

NBER WORKING PAPER SERIES

INTERNATIONAL POLICY COORDINATION:  
THE LONG VIEW

Barry Eichengreen

Working Paper 17665  
<http://www.nber.org/papers/w17665>

NATIONAL BUREAU OF ECONOMIC RESEARCH  
1050 Massachusetts Avenue  
Cambridge, MA 02138  
December 2011

The views expressed herein are those of the author and do not necessarily reflect the views of the National Bureau of Economic Research.

NBER working papers are circulated for discussion and comment purposes. They have not been peer-reviewed or been subject to the review by the NBER Board of Directors that accompanies official NBER publications.

© 2011 by Barry Eichengreen. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including © notice, is given to the source.

International Policy Coordination: The Long View  
Barry Eichengreen  
NBER Working Paper No. 17665  
December 2011  
JEL No. F0,F3,N0

**ABSTRACT**

This paper places current efforts at international economic policy coordination in historical perspective. It argues that successful cooperation is most likely in four sets of circumstances. First, when it centers on technical issues. Second, when cooperation is institutionalized – when procedures and precedents create presumptions about the appropriate conduct of policy and reduce the transactions costs of reaching an agreement. Third, when it is concerned with preserving an existing set of policies and behaviors (when it is concerned with preserving a policy regime). Fourth, when it occurs in the context of broad comity among nations. These points are elaborated through a review of 150 years of historical experience and then used to assess the scope for cooperative responses to the current economic crisis.

Barry Eichengreen  
Department of Economics  
University of California, Berkeley  
549 Evans Hall 3880  
Berkeley, CA 94720-3880  
and NBER  
eichengr@econ.Berkeley.edu

**International Policy Coordination: The Long View<sup>1</sup>**  
**Barry Eichengreen**  
**University of California, Berkeley**

International policy coordination is a subject about which there is a great deal of talk. The question is whether those who talk the talk also walk the walk. Is international monetary and financial cooperation with a substantive impact a regular occurrence? If not, under what special circumstances does it occur?

These questions are something on which history presumably has the capacity to shed light. Attempting to distill lessons from that history, I will suggest that international cooperation is most likely in four sets of circumstances.

- First, cooperation is most likely when it centers on technical issues, such as central bank swaps and credits or prudential supervision and regulation, as distinct from more high-profile and politicized monetary and fiscal policies. Discussions of technical issues tend to be undertaken by specialists who, possessing shared training and background, are well positioned to reach common understandings and achieve intellectual consensus on what needs to be done.<sup>2</sup> Delegation to specialists can also help to insulate policy coordination from politics, although when the technical issues in question are important to concentrated interests even those discussions can become politicized.<sup>3</sup>
- Second, cooperation is most likely when it is institutionalized – when procedures and precedents create presumptions about the appropriate conduct of policy and reduce the transactions costs of reaching an agreement. One definition of an institution is a set of durable rules and understanding shaping expectations, interests and behaviors – rules and understandings that can range from informal norms to formal obligations for what constitutes acceptable behavior and that are sometimes embodied in an organization, sometimes not.<sup>4</sup> History suggests that international policy coordination is more likely when it is institutionalized in this sense.
- Third, cooperation is most likely when it is concerned with preserving an existing set of policies and behaviors (when it is concerned with preserving a “policy regime”) rather than when it is directed at altering policies.<sup>5</sup> Having sunk costs in establishing a regime, policy makers with an investment in it will have an incentive to cooperate in its

---

<sup>1</sup> Prepared for the Bank of England/NBER Conference on “Globalization in an Age of Crisis: Multilateral Economic Cooperation in the 21<sup>st</sup> Century,” London, September 15-16, 2011.

<sup>2</sup> I would probably also place trade policy in the first category, although this is debatable – and it is in any case the subject of another paper. As I note below, specialized training does not always conduce to intellectual consensus; consider for example the dispute in 2010 between “freshwater” and “saltwater” economists over the efficacy of fiscal stimulus.

<sup>3</sup> An example of the latter, from very recent history, is the Basel III capital and liquidity standards, which are of intense interest to the financial services lobby (see below).

<sup>4</sup> A large literature in political science and related disciplines elaborates (and contests) this definition; for a survey see Peters (1999).

<sup>5</sup> Again, there is a large literature in international relations seeking to refine this concept of “regimes,” the classic statement of which is Krasner (1983).

preservation. Much successful international cooperation is therefore of the regime-preserving type. In contrast, cooperation not directed at preserving an existing regime will generally be more difficult to arrange.

- Fourth, monetary, macroeconomic and financial cooperation is most likely in the context of broad comity among nations. Conflict over other issues, whether economic or not, complicates efforts to reach agreement even on technical economic and financial policies. It does not provide a favorable backdrop for policy coordination.

These are the hypotheses that give analytical structure to the lengthy, if necessarily incomplete, historical narrative that follows. My formulation may be idiosyncratic, but the general points are by no means original to me. The idea that the structure of cooperation is affected by the extent of delegation and institutionalization is an organizing insight of Torsten Persson and Guido Tabellini (1995). The idea that cooperation on technical issues delegated to experts is relatively easy to arrange is a premise of the work of Peter Haas.<sup>6</sup> The role of institutionalization in shaping outcomes is prominent in the literature in political science on foreign policy in particular.<sup>7</sup> And the idea that regime-preserving cooperation has been important in history, and especially in the monetary and financial domain, is a theme of Peter Kenen.<sup>8</sup> Finally, that the success of efforts to cooperate in addressing economic issues will be influenced by the success or failure of international cooperation in other spheres is a theme of the literature on linked and nested games.<sup>9</sup>

Although the intuition for these hypotheses is straightforward, it is nonetheless worthwhile to devote some space to elaborating it. The notion that international cooperation on technical issues, negotiations on which are delegated to experts, tends to be relatively easy to arrange rests in part on the idea that such experts constitute an “epistemic community.”<sup>10</sup> Interacting with one another over time, this network of professionals will tend to gravitate toward a common diagnosis of the problems under discussion and therefore to a common view of the appropriate response. Contemporaries will recognize the role of these factors in the G20 process (to which I return below). Experts will develop shared normative values, compatible causal beliefs, and a common set of practices, all of which facilitate cooperation. The issues at hand being technical, the conclusions of the experts will meet with only limited challenges from other parties, including from politicians channeling the interests of special interests that are potentially disadvantaged by an international agreement that works to the advantage of the majority. Thus, the ability of domestic interests, lacking specialized technical expertise, to block socially-advantageous international cooperation and, correspondingly, the need for policy makers to marry cooperation with side-payments will be less.<sup>11</sup> It follows that cooperation on technical issues is relatively well if by no means perfectly insulated from political complications. Here the

---

<sup>6</sup> See the contributions of Haas and collaborators to Haas (1992).

<sup>7</sup> See for example Smith (2004) and the references cited therein.

<sup>8</sup> See Kenen (1990). Kenen distinguishes regime-preserving cooperation from “policy-optimizing coordination,” which in his view is harder to arrange. The importance of regime-preserving cooperation in history is also a theme of Eichengreen (1992). Louis Pauly (1993) has similarly argued that international cooperation is particularly likely to arise in response to shared perceptions of a (regime-threatening) crisis.

<sup>9</sup> See Tsebelis (1992).

<sup>10</sup> See the introduction to Haas (1992).

<sup>11</sup> On the role of side payments in cooperative outcomes, see Cox and McCubbins (2001).

Basel Committee on Banking Supervision is a prototypical example of an epistemic community that meets regularly, in a manner conducive to fostering international agreement, to discuss capital adequacy and liquidity management, issues whose technical nature partly (but by no means fully) insulates deliberations from lobbying by special interests and other potential political complications.<sup>12</sup> In contrast, macroeconomic questions like those addressed in the International Monetary Fund's 2006 Multilateral Consultation – should the U.S. raise taxes in return for Chinese agreement to revalue its exchange rate? – while not entirely nontechnical raised issues of concern to business, households and the general public in both countries, complicating efforts to reach international agreement.

The intuition that institutionalization is conducive to cooperation is similarly straightforward. In international macroeconomic and monetary economics, international coordination is often modeled as a prisoner's dilemma. While the cooperative outcome may be pareto optimal, that outcome can be impossible to sustain in the absence of a mechanism to deter cheating.<sup>13</sup> Repeat play may or may not be enough to bootstrap cooperation, depending on how quickly defections from the cooperative equilibrium are detected and the strength of the sanctions that are then applied. Institutions can be thought of as enhancing the flow of information on the actions of the players (think multilateral surveillance) and as organizing coalitions of countries to apply effective sanctions.

In addition, where preferences are not single-peaked and there are a large number of heterogeneous parties, it may be difficult to reach agreement on a cooperative solution. In this context, institutions can be thought of as vehicles for setting agendas, structuring negotiations, invoking precedents, and providing the kind of focal points that facilitate the successful conclusion of negotiations. All this suggests that cooperative agreements are more likely to stick when they are arranged through, say, decisions taken by the executive board of the IMF under powers delegated them by the Articles of Agreement, rather than through the negotiation of a "new Plaza Accord."

That regime-preserving cooperation, often negotiated in the context of a crisis, tends to be most prevalent similarly has a plausible ring. While international macroeconomic and financial arrangements evolve for many reasons, one reason (the economist's functionalist instincts tell him) is that they serve powerful vested interests. The same vested interests that were able to secure the establishment of those arrangements will apply pressure for their preservation. Crises – times when the international regime is under stress – are when international interdependencies tend to be especially visible. They are when the perceived stakes are highest. On all these grounds, they are when policy makers are driven to international cooperation. These instincts were visible in 2008-9, when contagion was on everyone's lips and evident in everyone's financial markets and when the international spillovers of national policies were powerfully felt. With open international financial and trading systems at risk, the case for international cooperation was compelling. The same pattern is evident in the longer span of history: in exceptional if not always successful efforts to cooperate in the 1992 EMS crisis, to avert the breakdown of Bretton Woods, and in response to the 1931 financial crisis that threatened the gold-exchange standard.

---

<sup>12</sup> I return to this below.

<sup>13</sup> There is, of course, a literature on cases where cooperation is counterproductive, starting with Rogoff (1985). There will be more about specific instances of this below.

Finally, the presumption that economic and financial cooperation is easier among friends than foes is sufficiently straightforward not to require elaboration.

We can ask, in light of these hypotheses, whether the prospects for international policy coordination are brighter now than in the past.<sup>14</sup> Haas argues that the domain of public governance has tended to grow increasingly technical over time. The scientific and technical basis for economic policy making – whether the question is macroeconomic fluctuations, climate change, or infectious disease – has clearly increased. This first set of trends, juxtaposed against the organizing hypotheses of this paper, suggests increasing scope for macroeconomic and financial cooperation.

The trend toward growing institutionalization of international economic and financial relations would similarly seem to bode well for international cooperation. In the course of the 20<sup>th</sup> century, there was explosive growth of the number and size of public ministries and agencies as repositories for the technical expertise required to carry out public policy. National and international bureaucracies felt compelled to expand their employment of technical and scientific personnel (including economists). To cite but one example, there were no permanent institutions of international financial cooperation before 1913: international conferences on the design of the international system and cooperative initiatives among central banks and governments were ad hoc. Standing institutions designed to regularize international cooperation were first created in the interwar period: the Economic and Financial Committee of the League of Nations and the Bank for International Settlements. But the United States never joined the League, and the BIS remained under a cloud by virtue of having been created to facilitate German reparations payments.<sup>15</sup> Now there are a virtually limitless number of international groups, committees, boards and organizations with standing secretariats under whose aegis officials and experts meet.<sup>16</sup> Some regions, most obviously Europe but increasingly Asia, have gone even further in seeking to institutionalize cooperation.

That we have moved, one hopes, beyond the era of open military conflict among the major powers would similarly seem to have enhanced the scope for international cooperation; no two G20 countries are at war with one another at the time of writing.<sup>17</sup>

Finally, the proliferation of formal regimes points toward growing scope for international cooperation.<sup>18</sup> There is Basel III, a regime for capital adequacy and risk management. There is the International Monetary Fund, membership in which creates obligations. There are agreements regarding supervision and regulation of banks and securities markets and the conduct of macroeconomic policy at the regional level, most obviously in Europe.

Other factors also lead one to question this Whig history of international coordination. There is the absence of a well-defined international exchange-rate regime analogous to the gold standard or the Bretton Woods System, a fact which complicates policy coordination today. There is the growth in the number of systemically significant players. Not only are there are

---

<sup>14</sup> Or, more generally, we can ask whether these hypotheses help us to understand cooperation's ebb and flow.

<sup>15</sup> And for its actions during World War II.

<sup>16</sup> Certainly this will be the impression of busy officials.

<sup>17</sup> That said, there is no shortage of military conflict globally and more generally of noneconomic disputes giving rise to subtler forms of conflict among nations.

<sup>18</sup> Refer to the definition of regimes in the third bullet point on page 1.

more independent countries, but there are more countries with the size and interconnectedness for their policies to have significant foreign and systemic repercussions. Reaching agreement grows more complex the more countries are at the table. The move from the G7/8 to the Group of Twenty is a step forward, but the sheer size of the new grouping complicates deliberations. There is the fragmentation of epistemic communities. Macroeconomists are polarized between salt-and fresh-water species seemingly incapable of reaching a common diagnosis of economic problems, much less agreeing on a common response. Experts in finance are divided into “Anglo-Saxon” and “Continental” schools, one of which worries about threats to financial stability from highly-leveraged, too-big-to-fail banks, while the other is preoccupied by hedge funds and money laundering. Experts from emerging markets, where the state has traditionally played a larger role in the economy, have different views again of the nature of desirable policy reform. And if, once upon a time, the G7 was synonymous with the Free World, now the countries that must agree to global initiatives may not be enemies but neither are alliance partners.

Raising the question: if the prospects for international policy coordination are so difficult to characterize using deductive (top-down) reasoning, might they be better understood working from the bottom up?

\* \* \* \* \*

A perennial problem for this sort of survey is how far back in history to go. The further back one goes, the greater the extent that international economic cooperation means monetary cooperation (modern notions of fiscal policy not pre-dating the 20<sup>th</sup> century and financial regulation being minimal).<sup>19</sup> One might trace awareness of the problems created by lack of international monetary coordination to Charlemagne’s decision to standardize the coins circulating in his empire. For present purposes, however, it is convenient to start with the international monetary conferences of the second half of the 19<sup>th</sup> century, by which time monetary and financial relationships broadly resembled those that will be familiar to modern readers.

These 19<sup>th</sup> century conferences reflected an awareness of international economic interdependence. They were an effort to create an international monetary regime from which all the participating countries could benefit. There was awareness that the heterogeneity of national monetary systems and the associated movement of exchange rates created uncertainty and costs of international transactions. Contemporaries seem to have recognized the tendency, documented by modern economists, that countries sharing a common monetary standard and therefore enjoying stable exchange rates trade more with one another.<sup>20</sup> They were also aware of the tendency for capital to flow more freely between countries with common monetary standards. They understood the complications created by currency substitution when national monies circulated abroad and policies were erratic.

---

<sup>19</sup> Note that my focus in this paper is on monetary, financial and macroeconomic matters. If one wished to broaden the focus, one could attempt to draw lessons from the history of cooperation in transportation (shipping, standardized railway gauges), communication (the International Postal Union), and public health (management of infectious diseases), as in, inter alia, Cooper (1987).

<sup>20</sup> See Lopez-Cordoba and Meissner (2003) and Estevadordal, Franz and Taylor (2002). The growth of international trade following adoption of the Cobden-Chevalier Treaty of 1860 and the subsequent spread of trade liberalization sharpened their incentives – see below.

These were among the problems they sought to address in a series of international monetary conferences between 1867 and 1892. In 1867, at the invitation of Napoleon III, delegates from 20 states met in Paris to discuss the adoption of a common monetary standard and agreed to move to gold convertibility as soon as practicable. They also discussed the adoption of a single unit of account and common international coinage, although neither idea bore fruit.

While there was widespread agreement on the desirability of coordinating monetary standards, there was less than full consensus on what common standard to adopt: gold, silver or bimetallism. Britain, whose circulation was already gold based, understandably advocated the gold standard. The representatives of the United States, which had recently experienced an inflationary civil war, were – rather exceptionally – worried about inflation rather than deflation, similarly inclining them toward a gold-based system. U.S. Secretary of State William Seward appointed James Ruggles, a New York State Assemblyman and promoter of canals, as the American delegate to the conference. Ruggles had attended the 1863 statistical congress and, partly as a result of its influence, was an advocate of the gold standard. Prussia, preoccupied by the process of German confederation, for its part remained on the sidelines.

This made France the pivotal country. French financial interests favored bimetallism, this being the traditional basis for the country's monetary circulation and because French financial institutions including the Bank of France earned significant income from arbitrage transactions in gold and silver.<sup>21</sup> Business interests, on the other hand, favored the gold standard, this being more convenient for trade since it was the basis on which the leading commercial power, Britain, conducted its commercial transactions. The 1860 Cobden-Chevalier Treaty that liberalized trade between Britain and France increased the number of those with a stake in commercial transactions and thus shifted the balance of power between the two sets of interests.<sup>22</sup> With France now in the gold camp, it became possible to agree on harmonizing monetary systems on the basis of gold. So read the concluding summary of the president of the conference.

Unfortunately, the Franco-Prussian War in 1870 interrupted progress. Following its conclusion, some countries moved unilaterally; Germany for example used its reparations income to unilaterally go onto gold. But for the architects of international cooperation, it was necessary to let memories of the war fade and then start over. Impetus this time came not from France, still reeling from its 1871 defeat, but from the rising power, the United States. At the international monetary conferences of 1878, 1881 and 1892 it sought to secure agreement to create an international bimetallic standard under which silver as well as gold would provide the basis for the monetary circulation. All three conferences were convened at U.S. behest. None achieved anything of substance. The panic of 1873, memories of which were still fresh, created dissatisfaction with prevailing arrangements without engendering a consensus at the 1878 conference on what constituted a superior alternative.<sup>23</sup> The renewed concern of the American delegates with the deflationary effects of the gold standard, deflation having been underway again since roughly 1873, was not shared by their European counterparts. In the United States there was nothing insulating the debate over the monetary standard from politics: the U.S. was the one country with universal (male) suffrage, enabling farmers and others with nominally-

---

<sup>21</sup> Paris being a center for bimetallic arbitrage.

<sup>22</sup> Not incidentally, Michel Chevalier was himself a strong advocate of international adoption of the gold standard.

<sup>23</sup> Not unlike in the case of our recent crisis.



denominated mortgage debts to make felt their opposition to the gold standard. In countries like Britain, where the franchise was limited to men of property (traditionally, landowners), deflation cut the other way. Lack of agreement on the nature of a desirable standard led delegates to retract the 1867 resolution endorsing the gold standard, instead suggesting that countries should adopt whatever stable standard was to their liking. This was hardly a victory for international coordination.

At the 1881 conference, the scales tipped toward the advocates of silver, there having been several additional years of deflation and France, formerly an important practitioner of bimetallism and still a large holder of silver, having grown increasingly worried about the depreciation of silver against gold. But unable to secure British and German support for an alternative to the gold standard, the conference produced nothing of substance. By 1892, when 20 countries met in Brussels, the scale had tipped still further, what with an additional decade of deflation and the emergence of bimetallic lobbies in Britain and Germany. But again there was less than full agreement on whether the deflation problem was sufficiently severe to justify tampering with an established monetary standard.<sup>24</sup>

These negotiations were ad hoc rather than institutionalized. They occurred against the backdrop of discomfort with prevailing monetary arrangements but not crisis. They were convened with the goal of creating rather than preserving a regime. And the issues involved were not beyond the grasp of broad publics – recall the controversy in the United States over “free silver” that figured prominently in the 1896 presidential election. All this helps to explain why efforts at international cooperation should be have less than entirely successful. The failure of the 1878, 1881 and 1892 conferences is consistent with this presumption.

But not so the (limited) success of their 1867 predecessor, suggesting that this episode deserves further consideration. One explanation is the existence of broad agreement among experts on basic principles. Discussions were informed by the shared values of classical liberalism: limited government, individual liberty, and free markets. Delegates shared a belief that monetary standardization would foster international commerce, economic growth, and world peace.<sup>25</sup> They had been influenced by the “scientific movement” of the 1850s to get countries to adopt a common set of weights, measures and coinage based on the metric system, and by discussions of this objective at a series of international statistical congresses.<sup>26</sup> In other words, the delegates constituted a sort of epistemic community.

The conference also came in the midst of the mid-19<sup>th</sup> century peace, before the Franco-Prussian war made such meetings more difficult. Special circumstances like U.S. experience with inflation mitigated in favor of agreement on a gold-based standard, as noted above. In Germany there were the special circumstances of confederation – which posed the difficult question of which German state’s particular silver standard the confederation should adopt – that could be finessed by rejecting the adoption of any silver standard at all in favor of gold. There was the fortuitous fact that, in the aftermath of the conference, German received reparations as

---

<sup>24</sup> And even among those who sought international agreement on silver coinage as a way of raising the price of silver and the overall price level, there was no agreement on the technicalities (on how, practically, to go about this).

<sup>25</sup> See Reti (1998), p.3 and passim.

<sup>26</sup> In Brussels in 1853, Paris in 1855, and Berlin in 1863. Recall their mention in the context of Assemblyman Ruggles’ appointment, above.

victor in the Franco-Prussian War, which it could use to constitute a gold reserve. Then there was the fact that the economic, commercial and financial preeminence of Britain, the one major country already firmly on the gold standard, was at its peak. Other countries like the Germany and the United States subsequently overtook Britain in per capita and aggregate GDP, respectively, but there was no question about British industrial and commercial preeminence at mid-century. While there is no evidence that Britain as “hegemon” was able to coerce or compel other countries to go onto the gold standard, Britain’s very economic success allowed it to lead by example. The large volume of overseas transactions in which it engaged encouraged others to follow. And when a second large country, Germany, went onto gold in 1871 for essentially incidental reasons, the incentive to link up to Europe’s two leading economic powers became even stronger.<sup>27</sup>

While these observations help to explain the outcome of the 1867 conference, they also caution against exaggerating the importance of the conference itself. The agreement reached by delegates did not bind governments. It did not survive the Franco-Prussian War. It was self-interested national decisions, often taken on grounds independent of those discussed at the conference, which led to the establishment of the international gold standard. That regime was as more a spontaneous order than an international agreement. That said, it is possible to imagine that, at a minimum, movement onto the gold standard would have been less orderly and would have proceeded more haltingly in the absence of this prior agreement.

By the 1880s, then, there was an established international monetary regime to preserve. And on a number of occasions, the leading central banks provided emergency assistance, analogous to the dollar and euro swap lines extended by the Fed and ECB starting in 2008, with the goal of preserving it.<sup>28</sup> When the Baring Crisis threatened the gold reserve of the Bank of England, the central bank that was effectively the linchpin of the system, the Bank arranged to borrow £2 million in gold from the Bank of France, using Rothschilds as intermediary, together with £1.5 million of gold coin from Russia. A few days after its initial commitment, the Bank of France made another £1 million of gold available. The Chancellor of the Exchequer, George Goschen, characterized this foreign assistance as absolutely essential for ensuring confidence in the Bank of England’s ability to stand behind Barings and preserve the sterling exchange rate.

Another such episode was in late 1906 and early 1907, when a frenzied financial boom in the United States drew gold from the London market.<sup>29</sup> The conventional response of raising interest rates providing little relief, the Bank of England turned to the Bank of France, which purchased sterling bills to support the British exchange rate. As the governor of the French central bank put it, it was in the interest of French foreign trade to help prevent a possible crisis on the other side of the channel. Foreign bills discounted by the Bank of France rose by more than 65 million francs in the first quarter of 1907. The rise in the supply of francs on the market drained gold from the Bank of France, helping to satisfy increased demands in the United States and replenish the reserves of the Bank of England. The Bank of France resisted the normal response to a gold drain, which would have been raising its own discount rate, in order to facilitate these stabilizing flows. Purchasing sterling bills and maintaining the prevailing level of interest rates also did less than an open loan, like that extended in 1890, to excite fears about the

---

<sup>27</sup> As shown by Gallarotti (1995) and Meissner (2005).

<sup>28</sup> My own work emphasizes the importance of these regime-preserving operations (Eichengreen 1992).

<sup>29</sup> No doubt this passage will create for those involved in the 2008 crisis a sense of déjà vu all over again.

stability of the English gold standard. Evidently, there was not only international cooperation but learning over time about its efficient implementation.

In the second quarter of 1907, the pressure on the Bank of England having subsided, the Bank of France was able to let its portfolio of short-term sterling bills run off. But then the American bubble burst, leading to a rise in nonperforming loans and a wave of bank distress. The result was a shift from deposits to currency in the United States and a surge in the demand for gold. Once again, the Bank of England found itself at the center of the storm. It raised its discount rate to 7 per cent, the highest level since the earlier financial crisis in 1873, and contemplated the possibility of having to raise it further or, alternatively, of suspending gold convertibility. Instead, the dilemma was resolved by help from the Bank of France and German Reichsbank. Although both the French and German central banks were not immune from the pressure, they resisted the normal tendency to raise interest rates in order to divert American demands toward their markets and release gold to the Bank of England. In November and December 1907, 95 per cent of the gold shipped to the United States came from France, Germany, Belgium and Russia, less than 5 per cent from Britain.<sup>30</sup> The Bank of England also resumed its purchases of English bills to support the sterling exchange rate.

Techniques pioneered in these crises were used again subsequently. In 1909 and 1910 the Bank of France purchased sterling bills to relieve seasonal strains on the Bank of England. It helped that these operations were technical: they involved discounting foreign bills and making other technical interventions in financial markets. It helped that central banks were in contact with one another. It helped that they shared a belief in the importance of the prevailing monetary standard and in the desirability of its maintenance.

Not everyone would agree that these support operations were integral to the operation of the gold standard. Flandreau (1997) observes that central bank cooperation was episodic, not continuous. He insists that central banks helped one another not out of altruism but “selfish” (self) interest.<sup>31</sup> Such cooperation as occurred was ad hoc rather than institutionalized. There was conflict as well as cooperation among the central banks of the period. His objections are a caution against emphasizing central bank cooperation to the exclusion of other factors. Paramount among those factors was the credibility of the regime: the overarching belief that other objectives of policy, such as they were, should be subordinated to the maintenance of gold convertibility.<sup>32</sup> There was the fact that wages and prices were relatively flexible, allowing the exchange rate to be inflexible.<sup>33</sup> But international cooperation there also was at key points in time.

\* \* \* \* \*

---

<sup>30</sup> Leaving aside newly-mined gold.

<sup>31</sup> Flandreau (1997), p.737. There is, of course, no incompatibility between the view that foreign assistance was important, at various junctures, for the maintenance of gold convertibility in some of the key gold-standard countries and the observation that those who provided this assistance saw doing so as in their own interest.

<sup>32</sup> Leading to what could come to be called later as “stabilizing speculation.” And, reinforcing this same situation, there was the fact that other objectives of policy, such as minimizing unemployment, were not yet prominent, because the modern concept of unemployment was still undeveloped, there existed no well-articulated model linking monetary policy to unemployment, and those for whom the fight against unemployment might have been a priority (the working classes) were not yet widely enfranchised (Eichengreen 1992).

<sup>33</sup> See Bayoumi and Eichengreen (1997) for evidence.

Perhaps the strongest evidence that international cooperation smoothed the operation of the pre-1914 gold standard was the priority that policy makers attached to it when reconstructing the system after World War I. They convened international conferences in Brussels in 1920 and Genoa in 1922 with the goal of facilitating the movement of countries back onto gold (only the United States having continuously maintained gold convertibility between 1914 and 1919). Among the problems of transition was that prices had risen significantly since 1914 but global gold production had not kept up, raising the specter of a deflationary shortage of monetary gold. The delegates at Genoa therefore sought an agreement under which central banks could supplement their gold holdings with reserves of convertible foreign exchange. The practice of holding reserves in this form was not unknown prior to the war, but efforts were now made to extend and regularize it, the alternative of pushing prices back down to 1913 levels being understood to be painful and disruptive.

This initiative created a more elastic but also a more fragile monetary system. Were the policies of one of the reserve-currency countries whose bills and bonds were now widely held as reserves to inspire less than full confidence, the system would implode. If countries with claims on the reserve-center countries all sought to convert them into gold, their lack of confidence might produce a self-fulfilling crisis.<sup>34</sup> The implication was that international cooperation was even more essential for stability than before.

Contemporaries knew it. Kirsch and Elkin in their 1930 manual on central banking devoted an entire chapter to international cooperation. Central bankers stayed in close communication, as documented by Stephen Clarke in his archival study (Clarke 1967) and Liaquat Ahamed in his popular account (Ahamed 2009). Austria, Hungary, Danzig, Estonia, Greece and Bulgaria received stabilization loans through the League of Nations to help them back onto the gold standard. Belgium, Poland and other countries received them from consortia of central banks. When the Bank of England needed to strengthen its reserve position, the Federal Reserve provided it with exceptional credits.<sup>35</sup> When the governor of the Bank of England, Montagu Norman, needed to engineer some further appreciation of sterling in 1924-5 in order to return to at the prewar rate, the Federal Reserve Bank of New York under Benjamin Strong kept interest rates low to encourage the flow of gold and capital toward London. When in 1927 sterling came under strain, Strong and Norman, together with Hjalmar Horace Greeley Schacht of the German Reichsbank and Charles Rist of the Bank of France, met secretly on Long Island. Norman agreed to tighten credit, while his French and German counterparts agreed to refrain from engaging in arbitrage operations at the Bank of England's expense. The critical contribution came from the Fed, which lowered its discount rate and conducted \$80 million of expansionary open market operations. In their wake, the pressure on the Bank of England diminished.

Much of the literature portrays these initiatives as central to the maintenance of monetary stability in the second half of the 1920s. But there is another view. Foreign support arranged through international cooperation, it is objected, explains Britain's failure to adjust. Strong's assistance was created moral hazard that only set the Britain up for an even more painful fall. By deviating from the policies dictated by normal gold-standard practice – that is, policies that would have been optimal for the U.S. economy – and specifically by keeping interest rates lower

---

<sup>34</sup> Analogous to the kind of self-fulfilling bank run modeled by Diamond and Dybvig (1983) in the domestic context.

<sup>35</sup> The \$200 million line of credit provided by the New York Fed in early 1925 was never drawn.

in 1924-5 and again in 1927 in order to aid the Bank of England, the Fed fueled the credit boom that eventually collapsed in a monumental bust.<sup>36</sup>

Readers will hear echoes here of Martin Feldstein's view that modern efforts at international cooperation have been counterproductive insofar as they resulted in domestic policies with less than optimal domestic consequences – that monetary policy makers, in particular, should concentrate on their national knitting.<sup>37</sup> They will hear echoes of criticisms of the Fed for having kept interest rates low in 2003-5, thereby fueling a dangerous credit boom and bust.<sup>38</sup>

Readers will infer that I am skeptical of this dissenting view. Just as I have argued elsewhere that the roots of the recent credit boom and bust lay in flawed supervision and regulation, perverse incentives in financial markets and international imbalances, relative to which the role of monetary policy was secondary, I would argue that the fundamental causes of the unsustainable 1920s boom lay elsewhere: in financial innovation unchecked by adequate regulation, in reckless international lending, and in global imbalances (where in the 1920s the United States was on the surplus side).<sup>39</sup>

The Long Island meeting marked the apex of international cooperation. In the absence of institutionalization, central bank cooperation was built on the personal relationship between Norman and Strong, who had known one another since 1916. Strong died in 1928, and Norman, himself increasingly ill, never grew close to his successors. Efforts to cooperate were further complicated by the influence of new powers like France, which had been sidelined by its own financial problems previously but was now able to reassert itself. The French had different priorities and views of the operation of the international system, complicating negotiations.<sup>40</sup> Not long after the 1927 meeting of central bankers, the Bank of France began converting its accumulated British treasury bills and bonds into gold. This policy reflected hostility toward the gold-exchange standard which, in the view prevailing in French policy circles, unduly favored the reserve-center countries (if not exactly giving them a blank check).<sup>41</sup> Tightening the screws on London was a way for French officials to strengthen Paris in the competition for financial-center status. Finally, geopolitical disputes roiled the waters. Thus, when Germany sought to reassert itself by building pocket battleships and negotiating a customs union with Austria in violation of the Versailles Treaty, the French were understandably upset. When the schilling came under attack in 1931 and there was an attempt to arrange an emergency loan for Austria through the Bank for International Settlements, the initiative was vetoed by the French.<sup>42</sup>

---

<sup>36</sup> The definitive statement of this alternative is Meltzer (2003).

<sup>37</sup> See Feldstein (1988).

<sup>38</sup> Even the language is similar: deviating from the gold standard “rules” in the first case, deviating from the Taylor “rule” in the second.

<sup>39</sup> See Eichengreen (2011). Be this as it may, it is important for historians of international cooperation to have a view of this question.

<sup>40</sup> The parallels with the financial emergence of China will be obvious.

<sup>41</sup> Shades of Giscard d'Estaing's complaints about America's “exorbitant privilege” in the 1960s. The parallel is not entirely coincidental, Jacques Rueff having already become an influential policy advisor and Bank of France official in the 1920s and again influences Giscard and De Gaulle in the 1960s.

<sup>42</sup> The BIS had earlier provided a small loan to Austria, but the substantial loan later required by the Credit-Anstalt crisis was torpedoed by French insistence on unacceptable political conditions (Toniolo 2005). Still, that emergency assistance was organized through the BIS was significant. Creation of the BIS in 1930 as a mechanism for

When the system then descended into an existential crisis, it was every man for himself. To its credit, the Hoover Administration at least understood that the United States would not be immune from a financial crisis originating on the other side of the ocean, and it agreed to a one-year moratorium on allied war debt payments in order to facilitate a moratorium on German reparations (Germany at this stage being at the eye of the storm).<sup>43</sup> But the kind of loans of reserves and other support operations that had been mounted before 1913 when regime-jeopardizing crises erupted were absent. The Bank of England received no foreign assistance from the Fed, the Bank of France, or anyone else in the summer of 1931. Britain's suspension of gold convertibility in September then precipitated a run on U.S. gold reserves, forcing the Fed to jack up interest rates in the teeth of a ferocious slump. Central banks scrambled to liquidate their foreign exchange reserves, and the gold-exchange standard collapsed into the kind of classical gold standard that the French had always favored, placing the remaining gold standard countries in a deflationary vice.

When in the spring of 1933 governments convened one last time, in London, in an effort to agree on a cooperative response to the global slump, there was too much water under the bridge. Trade protectionism and retaliation were widespread. There had been years of financial disputes and disappointed pleas for foreign support. Diplomatic tension escalated further with the assumption of power by the National Socialists in Germany; more generally, the rise of nationalism and political instability complicated efforts to cooperate.<sup>44</sup> By 1933 there remained no international system, in any meaningful sense of the term, to preserve. There was no institutional framework to lend structure to negotiations. Different governments saw the causes of the crisis differently; the only thing their interpretations had in common was that they blamed foreigners.<sup>45</sup> Thus, when Roosevelt issued his "bombshell message" to the conference, announcing in effect that the United States was intent on taking care of itself and not especially interested in cooperating, he was simply giving voice to a realization and tendency that had already become widespread.

\* \* \* \* \*

These same disasters were of course what informed the effort to institutionalize monetary and financial cooperation after World War II. To be sure, this was not the first such effort: following World War I, an Economic and Financial Organization had been created within the League of Nations to provide information and analysis (including what nowadays might be referred to as multilateral surveillance), eventually employing such able economists as James Meade, Gottfried Haberler, Ragnar Nurkse and Jacques Polak.<sup>46</sup> American refusal to join the

---

facilitating the smooth transfer of German reparations to the Allies was probably the one positive product of efforts to cooperate monetarily and financially in this period. I will of course have more to say about the BIS below.

<sup>43</sup> France, predictably, resisted Hoover's calls for a moratorium. While French objections did not prevail, the added to the prevailing climate of uncertainty and thereby worsened the German crisis.

<sup>44</sup> This is the theme of Wolf's (2010) meditation on the topic.

<sup>45</sup> The Germans blamed their hyperinflation, which limited room for policy maneuver subsequently, on foreigners. The French blamed the slump on inadequate policy rigor on the part of foreigners. The Americans blamed the slump on foreigners now unwilling or unable to repay the money they had "hired" during World War I and in the 1920s.

<sup>46</sup> Hill (1946) and Endres and Fleming (2002) describe the activities of the Economic and Financial Organization of the League. Hill's book, revealingly, was the outgrowth of a pamphlet prepared for the United Nations Conference in San Francisco to inform the deliberations of delegates there.

League was, however, a fatal weakness. The Economic and Financial Organization did nonetheless produce some influential analyses, notably Nurkse's account of interwar monetary problems emphasizing volatile capital flows, the intrinsic instability of floating exchange rates, violations of the gold-standard rules, and the beggar-thy-neighbor-devaluation problem.<sup>47</sup> The BIS, for its part, provided analysis of money and financial markets; as the "club of central banks" it should have been in a favorable position to facilitate cooperation on monetary policy. But the intensity of disputes between countries over nonmonetary matters did not bode well, especially since the BIS had been created to manage one of the most hotly disputed such matters, German reparations.<sup>48</sup>

For all these reasons, the creation of the International Monetary Fund and World Bank was a significant departure from past practice. The Fund was established with an eye toward providing a rules-based, treaty-enshrined basis for cooperation on exchange rates and, by implication, on related policies.<sup>49</sup> Quota shares were specified as a basis for drawings. The Articles of Agreements laid out the Fund's mandate and procedures. An executive board was formed to take key decisions. Members were obliged to declare par values for their currencies, requesting approval in advance when seeking a change in parity, and restoring current account convertibility after a transitional period. This was very different from the gold standard "rules of the game," which were never formally codified. And, in contrast to the situation with the League of Nations, the United States was a founding member and committed participant.

Not that the new organization got off to a resounding start. Large countries, then as now, resisted the application of supranational rules to themselves. The United States rejected Keynes' proposal for levies on countries in chronic balance-of-payments surplus. In an awkward precedent, the United Kingdom in 1949 did not give the IMF the requisite notice to enable it to review its decision to devalue. The inauguration of financial operations was delayed until the Marshall Plan was wound up.<sup>50</sup> Issues like what kind of conditions should be attached to IMF loans remained to be worked out.<sup>51</sup> The transition to full current account convertibility took considerably longer than foreseen by the drafters of the Articles of Agreement. As a result the Fund was not the principal venue for policy coordination in the immediate postwar years. Still, the fact that this organization existed, staffed up, and gained members as the period progressed underscores the extent to which cooperation was institutionalized after World War II.

A still more important venue for international cooperation in the immediate post-World War II period was at the regional level. Already in 1948 the United States made the extension of Marshall aid conditional on its European recipients negotiating a joint plan for its utilization. It made no sense for the United States to provide finance for imports to European countries A and B if country A planned on exporting twice as much to country B as country B planned on

---

<sup>47</sup> See Nurkse (1944). In addition, Nurkse, with the help of colleagues, authored a second report suggesting how low inflation and full employment might be reconciled by assigning two instruments – monetary and fiscal policies – to these two targets (Nurkse 1946).

<sup>48</sup> The BIS had brought together representatives of 24 central banks in May 1931 to discuss the crisis in the international monetary system, but to no avail. Its first three annual reports included a section on "central bank cooperation" but, revealingly, this section was dropped in the fourth report and subsequently (Cooper 2006).

<sup>49</sup> The discussion here is limited to the Fund, since the focus of this paper is monetary and financial – as opposed to development – cooperation.

<sup>50</sup> To prevent borrowers from double dipping.

<sup>51</sup> See Dell (1981).

importing from country A. It made no sense to provide a variety of European countries with finance to build steel mills if the resulting capacity exceeded their collective requirements for steel. Although European countries were more successful at coordinating some aspects of their plans than others, even failures had positive consequences. Pressure to cooperate led to the creation of an entity, the Organization for European Economic Cooperation (OEEC), which grew into another platform for analysis and the exchange of views, the OECD. It encouraged awareness in Europe of the advantages, both economic and political, of ongoing collaboration.

It was with this awareness that Western European countries negotiated bilateral and minilateral clearing arrangements in the latter 1940s to permit trade to resume, despite the all-but-total lack of gold and foreign exchange reserves with which to finance intra-European deficits.<sup>52</sup> These sub-regional arrangements were then generalized, under OEEC aegis, into the European Payments Union, a Europe-wide mechanism for settling transactions and providing temporary-balance-of-payments financing when a member, in the course of liberalization, experienced a temporary trade deficit. Creating the EPU was possible because the U.S. provided \$350 million of Marshall Plan funds to underwrite the reserve pool.

The EPU was tested in 1950 when commodity prices rose with the outbreak of the Korean War. The German trade balance moved into deficit, German industry then, like Chinese industry today, depending on imported raw materials. The EPU managing board dispatched two experts, Alec Cairncross and Per Jacobsen, to Germany. Cairncross and Jacobsen concluded that the problem was essentially a liquidity crisis.<sup>53</sup> Their findings informed the EPU decision to provide a loan sufficient in size that Germany's previous steps toward external liberalization could be maintained.<sup>54</sup>

The other prerequisite for the recovery of German industry, along with adequate finance for imports, was the lifting of occupation-authority-imposed ceilings on the production of militarily-relevant products, mainly those of the iron and steel industries. Here joint oversight of the industries in question by France, Italy, Belgium, the Netherlands and Luxembourg along with Germany itself gave the neighbors confidence that the uses of iron and steel production would be benign. The Six, as this group was known, also sought to create a free trade area in coal and steel. While they were less than successful in this immediate aim, the institutions they created – a commission, a high court, and a nascent parliament – were the foundation for the European Economic Community established in 1958. Over time, the EEC turned into the leading example of an institution for organizing economic cooperation at the regional level.<sup>55</sup>

The 1950s were also when the IMF established its modern approach to conditional lending.<sup>56</sup> The stage was set for an approach where emergency financial assistance was provided by a combination of multilateral and regional sources – the approach followed again in 2010 when Greece, Portugal and Ireland negotiated emergency assistance from the IMF and the

---

<sup>52</sup> These had names like the First Agreement on Multilateral Monetary Compensation (1947) and Agreement on Intra-European Payments and Compensations (1949-50). They are discussed in Eichengreen (1994).

<sup>53</sup> Although there was also a contribution from excessively strong investment demand.

<sup>54</sup> As part of the agreement, Germany raised interest rates and tightened import quotas, but only temporarily.

<sup>55</sup> An example that not only Europe itself but other regions also took to heart. See for example the discussion of Asia below.

<sup>56</sup> It was no coincidence that Per Jacobsen, who had applied a similar approach to conditionality on behalf of the EPU, went on to the managing directorship of the Fund.



European Union.<sup>57</sup> By the end of the 1950s there was an established international monetary regime, the Bretton Woods System, to operate and defend. In the early 1960s, IMF programs were extended to countries as diverse as Peru, the Philippines, Spain, Syria and the UK.<sup>58</sup>

One problem not addressed by the availability of IMF assistance was dollar instability. As issuer of the global reserve currency – and given the demand for additional reserves on the part of rapidly growing catch-up economies (in that earlier context, Europe and Japan) – there was no constraint on the ability of the U.S. to finance its external deficits, only the possibility that financing them might require it to reduce the value of the dollar. But both the feasibility and consequences of doing so were uncertain, feasibility because other countries might choose to follow the dollar down, preventing the bilateral exchange rate from moving (shades of China today), and consequences insofar as devaluing the dollar against gold might erode confidence in “dollar-gold Bretton Woods System.”

Aware of their collective interest in maintaining the prevailing regime, which they saw as fostering export growth and economic growth generally, at the beginning of the 1960s a group of advanced countries established the Gold Pool, through which the European members committed to reimbursing the reserve-currency country, the United States, for a portion of its gold losses. Although this did not resolve the fundamental contradiction in the gold-dollar system, it bought time to seek a permanent solution. The contrast with the early 1930s is striking. On both occasions there was an established international monetary and financial system that the leading countries had a shared interest in preserving. But, in contrast with the high tensions of the 1930s, the principals this time were allies in the Cold War. In the prevailing climate of low inflation and buoyant growth, moreover, the gold market conditions and currency swaps on which negotiators focused could be seen as mere technical matters. And, finally, cooperation was now facilitated insofar as it was at least partially institutionalized through the IMF.

But the Gold Pool was only a temporary expedient. Even an effective holding action required more. The Fed negotiated a network of swap lines with foreign central banks; by the end of 1962 there was a total of \$2 billion of swap lines between the Fed and eight central banks.<sup>59</sup> These were utilized not just by the U.S. but by Canada in 1962 and Italy in 1963-4. Starting in 1961, the advanced economies (the grouping that evolved into the G10) negotiated the General Arrangements to Borrow to enable countries to borrow larger amounts of their currencies through the Fund. This was necessary insofar as the restoration of convertibility increased the scope for capital flows.<sup>60</sup> The initiative was significant in that it was not taken in response to a crisis; it was not like the four \$30 billion swaps that the Fed provided to foreign

---

<sup>57</sup> In 1956, its balance of payments having come under strain as a result of the Suez crisis, the UK negotiated a program with the IMF and received additional assistance from the U.S. Import-Export Bank. France drew on the IMF late in 1956 and again early in 1958 and arranged swap lines with a consortium of European central banks. Thus, the approach where the IMF, as fair broker, negotiates the conditions but other concerned governments and banks top up the funding has a long history. And with this assistance, a growing number of countries, first within the OECD and then more widely, were able to establish and maintain Article VIII (current account) convertibility.

<sup>58</sup> The Bank of England also drew support through the network of swaps negotiated by the Fed (see below) as well as specially-arranged credits from foreign central banks at various junctures in the 1960s.

<sup>59</sup> Cooper (2006), p.7.

<sup>60</sup> Convertibility may have been limited to current account, but even this enlarged the scope for capital transfers through mechanisms like misinvoicing and leads and lags.

central banks in 2008. Rather, it was negotiated in advance a possible future crisis, not unlike the global financial safety net discussed in 2010 during Korea's chairmanship of the G20.

But none of these expedients obviated the need for more fundamental reform. One venue for discussing it was the regular monthly meetings of central bankers, senior and junior alike, at the Bank for International Settlements.<sup>61</sup> Another was meetings of G10 deputies, which quickly became a regular affair under the chairmanship of the U.S. treasury undersecretary for monetary affairs, Robert Roosa and then Otmar Emminger, vice president of the German Bundesbank.<sup>62</sup> The same group then created yet another venue for surveillance and discussions of reform, Working Party 3 of the OECD.

To be sure, the discussions in question were not always productive. America's partners in this endeavor, starting with France, became more assertive as their economies strengthened. The United States complained that the Europeans ganged up on it by caucusing prior to meetings. Developing countries complained that this exclusively advanced-country grouping lacked the legitimacy to reform the international system.<sup>63</sup>

Moreover, cooperation designed to preserve the existing system was easier than cooperation in reforming it. Different countries had rather different and, in some cases, ill-defined views of how to best go about that reform. The British, in need of international finance, favored issuing a new reserve asset through the IMF. The French, in a stronger balance-of-payments position, saw such issuance as inflationary and as relieving the pressure on the United States to adjust; instead it advocated a pure gold-based system. Responding to arguments that the result might starve the world of liquidity and therefore stifle trade and growth, they argued for an increase in the dollar price of gold.<sup>64</sup> Germany, still an obedient ally, support the American position.<sup>65</sup>

The only problem was that there was no American position, at least until Henry Fowler replaced Douglas Dillon as treasury secretary in mid-1965. Fowler was skeptical that the gold-dollar system could be maintained. Departing from Fowler's earlier reticence, he indicated a willingness to discuss international monetary reform. The resulting discussions proceeded on two tracks: one a Group of Ten study group under Otmar Emminger, the other in the Executive Board of the IMF. Fowler signaled his willingness to contemplate the creation a new reserve asset. France, finding that its proposal for an increase in the gold price received no support from Germany or other European countries, reluctantly agreed.

In August 1967 finance ministers recommended that the IMF should be authorized to supplement gold and dollar reserves by issuing Special Drawing Rights. But activation of the new facility was made contingent on securing the approval of countries holding 85 per cent of

---

<sup>61</sup> The U.S., not yet a member, nonetheless sent senior officials to these meetings. The Gold Pool, for example, was originally an initiative of governments, but agreement on forming it was reached by central bankers meeting in Basel.

<sup>62</sup> James (1996), p.164 and passim.

<sup>63</sup> One can perhaps detect the same kind of complaints about the arbitrary composition and less than universal nature of the Group of Twenty.

<sup>64</sup> The question of whether the dollar price of gold could be raised repeatedly as the world economy and its need for liquidity continued to expand was not systematically addressed, at least in Paris.

<sup>65</sup> The "obedient ally" label is from Strange (1980).

voting power in the Fund, which given the reluctance of France and its allies was not straightforward. There was also predictable wrangling about how the new reserve assets would be distributed. When the SDR facility was finally activated in 1970, it was too late to avert the collapse of the system.

Foreign central banks, anticipating the inevitability of dollar devaluation, scrambled out of dollars before it was too late. It was a request from the Bank of England that the U.S. convert some of its dollar reserves into gold that prompted the Nixon Administration to close the gold window in August 1971. The Administration immediately imposed a 10 per cent import surcharge as a way of pressuring other countries to revalue against the dollar. In achieving this immediate aim it was successful; at the Smithsonian Conference in December, other countries revalued against the dollar by an average of 8 per cent. But this was not one of the high points of international cooperation. Nixon's aggressive, unilateralist tactics left hard feelings. Subsequent efforts to negotiate more far-reaching reforms of the system took place under a cloud of recrimination. The so-called Committee of Twenty (one finance minister or central banker for each of the 20 country groupings represented on the board of the International Monetary Fund) sought to somehow reconcile the desire for exchange rate stability with the need for currencies to move against the dollar, without notable success. In the spring of 1973, barely a year and a half after the Smithsonian, the new set of exchange rates so laboriously negotiated by the Committee collapsed in a heap. There is a lesson here for those who would argue that the U.S. should use the threat of a tariff to extract exchange rate concessions on China. Short-run concessions there might be, but at the cost of ability to cooperate in the longer term.

\* \* \* \* \*

The European response was to intensify economic and monetary cooperation at the regional level. Europe was well placed to pursue this option. Regional initiatives had been prioritized from the outset of the postwar period.<sup>66</sup> The Treaty of Rome establishing the European Economic Community had identified exchange rates as a matter of common concern; it had established a Monetary Committee comprised of one representative from each central bank and one from each finance ministry, together with two members of the European Commission, who met together regularly to exchange notes. There had been completion of the customs union and establishment of the Common Agricultural Policy, both of which made sharp exchange rate changes problematic. In 1970 there had been the Werner Report recommending the adoption of a common currency within ten years. Europeans were united in their desire to create a second international monetary pole to counterbalance the dollar and to establish a zone of monetary stability in Europe.

But they were not united on how to go about it. The analytical rifts that had opened up in the negotiations over the SDR remained. France, for neither the first nor last time, sought a system in which decision-making power was shared. Germany, for its part, realized that resisting French proposals would place it in the driver's seat. Its competitive strength and commitment to price stability meant that other countries, if they wished to keep their currencies stable against the deutschemark, would have to follow the Bundesbank's lead. None of the participants was prepared to acknowledge that stabilizing exchange rates within plus-or-minus 2.25 per cent bands might require coordinating fiscal policies – not the last time this theme

---

<sup>66</sup> As we saw above.

would surface in Europe. As a result, France, Britain, Denmark, Italy and Norway were all driven out of the new European exchange rate arrangement, the Snake, in the 6 ½ years after its establishment in April 1972.

The Europeans tried again in 1978, the dollar's weakness in the Carter-Blumenthal-Miller years lending urgency to the quest to ring-fence the continent from external instability.<sup>67</sup> Negotiations among the members of the now-enlarged European Community having become complex, French and German officials crafted the new plan for what became the European Monetary System bilaterally.<sup>68</sup> Their blueprint called for 2.25 per cent bands modeled on the Snake. To ensure that the new system was not German dominated, those bands were to be defined relative to a basket of currencies. There would be unlimited intervention obligations. A trigger mechanism would force strong-currency countries to loosen policy and weak-currency-countries to tighten. After two years a European Monetary Fund would be established to administer the pooled reserves of the members as a step toward monetary union.

The evolution of this proposal is revealing of yet another influence on international cooperation: domestic institutional and political constraints.<sup>69</sup> A trigger mechanism requiring surplus countries to relax policy might conflict with the Bundesbank's mandate for price stability. Comingling its reserves with those of other central banks, not all of which were insulated from their governments by statute, would threaten its independence as enshrined in the Bundesbank law. It thus had leverage with which to resist demands. The fact was not entirely unwelcome to the Schmidt Government, which could invoke this constraint in negotiations with the French. By the time agreement was reached on the form of the European Monetary System, the trigger mechanism, the reserve pool, and substituting a basket for the deutschmark as the pivot of the system had all disappeared. The Bundesbank received an opt-out from unlimited intervention obligations. There was no more talk of monetary union.

After some teething problems, the EMS operated tolerably well. This had a lot to do with the readiness of the participating states to alter their exchange rates from time to time, which helped to restore competitive balance. And that readiness to alter parities in turn had a lot to do with the maintenance of capital controls, which gave central banks and governments breathing space to organize realignments. One thing on which European policy makers agreed was that capital mobility was an engine of instability. Germany, in other ways a bastion of ordoliberalism, had moved in this direction in the early 1970s in the face of persistent, potentially inflationary capital inflows. This consensus favoring limited capital mobility eventually broke down in the 1980s in response to the same deregulatory winds that produced the Single Market. The consequences for the European Monetary System were not happy.

Capital mobility, of course, was already on the rise, what with the progressive deregulation of domestic financial systems and growth of the Eurodollar market. Europe may have been able to limit capital flows, but it could not suppress them entirely. The Herstatt crisis in 1974 revealed the extent of foreign-exchange exposures and the fickleness of forex market

---

<sup>67</sup> The U.S., to address the weakness of its balance-of-payments position, pressured Germany to stimulate demand and reduce its trade surplus; for an inflation-adverse country, this brow-beating was unwelcome.

<sup>68</sup> This was not the last time when the Franco-German axis delivered pre-packaged proposals to the rest of the Community.

<sup>69</sup> A theme of Eichengreen and Uzan (1993), among others.

liquidity, directing the attention of central bankers and other regulators to the importance of adequate capital for internationally active banks; this led, ultimately, to the Basel Concordat of 1975 and then Basel Capital Accord, negotiated by the then-G10-based Basel Committee of Banking Supervision.<sup>70</sup> The recycling of petrodollars into syndicated bank loans to Latin American sovereigns was yet more evidence of the progressive regeneration of international capital markets.

This was another experience that did not turn out swimmingly. The Latin American debt crisis developed as follows. The region's pegged exchange rates created false confidence that credit risk had been removed. Financial capital then flooded into the region, creating an enormous government-borrowing and private-consumption boom. Boom conditions meant inflation, translating into a cumulative loss of competitiveness.

In 1982, following a recession in the United States, the onset of a housing-related banking crisis in that country, and revelations of problems in one of the heavy borrowers, Mexico, capital inflows ground to a halt.<sup>71</sup> Underlying problems of sustainability were revealed. The initial approach to the crisis, a cooperative effort on the part of the U.S. and Europe, was to urge fiscal consolidation and wage austerity while providing sovereigns with bridge finance in the hope that they would regain their creditworthiness. Cooperation was facilitated by the fact that there existed an international institution, the IMF, that could be adapted to this purpose and in which the advanced countries were, conveniently, the principal shareholders.<sup>72</sup> By 1983, three quarters of all Latin American countries were under some kind of IMF program.

This play-for-time strategy worked to the advantage of recession-weakened money-center banks, whose balance sheets would have been seriously impaired by write-downs. In the presence of debt overhangs, however, it was impossible to jumpstart growth. Only at the end of the 1980s, by which time the money-center banks had strengthened their balance sheets, were those overhangs finally removed through a market-based debt exchange of the outstanding bank loans for a menu of tradable bonds collateralized by zero-coupon, 30 year U.S. treasury securities purchased by the country using IMF and World Bank resources (as well as its own reserves).<sup>73</sup> Removing the debt overhangs resolved the crisis by enabling growth to resume.

With benefit of hindsight, it would have been better to get to this point in less than seven years; not for nothing are the 1980s known as Latin America's lost decade. But getting to this point faster would have required the Americans and Europeans to use some of the resources channeled through the IMF and World Bank to instead recapitalize their own financial institutions, so that they would have been resilient in the face of debt writedowns in Latin America.<sup>74</sup>

---

<sup>70</sup> The Basel Accord is interpreted as a prime instance where institutionalized interaction led to the development of an intellectual consensus among key decision makers on how precisely policies should be coordinated (Kapstein 1989).

<sup>71</sup> The banking crisis in question was, of course, centered in Savings & Loans.

<sup>72</sup> It is important to recall that this was not the purpose for which the IMF had been established; rather, the institution had to be reinvented in order to provide the structure for a coordinated response to the debt crisis.

<sup>73</sup> This was the Brady Plan, after the U.S. treasury secretary associated with it.

<sup>74</sup> To those who wish to accuse me of pushing the parallels with peripheral Europe, I plead guilty. The big difference in Latin America was that adjustment also entailed devaluation, although as 1980s experience revealed devaluation without debt restructuring was no panacea.

The other challenge that capital mobility posed for international economic policy was by accentuating movements in the major currencies (the dollar, the deutschemark and the yen) when policy in the three economies diverged. The early 'eighties saw two sharp shifts in U.S. policy: first the Volcker shock, which saw the Fed raise policy rates to very high levels in order to wring inflation pressures out of the economy (the Fed funds rate was raised to 21 per cent in June 1981); and then the Reagan tax cut (the Economic Recovery Act of 1981), which stimulated domestic spending. Some argued that the combination was the least-cost way of bringing down inflation while avoiding output losses.<sup>75</sup> But an inadvertent consequence was to put sharp upward pressure on the dollar by increasing spending on home goods and by attracting capital from abroad. By 1984 the adverse consequences had come to the fore; the over-strong dollar had become a burden for U.S. manufacturing, leading to talk that the Midwest was being turned into a "Rust Belt."<sup>76</sup>

In crafting either a response, the Reagan Administration was hamstrung by its commitment to *laissez faire* and to not intervening in the foreign exchange markets in particular. Starting in 1984 it therefore launched a so-called "yen/dollar campaign" to bring down the U.S. deficit, moderate the rise in the dollar, and stimulate U.S. manufactured exports, all by pressuring Tokyo to liberalize its financial markets and encourage capital to flow toward Japan. The premise – that liberalization would encourage capital inflows rather than further outflows toward an America where real interest rates were higher – was dubious from the start. Japan's modest further steps at liberalization did not prevent the dollar from rising by a further 20 per cent between mid-1984 and early 1985.

At this point, the over-strong dollar became a major political issue. Protectionist rumbling from the U.S. Congress intensified. Changes in personnel (James Baker and Richard Darman replaced Donald Regan and Beryl Sprinkel at the U.S. Treasury) moved the administration in a more pragmatic direction, enabling it to act on the problem. At the first G-5 meeting attended by Baker and Darman in January 1985, it was agreed to intervene in the foreign exchange market; German sales of dollars in response were extensive. Then in September, at the Plaza Hotel in New York, G-5 ministers announced their desire for the "further orderly appreciation of the non-dollar currencies..."<sup>77</sup> Concerted sales of dollars in London, Frankfurt, Tokyo and New York followed.

Over the course of 1985, the dollar reversed course. Whether this was international policy cooperation successfully eliminating a fundamental imbalance is disputed. Some who regarded the dollar's further rise in the second half of 1984 as a bubble interpreted what happened in 1985 as simply the tendency for bubbles to burst – for market excesses to correct themselves. Others saw international statements of resolve to see "orderly appreciation of the non-dollar currencies" and coordinated intervention in foreign exchange markets as signaling an actual commitment to modify future policies.<sup>78</sup> The problem with this second interpretation was that there was little in actual change in policies, for the timing being anyway. Treasury Secretary Baker continued to push for Germany, Japan and other countries to expand their economies but

---

<sup>75</sup> Recall Sachs (1985).

<sup>76</sup> Google's ngram utility indicates that the phrase first appears in 1981, though the number of mentions takes off around 1985.

<sup>77</sup> Frankel (1994), p.304.

<sup>78</sup> See for example Cooper (2006).

to little avail. The main way in which U.S. policy makers were able to advance their central goal of boosting exports was by talking down the dollar.

In this Baker and his colleagues were more than successful. By late 1986 the problem for Japanese and German exporters had become an overly weak dollar rather than a strong one. There was then another effort to coordinate policies, this time with impetus from outside the United States. Japanese and U.S. finance officials first met bilaterally in San Francisco late in the year, the U.S. side agreeing to intervention in support of the dollar in return for Japan agreeing to fiscal expansion. This may have been the first time that an agreement on international policy coordination entailed an agreement to adjust fiscal as well as monetary policies, fiscal adjustment in the international interest being more difficult in that the policy was not delegated by parliaments and congresses to central banks.<sup>79</sup> In February 1987, at the next meeting of G-5 finance ministers and central bank governors (plus those of Canada) at the Louvre, it was agreed that the dollar would be stabilized “around current levels,” in return for which Japan would again expand public spending and Germany and the others would cut taxes. The U.S., as agreed, intervened heavily in an effort to support its exchange rate.

This second agreement, like its 1985 predecessor, received mixed reviews. The dollar continued to weaken for much of 1987 before stabilizing in 1988, again raising questions about whether official pronouncements really mattered for foreign exchange markets. Dollar stability starting in 1988 did not mean economic stability; in 1990 the U.S. slid into recession.

Monetary ease and fiscal stimulus, Japan’s contribution to international coordination, were a mixed blessing for its economy. It is said that this effort to rebalance spending away from the United States and toward Japan fed the bubble whose subsequent collapse inaugurated Japan’s lost decade. The story is not unlike that of the impact of loose Fed policy designed to strengthen in the pound sterling in 1924-5 in feeding the subsequent bubble on Wall Street (see above). Again, however, there are reasons to question the linkage. Japan’s bubble mainly resulted from the development of the country’s securities markets, which gave large corporate borrowers an alternative to bank funding, and the subsequent rush of the banks into real-estate-related lending (a fateful decision compounded by the failure of the regulators to take preemptive action). The bubble burst not because U.S. pressure for yen appreciation destroyed the Japanese export sector, which held up relatively well, but simply because bubbles do not last forever. The lost decade resulted not from monetary- and fiscal-policy decisions taken in 1985-7 but from the failure of the Japanese authorities to head off first the banking crisis and then deflation.<sup>80</sup>

Be this as it may, none of this constituted a ringing endorsement of this kind of coordination. It would be some time before something similar was attempted again.

\* \* \* \* \*

---

<sup>79</sup> There had been previous international commitments to adjust fiscal policies as a condition of receiving Marshall aid in the 1940s and IMF assistance subsequently, but whether these are properly regarded as instances of international policy coordination is arguable. The Carter Administration in its final years had argued for fiscal expansion by Germany and Japan (an argument that came to be known as the “lomomotive theory” – see Bronfenbrenner 1980), but it did not secure the adjustments in Germany and Japan policy that it sought.

<sup>80</sup> On all this see Corbett and Ito (2010).

Policy coordination in the last decade of the 20<sup>th</sup> century, like the first, was organized in response to crises and designed to preserve a prevailing regime of open capital markets. In the century's last decade, much like its first, that regime was as much regional as global: where the crisis problem at the outset of the century centered on the North Atlantic, the regime-threatening crises of the century's end were centered in Europe (1992-3), North America (1994-5), and East Asia (1997-8).<sup>81</sup>

The first of the trio was an entirely European affair.<sup>82</sup> The German reunification boom implied the need for the prices of German goods to rise relative to those of other European countries.<sup>83</sup> The Bundesbank was reluctant to see this occur through domestic inflation, leading it to raise interest rates repeatedly in 1991 and the first half of 1992. Other central banks were equally unwilling to see it occur through deflation; they were reluctant to tighten and bring down their inflation relative to Germany's, in other words. The result, ineluctably, was the need for exchange rate changes whether the authorities liked it or not.<sup>84</sup>

But changes in exchange rates were more difficult to arrange now that all but a few capital controls had been removed as a consequence of the Single Market. Orderly realignments having grown difficult, policy makers convinced themselves that they were unnecessary; this was the realignment-free "New EMS" of the post-1987 period. But absent faster inflation in Germany and slower inflation elsewhere, it was not clear how adjustment could be accomplished. Ineluctably, competitive pressures built up. These spilled out in August 1992 when George Soros' big bet against the pound sterling became a focal point for speculative activity.

European leaders engaged in desperate if less than wholly successful efforts to resolve the crisis. Central bankers stayed in continuous contact. There were the increasingly acrimonious meetings of the ECOFIN council of economics and finance ministers.<sup>85</sup> There were supplementary meetings, like that between French treasury secretary Jean-Claude Trichet and senior German officials on the sidelines of the World Bank-IMF meetings in September as a result of which German supplied the Bank of France with additional credits and the Bundesbank finally cut money-market rates.

But this level of institutionalization neither succeeded in producing an intellectual consensus nor compelled central banks and governments to adjust domestic policies as necessary for stable exchange rates. Cooperation was stymied by German insistence that the adjustment burden rested on the weak-currency countries and that it was under no obligation to cut interest rates to ease the pressure on its EMS partners, and equally by the reluctance of those partners to

---

<sup>81</sup> One might also add the Brazilian crisis of 1998 and the Argentine crisis of 2001 to this list, but one paper cannot cover everything.

<sup>82</sup> Although the weakness of the dollar in this period when the U.S. was only beginning to recover from recession may have played a subsidiary role in the crisis by channeling funds mainly into Germany, whose financial market was the main alternative to the U.S., and strengthening the deutschmark relative to other European currencies (in the phenomenon known as dollar-deutschmark polarization).

<sup>83</sup> German households spending disproportionately on German goods.

<sup>84</sup> The parallels with the choice facing U.S. and Chinese policy makers as China continued to encourage the growth of domestic spending are not incidental.

<sup>85</sup> Culminating in the debacle in Bath in late August.



raise interest rates sharply as needed to support their currencies.<sup>86</sup> Efforts to cooperate were politicized: British politicians worried about the impact of higher interest rates on homeowners with variable-rate mortgages, and their German counterparts shied away from anything that might be seen as tarnishing their overarching commitment to price stability.

The upshot was that Britain and Italy were ejected from the Exchange Rate Mechanism, while Spain, Portugal and Ireland were forced to realign.<sup>87</sup> The crisis migrated next to a big country, France, in the summer of 1993. Again the sticking point was whether it would be met by France raising rates or Germany lowering them. There came a point where the German finance minister, knowing the arguments and pressures to which he would be subjected, refused to meet with his French counterpart.

In August European leaders conceded the inevitable and widened the ERM's plus-or-minus 2 ¼ per cent bands to 15 per cent. The lesson drawn, if not universally, was the need to further institutionalize policy coordination. Relying on national central banks to peg the exchange rates between national currencies was not enough; rather it was necessary to create a European central bank and a single European currency, as foreseen in the Delors Report in 1989 and endorsed in the Maastricht Treaty of 1992. Germany, for its part, insisted on further institutionalizing fiscal discipline by adding a Stability and Growth Pact. The alternative, pursued by Britain and Sweden, was to abandon the commitment to pegging exchange rates as an alternative to more extensive monetary and financial cooperation.

The next in the series, the Mexican crisis of 1994-5, was labeled by then IMF Managing Director Michel Camdessus as the first financial crisis of the 21<sup>st</sup> century.<sup>88</sup> The characterization was apt in that the Tequila, as it was known, was fundamentally a banking crisis fueled by rapid credit growth, lax lending standards and low interest rates.<sup>89</sup> That boom was made possible by the restructuring of its debt under the Brady Plan, which restored Mexico's access to international capital markets and produced a deceptive surge in foreign reserves. It was made possible by the country's entry into the North American Free Trade Agreement and accession to the OECD, which led many to believe that Mexico had embarked on period of rapid growth, that credit and country risk had receded, and that interest rates would now come down.<sup>90</sup> As in Ireland or Spain ten years later, this was not fundamentally a crisis of fiscal profligacy but a private-spending, bank-credit-led boom.<sup>91</sup> To be sure, the sovereign added another layer of risk, 1994 being an election year, by funding itself short-term using instruments known as tesobonos (denominated in pesos but indexed in dollars). It then took only a peasant rebellion in the

---

<sup>86</sup> The cut in rates in support of the Bank of France in September was an exception. Earlier, UK Chancellor of the Exchequer Norman Lamont is said to have badly badgered his German counterparts at an EU summit Bath, browbeating them on the need to loosen and all but causing them to walk out on the meeting. Eichengreen and Wyplosz (1993) discuss reasons for reluctance to raise rates in countries like Britain and Italy; some countries, such as Sweden (not officially an EMS member) should of course be exempted from this indictment.

<sup>87</sup> Sweden for its part was forced to abandon its policy of shadowing the ERM.

<sup>88</sup> Camdessus (1995).

<sup>89</sup> The kind of problems that would become evident again in the first decade of the 21<sup>st</sup> century, first in the U.S. and then in Europe.

<sup>90</sup> Not unlike what was said of countries like Italy when they adopted the narrow bands of the EMS in 1990 or what was said of countries like Spain and Greece when they adopted the euro.

<sup>91</sup> The consolidated public sector balance had improved from a deficit of 11 per cent of GDP in 1988 to a 1 per cent of GDP surplus in 2004 (Calvo and Medoza (1996), although there were some questions about uncounted fiscal skeletons (about the implicit liabilities of parastatals and the like).

province of Chiapas, combined with higher world interest rates, to bring the house of cards tumbling down.

This put the problem squarely in the lap of the newly-elected government of Ernesto Zedillo. Almost immediately the new president devalued by 15 per cent, but this helped neither firms, with debts in dollars, nor the government's own finances, given the tesobono problem, nor the banks, given their exposures to both sectors. The short tenor of bank and government debt meant that there was nothing to prevent investors from running.<sup>92</sup> And the fears of those who ran could become self-fulfilling. Reserves continued to dwindle, and the government was forced to stop supporting the currency. The latter then lost nearly half its remaining value in a week, further damaging the balance sheets of firms, banks and the public sector.

The manner in which the Mexican crisis was handled is instructive, for it provided the model for other crisis interventions subsequently. The IMF, taking charge of the conditionality, negotiated a \$17.7 billion standby agreement with the Mexican government. The United States topped up the package with \$20 billion of loan guarantees and currency swaps provided through the Exchange Stabilization Fund.<sup>93</sup> After contracting by 7 per cent in 1995, the Mexican economy recovered on the back of the rising tide of exports made possible by currency depreciation, austerity measures to restore confidence, and a tolerably efficient bank cleanup. Painful, to be sure. Not without contagion to, *inter alia*, Argentina. But a template for how to organize international cooperation in rescuing other stricken countries.

The next opportunity to apply it came in 1997-8. The Asian crisis remains difficult to generalize about. The problems of Thailand, Indonesia and South Korea were all rather different. But once more the crisis as it manifested itself in different countries had important elements in common. It was fed by an enormous investment boom. Much of this investment was of dubious productivity, whether in the form of commercial real estate in Thailand or industrial capacity unrelated to the firm's core competency in South Korea. Recall that this was the heyday of the "Asian Miracle," when rapid growth was associated with unprecedentedly high levels of investment.<sup>94</sup> Across Asia, there was a preoccupation with the quantity of investment to the neglect of its quality. Finance was channeled into investment projects regardless of their economic prospects, with official encouragement or acquiescence, by banks to which the firms in question (along with their governments) were connected. Banks funded their lending by borrowing offshore, short-term, in foreign currency – exposing them to reversals in the direction of capital flows.<sup>95</sup> Foreign banks were willing to lend to their Korean counterparts because stable exchange rates eliminated the perception of currency risk, and because they believed that the Korean government would step in to guarantee bank liabilities in the event of difficulties. In practice, however, stable exchange rates could become unstable, and the capacity to backstop the liabilities of the financial system, increasingly denominated in dollars, was limited to the authorities' international reserves.

In Thailand these imbalances, together with the fact that the country was running a current account deficit of 8 per cent of GDP, made the denouement no surprise; the IMF had

---

<sup>92</sup> Not even capital controls, which were now ruled out by NAFTA.

<sup>93</sup> In addition, Canada provided \$1 billion of swaps, and the BIS added a \$10 billion credit.

<sup>94</sup> The World Bank had published its book by that title in 1993. World Bank (1993).

<sup>95</sup> In the Indonesian case, enterprises bypassed domestic banks and borrowed directly offshore.

repeatedly warned the Thai government of impending problems, and high Fund officials even traveled to Bangkok to press the case for adjustment. But with economic growth running at 6 per cent on the back of buoyant construction activity, the markets did press the issue.<sup>96</sup> Then, however, the growth of export revenues decelerated, reflecting a slowdown in the global electronics industry and the intensification of competition from China. There was the rise of the dollar against the yen, which aggravated problems of overvaluation due to the maintenance of dollar pegs in the region.

This is probably the best we can do in terms of explaining the timing of the crisis. Its contagious spread reflected the violent revision of expectations; there was a tendency to think that what was true of Thailand – investment had been unproductive, the government lacked the capacity to guarantee their banks' foreign liabilities, self-dealing among insiders was widespread, and the exchange rate was not really fixed – might be equally true of other Asian countries. Contagion also operated through the common-creditor channel: highly-leveraged foreign financial institutions taking losses in one Asian country were forced to sell their assets in other countries to restore capital adequacy and liquidity.

International efforts to limit the spread of the crisis were again spearheaded by the IMF. The size of the Asian rescues, collectively, was unprecedented, reflecting the implications of growing capital mobility and international liquidity.<sup>97</sup> As in Mexico previously, IMF funding was topped up by other multilaterals (in this case the World Bank and Asian Development Bank) and by a second line of defense from a group of foreign governments led by United States.<sup>98</sup> Conditionality was again in the Mexican mold: it emphasized interest rate hikes to attract back flight capital, fiscal retrenchment, and bank and corporate restructuring. Controversy continues to swirl around the terms of this assistance.<sup>99</sup> Those viewing the problem as essentially a liquidity crisis argue that the IMF should have provided more ample funding without requiring draconian interest rate hikes and fiscal cuts, while others who see also the presence of solvency problems insist that painful monetary and fiscal measures were unavoidable. Questions also continue to be raised about why the IMF did not press earlier for private-sector involvement – for foreign banks to first roll over their loans and then exchange their claims on Asian banks for government-guaranteed discount bonds in the manner of the Brady Plan.<sup>100</sup>

In the fall of 1997, Japanese finance ministry officials proposed an Asian Monetary Fund that might mobilize funding within the region (where the Japanese government would presumably have provided the bulk of the finance and consequently had a disproportionate impact on decision making). The proposal quickly fell afoul of U.S. and IMF objections. This dispute is generally interpreted in geopolitical terms: the U.S. was the much larger and more influential shareholder in the IMF, whereas the opposite would have been true of an Asian

---

<sup>96</sup> There were, however, three speculative selloffs of the baht in the nine months leading up to crisis.

<sup>97</sup> Unprecedented, that is, at the time.

<sup>98</sup> This in cases like South Korea where the need for financing was large.

<sup>99</sup> Especially in Asia.

<sup>100</sup> This was done eventually in some countries – Korea for example – but only in 1998. The argument that private-sector involvement was not possible earlier is that the banks had appreciate the gravity of the crisis – they had to see that their backs were to the wall and that they wouldn't be able to liquidate their claims and escape whole – before they would agree to being involved in this way. There had been no analogous private-sector involvement in the Mexican rescue, but that episode created an awareness of its desirability and of the need for mechanisms for facilitating it. They result was the Rey Report in 1995, for which Eichengreen and Portes (1994) provided input.

Monetary Fund. But there were also economic interests at stake. Japan had relatively high levels of bank exposure to emerging Asia, and Japanese exporters would be disproportionately hit by a recession in the region. It therefore preferred the generous provision of liquidity.<sup>101</sup> The U.S. and Europe were less economically and financially exposed and more preoccupied by the moral hazard that would result from the generous provision of liquidity and duplication of IMF-led rescue efforts. While the proposal for a regional monetary fund went nowhere, the notion would resurface soon enough (see below).

The Asian crisis and international response had two further implications.<sup>102</sup> First, it led to the convening of three study groups on strengthening the international financial architecture under the aegis of an ad hoc grouping of 22 advanced and emerging markets – the crisis having shown the emerging markets were now too systemically significant to be denied a seat at high table. This grouping, the Group of Twenty Two (G22), which eventually evolved into today's Group of Twenty, issued three reports in 1998. The first, on transparency and accountability, emphasized the need for disclosure as a means of strengthening market discipline, lack of information on the situation in, inter alia, Thailand and South Korea having been shown to allow the accumulation of additional risks. The second, on financial systems, emphasized the need to strengthen supervision and regulation of financial institutions and to develop securities markets as an alternative to bank finance. The third, on managing financial crises, emphasized the importance of limiting implicit government guarantees and ensuring private-sector participation in rescues. These three reports formed, to a considerable extent, the blueprint for subsequent efforts at international financial cooperation.<sup>103</sup>

The other implication was the rise of regional cooperation, especially in Asia. The role of the IMF and the U.S. government in the Asian crisis was not recalled happily. The crisis also underscored the extent of regional economic interdependence, something that was then reinforced by the rise of China and the further elaboration of regional supply chains and production networks. Southeast Asia already had a nascent regional entity in place, the Association of Southeast Nations (ASEAN). In 1999 a more encompassing grouping, ASEAN+3 (ASEAN plus, China, Japan and South Korea) was organized around this core. ASEAN+3 provided the basis for initiatives to develop the securities markets like those that had been recommended by the second of the three G22 reports. ASEAN+3 was also the platform for the Chiang Mai Initiative, essentially the Asian Monetary Fund proposal reformulated to address the issues of moral hazard and conflict with the IMF (by making drawing after the first 20 per cent contingent on a country first negotiating a program with the IMF) and potential Japanese dominance (the rise of China allowing Japan and China to have equal voting shares).<sup>104</sup>

\* \* \* \* \*

---

<sup>101</sup> On this see Lipsky (2003). Other Asian countries were generally supportive (how could they oppose a proposal that promised more generous financial assistance at less onerous cost?), although some worried about the implications of Japanese dominance of the new regional entity.

<sup>102</sup> Not unrelated to one another.

<sup>103</sup> Although there remained and remains considerable difference of opinion as to how successfully their respective agendas were pursued.

<sup>104</sup> The Chiang Mai Initiative was announced at the Asian Development Bank meetings in, appropriately, Thailand in April 2000; the voting shares were agreed to only with the multilateralization of its bilateral swap and credit lines at the end of the decade.

After the turn of the century, the locus of financial risks began to shift, although just how was not adequately appreciated at the time. The period following the end of the high-tech bubble and the 2000-1 recession in the United States saw the progressive widening of global imbalances. Current account surpluses and deficits are entirely natural, of course.<sup>105</sup> But what seemed unnatural was that one country, the United States, now accounted for the vast majority of global current account deficits. It always could (and not infrequently was) argued that this situation reflected the fact that the country's flexible economic structure positioned it favorably to capitalize on the new generation of information technologies.<sup>106</sup> In this view, the high consumption rates of American households reflected well-grounded expectations of higher expected future incomes, while the excess of investment over saving reflected the productivity of investment in the United States, which was attractive to foreign as well as domestic savers.

But there was also a darker view, which saw high American spending as reflecting distortions: the Bush tax cuts, the Fed's deviation from the Taylor Rule, income inequality, and abundant cheap foreign finance flowing into U.S. treasury and agency markets. At some point, foreign investors full to the gills with dollar-denominated securities would pull the plug. This would mean a sharp fall in the dollar, catching high-leveraged investors wrong footed. It would mean a sharp rise in interest rates, compressing activity in interest-rate-sensitive sectors. It would mean an equally severe recession in other, export-dependent countries. It was this crisis of global imbalances and not the crisis that we actually had in 2007-9 of which the soothsayers warned.<sup>107</sup>

Statistical discrepancies notwithstanding, global current deficits have to be matched by surpluses. Unlike the situation on the deficit side, where one country dominated, no single country or group of countries dominated in terms of surpluses. Three groups were of roughly equal importance: China and other emerging Asian markets, the oil exporting countries, and Germany and Japan. In China and elsewhere in emerging Asia, chronic surpluses reflected the desire to accumulate foreign reserves following the traumatic experience of 1997-8 and a strategy of export-led growth that required ongoing intervention to limit the appreciation of local currencies. For oil exporters it reflected the bonanza associated with the fastest global growth in more than three decades. In Germany and Japan it reflected the successful restoration of export competitiveness in combination with weak domestic demand.

It was this potential crisis and not the crisis that we actually had in 2007-9 that preoccupied summits of the G20, the grouping that progressively superseded the G7/8 as the locus for policy coordination as the decade progressed. It was this potential crisis and not the crisis that we actually had that preoccupied by IMF executive board. It was this potential crisis and not the crisis that we actually had that was the subject of the IMF's first "multilateral consultation" in 2006-7, an initiative under which a handful of countries (the U.S., the euro area, China, Japan and Saudi Arabia) was brought together to discuss mutually-advantageous adjustments in policies. The idea was to build an intellectual consensus among key national decision makers on the nature of the problem and what needed to be done to address it. This was to be accomplished by institutionalizing regular consultations in which the IMF was to act as referee or fair broker. The problem of global imbalances was technical, but it was also political;

---

<sup>105</sup> As explained in textbook models of optimal saving and investment behavior.

<sup>106</sup> See for example Cooper (2004).

<sup>107</sup> See Roubini and Setser (2005).

meaningful progress required changes in such politically charged issues as the U.S. budget deficit and the Chinese exchange rate. The result was a report to the executive board of the Fund in which the United States acknowledged the need for “further fiscal consolidation” and China acknowledged the need for “further improvement” of its exchange rate regime, after which they and other countries returned to doing precisely what they had been doing before.

It should be noted that the 2006-7 strategy remains pretty much the way the international policy community now proposes to deal with the continuing risk of a disorderly correction of global imbalances. The difference is that instead of one-off consultations we now have an ongoing process. Instead of a Multilateral Consultations Process, we speak of a “Mutual Assessment Process” in which G20 members share policy plans and offer projections for the performance of their economies, while the IMF as honest broker addresses consistency issues and shows how mutually-advantageous policy adjustments can produce a superior “alternative policy scenario.” Just how this process, which focuses on building intellectual consensus among officials, promises to overcome entrenched domestic resistance to, inter alia, fiscal consolidation in the United States and currency appreciation in China is not clear. One response is that the IMF should speak more forcefully when it sees countries pursuing inconsistent policies and resisting mutually-advantageous policy adjustments. The G20 has provided cautious support for this idea in its summit communiqués.<sup>108</sup> But the Fund remains reluctant to bite the hand that feeds it; we have yet to see it launch withering critiques of Chinese currency manipulation and U.S. fiscal profligacy. And in any case the record of countries, large countries in particular, bowing to the will of the Fund is not encouraging.

\* \* \* \* \*

International efforts undertaken in response to the 2007-9 financial crisis are the subject of other papers at this conference, but this one would not be complete without at least a brief attempt to situate them in the broad historical sweep. On the positive side, there have been swap agreements among central banks and governments across the Atlantic and between the Fed and a quartet of emerging markets designed to alleviate shortages of dollar (and, in some cases) euro liquidity. That this form of cooperation is technical and undertaken by independent central banks has facilitated its extension, although this has not wholly insulated it from political controversy.<sup>109</sup> After the collapse of Lehman Brothers, there was the joint commitment on the part of G20 leaders not to permit the disorderly failure of another systemically significant financial institution. There was the agreement of G20 countries in 2009 to go for internationally coordinated fiscal stimulus, designed to avoid an outcome where some countries would free ride on the stimulus of others. There was the commitment in successive G20 communiqués to resist succumbing to a protectionist response to the subsequent recession.<sup>110</sup> This is a good example of the point that cooperation to preserve an existing regime, in this case a regime of relatively free and open trade, is easier to organize than cooperation to create a new system.<sup>111</sup>

---

<sup>108</sup> The alternative, suggested by the U.S. Treasury, of setting specific thresholds (of plus or minus four per cent) for acceptable current account surpluses and deficits and committing to take corrective action in the event of their violation was not agreed at Seoul.

<sup>109</sup> Especially in the United States.

<sup>110</sup> Which was mostly honored.

<sup>111</sup> Compare efforts under the French presidency of the G20 to create a “new” international monetary regime.

On the negative side of the ledger, there was the failure of regulators in different countries to communicate clearly with one another (or at least to understand the content of that communication until it was too late) that precipitated the disorderly collapse of Lehman Brothers. There was the failure to more closely coordinate fiscal stimulus (as opposed to simply agreeing on the desirability of stimulus); this could have allowed countries with ample fiscal space to do more while others lacking such space did less, providing the same boost to global demand while avoiding some of the problems of overindebtedness with which sovereigns are now saddled. There was the failure to internalize the implications of measures taken to stabilize one country's banking system on neighboring countries (recall the initial impact of the Irish bank guarantee). To this observers in emerging markets would add the Fed's failure to take into account the impact of its low-interest-rate policies and second round of quantitative easing on other countries (although I myself have doubts about whether this is in fact an example of coordination failure).<sup>112</sup> But there is no disputing that the inability at the Seoul G20 summit in November 2010 to agree on what constituted mutually-beneficial adjustments in monetary and fiscal policies left potential gains from policy coordination on the table.

Observers of Europe, for their part, would want to add instances where EU member states failed to adequately coordinate their policies in the run-up to the current crisis and then in response to it. Even beginning to enumerate them would require another paper. For present purposes, I would note only that that international efforts to cope with the consequences were in the mold set by the Mexican and Asian crises: emergency funding was provided by the IMF in combination with national governments; fiscal austerity was required of the supplicants and negotiated with the IMF; and debt restructuring was not part of the initial adjustment strategy, since it would have undermined the position of financial institutions in the creditor countries.

It is hard to know whether Basel III belongs on the success or failure side of the ledger. Logic and experience both suggest that progress in strengthening financial institutions and markets cannot be achieved through unilateral national action alone in a financially interconnected world. National governments acting alone cannot be expected to internalize all the negative implications of domestic financial instability on foreign markets. The temptation to under-regulate in the quest for market share will remain in the absence of international cooperation. Regulators evidently understand both these facts and the urgency of their task. That Basel III was produced in a fraction of the time required for Basel I and II speaks to the advantages of an institutionalized process and the scope that exists for coordinating policies when the latter are technical and delegated to experts. Among the provisions Basel III are a panoply of new measures to strengthen capital, liquidity and risk-management standards for financial institutions, render the capital-adequacy regime less procyclical, widen the regulatory perimeter and reduce counterparty risk, with the goal of preventing another crisis like the one through which we have just suffered.

There is also a less favorable reading of Basel III. While the issues were highly technical and delegated to experts, there were far from apolitical. Private financial institutions that anticipated being negatively affected by new regulations were able to enlist their nations' representatives on the Basel Committee to water down the measures. The initial proposal for increasing the ratio of common equity to risk-weighted assets to 8 per cent was scaled back to 7

---

<sup>112</sup> As explained in Eichengreen (2011b).

per cent at the behest of countries whose banks were exposed to Greek debt.<sup>113</sup> The new higher capital requirements mandated under Basel III will not go into full effect for eight years – an eternity from the perspective of financial stability. This works to the favor of countries whose banks are poorly capitalized. The simple leverage ratio that will supplement these new higher capital requirements will similarly not go into effect for a period of years and has been set at high levels, which works to the advantage of countries in both Europe and Asia where banks are highly leveraged.<sup>114</sup> The same is true of the new liquidity requirements, which have been watered down at the behest of countries whose banks rely on short-term wholesale funding. There has been no agreement on alternatives to banks’ internal models as a basis for gauging risk. There has been no agreement on how to share losses across countries when a large global bank fails (no resolution regime). There has been no agreement to ban over-the-counter transactions in derivative securities whose bespoke nature prevents them from being traded on exchanges or netted through central clearinghouses, reflecting the profitability to banks of their origination.

Cooperation in the pursuit of financial reform is ongoing; the eventual outcome of current efforts is not yet known. What is known is that even technical aspects can become politicized and that Mancur Olsen’s point that concentrated interests tend to mobilize most effectively holds equally in this context.<sup>115</sup> Where concentrated interests oppose the efforts of governments to coordinate policies, doing so remains an uphill fight.

\* \* \* \* \*

This paper’s breathless historical review underscores the points made in the introduction but also serves to temper them. It has lent support to the view that cooperation to preserve a regime, through inter alia emergency financial assistance, tends to be more prevalent than cooperation in implementing a new regime, reflecting the international policy community’s investment in the prevailing system. But it has also pointed to instances where cooperation to preserve an existing system has failed and to a few notable instances of successful cooperation in developing a new policy regime. It has documented the advantages of institutionalizing policy coordination by establishing rules of the road for internationally acceptable policy, creating norms and expectations, and providing a structure for the regular interaction of national policy makers, but also shown that institutionalization – whether meant informally as a set of norms or formally as a standing organization – is no guarantee of success. It has fleshed out the argument that policy coordination is most likely when governments collaborate on a range of issues, noneconomic as well as economic – when they are friends and not foes. But there are also examples of countries on delicate political terms, Britain, France and Germany in 1907 for example, collaborating with one another on specific financial problems. And while coordinating policies tends to be easiest when these are technical in nature and can be delegated to specialists who share a common outlook and insulation from politics, such insulation is by no means guaranteed, especially when the outcome has important implications for concentrated interests.

---

<sup>113</sup> And with the support of Canada, whose banks insisted that they should not be “punished” as a result of a crisis in which they were not involved.

<sup>114</sup> The proposed leverage ratio at time of writing is 3 per cent, although this is subject to future review.

<sup>115</sup> See Olsen (1965).



Is there scope for doing better? Clearly, yes. But nobody said it would be easy, and nobody was right.

## References

- Ahamed, Liaquat (2009), *Lords of Finance: The Bankers Who Broke the World*, New York: Penguin.
- Bayoumi, Tamim and Barry Eichengreen (1997), "The Stability of the Gold Standard and the Evolution of the International Monetary System," in Tamim Bayoumi, Barry Eichengreen and Mark Taylor (eds), *Economic Perspectives on the Classical Gold Standard*, Cambridge: Cambridge University Press, pp.165-188.
- Bennett, Lynne, S. E. Ragland, and Peter Yolles (1998), "Facilitating Agreements Through an Interconnected Game Approach – the Case of River Basins," in Richard Just and Sinaia Netanyahu (eds), *Conflict and Cooperation on Transborder Water Resources*: Boston: Kluwer.
- Bronfenbrenner, Martin (1980), "On the Locomotive Theory in International Macroeconomics," *Weltwirtschaftliches Archiv* 115, pp.38-50.
- Calvo, Guillermo and Enrique Mendoza (1996), "Mexico's Balance-of-Payments Crisis: A Chronicle of a Death Foretold," *Journal of International Economics* 41, pp.235-264.
- Camdessus, Michel (1995), "Drawing Lessons from the Mexican Financial Crisis: Preventing and Resolving Financial Crises: The Role of the IMF," [www.imf.org](http://www.imf.org) (22 May).
- Clarke, Stephen V.O. (1967), *Central Bank Cooperation, 1924-1931*, New York: Federal Reserve Bank of New York.
- Cooper, Richard (1989), "International Cooperation in Public Health as a Prologue to Macroeconomic Cooperation," in Richard Cooper, Barry Eichengreen, Gerald Holtham, Robert Putnam, and Randall Henning, *Can Nations Agree?* Washington, D.C.: The Brookings Institution, pp.178-254.
- Cooper, Richard (2004), "U.S. Deficit: It is Not Only Sustainable, It is Logical," *Financial Times* (31 October).
- Cooper, Richard (2006), "Almost a Century of Central Bank Cooperation," BIS Working Paper no. 198 (February).
- Corbett, Jenny and Takatoshi Ito (2010), "What the U.S. and China Should Learn from Past U.S.-Japan Conflict," *VoxEU* (30 April), [www.voxeu.org](http://www.voxeu.org).
- Cox, Gary and Matthew McCubbins (2001), "The Institutional Determinants of Economic Policy," in Stephan Haggard and Matthew McCubbins (eds), *Presidents, Parliaments and Policy*, Cambridge: Cambridge University Press, pp.21-63.
- Dell, Sidney (1981), "On Being Grandmotherly: The Evolution of IMF Conditionality," *Essays in International Finance*, International Finance Section, Department of Economics, Princeton University.
- Diamond, Douglas and Philip Dybvig (1983), "Bank Runs, Deposit Insurance and Liquidity," *Journal of Political Economy* 91, pp.401-419.

Eichengreen, Barry (1992), *Golden Fetters: The Gold Standard and the Great Depression, 1919-1939*, New York: Oxford University Press.

Eichengreen, Barry (1994), *Reconstructing Europe's Trade and Payments: The European Payments Union*, Manchester and Ann Arbor: Manchester University Press and University of Michigan Press.

Eichengreen, Barry (2011a), *Exorbitant Privilege: The Rise and Fall of the Dollar and the Future of the International Monetary System*, New York: Oxford University Press.

Eichengreen, Barry (2011b), "Mr. Bernanke Goes to War," *The National Interest* 111, pp.6-15.

Eichengreen, Barry and Richard Portes (1994), *Crisis, What Crisis? Orderly Workouts for Sovereign Debtors*, London: CEPR.

Eichengreen, Barry and Marc Uzan (1992), "The 1933 World Economic Conference as an Instance of Failed International Cooperation," in Peter Evans, Harold Jacobson and Robert Putnam (eds), *Double-Edged Diplomacy: The Logic of Two-Level Games*, Berkeley: University of California Press, pp.171-206.

Eichengreen, Barry and Charles Wyplosz (1993), "The Unstable EMS," *Brookings Papers on Economic Activity* 1, pp.51-144.

Endres, Anthony and Grant Fleming (2002), *International Organizations and the Analysis of Economic Policy, 1919-1950*, New York: Cambridge University Press.

Estevadordal, Antoni, Brian Franz and Alan Taylor (2002), "The Rise and Fall of World Trade, 1870-1939," NBER Working Paper no.9318 (November).

Feldstein, Martin (1988), "Thinking about International Economic Coordination," *Journal of Economic Perspectives* 2, pp.3-13.

Flandreau, Marc (1997), "Central Bank Cooperation in Historical Perspective: A Skeptical View," *Economic History Review* 50, pp.735-763.

Frankel, Jeffrey (1994), "Exchange Rate Policy," in Martin Feldstein (ed.), *American Economic Policy in the 1980s*, Chicago: University of Chicago Press, pp.293-366.

Gallarotti, Giulio (1995), *The Anatomy of an International Monetary Regime: The Classical Gold Standard, 1880-1913*, New York: Oxford University Press.

Haas, Peter, ed. (1992), *Knowledge, Power and International Policy Coordination*, Columbia: University of South Carolina Press.

Hill, Martin (1946), *The Economic and Financial Organization of the League of Nations: A Survey of Twenty-Five Years' Experience*, Washington, D.C.: Carnegie Endowment for International Peace.

James, Harold (1996), *International Monetary Cooperation since Bretton Woods*, New York: Oxford University Press.

- Kapstein, Ethan (1989), "Resolving the Regulator's Dilemma: International Coordination of Banking Regulations," *International Organization* 43, pp.323-347.
- Kenen, Peter B. (1990), "The International Coordination of Policies," in William Branson, Jacob Frenkel and Morris Goldstein (eds), *International Policy Coordination and Exchange Rate Fluctuations*, Chicago: University of Chicago Press, pp.63-108.
- Kirsch, C. H. and W.A. Elkin (1930), *Central Banks*, London: Macmillan.
- Krasner, Stephen, ed. (1983), *International Regimes*, Ithaca: Cornell University Press.
- Lipsy, Philip (2003), "Japan's Asian Monetary Fund Proposal," *Stanford Journal of East Asian Affairs* 3, pp.93-104.
- Lopez-Cordoba, Ernesto and Christopher Meissner (2003), "Exchange Rate Regimes and International Trade: Evidence from the International Gold Standard, 1870-1913," *American Economic Review* 93, pp.344-353.
- Meissner, Christopher (2005), "A New World Order: Explaining the International Diffusion of the Gold Standard, 1870-1913," *Journal of Economic History* 66, 385-406.
- Meltzer, Allan (2003), *A History of the Federal Reserve, Volume 1, 1913-1949*, Chicago: University of Chicago Press.
- Nurkse, Ragnar (1944), *International Currency Experience*, Geneva: League of Nations.
- Nurkse, Ragnar (1946), *The Course and Control of Inflation*, Geneva: League of Nations.
- Olsen, Mancur (1965), *The Logic of Collective Action*, New Haven: Yale University Press.
- Pauly, Louis (1992), "From Monetary Manager to Crisis Manager: Systemic Change and the International Monetary Fund," in Roger Morgan, Stefano Guzzini and Anna Leander (eds), *A New Diplomacy in the Post-Cold War World*, New York: Macmillan/St. Martins, pp.122-130.
- Persson, Torsten and Guido Tabellini (1995), "Double Edged Incentives: Institutions and International Coordination," *Handbook of International Economics*, Amsterdam: Elsevier, vol. 3, pp.1973-2030.
- Peters, Guy (1999), *Institutional Theory in Political Science*, London: Continuum.
- Reti, Steven (1998), *Silver and Gold: The Political Economy of International Monetary Conferences, 1867-1892*, Westport: Greenwood Press.
- Rogoff, Kenneth (1985), "Can International Monetary Policy Coordination Be Counterproductive?" *Journal of International Economics* 18, p.199-217.
- Roubini, Nouriel and Brad Setser (2005), "Will the Bretton Woods 2 Regime Unravel Soon? The Risk of a Hard Landing in 2005-6," unpublished manuscript, Stern School of Business (June).
- Sachs, Jeffrey (1985), "The Dollar and the Policy Mix," *Brookings Papers on Economic Activity* 1, pp.117-197.

Smith, Michael (2004), "Institutionalization, Policy Adaptation, and European Foreign Policy Cooperation," *European Journal of International Relations* 10, pp.95-136.

Strange, Susan (1980), "Germany and the World Monetary System," in Wilfrid Kohl and Giorgio Basevi (eds), *West Germany: A European and Global Power*, Lexington and Toronto: Lexington Books, pp.45-62.

Toniolo, Gianni (2005), *Central Bank Cooperation at the Bank for International Settlements 1930-1973*, Cambridge: Cambridge University Press.

Tsebelis, George (1992), *Nested Games*, Berkeley: University of California Press.

Wolf, Nikolaus (2010), "Europe's Great Depression: Coordination Failure after the First World War," CESifo Working Paper no.3164 (September).

World Bank (1993), *The Asian Miracle*, Washington, D.C.: The World Bank.