2004a; McKinnon and Schnabl 2004b). Federal Reserve Chairman (select) Ben Bernanke believes the imbalance emanates from a "glut" of global savings, and the inherent attractiveness of the US market to foreign investors, citing "no reason why the whole process [of reducing the imbalance] should not proceed smoothly" (Bernanke 2005; Cooper 2004). Moreover, Michael Bordo points out in his commentary that while today's imbalance is large compared to earlier periods that ended in serious recessions (the interwar gold standard and the twilight years of the Bretton Woods system, for example), the fundamentals of the international monetary regime today are stronger, and the major monetary authorities are better equipped to deal with the process of readjustment.

That said, many others believe the imbalances are unsustainable and have begun to propose various exit strategies. Paul Volcker has called the imbalances "... as dangerous and intractable as any I can remember ..." and calls for US fiscal discipline (Volcker 2005). The IMF, citing "reasons to be concerned that this [imbalance] cannot last," calls for a cooperative strategy to achieve fiscal consolidation and greater exchange rate flexibility, while expressing concern about the effects of rising US interest rates on emerging markets (IMF 2004). The consensus view among economists (to the extent there is one) is that some combination of deficit reduction in the US, structural adjustment to improve growth in Europe, and currency appreciation in China are needed to avoid a disruptive correction (Eichengreen 2004; Roubini and Setser 2005; Summers 2004).

My purpose here is not to recite the economics of these various policy options, but rather to place the future of central bank cooperation in this awkward context. What cooperative dilemmas will central bankers face in dealing with the imbalances in the global economy? First, there may be some difficulty in working out these issues in a G-7 context. China is not, after all, a regular member of this group and the governor of the People's Bank of China does not regularly attend the meeting of G-7 finance ministers and central bankers. A key player is outside a major institutional loop, sometimes invited (October 2004, February 2005), occasionally spurning invitations to take part (April 2005). The People's Bank of China was also a late-comer to the BIS, only joining in 1996.

The key point is that the People's Bank of China is not very well integrated - some would say, not well "socialised" - into institutional channels where the exchange rate issue might be cooperatively handled. This is an important point, especially since recent social science research shows that when China *does* become systematically involved in international or regional institutions, there is a significant change in the nature of the discourse among Chinese leaders and bureaucrats that evinces much more sensitivity to multilateral issues and China's interests in cooperative solutions to problems (Johnston 2002).

For its part, the G-7 meeting of finance ministers and central bankers does not appear to have made noticeable progress in handling the problem of these imbalances. The first communiqué to deal with exchange rate flexibility resulted from the Dubai meeting (September 2003), but all the US contributed to the "growth agenda" at that meeting was tax cuts and the hope of tort reform! The same statement on exchange rates was recycled for the communiqués of the next three meetings, though with language conveying greater urgency with respect to fiscal debts and restructuring to enhance growth.<sup>35</sup>

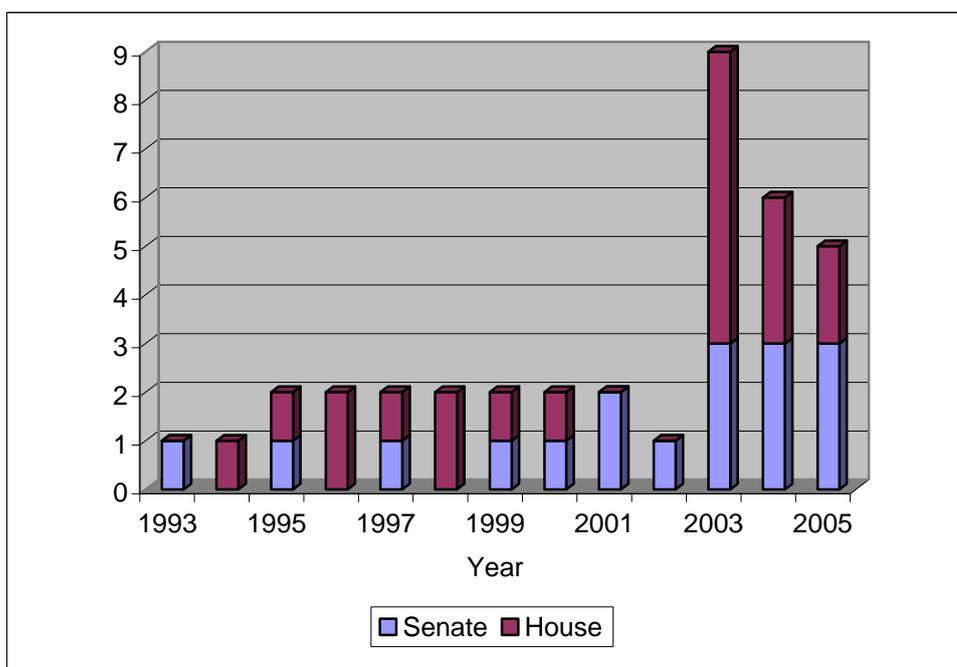
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<sup>35</sup> "We reaffirm that exchange rates should reflect economic fundamentals. Excess volatility and disorderly movements in exchange rates are undesirable for economic growth. We continue to monitor exchange markets closely and cooperate as appropriate. In this context, we emphasise that more flexibility in exchange rates is desirable for major countries or economic areas that lack such flexibility to promote smooth and widespread adjustments in the international financial system, based on market mechanisms." See <http://www.g8.utoronto.ca/summit/index.htm> for all G-7/8 communiqués. This point is also made by (Truman 2005).

Meanwhile, the dollar-yuan exchange rate is beginning to raise political pressures in the United States for more unilateral action and Congress is beginning to pressure the Administration to act. Figure 8 displays the number of bills introduced in Congress (House and Senate) that are substantially about the value of the dollar. The spike beginning in 2003 and continuing through 2005 (note these are bills introduced in the first quarter of 2005 alone) is almost completely accounted for by the problem of “currency manipulation” by China.

On July 21, 2005, China surprised financial markets by unpegging the yuan from its long-standing rate of 8.28 yuan to the dollar, responding in part to repeated calls for flexibility. The unpegging had two components - an immediate 2% revaluation, which lowered the exchange rate to 8.11 yuan to the dollar, and the introduction of a “managed float,” which would de-link the yuan from the dollar, and peg it instead to a basket of currencies whose composition is undisclosed. The People’s Bank of China has stated that the yuan will be allowed to trade in a tight daily band of 0.3% against the dollar, giving room perhaps, for a continued adjustment of the yuan’s value. Yet hopes for a larger readjustment have remained unfulfilled, as the current value of the yuan hovers around a rate of 8.09 to the dollar, barely 0.24% from its value at the time of the revaluation.<sup>36</sup>

Figure 8  
**Number of bills introduced in the US Congress  
 dealing with exchange rates**



China’s recent policy may or may not assuage political pressures in the United States agitating for more meaningful (some might say, precipitous) change. In the spring of 2005, Senators Charles Schumer (Democrat, New York) and Lindsey Graham (Republican, South Carolina) introduced a bill that would impose a tariff on Chinese exports to the United States if Beijing continues to keep the value of the yuan “artificially low” compared with the dollar. The minimal movement in the yuan may mean that such domestic pressures will persist. In an interesting rhetorical turn, “free trade” is being identified with and defined as a “free float.”<sup>37</sup> Even if there is little eminent danger of its passage into

<sup>36</sup> Rate of RMB to USD on 5 November 2005, <http://www.oanda.com/convert/classic>.

<sup>37</sup> In a 8 June 2005 Op-Ed piece in the *New York Times*, Schumer and Graham wrote, “Remember, a major tenet of free trade is that currencies need to be free to float in value against other currencies.” (p A-25).

law, the presence, persistence, and rhetoric of this bill and others like it raise risks of ill-advised unilateralism.

Imbalances of this scale also complicate the Federal Reserve's primary task - the conduct of monetary policy. Some evidence suggests that Asia's massive purchases of Treasury bills are weakening the Fed's ability to modulate US monetary policy. Recently, Treasury yields have weakened, even as official rates have increased. Demand from Asia, according to some studies, has kept US interest rates anywhere from 40 to 100 basis points below where they would otherwise be in the absence of central bank demand (Bernanke, Reinhart, and Sack 2004). "Monetary policy is most effective when it is clearly targeted, and it can't be used to fix *everything*" (Rogoff 2003) but if official demand for securities continues unabated, the Fed will soon have to worry whether monetary policy can do *anything*.

The economic imbalances between the US and Asia raise some cooperative issues not directly confronted in the past. Asia's apparent willingness to hold huge quantities of US securities (with a very low yield) raises a potential collective action problem among several Asian central banks. As Barry Eichengreen has noted in an important working paper, the large reserve holders are much less cohesive as a group than were the group of European holders of dollar assets toward the end the Bretton Woods period (Eichengreen 2004). India, China, Korea, Taiwan, and Japan have very different interests, but they do have one thing in common: they do not want to be the last holder of significant quantities of depreciated dollars. Some of the smaller holders may defect early in anticipation of depreciation to come, triggering a general sell-off in no country's interest. As a group, they face a collective action problem: how to avoid disorderly flight from the dollar that would involve huge capital losses. Part of the problem Asian central banks face is their weak record of regional cooperation and thin network of cooperative institutions (ASEAN, APEC, and the Asian Bellagio Group come to mind) needed to support collaboration. Central bank cooperation in Asia is in its infancy and observers seem in agreement that "the political and technical issues involved in a collective currency policy means that [cooperation] may be a long way off."<sup>38</sup>

As Asia transforms, as China and India grow and create regional centres of demand, and as democratising Asian polities become less satisfied with financing Western (especially American) consumption, the special position of the dollar is bound to change. The difficulties of cooperative monetary and exchange rate management are rife: Asian central banks tend to be far less independent of government control, the level of mutual trust is far lower, communications and cultural differences persist, and the security environment is much more tense than has been the case between the Western countries in the postwar years. Nonetheless, central bankers from Asia will increasingly have to be dealt with as full-fledged partners, not some-time visitors summoned to Western dominated institutions.

## VI. Conclusions

"Futurology" is a notably precarious exercise; no one has an accurate model of economic, political or other developments into the future. But central bank cooperation has adapted remarkably well to the demands of the times. From the efforts of individual bankers such as Montagu Norman and Benjamin Strong in the 1920s to achieve and help maintain a general return to the gold standard, to the efforts of central bankers in the 1960s to "lubricate" the Bretton Woods system of fixed but adjustable exchange rates, to the work of central bankers to develop and propagate supervisory standards for internationally active banks since the late 1980s, central bankers have been problem oriented. Cooperation among them has been shaped by the economic conditions they have encountered, the theoretical lenses through which they view the world, and even the political context in which they operate. Nothing better illustrates this proposition than the history of the BIS itself (Fratianni and Pattison 2001).

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<sup>38</sup> William Pesek Jr., "Commentary: The Buck, One Day, May Stop at Asian Central Banks." *International Herald Tribune Online*, Bloomberg News, 3 March 2005.

Central banks have successfully cooperated where it has been possible for them to do so. The informational landscape has largely been transformed and policies better informed by intensified standards of information provision. These efforts will continue to pay important dividends into the future, especially when banks, without a long history of mutual trust, need to work increasingly closely.<sup>39</sup> If there is one thing that can damage cooperative efforts it is mistrust, which flourishes in an environment of policy opacity. As central banks intensify their cooperation, there will be a growing demand to be able to verify good faith efforts to comply with agreements. Fostering a norm of transparency will make possible - though not necessarily easy - future cooperative efforts.

The most significant challenge for central bankers in the future will be to adjust to the changed economic realities vis-à-vis Asia. Asian countries are late-comers to the core institutions of central bank cooperation. For example, a consortium of banks represented Japan when it first joined the BIS in 1930. Japan then relinquished membership in the context of the San Francisco Peace Treaty of 1951, but regained representation when the Bank of Japan joined the BIS shortly before fixed rates collapsed - in 1970. China and India only joined the BIS in 1996; Korea in 1997. Despite the fact that Taiwan holds more foreign exchange reserves than all of Latin America, it is not a member of the BIS, though this is more an issue of politics than economics. In the future, Europeans and Americans might reconsider much more actively supporting regional cooperative arrangements in Asia, even if they operate independently from their Western counterparts. Last year, retiring Federal Reserve Chairman Alan Greenspan told a European Banking Conference in Frankfurt that he sees no need for more cooperation between the US, European and Japanese central banks. The banks are already doing "as much as is necessary" in terms of cooperation, he said.<sup>40</sup> In the very near future, it will be important to be able to say the same for trans-Pacific central bank cooperation.

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<sup>39</sup> As an aside I note that the IMF has posted only one Report on the Observance of Standards and Codes for the United States and none for China.

<sup>40</sup> "Greenspan says no need for closer US, EU, Japan central bank cooperation." *AFX News Limited*, 19 November 2004.

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## **Comment on Beth Simmons's paper, "The Future of Central Bank Cooperation"**

Michael Bordo<sup>1</sup>

This paper provides a very interesting overview of the past experience of central bank cooperation and issues for the future. The paper provides a useful taxonomy of types of cooperation ranging from relatively easy (sharing of information, standards for global financial stability) to the more difficult (international rescues) to the most difficult (coordinated exchange market intervention and coordination of economic policy to deal with global imbalances).

I very much agree with the sections of the paper on the provision of information. It seems obviously of value for central banks to share information on the solvency and liquidity of international banks and other financial institutions and on the future behavior of economic fundamentals that could have significant spillover effects which could heighten systemic risk. Simmons congratulates the BIS on its role in facilitating these aims and points out that the world has progressed considerably since 1931 or even since the crisis that accompanied the collapse of the Bretton Woods system over 35 years ago.

I am less sanguine however than Beth on the overall case for international rescues, as I have discussed in several articles with Anna Schwartz (Bordo and Schwartz 1999, 2000). The record shows that before 1914 rescues were episodic, limited in scope and usually involved a quid pro quo. As the twentieth century wore on, although coordinated rescues became larger, there is little evidence that they really worked. The classic case of failure was the 1931 rescues of Austria and Germany. One could say that if the French had been good guys and not tied their decision to join the rescue of the schilling to the Austrians not joining a customs union with Germany, and had all the players moved more quickly and been more generous in helping Germany it might have worked, but this seems dubious given the very bad fundamentals facing both countries.

The one example from that era where a coordinated rescue is generally given high marks is the July 1927 deal to save sterling, worked out on Long Island by Benjamin Strong, Montagu Norman, Hjalmar Schacht and Emile Moreau (see Meltzer 2003). In that package, the Federal Reserve Bank of New York, acting for the system, agreed to conduct open market purchases and to cut the discount rate (this expansionary policy reflected both concerns over a domestic recession which had begun in October 1926 and the international situation). Also the Banque de France and the Reichsbank shifted their gold purchases from London to New York, and the Reichsbank reduced its discount rate (Chandler 1958, pp. 275-277). It should also be noted however that because of this deal, Benjamin Strong was later (posthumously) blamed for causing the Wall Street boom, the crash of 1929 and the Great Depression, and in the Banking Act of 1933, the power to engage in international policy was taken away from the New York Fed (or any other Reserve Bank) and given to the Board in Washington, which did nothing until 1961 (Meltzer 2003, ch. 5).

In the case of Bretton Woods, the rescues of sterling arranged by the Fed, the BIS, the G-10 and the IMF before 1967 did keep the UK out of the fire for a time but as occurred in 1931, the British devalued in 1967. One could go on and discuss the rise and fall of the Gold Pool and all the actions taken to save the dollar from 1967 to 1971 which came to naught when the system collapsed in August 1971.

So the question arises, why do central banks engage in rescues if the fundamentals are wrong (i.e. in the interwar period when real exchange rates were fundamentally misaligned and in Bretton Woods when the U.S. was following policies inconsistent with its role as a key reserve country)? Perhaps the answer is that they do not believe that the fundamentals are wrong or alternately that the political costs of not acting are even greater.

I also have serious concerns over the case for coordinated exchange market intervention (EMI) and coordinated macroeconomic policy. With respect to the former there is very little evidence that such intervention, either uncoordinated or coordinated, really works, except possibly for a few days, and

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<sup>1</sup> Rutgers University and NBER.

then only in affecting market sentiment (see references in Simmons). There is little evidence that EMI is effective against the fundamentals (although its effects in reducing volatility are generally stronger than on the levels of the exchange rate).

The case against coordinated macro policy is even stronger. The attempt to coordinate monetary and fiscal policy in the 1970's (the "Locomotive") and the policies followed in the 1980's (after the Plaza and Louvre Accords) either backfired (as in the case of Japan's asset price bust in 1990) or were ineffective. So the question again arises, why are they followed? The probable answer is politics. If there is a widespread perception by the public, the press and government officials that there is a serious problem, it often leads to the conclusion that government(s) have to deal with it, although in the end it is the market that makes the real adjustment.

Beth Simmons also goes along with the consensus view that the world is currently in a state of massive imbalance reflected in huge U.S. current account deficits (and budget deficits) and foreign indebtedness; the Asian countries with mounting surpluses and central bank reserves; and European stagnation. To correct the imbalances major coordinated policy action is needed according to this view: China needs to revalue; Europe to reform and grow; and the U.S. to stop being profligate (especially its government).

The part of the equation which seems uncontroversial is European sclerosis, which is a serious long-run problem for the Europeans and the future of the EU and EMU even more than for the issue of global imbalances. The other parts of the equation seem overblown: (1) It is not clear that the Chinese yuan is overvalued in real terms (see recent FT article by Michael Connolly); (2) It is not clear that the twin deficits problem exists. A recent study by the Federal Reserve (Erceg et al 2005) finds only a minor contribution of the fiscal deficit to the current account deficit. Moreover, a strong case can be made that the rise in the U.S. current account deficit reflects a rising global demand for U.S. assets as part of the process of globalization and a decline in home bias. These forces deepened and broadened financial markets around the world, and above all in the U.S., which has seen a disproportionate growth in demand for its assets because it offers a higher real rate of return based on the economy's long-run good performance.

Moreover, according to Bernanke (2005), the imbalances largely reflect a glut in global savings, partially reflecting the aging of populations in Japan and some European countries, but primarily reflecting a reaction by East Asian monetary authorities to the effects of the Asian financial crisis of the late 1990's. These central banks prefer to hold dollar assets to protect themselves against similar shocks.

Thus in this view the current account deficit and the rise in U.S. net foreign liabilities reflect the demand for U.S. instruments by foreigners. Adjustment, to the extent it needs to occur, will be benign because the underlying long-run positive fundamentals will continue, and for two additional reasons: valuation effects - that to the extent dollar depreciation is unexpected, it will reduce the value of U.S. foreign liabilities (Gourinchas and Rey 2005) - and a reduced pass through; recent empirical evidence shows that only a very small fraction of dollar depreciation passes through to higher inflation (Greenspan 2005).

Moreover, it is not clear that the Asian central banks will dump their dollar assets in the near future. The Dooley et al (2004) argument that there are similarities between the current situation and the experience of the Bretton Woods system still has resonance despite the critiques documented by Simmons.

Finally, it is not clear to me that the current episode of imbalance is that bad compared to some earlier outcomes. In Bordo (2005) I document some earlier examples of good and bad outcomes of global imbalances.

The earlier episodes of bad outcomes clearly differ from those of today.

(1) The interwar experience was characterized by the basic problem that the World War I belligerents had returned to gold at misaligned real exchange rates (Meltzer 2004, Eichengreen 1992). (See figure 1.)

All the belligerents had serious inflations during the war and the restoration of the original gold parities involved deflation and recession. Britain restored parity at \$4.86 with an overvalued real exchange rate while France and Germany each greatly devalued their currencies and restored parities at undervalued real levels (see figure 1). The U.S. never left the gold standard but U.S. prices did not return to the prewar level so that its real exchange rate was also undervalued. This misalignment

meant that the U.S., France and Germany tended to run current account surpluses while Britain, and its empire and countries economically linked to it, ran deficits. Under the gold standard, this meant that gold tended to flow toward the surplus countries. Also under the gold standard rules, both creditors and debtors were supposed to adjust to the imbalances: creditors by allowing domestic price levels to rise; debtors by deflation. As it turned out, both the U.S. and France continuously sterilized their gold flows and prevented adjustment (Meltzer 2003). As a consequence they imposed deflationary pressure on Britain and on the rest of the world.

(2) The Bretton Woods system under which the U.S., as issuer of the key reserve currency, had to peg the dollar to gold at \$35.00 per ounce while the rest of the world pegged to the dollar, which served as international reserve and as an international medium of exchange. The U.S. was also supposed to follow stable monetary and fiscal policies. During the period from 1961 to 1967, McKinnon (1969) and others argued that the system did work as a de facto dollar standard, with the U.S. acting as financial intermediary to the rest of the world, importing short-term capital (dollar claims) and exporting long-term capital.

McKinnon (1969), Meltzer (1991) and others have argued that the system could have continued for an extended period as a de facto dollar standard. However two factors led to the collapse of the Bretton Woods system. First, the French resented the U.S. "exorbitant privilege" of not having to adjust to its payments imbalances because it was the principal reserve country. They wanted a return to a pure gold standard and to facilitate this outcome they converted their outstanding dollar claims into gold. Second, the U.S. began following inflationary monetary and fiscal policies, beginning in 1965, to finance the Vietnam War and the Great Society.

The expansionary policies increased both the U.S. payments deficit and European central bank reserves as the U.S. exported its inflation abroad. As a consequence the Europeans began converting their dollar claims into gold, threatening U.S. gold reserves. The system collapsed when Richard Nixon closed the gold window in August 1971.

(3) The 1977-79 dollar crisis. In this episode, the size of the U.S. current account deficit was much smaller relative to GDP than today (see figure 2) but real exchange rates with the DM and yen were way out of line (see figure 3), reflecting the legacy of rising U.S. inflation since 1965 (see figure 4) and bad monetary policy (seen in high rates of M2 growth; figure 5). Attempts to rescue the dollar in 1978 were unsuccessful (Solomon 1982).

Inflation kept rising, reaching double digit figures in September 1979. On October 8, Volcker announced his famous "shock" involving a rise in the discount rate to 12%, an increase in reserve requirements, and a change in operating procedure away from targeting the federal funds rate toward a non borrowed reserves aggregate. Following that announcement the pressure on the dollar eased.

Compared to the present period the imbalances of 1977-79 may seem small, at less than 2% of GDP, but the underlying problems were far more serious. They reflected bad monetary policy in the U.S. which created the Great Inflation. The depreciating dollar just reflected the poor record of inflation and recession and the expectation that monetary policy would not improve. In that sense the adjustment well reflected the underlying fundamentals.

Thus the 1970's episode and the interwar and Bretton Woods experiences were imbalances that had negative consequences. All three reflected inappropriate monetary policies that were inconsistent with the international monetary regime. In the first two episodes, the regime itself had serious flaws. By contrast, today it is in pretty good shape. Major countries follow stable monetary policies and adhere to credible nominal anchors (a commitment to low inflation).

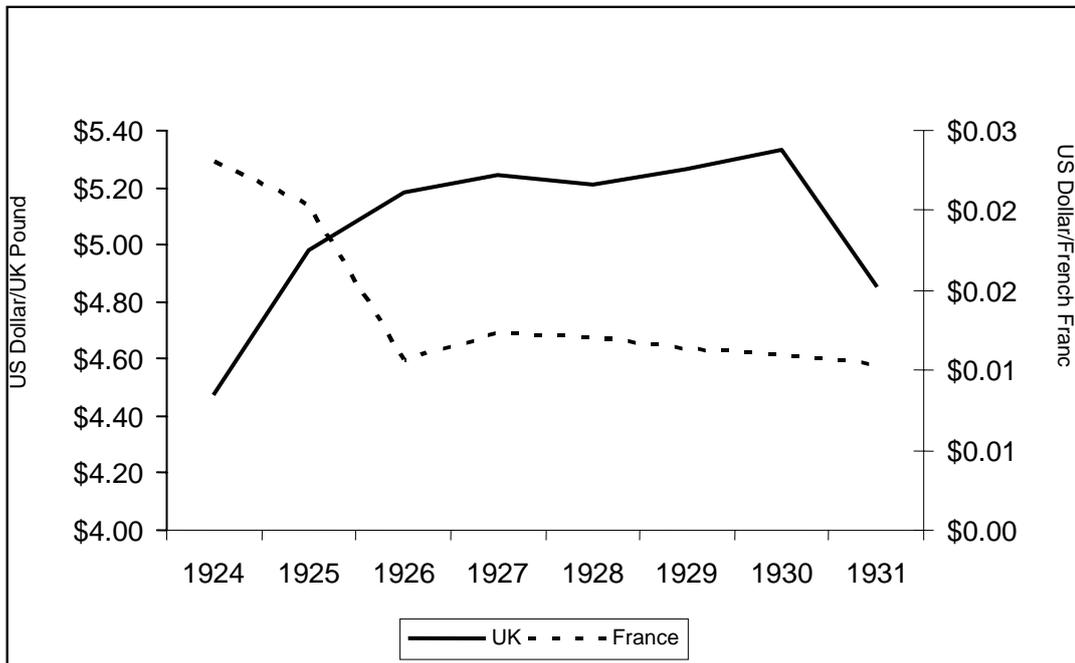
In some sense, today's environment echoes the classical gold standard, which was anchored by a credible nominal anchor, gold convertibility. In that early era, the huge imbalances associated with the transfer of capital from Europe to the countries of new settlement were adjusted to in a smooth fashion by relative price and short-term capital movements (Bordo 2005). Why should the adjustment to today's imbalances be systematically different?

Finally I want to raise a question posed by the view expressed on page 9 of Simmons' paper, that since more and more central bankers are PhD economists and have the expertise and sophistication to understand the forces that buffer the international economy, they should become more sympathetic to cooperation, especially within the G-10. If every central bank strongly adheres to a credible nominal anchor policy and targets the price level or follows something like Mervyn King's (2004) average inflation target (i.e. avoids the base drift problem of strict inflation), then the only forces that will affect exchange rates should be real shocks (productivity or resource shocks). The impact of such

movements in real exchange rates can surely be insured against by private sector portfolio diversification and consumption smoothing. This should weaken the imperative for more cooperation. Moreover, if each central bank follows sound financial stability policy, i.e. acts as a lender of last resort, and also deals with asset price booms; then again, why do we need international cooperation? Finally, because banking systems and financial institutions are becoming more global, the information provision and standard setting role of institutions like the BIS can help member central banks obtain the information they need to adapt their domestic policies to these international forces.

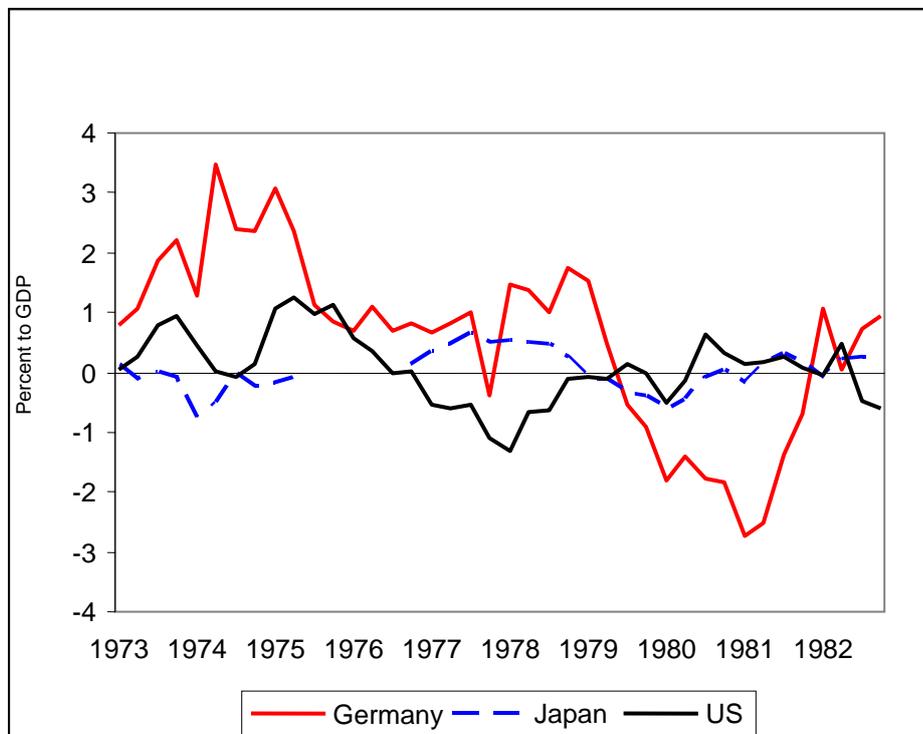
As a postscript I wondered about the sense of alarm expressed in the paper about China. It sounds like the alarm bells rung in the 1980's over Japan which in the end didn't amount to much. Why shouldn't China be a good player in the international financial arena? If they want to continue growing and play an increasingly important role in the world economy, why should they follow policies to jeopardize it?

Figure 1  
Real exchange rates (CPI)



The dollar-pound parity in 1925 was \$4.86 and the dollar-franc parity in 1927 was \$0.0392.  
Source: Bordo et al (2001).

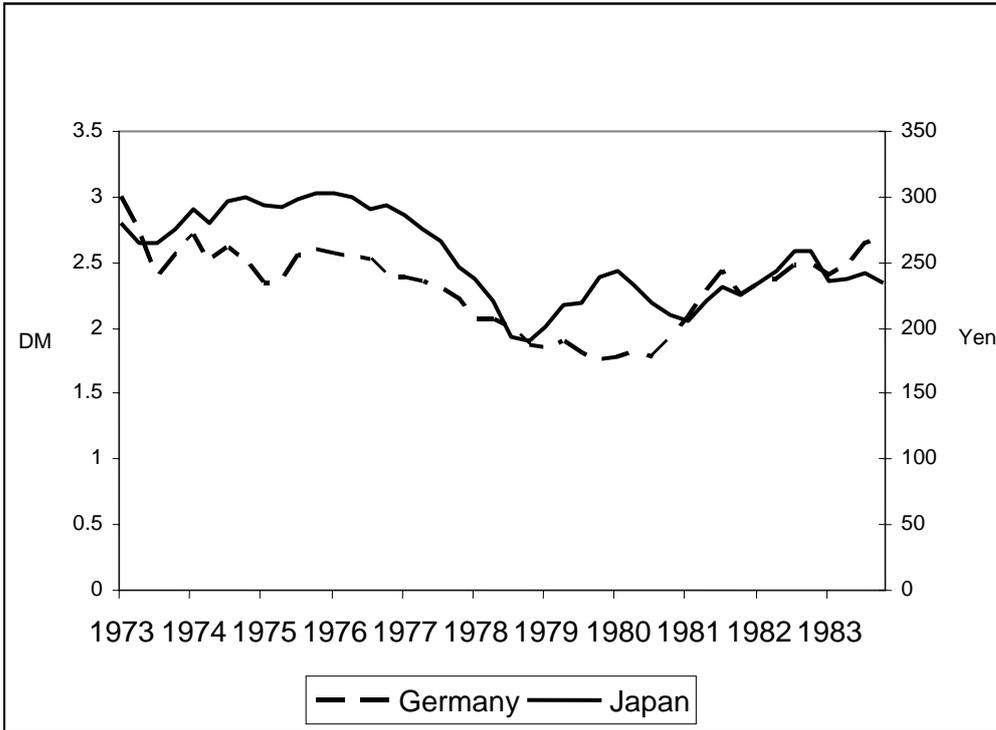
Figure 2  
Current account/GDP



Note: Japanese data from 1975 Q3 to 1976 Q4 unavailable.

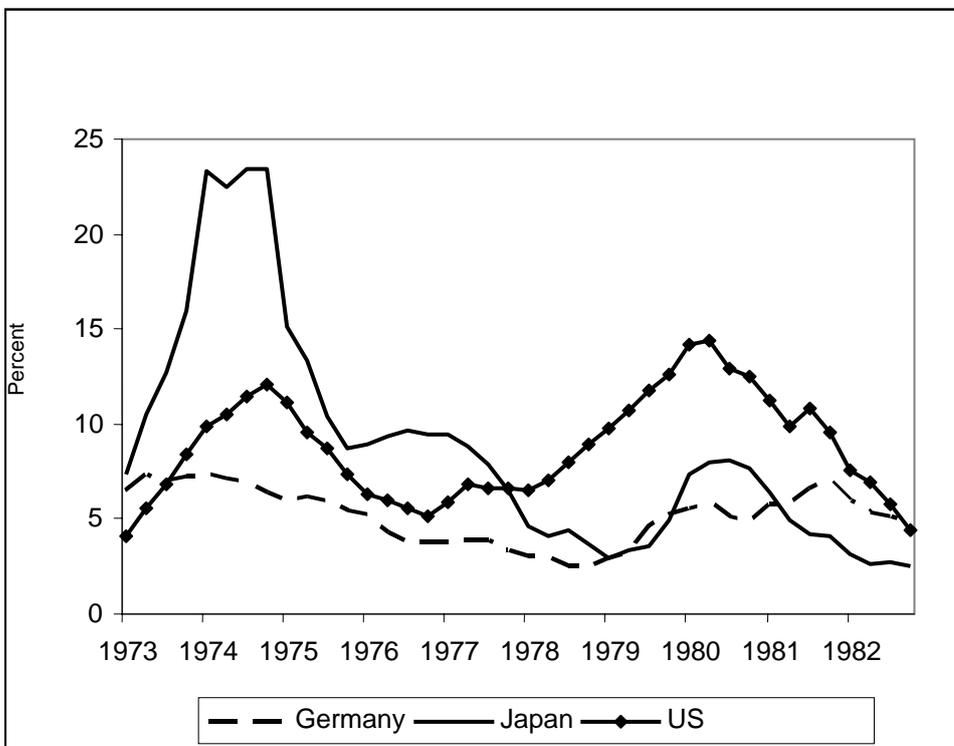
Sources: International Monetary Fund, Deutsche Bundesbank, Bureau of Economic Analysis, Federal Reserve Board.

Figure 3  
Exchange rates



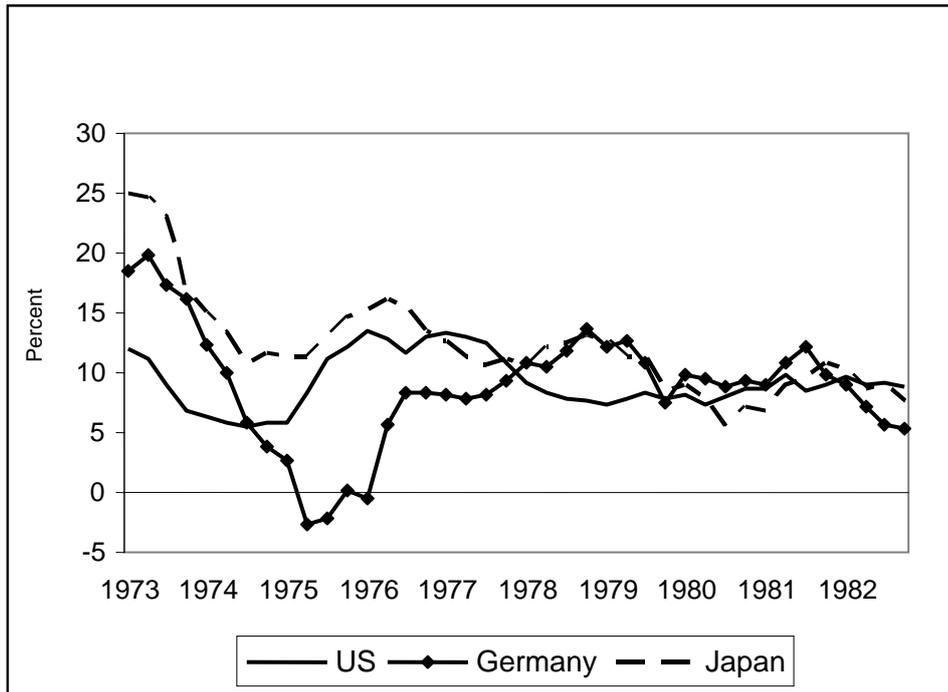
Source: Federal Reserve Board.

Figure 4  
CPI inflation



Sources: International Monetary Fund, Deutsche Bundesbank, Bureau of Labor Statistics.

Figure 5  
M2



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# Comment on Beth A Simmons's paper, "The Future of Central Bank Cooperation"

Edwin M Truman<sup>1</sup>

## Introduction

"Futurology" is a challenging endeavor for both economists and political scientists, and Beth Simmons rises to the challenge to prognosticate on the future of central bank cooperation in an informative and thought-provoking essay. Her bottom line is that central bank cooperation will continue to adapt "shaped by the economic conditions" that central bankers encounter.

In this comment, I first provide a brief summary of the essay. I next offer a few general comments. As is my responsibility, I offer some constructive criticisms with respect to emphasis and omissions. Finally, Simmons identifies relations with the central banks of Asia - their reserve holdings and the adjustment process - as the most immediate large challenge for central bankers. In this context, I outline a proposal for how central bankers could help address one aspect of that challenge by establishing an international foreign exchange diversification standard.

## Summary

Simmons introduces her informative essay with an examination of trends in central bank players (governors) and their institutions. She concludes that central bankers have become more homogeneous both in their background and in the institutional structures of their banks as well.

Simmons proceeds to examine four areas in which one might expect central bank cooperation to evolve in the future. First, with respect to the relatively uncontroversial, but nonetheless challenging, area of developing and sharing information, she supports continued fruitful efforts. She predicts they will increasingly become routinized. She also correctly observes that the demands of today's global economy will require more real time information and information sharing among central banks.

Second, the essay considers the area of global financial stability. Simmons concludes that this is also an area that will require continued cooperative efforts among central banks. However, she raises familiar issues with respect to (a) the implementation of global standards and (b) the adherence to such voluntary standards. She also notes the tension between the efficiency associated with standards drawn up by a small group of countries and their central banks and the legitimacy and authenticity of those standards for other countries.

Third, the essay touches upon the role of central banks as firefighters, for example, providing emergency international liquidity. Simmons reviews the historical activities of central bank cooperation in this area and suggests that in the future their roles might be confined to being "first responders" in the face of financial crises that threaten the stability of the financial system as in the response to September 11, 2001.

Fourth, the essay examines central bank cooperation with respect to issues of macroeconomic management. Simmons looks at exchange market intervention, and appears to conclude that central banks have shrinking roles to play. On the other hand, she addresses the challenge of integrating China and a number of other Asian countries into the framework of central bank cooperation. She rightly concludes that the G-7 is not the right forum for doing so, and implicitly endorses the G-20 as a better venue. In closing, Simmons points to the collective action problem associated with avoiding a disorderly flight from the dollar by Asian central banks that are now very large holders of dollars.

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## General Comments

This essay covers a lot of ground. It is introduced with a useful framework that differentiates among various dimensions of central bank cooperation and makes a nice distinction between (1) joint actions by central banks that may be “shallow” and essentially uncontroversial because almost everyone agrees that central banks should cooperate in certain areas such as the production and sharing of information<sup>2</sup> and (2) joint actions that may be “deep” such as addressing a specific objective that might later prove to be mistaken.

I also liked the background material in the essay on central bankers and their institutions. The emphasis is not only on trends among G-10 central banks or BIS-member central banks, but also on G-20 central banks as a leadership group. Simmons appears to endorse the G-20 as a reasonable set of countries to consider as the nucleus of the central banking community in the years ahead. I applaud her for this because it coincides with my own bias (Boyer and Truman 2005).

Simmons’ consideration of the four areas of central bank cooperation is reasonable. The reader has to work quite hard, however, to deduce what are her conclusions.

## Constructive Criticism

The role of a commentator is not just to praise but also to offer informative criticism. In that spirit, I offer four observations.

In considering the role of central bank cooperation in the area of global financial stability and the setting of standards, Simmons acknowledges the varying roles that central banks in different jurisdictions have in supervision and regulation. However, she apparently does not acknowledge and implicitly does not attach a great degree of importance to the fact that the number of central banks with a major role in banking or financial market supervision is diminishing.

I view this trend as a problem for two reasons. First, it increasingly takes central banks out of a direct stake in the process of setting global standards. Central banks have a great deal to contribute in this area precisely because they are concerned with broader issues than the safety and soundness of individual financial institutions. Moreover, central banks have long-established global networks of relations - more so than other regulators. As a result, they are better positioned to nurture the development of global standards in this area as a step toward improved global governance. Second, it is unrealistic to insulate central banks from some involvement in this area; when a problem arises, governments turn to central banks because that is where the money is. It follows that the central banks should be deeply involved at home and abroad from the start.

Implicit in Simmons’ discussion of central bank cooperation in the provision of emergency liquidity is the view that the scope for such actions in the future will be more circumscribed than in the past.<sup>3</sup> The explanation lies in the fact that central banks have become more independent of their governments and, at the same time, standards of central bank transparency have been upgraded. Thus, it is much more difficult for a central bank, acting on its own authority, to provide financial support to central banks in other countries. Moreover, central banks are expected to reveal immediately the existence and details of any such operations. Thus, efforts to window-dress a country’s foreign exchange reserves without actually providing useable foreign exchange, which were common for the first 40 years after World War II with the BIS playing a central role, are a thing of the past. In addition,

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<sup>2</sup> As one who was for many years actively involved in these efforts, I am skeptical about Simmons’ view that they lend themselves to becoming “increasingly routinized.” I can attest that reaching agreement on improvements in cooperative data collection exercises never was easy or routine. At a minimum, central bankers had to be convinced that the benefits outweighed the costs of providing the new or improved data; at a deeper level they were concerned about the direct financial costs to their institutions, about revealing limits in the capabilities of their institutions to generate the data, and about disclosing exposures of their institutions to the risks the data might uncover.

<sup>3</sup> Simmons comments correctly that even those historical activities “plateaued far short of [central banks] acting as [international] lenders of last resort.”

lending another central bank resources that it might actually spend and not repay is now generally frowned upon.<sup>4</sup>

In the area of exchange market intervention involving the major currencies, I interpret Simmons as sympathetic on balance to the view that such operations among major currencies are effective, implying this is a central bank tool that has inappropriately fallen into disuse.<sup>5</sup> My view (Truman 2003b) is that the evidence that sterilized foreign exchange market intervention by the issuers of the major currencies has any significant effect beyond a few hours or a day or so is decidedly scant. Moreover, most of the intervention we have seen in the past five years by countries with floating exchange rates, e.g., Japan and Korea, has been either for the account of the finance ministry or directed by the finance ministry. In effect, central banks are out of this business because they understand that sterilized intervention is ineffective. In addition, central banks are reluctant to be criticized, e.g., Korea again, for taking on a large amount of exchange risk because such criticism may jeopardize their independence.

If Simmons wanted to expand her exercise in futurology, she might have addressed two topics.

First, she could have considered the trend over the past 15 years toward the adoption of inflation targeting as a framework for the conduct and evaluation of monetary policy and whether central bank cooperation will evolve in the direction of an even larger number of central banks adopting this framework. I have argued that if the G-3 central banks of the Euro area, Japan and the United States would do so, it would enhance central bank cooperation (Truman 2003a) by establishing a common framework and facilitating dialogue, analysis, and potential joint actions.

In addition, the more widespread adoption of inflation targeting might be seen as a step toward the adoption of a common monetary policy and ultimately one money.<sup>6</sup> Although the latter step would involve governmental decisions, enhanced central bank cooperation, including through the adoption of inflation targeting, could help to pave the way.

A second area that she might have covered is the dramatically diminished involvement of central banks with the activities of the IMF. In part, this trend reflects the fact that the monetary policies of major central banks were liberated by the collapse of the Bretton Woods system of exchange rate arrangements. On the other hand, a number of G-10 central banks recently have spearheaded efforts to limit the size of IMF programs. In doing so they offer sacrifices on the altar of the false god of moral hazard. The unintended, but serious, effect of their campaigns has been to weaken support for the IMF around the world, particularly in Asia.

## The Collective Action Problem

Simmons identifies the challenges associated with the integration of Asian central banks into the framework of central bank cooperation that has evolved over the post-Bretton Woods period. In particular, she argues that central banks face a collective action problem in connection with the potential for a disorderly flight from the dollar via active reserve diversification.

On the general issue, Simmons under-appreciates the degree to which Asian central banks have been “socialized,” to use her term, over the past decade within the BIS community. The People’s Bank of China and the central banks of several other Asian economies became members of the BIS in 1996, and some participated in meetings at the BIS before that date. There are now eight BIS members from Asia, aside from Japan, and my judgment is that those central bankers, governors as well as

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<sup>4</sup> The Federal Reserve’s swap network has been scaled back to include only its NAFTA partners, Canada and Mexico. It is true that under the Chiang Mai Initiative a small swap network has been developed in East Asia, but central banks are primarily involved as agents not principals. In addition, the BIS itself retains the authority to make small short-term loans to member central banks for its own account.

<sup>5</sup> She does acknowledge that there is some dispute about the effectiveness of foreign exchange market intervention by issuers of major currencies, but by covering this issue she implies she does not agree with those critiques.

<sup>6</sup> Simmons does note the view of Cooper (2000) on this prospect but does not take the matter any further.

associates, are fully integrated into the central banking community at the BIS.<sup>7</sup> Indeed, the BIS should be congratulated for the skillful way it has broadened and deepened its activities over the past decade. Other international organizations have not done nearly as well.<sup>8</sup>

Turning to the issue of potential reserve diversification, its financial importance is easily exaggerated. The phenomenon focuses on a small number of countries. As of the end of July 2005, only 21 countries held more than SDR 25 billion (\$39 billion) in foreign currency reserves.<sup>9</sup> It is highly unlikely that the authorities in any of these countries will abruptly embark on a program of substantial, active diversification of the stocks of their reserves. Those authorities are acutely aware of the risks involved in terms of disrupting exchange rate relationships as well as precipitating the perceived capital losses that they want to try to avoid.

However, those capital losses are more apparent than real. If the dollar declines substantially further relative to the euro and the Japanese yen, which is highly probable over the next several years, the authorities will suffer a loss only in terms of opportunity cost. If their own currencies appreciate substantially against the dollar, they also will suffer an accounting loss, which may be politically awkward but has no economic consequences. The purchasing power of their dollar reserves will be essentially unaffected.

Nevertheless, perceptions matter and rumors of large-scale official reserve diversification can be more disruptive to financial markets than the actual diversification. It is for this reason that I have proposed (Truman 2005) an international initiative with respect to reserve diversification. I believe that the G-20 central banks meeting at the BIS should take the lead in this area. My proposal includes the following elements:

First, as a supplement to the "Data Template on International Reserves and Financial Liabilities" (reserve template) of the IMF's Special Data Dissemination Standard (SDDS), the major industrial countries should commit to providing regular information, for example, at least quarterly with a one month lag, on the currency composition of their foreign individual holdings of exchange reserves (off-balance-sheet as well as on-balance-sheet). At least 23 of the 48 countries that subscribe to the reserve template of the SDDS and that have committed to supplying historical data on their reserves also now voluntarily provide periodically (at least annually) specific information on the currency composition of their foreign exchange reserves.<sup>10</sup> Those countries that voluntarily disclose some information on the currency composition of their foreign exchange reserves include 11 industrial countries (Australia, Canada, Finland, Germany, Iceland, New Zealand, Norway, Sweden, Switzerland, the United Kingdom, and the United States) and 12 emerging market economies (Bulgaria, Colombia, Croatia, Hong Kong, Latvia, Lithuania, Peru, the Philippines, Romania, the

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<sup>7</sup> In addition, the central banks of all the countries in the G-20 are members of the BIS.

<sup>8</sup> G-10 central banks are part of this broader problem. The attacks by certain G-10 central banks on the size of IMF programs has as a by-product alienated Asian governments and central banks from the IMF and on the margin contributed to the build-up of very large reserve holdings.

<sup>9</sup> Seven are industrial countries: Australia, Germany, Japan, Norway, Switzerland, the United Kingdom, and the United States. Five of these are members of the G-20. Fourteen are emerging market economies: Algeria, Brazil, China, Hong Kong, India, Korea, Malaysia, Mexico, Poland, Russia, Singapore, Taiwan, Thailand, and Turkey. Seven of the emerging market economies also are members of the G-20, for an overall total of 12, more than half of the 21 large holders. All except Taiwan are members of the BIS, and my impression is that Taiwan informally participates more often in activities with the BIS than with any other international organization aside from APEC.

<sup>10</sup> Full compliance with the reserve template requires the periodic disclosure of international reserves broken down by currencies in the SDR basket as a group (the euro, Japanese yen, UK pound, and US dollar) and those not in the SDR basket. Additional disclosure of the currency composition of foreign exchange reserves is optional. The 48 countries comply by providing historical data on their reserves including information on the type of investments held, for example, securities, bank deposits (in domestic or foreign banks, onshore and offshore), and equities, as well as on-balance-sheet and off-balance-sheet assets and liabilities. An additional 13 countries subscribe to the SDDS and must comply with the reserve template going forward, but do not supply historical data.

Slovak Republic, Slovenia, and Uruguay). See table 1.<sup>11</sup> Together their foreign exchange reserves were \$532 billion as of July 2005, or 15 percent of the global total of \$3.5 trillion.<sup>12</sup>

This is an excellent start on transparency in this area. Increased transparency would reduce financial market uncertainty regardless of whether the other elements of my proposal were adopted. What is important to recall is that the development of the original reserve template that was incorporated into the SDDS was a project of the G-10 central banks meeting under BIS auspices. Expanding that template to *mandate* the disclosure of the currency composition of foreign exchange reserves should similarly be an exercise in central bank cooperation under the aegis of the BIS logically involving the G-20 countries, which hold two thirds of global foreign exchange reserves.

As a second step, a standard for reserve diversification should be established. One starting point might be one third US dollar, one third euro, and one third yen for countries other than the United States, Japan, and those in the Euro area. The standard for the Euro area, Japan, and the United States might be fifty-fifty. In both cases, countries could be permitted discretion of up to, say, plus or minus 10 percentage points. Alternatively, each country could declare a different benchmark as long as it disclosed its benchmark and its compliance going forward, and as long as the country committed in advance to a smooth adjustment to any new benchmark.

Third, Japan and the Euro area should agree to an off market transaction to swap dollars for euro and yen assets, respectively, to achieve the fifty-fifty standard. The United States is close to fifty-fifty already; see table 1.

Fourth, Japan and the Euro area should agree to feed the swapped dollars into the market on a daily basis over a period of at least five years. Assuming that each holds only dollars today, which is an extreme estimate, the total dollar holdings to be disposed of would be \$500 billion, or \$100 billion a year, or about \$400 million a day. The resulting effects on foreign exchange rates of the regular daily sales of \$400 million are likely to be trivial in a market for which daily turnover was \$1.9 trillion according to data in April 2004.<sup>13</sup>

Fifth, other countries should be encouraged immediately to diversify their current marginal purchases of dollars according to the standard or their benchmark. They also should be encouraged to adjust their existing portfolios smoothly over a five-year period following the suggested examples of Japan and the Euro area. If the Japanese and Euro-area authorities wanted to facilitate this process by other countries or to stretch it out for more than five years, they could engage in swaps of their currencies for the dollars held by other countries and, thus, remain in control. They might be motivated to do so out of concern over their respective dollar exchange rates.

The full establishment and implementation of this standard not only would increase transparency but also would remove considerable uncertainty overhanging international financial markets without causing large effects on exchange rates.

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<sup>11</sup> The countries listed in table 1 include a few, as noted in the table, that disclose only the break between their US dollar and non-US dollar reserves.

<sup>12</sup> The 23 countries include seven of the 21 with significant holdings of foreign exchange reserves (more than SDR 25 billion at the end of July 2005): Australia, Germany, Hong Kong, Norway, Switzerland, the United Kingdom, and the United States. The 11 industrial countries hold 24 percent of the total foreign exchange reserves of industrial countries, with Japan with 63 percent of industrial countries' foreign exchange reserves the only major holdout. Six G-10 countries are on the list, accounting for 18 percent of G-10 countries' foreign exchange reserves. Five G-20 countries are on the list, accounting for 7 percent of their combined foreign exchange reserves.

<sup>13</sup> Hildebrand (2005) describes a similar transparent program of gold sales by the Swiss National Bank, which appears to have had essentially no market impact. On the other hand, Blanchard et al. (2005) estimate that if China and Japan were unexpectedly to shift half of their foreign exchange reserves, which they also assume are now all in US dollars, into other currencies, the dollar's share in global portfolios would decline from 30 to 28 percent, which is a "substantial shift" within their framework, leading to a decline in the dollar possibly as large as 8.7 percent if the full adjustment was anticipated to occur over a period of one year. Their model is built on the assumption of imperfect asset substitution; the closer the parameterization is to perfect substitutability, the smaller the initial exchange rate adjustment and the more prolonged the adjustment process. At the limit, the model degenerates, and the speed of adjustment goes to zero.

Table 1

## Diversification of Foreign Exchange Reserves (percent), 2000-2004

	US Dollar		Euro		Yen		Other Currencies	
	Share 2004	Change 2000-2004	Share 2004	Change 2000-2004	Share 2004	Change 2000-2004	Share 2004	Change 2000-2004
Germany	98	-1	0	0	2	1	0	0
Colombia	85	5	12	-3	3	-1	0	0
Philippines	83	-9	10	8	4	-1	4	2
Hong Kong <sup>a</sup>	79	11	11	-1	2	-2	9	-8
New Zealand	57	4	43	26	0	-31	1	1
Canada <sup>b</sup>	48	-27	49	27	4	0	0	0
Australia	45	5	45	15	10	-20	0	0
Latvia	38	-16	59	26	3	-2	0	-9
Romania	36	-37	59	35	0	0	5	2
Norway	35	14	43	-3	6	-6	16	-4
Switzerland	34	-7	48	3	0	-3	19	7
United Kingdom	30	-6	55	17	15	-12	0	0
Finland	30	0	0	0	5	-10	65	10
Slovak Republic	22	0	78	3	0	-3	0	0
Croatia	16	-10	84	14	0	0	0	-4
Slovenia	12	-9	83	11	0	0	4	-2
Bulgaria	6	-4	91	3	0	0	3	2
Lithuania <sup>c</sup>	4	-78	96	80	0	-1	0	-1
United States	0	0	57	10	43	-10	0	0
<b>Subtotal</b>	<b>50</b>	<b>-6</b>	<b>36</b>	<b>12</b>	<b>7</b>	<b>-5</b>	<b>7</b>	<b>-1</b>
Uruguay <sup>d</sup>	82	NA	11	NA	4	NA	3	NA
Iceland <sup>e</sup>	40	NA	40	NA	5	NA	15	NA
Sweden <sup>e</sup>	37	NA	37	NA	8	NA	18	NA
<b>Grand total</b>	<b>50</b>	<b>NA</b>	<b>36</b>	<b>NA</b>	<b>7</b>	<b>NA</b>	<b>8</b>	<b>NA</b>
<i>Memo Item:</i> <i>Peru<sup>f</sup></i>	90	NA	NA	NA	NA	NA	NA	NA

Notes: <sup>a</sup> Since 2003, the Hong Kong Monetary Authority has grouped yen, euros, and other European currencies altogether into one category as "Non-US dollar bloc." The 2003-2004 yen and euro shares in this table are derived by assuming that they remain the same as in 2002 in the "Non-US dollar bloc," which has decreased as a share of the total since that time. <sup>b</sup> Canada holds only three currencies as foreign exchange reserves: US dollars, yen, and euros. Prior to 2003, data published by Canada's ministry of finance only differentiate between US dollar and non-US dollar foreign exchange reserves. Hence, to derive the yen and euro shares for 2000-2002, we assume that the yen share during the period was the same as it was in 2003, and the rising euro share was derived as a residual. <sup>c</sup> Assumes 2004 share is the same as in 2003. <sup>d</sup> Earliest data available are for August 2003. <sup>e</sup> Data are available for 2004 only. <sup>f</sup> Earliest data available are for July 2002, but only differentiate between the US dollar and other currencies (the yen, euro, pound, and Canadian dollar).

Sources: central bank annual report (Bulgaria, Colombia, Finland, Germany, Hong Kong, Iceland, Lithuania, New Zealand, Norway, Peru, Philippines, Romania); ministry of finance annual report (Canada); central bank website (Sweden); IMF SDDS Reserve Template Webpages (Croatia, Latvia, Uruguay); monthly statistical bulletin on central bank or ministry of finance website (Australia, Peru, Slovak Republic, Switzerland, United Kingdom, United States).

Table 1 provides some context on the diversification of foreign exchange reserves over the past four years. At the end of 2004, the US dollar's value share in the reserves of the 23 countries was 50 percent. This is substantially less than the share estimated by the IMF for 2003 (IMF 2005, 109), which was 65.9 percent. The difference reflects the under-representation of Asian and Latin American countries in the data in table 1.

Over the past four years, the euro's share in the foreign exchange reserves of the 19 countries for which we have reasonable time-series data has risen by 12 percentage points. However, the decline in the US dollar's share accounts for only half of the increase. The yen and other currencies contribute 5 and 1 percentage points respectively.

Five countries have increased the dollar's share in their foreign exchange reserves: Australia, Colombia, Hong Kong, New Zealand, and Norway. Meanwhile, Canada, Croatia, Latvia, Lithuania, and Romania have substantially reduced the dollar's share in their reserves. The declines for the other countries principally reflect valuation effects. These data are value shares, and the presumption is that most countries mark the value of their foreign exchange holdings to market.

Seven countries have had large increases (15 percentage points or more) in the euro's share: Australia, Canada, New Zealand, the United Kingdom, Latvia, Lithuania and Romania. The adjustments by the last three countries no doubt are responses to those countries' increasingly close ties to the European Union.

Three countries have reduced the yen's share substantially (by more than 10 percentage points): Australia, New Zealand, and the United Kingdom. Presumably these adjustments were responding, in part, to the low yield on yen-denominated assets. However, they also reflect relative value effects.

In the case of the United States, the euro's share rose by 10 percentage points between 2000 and 2004, and the yen's share declined by the same amount. Over the period, the United States made no purchases of euros or yen, earned a higher yield on euro-denominated assets than on yen-denominated assets, and the euro appreciated more against the dollar than the yen; this explains the decline in the yen's share in US foreign exchange reserves.

## Conclusion

Beth Simmons' essay is informative and thought-provoking. She sketches out several areas where central bank cooperation can be expected to evolve in the years ahead. She may not have covered every relevant topic, but the essay does cover a broad set of issues. She points to one area of immediate concern: central bank cooperation with Asia and the risk of disruptive adjustments in official holdings of foreign exchange. I am less concerned than she is about the risks in this area. However, I have provided a sketch of a way forward to deal with the possible problems associated with active reserve diversification.

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