“Global Imbalances and Currency Politics: China, Europe, and the United States”

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At the core of contemporary international macroeconomic policy problems is a new "G3" comprised of China, the European Union (EU) and the United States (US). This group shares some characteristics with the earlier G3 of Japan, Germany and the US that so dominated the political economy of global macroeconomic imbalances in the 1970s and 1980s. The new G3 is even more weakly institutionalized than its predecessor and is also visibly lopsided, reflecting considerable economic and political asymmetries between the three players. It distributes costs and benefits very unevenly between and within the major blocs and is consequently highly contentious. The new G3 also has some important differences with the old, notably the novel presence of a major developing country member and an imperfectly integrated regional association. Both factors, I suggest, considerably complicate the process of macroeconomic policy coordination within and beyond the G3. The first factor has received most attention, especially in the contention of some commentators that China has been deliberately manipulating its exchange rate to obtain a competitive advantage, that its policies have been responsible for the emergence of large payments imbalances, and that China refuses to play by the established rules of the game (e.g. Bergsten 2008; Wolf 2009). The second factor has received much less attention, but recent evidence suggests that despite the growing importance of the euro as a global currency and of the euro area in global commerce, the EU also remains poorly equipped to play a constructive role in global macroeconomic policy coordination. For these and other reasons, I argue that it is not surprising that recent attempts to revive international macroeconomic policy coordination have proven disappointing.

The first part of the chapter briefly summarizes the debate and evidence on global imbalances and renminbi (RMB) undervaluation. The second section outlines the set of global rules and norms[1] concerning currency management and macroeconomic policy coordination. The third section asks whether the three major players, China, the US, and the EU, accept or disregard these rules and norms in making their own macroeconomic policy choices. The fourth section concludes by asking what this story tells us about power in the evolving global political economy and the possibilities of collective management of economic interdependence in the post-G7 era.

I argue that the existing international rules and norms relating to macroeconomic policy are much tighter as regards currency choices than in the area of monetary and fiscal policy. This imbalance within the regime itself has favoured the advanced countries, which have opted for floating exchange rates, and disfavors China, which has only partially liberalized its exchange rate. None of the G3 countries are good citizens as regards international macroeconomic policy coordination: all have demonstrated limited regard for multilateral policy surveillance and coordination processes in their policy choices. Both the US and EU have used the global regime to try to force a reluctant China to accept first mover adjustment costs, but their ability to do so differs markedly. The

[1] I use "international rules" to mean the prescriptive international law contained in treaties, and "international norms" to mean generally accepted standards of behaviour that are sometimes related to but not necessarily codified in international treaty law.

relative openness of the US policymaking system to interest group influence and the relative coherence of its institutional structure give the US much greater leverage over China. The EU has found it much more difficult to act coherently at the global level, at the expense of particular sectors within Europe and its own status within the global system.

1 The (re-)emergence of global imbalances and exchange rate politics

Among the major developed countries, there was a growing consensus from the middle of this decade that China's fixed exchange rate peg against the US dollar had entailed an increasing real undervaluation of the RMB and that this was a serious threat to global economic stability. The undervaluation was increasingly regarded as an important cause of the global imbalances in the structure of international payments, in particular of America's large current account deficits and China's growing surpluses (figure 1).[2] In February 2005, G7 finance ministers and central bankers called on unspecified countries to accept that "more flexibility in exchange rates is desirable for major countries or economic areas that lack such flexibility to promote smooth and widespread adjustments in the international financial system."[3] Reflecting disappointment at the results of China's modest liberalization of its currency regime in

[2] Global imbalances referred to the increasingly large imbalances of payments on current account between the US and the rest of the world, notably China, Japan, and the Middle East. For early contributions to the debate, see Bernanke (2005); Cooper (2005); Dooley, Folkerts-Landau, and Garber (2003); IMF (2005), ch.3; and Obstfeld and Rogoff (2004).

[3] Statement of G7 Finance Ministers and Central Bank Governors, London, February 4-5, 2005.

July 2005, the G7 then called explicitly in April 2006 for further appreciation of the RMB: “In emerging Asia, particularly China, greater flexibility in exchange rates is critical to allow necessary appreciations, as is strengthening domestic demand, lessening reliance on export-led growth strategies, and actions to strengthen financial sectors.”[4]

[4] Statement by G7 Finance Ministers and Central Bank Governors, April 21, 2006.

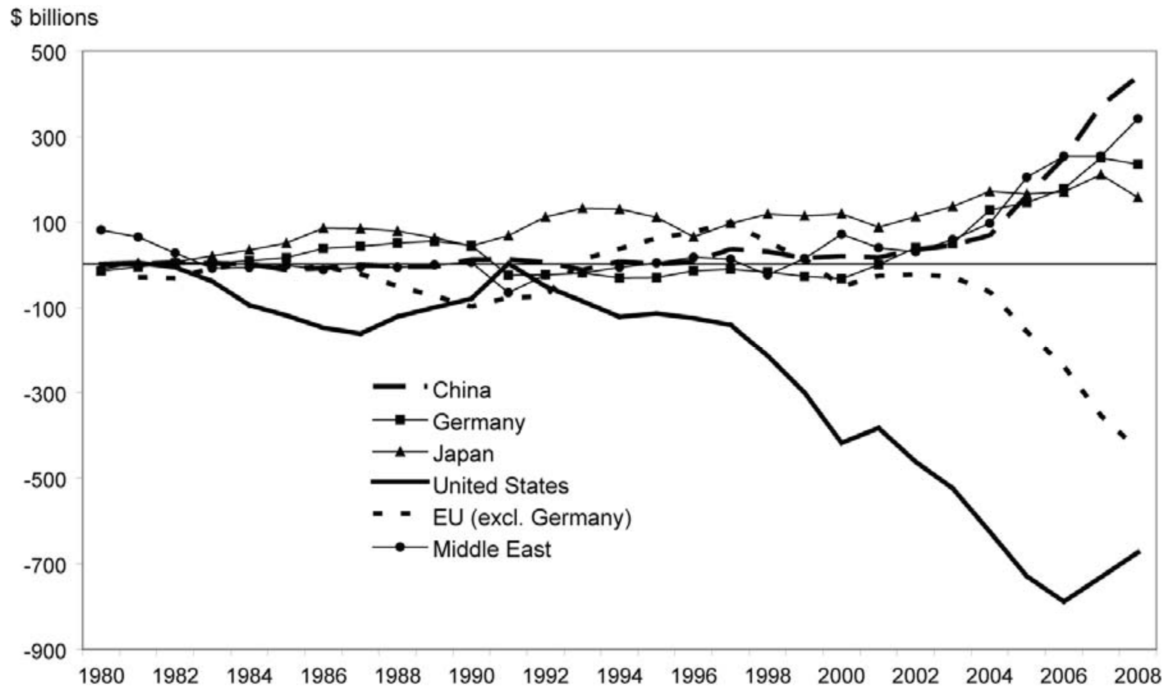

Figure 1. Current accounts, major countries/regions, 1980-2008, US$ billions.
Source: IMF, *World Economic Outlook* database. 2007 and 2008 figures are estimates as of April 2009.

After 2006, the nominal value of the RMB rose against the US dollar and fell against the euro (figure 2). From July 2005 to the middle of 2008, the RMB appreciated against the US dollar by about 15%, with the rate of appreciation accelerating in late 2007. Over the same period, the RMB *depreciated* against the euro by about 15% as the latter currency rose against the dollar. Since China's total productivity growth probably exceeded that in the advanced countries, the *real* RMB appreciation against the dollar was almost certainly somewhat less than 15% over this period and the real depreciation of the RMB against the euro (and more recently the Japanese yen) was greater.[5] On a real trade-weighted basis, the RMB may have appreciated by 5-10% since 2005 (Garcia-Herrero and Koivu 2009: 2).

[5] See National Science Board (2008), vol. 1, ch.6: http://www.nsf.gov/statistics/seind08/c6/c6s.htm. Other indicators of real exchange rate movements, such as those provided by the IMF and by JP Morgan, paint a similar picture.

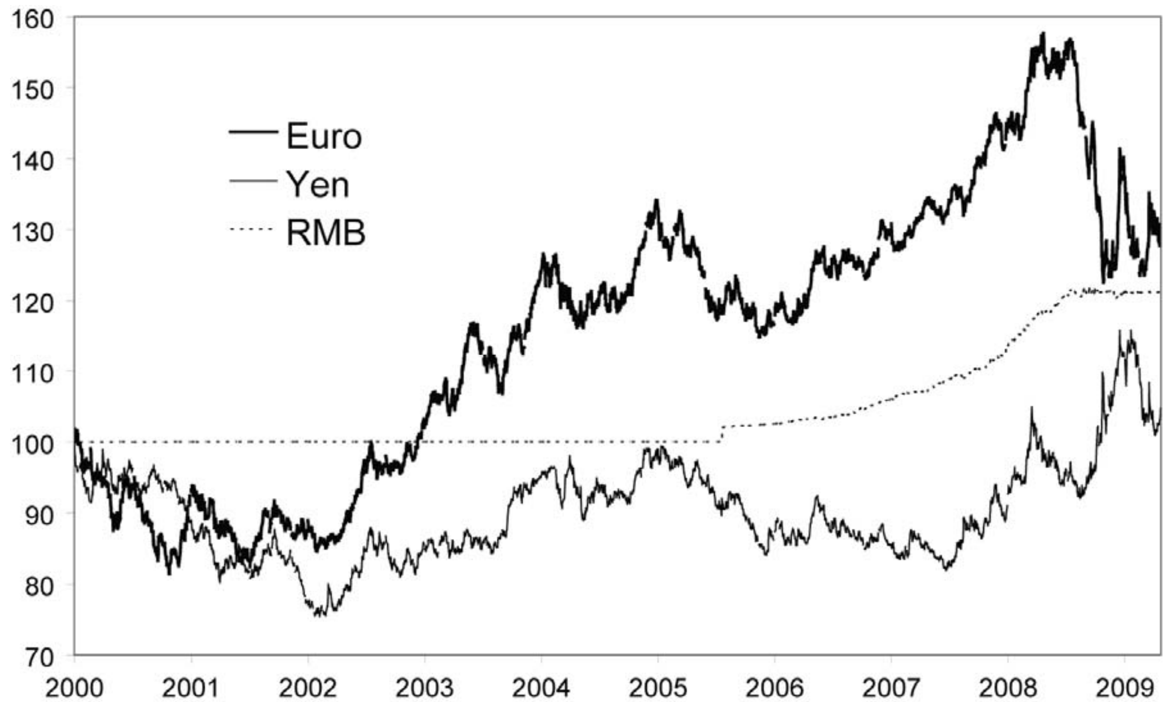

Figure 2. Euro, Yen and RMB daily spot exchange rate movements against the US dollar, 3 January 2000 through 24 April 2009 (rebased: 3 January 2000=100).
Source: US Federal Reserve Board exchange rate database.

Has the RMB remained heavily undervalued against the dollar and has Chinese currency policy been in part responsible for the global payments imbalances that many now associate with the global financial crisis?[6] This issue has been highly contentious and the Chinese government has denied both that the RMB is undervalued and that it has deliberately engaged in "manipulation" to achieve currency undervaluation. I briefly consider here the undervaluation question and postpone the related currency manipulation question to section 3.

Those who argue that the RMB became substantially undervalued in recent years point to the sharp increase in China's current account surplus from 2005, which since that time has become unprecedented both in absolute terms and in relation to China's total economic size – even by historical comparison with Japanese and German surpluses (figure 3). They also argue that a decisive indicator of RMB undervaluation – and, as we shall see, currency manipulation – is China's extraordinary and sustained accumulation of foreign exchange reserves, which on official figures had reached over $1 trillion by the end of 2006 and nearly $2 trillion by early 2009 (IMF 2006a: 15-16; Mussa 2007: 23-24). This is often linked to the so-called "global savings glut" argument initiated by Ben Bernanke, chairman of the Federal Reserve, which claims that emerging market governments responded to the crises of the 1990s by increasing precautionary savings, producing a surplus of global savings over investment that reduced global interest rates and fostered the global boom after 2003 (Wolf 2009). Another indicator of RMB undervaluation is the growing capital intensity of investment and production in China. Heavy investment in industries such as steel, automobiles, and semiconductors belies

[6] For the most explicit argument along these lines, see Wolf (2009).

China’s comparative advantage in labor-intensive sectors and has had the perverse effect of producing very slow employment growth in a rapidly expanding economy (employment growth slowed from 2.5% p.a. over 1978-1993 to just over 1% over 1993-2004, when heavy investment in capital-intensive manufacturing took place) (Bergsten et al. 2008: 110). Consistent with this, the capital intensity of exports has also increased sharply in recent years and substantial import substitution away from capital intensive imports has occurred.

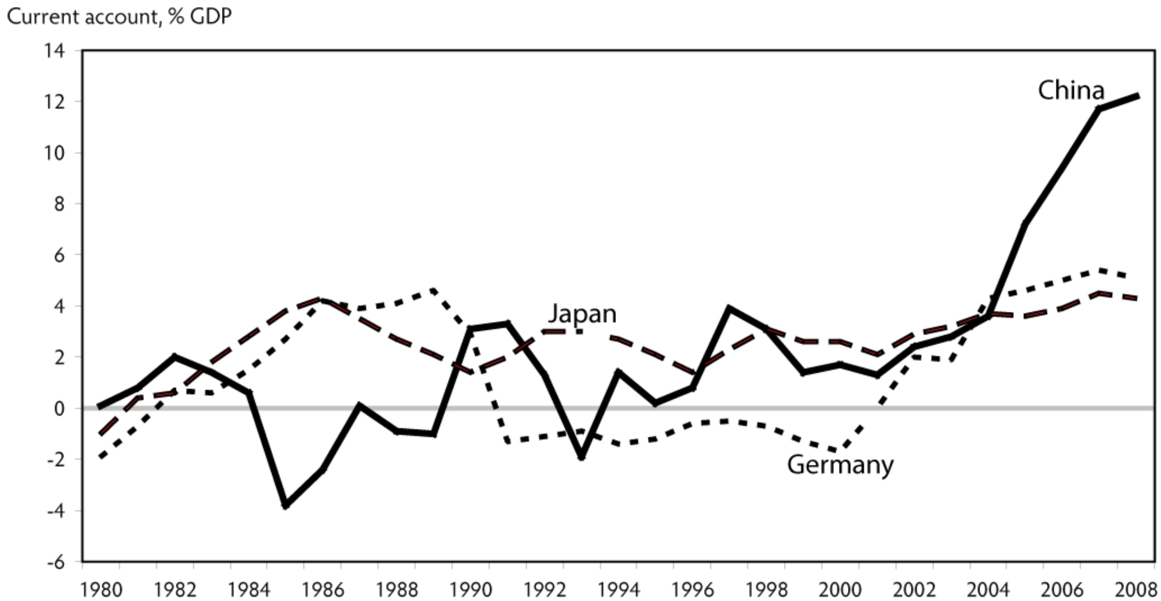

Figure 3. Current accounts of major surplus countries, % of national GDP, 1980-2008. Source: IMF, *World Economic Outlook* database. 2007 and 2008 figures are estimates as of October 2007.

China and her defenders have argued that the large trade and current account surpluses that China has experienced since 2005 have been produced by structural rather than exchange rate factors.[7] Structural factors include China's growing surplus of national savings over investment, China's unbalanced WTO accession in 2001 (which some argue favoured Chinese exports over imports), and heavy Asian foreign direct investment (FDI) in assembly-for-export operations in mainland China. The latter has had the effect of substituting Chinese for other Asian exports to advanced country markets; it may also make China's trade balance less sensitive to changes in the real value of the RMB.[8] A number of economists also dispute the savings glut argument, along with the associated implication that China and the commodity exporting surplus countries were at least partly responsible for producing the global asset price, consumption and production bubble of recent years that burst so spectacularly in September 2008. One problem with the savings glut argument is that global savings appears to have been on a *downward* trend since 1990 (Taylor 2009). As Taylor points out, even if excess demand in the US offset surplus savings in the rest of the world, global savings and investment must balance, making it difficult to explain falling global interest rates over this period. Falling interest rates may instead have been due to low investment demand and highly

[7] One prominent US member of this school is Albert Keidel (2008a, 2008b).

[8] García-Herrero and Koivu (2009) find that Chinese imports tend to *fall* with increases in the real value of the RMB, perhaps because so many of China's imports from the rest of Asia are re-exported elsewhere.

expansionary US monetary policy after the 2001-2 recession, with its equivalents in Europe, Japan and elsewhere.[9] Moreover, the trend towards a rapidly deteriorating US current account deficit began in the late 1990s, well before China's or the Middle East's current accounts moved towards persistent large surpluses. This lends support to the argument that the US's privileged ability to attract cheap finance from the rest of the world allowed it to spend well beyond its means for more than a decade. From this perspective, excess US demand *produced* surpluses elsewhere in the world.

The consensus of western economists today leans towards the view that the RMB was undervalued after 2004 and that has distorted both the composition of China's trade, production and employment and has contributed to its unprecedented external surpluses on both current and capital accounts. However, there is no consensus on the aggregate contribution of RMB undervaluation to global imbalances, how much a given amount of real RMB revaluation would reduce China's trade surplus, or indeed on the "equilibrium" level of the RMB.[10] Nor there agreement on why China's trade and current account surpluses grew explosively from 2005. Before this, China's trade account had remained close to balance (in 2004 its trade surplus was a mere 1.7% of GDP). All of these uncertainties increase the likelihood of cooperation failures at the international level.

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[9] It is also difficult to blame surplus countries for widespread failures of financial regulation in the US, UK and elsewhere.

[10] For a review of 18 separate economic studies and widely differing estimates of equilibrium values, see Cline and Williamson (2007), as well as Garcia-Herrero and Koivu (2009).

2 Global rules and norms on macroeconomic policy

In the final stages of the Bretton Woods system of pegged exchange rates, a consensus emerged that this system had produced “rigidity without stability,” permitting surplus countries to avoid or to delay necessary exchange rate adjustments with disruptive and inequitable consequences (IMF 2006a: 12). The adoption of floating exchange rates between the major currencies was seen by its proponents, especially in the US, as a way of reducing rigidity by relying on market forces to force currency appreciation on persistent surplus countries. The new system failed to live up to these predictions. The exchange rates between the US dollar, Japanese yen, and German mark were characterized by both short term volatility and periodic large misalignments. Despite large mark and yen appreciations over the longer term, surpluses in Germany and Japan persisted. These shortcomings notwithstanding, few foresaw that old problem of excessive exchange rate rigidity would return, along with accusations of beggar-thy-neighbour mercantilism via deliberate currency undervaluation by a major country (China).

Under the Bretton Woods regime, the main obligation of member countries was to avoid beggar-thy-neighbour exchange rate policies and to consult with the Fund on any significant change in a currency’s par value. Members were only indirectly subject to further macroeconomic constraint: capital account openness was not required by IMF rules but to the extent that it was significant, the short run obligation to maintain the par value implied that monetary policy had to be at least partly subordinated to exchange rate stability. Fiscal policy remained essentially a matter of national sovereignty.

Despite the breakdown of the pegged exchange rate system in the 1970s, the major countries agreed to retain and even to expand some aspects of the IMF's macroeconomic policy surveillance function. In particular, they retained the general bias of the regime against currency policies having systemically destabilizing effects.[11] Thus, article 3(b) of the Second Amendment of the Articles of Agreement (1977) states that "The Fund shall exercise firm surveillance over the exchange rate policies of members, and shall adopt specific principles for the guidance of all members with respect to those policies." There is also a general obligation on member states to cooperate with the IMF in its surveillance function: "each member shall provide the Fund with the information necessary for such surveillance, and, when requested by the Fund, shall consult with it on the member's exchange rate policies." In a key clause, the Second Amendment also obliged IMF members not to "manipulate" their exchange rate: "A member shall avoid manipulating exchange rates or the international monetary system in order to prevent effective balance of payments adjustment or to gain an unfair competitive advantage over other members."[12]

Pauly (1997: 109-110) argues that beneath these revised rules lay the continuing international norm that countries were mutually responsible for the external effects of their macroeconomic policy choices. But this was only ever really true only in so far as these policies had *exchange rate consequences.* No specific rules existed on monetary

[11] On the origins of the mutual policy surveillance and accountability norm in the League of Nations and its expansion in the IMF, see Pauly (1997).

[12] IMF, "Surveillance Over Exchange Rate Policies," Decision No. 5392-(77/63), April 29, 1977: http://www.imf.org/external/pubs/ft/sd/index.asp?decision=5392-(77/63).

and fiscal policy of the kind later adopted in Europe as prerequisites for membership of the monetary union. Indeed, with the advent of floating exchange rates between the major countries, monetary policy there was effectively freed from indirect multilateral constraint. Monetary and fiscal policies were only very infrequently serious matters for intra-G7 negotiation and were directly related to concerns about excessive over- or under-valuation of the US dollar (Funabashi 1989; Webb 1995).[13] After the inflationary episode of the 1970s and 1980s, the major countries focused instead on building *domestic* mechanisms of monetary policy constraint, notably independent central banks and inflation targeting strategies. The process of intra-European monetary integration is an important exception to this generalization, but the Eurozone as a bloc is consistent with it.

The net result is that global macroeconomic rules and norms minimize international constraints over those countries or blocs that opt for inflation targeting instead of exchange rate targeting as their monetary policy strategy. By contrast, those countries (mostly in the developing world) that prefer to target exchange rates are more constrained and more likely to run the risk of falling foul of the rules.

Some claim that even as regards currency policy global rules and norms have little practical constraining effect. Mussa (2007: 2, 40) notes that despite formal annual IMF surveillance of most member states' policies in the Article IV process, there has not

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[13] The G7 also weakened the practical impact of IMF surveillance by partially devolving mutual surveillance between the major countries to its own meetings and by effectively excluding the IMF Managing Director from its exchange rate discussions (Mussa 2007: 1-2).

been a single case of a country being found non-compliant with its currency obligations. But there were two cases of special IMF consultations with individual countries in the 1990s, in response to US and German complaints of currency manipulation by Korea and Sweden respectively (Sanford 2006: 41). Furthermore, the absence of formal IMF sanctions need not mean that the regime has no deterrent effect on member state policies.

Furthermore, the modification in 2007 of the IMF's currency manipulation clause sent a signal to countries adopting exchange rate targets that there are risks in such a policy. In June 2007, the IMF's Executive Board, which remains dominated by G7 governments, approved a revision to the bilateral (i.e. IMF—member state) surveillance rules, adding the following recommendation: "A member should avoid exchange rate policies that result in external instability." It defined external stability as being achieved "when the balance of payments position does not, and is not likely to, give rise to disruptive adjustments in exchange rates."[14] The Executive Board also clarified the concept of currency manipulation:

> The 2007 Decision provides that a member would be "acting inconsistently with Article IV, Section 1 (iii)," if the Fund determined it was both engaging in policies that are targeted at—and actually affect—the level of the exchange rate, which could mean either causing the exchange rate to move or preventing it from moving; and doing so "for the purpose of securing

[14] "IMF Surveillance — The 2007 Decision on Bilateral Surveillance," http://www.imf.org/external/np/exr/facts/surv07.htm, accessed March 5, 2008.

fundamental exchange rate misalignment in the form of an undervalued exchange rate" in order "to increase net exports."[15]

Given the growing pressure on China over 2005-7 over its exchange rate policy, the government inevitably interpreted (arguably correctly) this IMF initiative as reflecting a US-led effort to increase the pressure on China to accept more rapid RMB appreciation. China, with Iran, voted against the 2007 Decision. Some, including senior US Treasury officials, believed that the Decision would permit the IMF to be more robust in its exchange rate surveillance by downgrading the apparent need to prove "intent to manipulate" and by allowing the Fund to make the less politically charged finding of "fundamental misalignment" (Goldstein and Lardy 2007: 38). Others, including some IMF insiders, argued that the revision was counterproductive (it worsened the Fund's relationship with China) and unnecessary (because the existing rules already permitted "intent" to be inferred from policy actions). The real obstacle to IMF action was that there was no consensus within the US and Europe on the merits of a more aggressive stance on China's currency policy.

3 Do the major players accept the global macroeconomic policy regime?[16]

This section considers whether China, the US and the EU see the global rules and norms on macroeconomic policy as legitimate and whether they have been willing to take them into account when making policy choices. I suggest that although it is true that

[15] *Ibid.*

[16] Some of the information provided in this section is based on the author's confidential interviews in London, Beijing and Washington over 2008-9.

China has often not seen these rules as legitimate and have been reluctant to alter policies in response to multilateral pressure, they have not rejected the concept of multilateral surveillance entirely. The US and the EU differ from China in that they have played a dominant role in setting global rules and norms in this area, but like China they have not been conspicuously willing to take them into account when setting policies.

3.1 China

China had long viewed the IMF as dominated by the major western countries, but when it joined the Fund in 1980 it probably did not see membership as especially constraining for Chinese policies. China has only borrowed twice from the Fund (in 1981 and 1986). Moreover, it maintained a dual exchange rate from 1986 to January 1994 and it only accepted crucial Article VIII obligations (mainly requiring the avoidance of restrictive practices on current account transactions) in December 1996. From this time, Fund staff often describe China's relationship with the IMF as positive, at least until recently. The Asian financial crisis of the late 1990s certainly strained relations between the IMF and other countries in East Asia, but the Chinese government probably did not expect to have to borrow from the Fund and the crisis was not disruptive to its relations with the Fund. Nevertheless, the crisis did demonstrate to all in the region that IMF policy advice could be destructive of both economic as well as political stability and it further encouraged the view that the IMF remained dominated by western countries, above all the US.

This perception was reinforced by the growing international attention, including in China's bilateral consultations with the IMF, on the RMB exchange rate from about 2003. Pressure on the Chinese government to change policy intensified over 2005 and as

China's external surpluses grew rapidly, such pressure intensified despite the July decision to partially liberalize the exchange rate. For example, in their 2006 Article IV consultation with China, IMF staff "urged the [Chinese] authorities to increase exchange rate flexibility," meaning more rapid RMB revaluation. The published dialogue between IMF staff and the Chinese authorities is fairly robust as far as these things go and indicates a considerable degree of Chinese resistance to IMF arguments (IMF 2006b: 18-20). At the same time, and from the Chinese perspective as part of a coordinated strategy, bilateral pressure was also exerted by the US in particular.

As China's surpluses and reserve accumulation reached unprecedented levels over 2006-7, some American commentators and politicians concluded that China's persistence with a gradualist policy of slow and steady RMB appreciation against the dollar demonstrated conclusively that China was engaged in mercantilist currency manipulation and was thus in clear breach of its multilateral obligations. Goldstein, for example, argues that:

> China has been engaging in large-scale, one-way, sterilized intervention in exchange markets for the better part of four years. The Chinese authorities continue to assert that they do not accept the concept of currency manipulation, and they have accused the IMF of "meddling" in China's exchange rate policies…[This] raises doubts about China's intention to become a responsible stakeholder in the international monetary and trading system. (Goldstein 2007: 2-3).

Some statements by Chinese leaders appear to support such an interpretation. In a speech to the US Chamber of Commerce in Beijing in May 2005, Premier Wen Jiabao, generally viewed as a technocrat more open to currency reform, argued that external pressure on China to change its policies was counterproductive and that China's exchange rate system and the appropriate level of the exchange rate were both matters of national sovereignty.[17] IMF rules are in fact consistent with the view that the choice of exchange rate system (fixed, floating, etc) is a matter of national sovereignty, but as Mussa (2007: 8) points out, any claim that the exchange rate is a purely sovereign matter is a logical absurdity, since it is by definition a relationship between at least two currencies.

This points to a tension in the global macroeconomic regime itself, between the sovereign right of countries to choose their own exchange rate system (e.g. a peg to a major currency such as the dollar or euro) and their obligation not to manipulate their currencies so as to achieve an unfair trade advantage. As China's case has shown, currency regime choices can have implications for the latter in a world in which the major currencies are prone to large fluctuations in value and periodic misalignments. Related to this, the problem of demonstrating "intent" to manipulate is also a substantive issue, not simply a means by which China and the IMF have been able to escape their respective obligations to act. Respected China watchers argue that the government only belatedly woke up to the implications of the depreciation of the dollar (and hence the

[17] "RMB exchange rate a sovereignty issue of China: Premier," May 17, 2005, Embassy of the People's Republic of China in Australia, http://au.china-embassy.org/eng/xw/t195926.htm.

RMB) against the euro after 2002. By 2005, this had produced a large RMB depreciation against the euro as well as rapidly rising bilateral and overall surpluses. As China's bilateral surplus with the EU grew along with trade tensions with Europe, the government's general preference for a policy of gradualism and stability arguably required that the RMB appreciate somewhat against the dollar so as to "split the difference" between the dollar and euro (Keidel 2008a, 2008b). If this describes one basic motivation of the Chinese leadership from 2005, since depreciation against the dollar would be politically dangerous this policy rule is probably asymmetric (hence the RMB's stability against a strengthening dollar after mid-2008).

The Chinese government has also had to split the difference between two general domestic constituencies that are also represented at the highest levels of economic policymaking, including in the National Development and Reform Commission (NDRC). As in other countries, this split can manifest itself in different ways, such as between those whose primary concern is to maintain growth and those who are more concerned about inflation, or between those who favour the promotion of exports and those who favour a more consumption-oriented growth strategy. The rapid expansion of exports and associated foreign and domestic investment in export capacity and import-substituting industry created a powerful lobby that strongly resisted significant RMB revaluation. Although this group is often associated with the argument that a competitive exchange rate is associated with both rapid output and employment growth, the very low levels of employment growth in China since the mid-1990s suggests that this may not be a coherent or stable position. On the other side are ranged various voices, including those who are concerned that RMB undervaluation has undermined domestic monetary control and financial regulatory reform, resulted in highly unbalanced growth, left China increasingly exposed to external pressure and dependent upon the willingness of the US and EU to maintain open markets for Chinese exports, and with excessive holdings of foreign exchange reserves (especially dollars) whose long term value is uncertain.[18]

From 2003-5, when growth was high, inflation low, and exports boomed, the pro-export lobby arguably had the upper hand. By mid-2005, when the domestic and external costs of the dollar peg were becoming increasingly apparent, the Hu-Wen government appears to have felt the need to defuse the split between the two camps. Given this, it is not easy to demonstrate unambiguously that the decision to modify the exchange rate regime in 2005 was mainly a response to external pressure. However, inflation was still low in 2005 and various participants in bilateral and multilateral negotiations are convinced that external pressure was a necessary if not sufficient cause of the policy shift.[19] As inflation accelerated over 2007-8 and external pressure for more rapid RMB appreciation also increased, the leadership arguably leaned more towards the pro-appreciation lobby and appreciation accelerated. Wen Jiabao's speech to the National People's Congress in March 2008 asked officials to pay attention to global imbalances, foreign protectionism, and the effects of global financial turmoil, and said that the policy priority should be to reduce consumer price inflation.[20] The government still emphasized

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[18] See IMF (2006b); Michael Pettis, "More warnings on inflation vigilance in China," February 28, 2008, http://piaohaoreport.sampasite.com/blog); Prasad (2007); Vines (2006), Yu (2006).

[19] Author interviews. See also Taylor (2007: 291, 297).

[20] "China to focus on curbing inflation," *FT.com,* March 6, 2008.

the need for employment growth and social stability, but it remains unclear whether it has linked RMB undervaluation with the bias towards capital intensive investment and low employment growth.[21]

In short, the Chinese government has vigorously defended its right to choose an exchange rate regime that is suited to its national circumstances. This position is consistent with a general tendency to resist foreign pressure for policy change and to interpret concerted foreign pressure in somewhat conspiratorial terms. The Chinese have seen foreign charges of currency manipulation as unfounded, biased, hypocritical, and possibly motivated in some quarters by a desire to keep China down, or at least as insufficiently concerned about the need to maintain social stability.[22] Much of the leadership no doubt saw the 2007 Decision itself as illegitimate, with some officials apparently believing that while there may have been a currency manipulation rule there was no international *norm*, since (they claimed) most countries targeted their exchange rate for national advantage.

But it would be wrong to push this argument too far. China has never objected in principle to IMF surveillance, either in its standard bilateral form nor in the new IMF-

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[21] See Michael Pettis, "More, or less, RMB appreciation?," March 7, 2008, http://piaohaoreport.sampasite.com/blog; Victor Shih, "China's credit boom," *Asian Wall Street Journal*, February 21, 2008, Shih (2008); and "China lets Yuan appreciate a bit faster," *China Daily*, December 29, 2007.

[22] "Central bank rejects IMF Yuan advice," *China Daily*, April 16, 2007. See also IMF (2006b: 20), and Yu (2007: 11).

sponsored "multilateral surveillance" discussions on reducing global imbalances held over 2006-7. It has also been willing, even if belatedly and insufficiently, to respond to international pressure to change its policies, though some important domestic groups were pushing in the same direction (Taylor 2007: 299-300). In 2006 the NRDC in its 11th five year plan also adopted the goal of achieving a balanced current account within five years. Their main argument in fact turns on the *rate* of change required to achieve the stated goals of more balanced growth whilst maintaining economic and social stability. At the same time, China has also reasonably insisted that it should not have to bear the main share of the adjustment costs of reducing global imbalances.[23] In their debate with IMF staff in 2006, the Chinese government "agreed that greater flexibility was needed over the medium term, but stressed that exchange rate reform would proceed in a gradual and controlled manner" (IMF 2006b: 3). Even as the leadership's stated goal of achieving more balanced growth appeared increasingly unlikely to be achieved, the gradualist strategy has remained intact because it reflects a perceived need to balance multiple and sometimes conflicting internal and external goals.

[23] Various US Congressional bills aimed at inducing China to permit more rapid RMB appreciation, for example, do not offer any US quid pro quo, reinforcing Chinese concerns about bias. Goldstein (2007: 17-18) agrees that the US must accept fiscal deficit reduction in return, but offers no means by which any such commitment could be credibly enforced; by contrast, his suggestion that the Treasury and IMF both name China as a currency manipulator would result in highly credible sanctions against China.

3.2 The United States

The US has historically been the main architect and supporter of multilateral rules on macroeconomic policy but at the same time it has often been conspicuously reluctant to accept external constraints upon its own macroeconomic policy choices. This tension in US policy remained evident after the breakdown of the Bretton Woods exchange rate system, under which it chafed under the constraint on its monetary policy implied by the gold convertibility of the dollar (Gowa 1983; Solomon 1982). Even in periods of extreme dollar weakness or overvaluation, the US government refused to accept that this could amount to a breach of its multilateral obligations. Generally, US policy towards the dollar has often been described as one of "benign neglect"; at times, US officials even "talked down" its value. At the same time, the US has used international forums, including the IMF and G7/8, to insist that other countries accept surveillance over their macroeconomic policies and, often, greater responsibility for global imbalances.

The US has periodically recognized that a perception of double standards can weaken incentives for other countries to accept global rules and norms, and US officials have often spoken of the US's willingness to accept multilateral discipline. In February 2007, the Bush administration altered its formerly skeptical stance towards the IMF by agreeing with other G7 countries to improve the perceived even-handedness of IMF surveillance: "To be more effective [IMF] surveillance must be applied equally and even-handedly, focused on external stability, and subject to a clear accountability framework, without creating new obligations." But there is little evidence that this wavering rhetorical commitment to multilateralism has been matched by policy action. Keen to demonstrate their political independence, IMF staff in their mid-2007 annual consultation with the US argued that the dollar was modestly overvalued. The US Treasury objected, arguing that it was impossible to measure a currency's fair value and that it was "skeptical about the notion of overvaluation for a market-determined exchange rate".[24] Monetary easing by the Federal Reserve from August 2007 contributed to further dollar depreciation, but this was a response to the domestic credit crunch rather than multilateral pressure. From China's perspective and that of other observers, this episode underlined the biased nature of IMF surveillance and led to a substantial worsening of the IMF's relationship with China.[25] It also weakened the IMF's hand (and that of the Treasury) in arguing that further RMB appreciation was necessary.

The limits of multilateral constraint over US policy have been especially apparent in fiscal policy. The US fiscal deficit, one component of the net national dis-saving that is the counterpart of the rising current account deficit since the late 1990s, reached $413 billion in 2004 or 3½% of GDP. After 2004 the fiscal deficit declined only modestly during the credit boom, at a time when private sector savings continued to fall. Tax increases were off the domestic agenda during the Bush years and were also largely absent from IMF surveillance discussions. In G7 meetings from 2005, Washington accepted language calling for US fiscal consolidation as part of a multilateral effort to reduce global payments imbalances, but the emphasis was firmly on spending reductions and tax increases were not mentioned. The IMF was given more leeway to be more forthright about the need for politically difficult policy changes in the US, including

[24] "Treasury's Plan Backfires as IMF Targets Dollar Instead of Yuan," *Bloomberg.com*, August 23, 2007.

[25] Author interviews.

fiscal deficit reduction, but the practical effect has been disappointing.[26] In the multilateral consultations on global imbalances over 2006-7, IMF assumptions about the likely future trajectory of the US fiscal balance tracked the Bush administration's own optimistic projections (IMF 2007: 26). As the economy weakened after 2007, the underlying weaknesses of the long term US fiscal position were sharply exposed.

Notwithstanding this continued reluctance to accept multilateral constraint on its own macroeconomic policy choices, the US administration has wished to be seen to be deploying the various tools at its disposal, including multilateral ones, to pressure China to revalue the RMB. In September 2005, US Treasury Undersecretary Tim Adams argued that there was a "perception that the IMF is asleep at the wheel on its most fundamental responsibility – exchange rate surveillance".[27] The US desire to strengthen the process of multilateral surveillance, culminating in the 2007 Decision in the IMF, was one component of this strategy. US efforts within the G7/8 to obtain support in Europe and Japan for these demands was a second component. But it has been America's unilateral options which have been the most distinctive component. Since the 1988 Omnibus Trade and Competitiveness Act, Congress has required the Treasury to report biannually on whether particular countries are guilty of currency manipulation and for the Treasury secretary to undertake multilateral or bilateral negotiations with any such countries. US

[26] For example, see Rodrigo de Rato, "Global Imbalances and the Transatlantic Relationship," speech at the European Institute, Washington DC, 10 November 2005.

27 Remarks by Under Secretary for International Affairs Timothy D. Adams at an Institute for International Economics Conference on "The IMF: Back to the Basics", September 23, 2005: http://www.ustreas.gov/press/releases/js2940.htm.

law is based upon the IMF's 1977 rules on currency manipulation and is intended to strengthen their enforcement.[28] The Treasury recommended negotiations with China on its currency for the first time in November 1990, and China continued to be cited for potential or actual currency manipulation until October 2001.

Despite the activism of the Bush administration regarding China's exchange rate policy on a variety of fronts, however, the most striking aspect of US policy is that no Treasury citation for currency manipulation occurred during the Bush years despite the large increase in China's current surplus and its bilateral surplus with the US in particular (Frankel and Wei 2007). Although initial indications were that the Obama administration might reverse this policy, as of mid-2009 there has been more continuity than change in US policy in on this issue. Occasional sharp criticisms by Bush administration officials of IMF inactivism on China's currency policy could just as easily have been directed at the US government itself, as various Congressional critics noticed.

The reality is that the US government has been divided over the merits of a more aggressive policy on China's exchange rate policy. This is partly because the US-China relationship is much broader than their commercial relationship, but also because both the White House and Congress have been more convinced of the political merits of perceived activism than of the importance of more rapid RMB revaluation. The administration's public activism on the RMB issue has helped to contain the political pressures, always most acute in Congress, that have stemmed from those sectors of the economy that have

[28] 22 U.S.C. 5304, section 3004.

felt most vulnerable to Chinese imports (such as steel and textiles).[29] The losers from RMB undervaluation have spoken more loudly than the winners, who have included those US multinational companies (MNCs) using China as an export base as well as those US firms that have resold Chinese goods or used Chinese imports as production inputs. Organizations such as the US-China Business Council, comprised mainly of large US firms, have been publicly quiet but have still exerted pressure on the administration and Congress to avoid a confrontational policy.[30] This, as well as the strengthening effects of the global economic crisis on China's international negotiating position, helps to explain why the Obama administration has not diverged from Bush policy in this area.

In addition to the varying distributional effects of RMB undervaluation on the US political economy, another source of policy moderation has been the administration's tendency to favour tactics of engagement over confrontation. The administration stressed the legal difficulty of proving "intent" to manipulate in both the IMF rules and US legislation, even though this had evidently not been an obstacle before 2001.[31] In addition, Henry Paulson, Treasury Secretary from 2006, was seen as a "China heavyweight" whose personal influence in China would allow more quiet bilateral

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[29] See, for example, the membership of the Chinese Currency Coalition, which demanded immediate sanctions on China: http://www.chinacurrencycoalition.org/, accessed 28 April 2008.

[30] See testimony of John Frisbie, President, the US-China Business Council, Hearing on US-China Economic Relations Revisited, Senate Committee on Finance, March 29, 2006.

[31] See McCown, Pollard, and Weeks (2007) and Sobel (2007).

diplomacy to work its magic (see Paulson 2008). The US Treasury (2007:2) report in December 2007 outlines this approach:

> China should significantly accelerate the appreciation of the RMB's effective exchange rate in order to minimize the risks that are being created for China itself as well as the world economy, of which China is an increasingly critical part. Treasury reinforces the need for China to rebalance growth, including reform of the exchange rate regime, with Chinese authorities at every available opportunity and will continue to do so. China's exchange rate regime has been a prominent feature of the U.S.-China Strategic Economic Dialogue (SED), G-7 discussions with China, and G20 and IMF Board deliberations.

However, the main objective of the SED was to normalize the broader political relationship with China. In economic terms, the Paulson Treasury prioritized Chinese financial sector liberalization over RMB appreciation, arguably because of the greater influence of Wall Street interests over the SED agenda compared to that of import-competing manufacturing industry and unions. On financial liberalization the SED achieved little. On the RMB, it was probably one factor among many that led the Chinese to modify the currency regime in July 2005 (Sanford 2006: 11-12). This is not to suggest that the SED was entirely or even mainly a media game to assuage domestic losers from RMB undervaluation, but it proved a valuable source of political protection for China against its most vociferous US critics. The Schumer-Graham Senate bill of early 2005 would have authorized a 27.5% tariff on Chinese imports if negotiations with China did not result in the elimination of the assumed equivalent undervaluation of the RMB. However, a final vote on this bill, like others that followed it, was deferred on the understanding that the Treasury would "take action" to ensure concrete change in China's currency policy (Henning 2007: 789).

In conclusion, the multilateral surveillance regime places little constraint on US policy, but it has been of some use to the US as an additional means of pressuring others, including China, to take adjustment measures. Multilateral and bilateral diplomacy has also allowed the US political system to absorb and deflect domestic pressure to act more aggressively on China's currency and commercial policies. Of course, diplomacy cannot deflect such pressure completely and the Chinese government realized that its limits were being reached by mid-2005. The US ability to mobilize international pressure on China through the IMF, the G7/8 and in Asia, and its ability to leverage China's asymmetrical dependence on the US export market, testifies to America's still unrivaled power in the global system. Even so, US power on China achieved only modest results, in large part because China understood that the US was divided on the importance of RMB revaluation. What it has arguably achieved, besides a modest revaluation against the dollar, is to rule out the possibility of future RMB *depreciation* against the dollar, which the Chinese realize would likely destabilize the complicated political equilibrium into which US policy in this area has settled in recent years. This is arguably a necessary – and reasonable – price for China to pay to maintain export market openness in the US.

3.3 The European Union

European countries often see themselves as the most willing of all the major countries to accept multilateral rules and norms and have been critical of American unilateralism (Henning 2007: 790). The EU has been involved in a range of international macroeconomic discussions involving China and the US, notably at the G7/8 and in the IMF-led multilateral consultations of 2006-7. In the EU's public pronouncements on its bilateral relationship with China, the tone is restrained and public mention of RMB undervaluation is relatively rare. Accusations of currency manipulation have so far been absent.[32] It is more difficult to know if European officials have been more robust with their Chinese counterparts behind the scenes, but at least until recently, EU leaders seemed inclined to accept the Chinese view that its currency reform should be gradual and mainly a matter for China (Sanford 2006: 13).

Europe's relatively passive stance towards the whole issue of global imbalances may initially have reflected Europe's relatively balanced current account position, including its bilateral balance with China (Ahearne and Von Hagen 2006). Today, however, the EU is China's major export market. The EU's bilateral trade balance with China deteriorated markedly from 2004 and by the first half of 2008 its deficit with China

[32] See, for example, European Commission (2007), 5-6. The Commission's website on relations with China, in contrast to US equivalents, makes little mention of the exchange rate issue: http://ec.europa.eu/external_relations/china/intro/index.htm, accessed 8 May 2009.

was only slightly smaller than America's.[33] Since 2004, the EU's overall current deficit has also sharply deteriorated, especially for countries other than Germany (figure 1). Parts of the European economy have suffered from the strong euro, notably textiles, apparel, steel, automobiles, and consumer electronics.[34] As in the US, however, Europe's multinational corporations have been less vulnerable to RMB undervaluation. In short, the EU's now comparable trade deficit with China and the similar divide over China policy within Europe's private sector, suggests that other factors account for Europe's greater passivity compared to the US.

In the area of macroeconomic policy, Europe's complex institutional framework assigns responsibility for different policies to a range of actors that are relatively insulated from private sector lobbies (Henning 2007). The European Central Bank (ECB) is unusually politically autonomous by any standard and has prioritized the fight against inflation. The Eurogroup of euro-area finance ministers, established as a political counterweight to the ECB, finds it difficult to reach consensus and so lacks authority relative to the ECB. The Council of Ministers in principle has responsibility for exchange rate policy (since the Nice Treaty via qualified majority voting), but it has so far been

[33] http://english.mofcom.gov.cn/aarticle/statistic/ie/200808/20080805710668.html, accessed August 11, 2008.

[34] See the letter to the President of the European Commission from the Business Europe lobby (the umbrella group of national industry confederations) of 17 April 2008, available at http://212.3.246.117/docs/1/PDFPGEHCFHFCMGABPFMEELPDPDBW9DBNBD9LTE4Q/UNICE/docs/DLS/2008-00600-E.pdf, accessed 28 April 2008.

unable to exert influence over ECB policy. This partly stems from divergences of interest between major European countries. Germany, still by far Europe's largest exporting economy, saw its export sector boom until 2008 in spite of the euro's strength.[35] The German government has been conspicuously unwilling to join French, Spanish, and Italian calls for the ECB to take growth and exchange rate considerations into account when setting interest rates. The net result of this institutional framework is that the ECB has had substantial effective autonomy on both monetary and currency policy, but, as Henning (2007: 781-785) notes, with little transparency or accountability.

Nor is Eurozone exchange rate policy effectively linked to other European external policies. This is notably true for trade policy, which is the responsibility of the EU as a whole (represented by the Commission). Nor is the European Parliament, in contrast with the US Congress, in any position substantially to influence, let alone to link, either kind of policy. There is no European legislation similar to America's 1988 Trade Act that could encourage the EU's policymaking bodies to take more aggressive action against other countries that undervalue their currencies.

By 2007, there were signs that the rapid appreciation of the euro and Europe's growing trade deficit were changing the balance of interests within the Council of Ministers. Although Germany has rejected French calls for ECB dominance in this area to be reduced, the German government may have supported a stronger EU line on RMB

[35] In 2006, over 40% of the EU's total exports to China came from Germany. This mainly reflects Germany's relatively complementary export profile with China, by contrast with the larger Mediterranean countries (Henning 2007: 791).

undervaluation so as to draw fire away from the ECB.[36] Some German ministers also argued that the US had pushed the Chinese trade burden onto Europe by securing RMB revaluation against the dollar.[37] The Eurogroup also agreed to send negotiators to Beijing in late November 2007 specifically to discuss currency issues with China. At the 10th annual China-EU summit, both sides agreed to establish a High Level Economic and Trade Dialogue between the European Commission and China's State Council, as well as an ECB-PBOC working group on exchange rate issues.[38]

These new efforts have so far borne little fruit. The Commission, Eurogroup, and ECB can all argue credibly to the Chinese that they will be unable to contain protectionist pressures without substantial RMB revaluation against the euro, but the disconnect between different aspects of EU policymaking limits the EU's collective leverage. The Chinese argue that they are unable to sustain both a revaluation against the dollar and the euro in short order, and that any large revaluation will jeopardize Chinese economic, social, and political stability. As the global crisis of 2008-9 deepened, calls within the EU for RMB revaluation faded away as attention turned inward and as the euro began to depreciate against the dollar.

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[36] "Sarkozy seeks tougher line on China," *FT.com*, July 22, 2007.

[37] "Euro should not carry burden of FX moves-Germany," Reuters, February 5, 2008: http://uk.reuters.com/article/marketsNewsUS/idUKL0531171220080205; "Steinbrück at odds with French over ECB," *FT.com*, July 8, 2008.

[38] PBOC is the People's Bank of China, the central bank. See the Joint Statement of the 10th China-EU Summit, Beijing, 28 November 2007.

Europe's institutional weakness and internal divisions have arguably left the EU, especially its more vulnerable manufacturing industries, at a significant disadvantage. For China, the EU's incoherence has encouraged a growing view in Beijing that the EU is "on a slide to irrelevance" (Fox and Godement 2009: 33). There is a tendency in Europe to wrap this external weakness and inertia in a virtuous cloak of multilateralism, but Europe is less multilateralist than its rhetoric suggests. European macroeconomic policies are unusually constrained by internally agreed rules relating to EMU, but they are no more constrained than the US by multilateral surveillance processes. The EU has never permitted an IMF role in internal EU macroeconomic policy discussions (Mussa 2007: 2). The ECB is Europe's dominant macroeconomic policy institution but is no more inclined to take advice from the IMF than is the Federal Reserve Board. Although the ECB President reiterated the G7 request that China accelerate the revaluation of the RMB in 2007,[39] the exchange rate appears to play little role in ECB monetary policy setting. As for European fiscal policy, this is largely an outcome of independent national deliberations, constrained only moderately by the EU's own Stability and Growth Pact. Since the crisis, domestic fiscal priorities have pushed this aside. Some European politicians may have calculated that allowing the US to take the lead in pressuring China would enable Europe to benefit from RMB appreciation without jeopardizing the EU-China relationship. If so, this strategy largely failed.

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[39] Jean-Claude Trichet, "The Emergence of China in the Global Economy: A European Perspective," speech to the China-Europe Business Meeting in Frankfurt am Main, 8 November 2007.

4 Conclusion: Who has power, and what future for collective management?

The G7 consensus on the need for RMB revaluation hardened as the euro continued to appreciate against the dollar over 2006-8. The emergence of a more unified front may have contributed to China's decision to accelerate the pace of appreciation against the dollar towards the end of 2007. Chinese leaders, always wishing to avoid the suggestion that they were responding to foreign pressure, emphasized rising domestic inflation as a justification for accelerated appreciation. By the time the global financial crisis worsened in late summer 2008, the G7 consensus on the RMB was falling apart as political leaders turned their attention to restoring domestic financial stability and fiscal expansion.

In retrospect, none of the major players were willing to accept before the crisis broke that global imbalances threatened the stability of the global economy. None were willing to adopt costly adjustment policies to reduce these imbalances. In time-honored fashion they instead tried to push adjustment costs onto others: the US government combined unilateral and multilateral pressure on China to achieve modest concessions on the RMB so as to placate domestic critics; China continued to promote rapid export growth at the expense of jobs and incomes in competing sectors in advanced countries; and in the EU, Germany benefited from expanding capital goods exports to China while the largest share of the costs of Chinese imports fell on industries in other European countries. China played the diplomatic game exceptionally well, making small but well-timed concessions that deftly avoided a serious international backlash against its exports.

The EU probably came off worst, suffering from a strong euro and a widening trade deficit, as well as increasingly sharp internal tensions on foreign economic policy.

Even if it is true that the Chinese government's change of currency regime in July 2005 was motivated by a desire to split the difference between a depreciating dollar and an appreciating euro, this decision came after three years of steady real RMB depreciation against the euro. Furthermore, China's post-2005 currency regime appears to have an important asymmetry: future RMB depreciation against the euro is possible, but depreciation against the dollar would be politically much more risky for the Chinese leadership. China's primary concern remains that of maintaining its overall relationship with the US; by comparison, its relationship with the EU is more narrowly economic and China's leadership seems to believe that the already considerable power gap between the US and EU has shifted against Europe. Although the importance of the EU for China gives Europe considerable potential leverage over China, the EU's institutional incoherence and deep internal divisions have negated it.

If the costs of the mismanagement of global imbalances have been asymmetrically distributed between the G3, this most recent episode of global policy coordination failure[40] has also shown how costs have been borne by all countries. To the extent that international payments imbalances contributed to the global financial and economic crisis of 2008-9, we have all paid the price. Even China, whose economy has continued to grow surprisingly quickly through the global crisis, has increasingly felt the costs of RMB undervaluation. The dramatic and continued over-accumulation of foreign reserves and the growing dependence of its export sector on access to advanced country markets have raised concerns in China about the degree to which it has become

[40] On the disappointing history of G7 macroeconomic policy coordination, see Webb (1995).

dependent upon decisions made elsewhere. Recent proposals by Zhou Xiaochuan, Governor of the PBOC, to enhance the role of Special Drawing Rights as an alternative to the dollar underline the economic and political costs for the government of excessive reserve accumulation as well as China's dependence on international cooperation for solutions to its dilemma. At the same time, America's extraordinary fiscal deficits have made the Bush and Obama administrations increasingly concerned about the need to encourage the Chinese government to continue purchasing US government debt. Thus, the crisis has increased the mutual dependence between the US and China as well as the centrality of this bilateral relationship in the global political economy. The history of global macroeconomic policy coordination suggests that this is unlikely to improve significantly the prospects for more successful coordination in the future, even if the costs of a dysfunctional global macroeconomic regime continue to grow.

<u>Bibliography</u>

Ahearne, Alan, and Jürgen Von Hagen. 2006. "European Perspectives on Global Imbalances," paper prepared for the Asia-Europe Economic Forum conference European and Asian Perspectives on Global Imbalances, Beijing, 13-14 July.

Bergsten, C. Fred. 2008. "A Partnership of Equals: How Washington Should Respond to China's Economic Challenge," *Foreign Affairs*, 87:4, July/August, 57-69.

Bergsten, C. Fred, Charles Freeman, Nicholas R. Lardy, and Derek J. Mitchell. 2008. *China's Rise: Challenges and Opportunities* (Washington, D.C.: Peterson Institute for International Economics and Center for Strategic and International Studies).

Bernanke, Ben. 2005. "The Global Saving Glut and the US Current Account Deficit," Sandridge Lecture, Virginia Association of Economics, Richmond, VA, March 10.

Cline, William R., and John Williamson. 2007. "Estimates of the Equilibrium Exchange Rate of the Renminbi: Is There a Consensus and, If Not, Why Not?", paper presented at the Conference on China's Exchange Rate Policy, Peterson Institute, Washington D.C., October 12.

Cooper, Richard N. 2005. "Living with Global Imbalances: A Contrarian View," *Policy Brief No. 05-3*, Petersen Institute for International Economics, November.

Dooley, Michael P., David Folkerts-Landau, and Peter Garber. 2003. "An Essay on the Revived Bretton Woods System," *NBER Working Paper*, No. 9971, September.

European Commission. 2007. *Evaluation of the European Commission's Co-Operation and Partnership with the People's Republic of China: Country Level Evaluation, Final Synthesis Report* (Brussels: European Commission, April).

Fox, John and François Godement. 2009. "A Power Audit of EU-China Relations," Policy Report, European Council on Foreign Relations (London: ECFR, April).

Frankel, Jeffrey A., and Shang-Jin Wei. 2007. "Assessing China's Exchange Rate Regime," *Economic Policy*, 22:51, 575–627.

Funabashi, Yoichi. 1989. *Managing the Dollar: From the Plaza to the Louvre* (Washington D.C.: Institute for International Economics).

Garcia-Herrero, Alicia, and Tuuli Koivu. 2009. "China's Exchange Rate Policy and Asian Trade," *BIS Working Paper*, no. 282, April.

Goldstein, Maurice. 2007. "A (Lack of) Progress Report on China's Exchange Rate Policies," *Working Paper Series*, WP 07-5, Peterson Institute for International Economics, Washington D.C.

Goldstein, Morris, and Nicholas Lardy. 2007. "China's Exchange Rate Policy: An Overview of Some Key Issues," paper presented at the Conference on China's Exchange Rate Policy, Peterson Institute for International Economics, Washington D.C., October 19.

Gowa, Joanne. 1983. *Closing the Gold Window: Domestic Politics and the End of Bretton Woods* (Ithaca: Cornell University Press).

Henning, C. Randall. 2007. "Democratic Accountability and the Exchange-Rate Policy of the Euro Area," *Review of International Political Economy*, 14:5, 774-799.

IMF. 2005. *World Economic Outlook: Globalization and External Imbalances, May 2005* (Washington D.C.: IMF).

IMF. 2006a. "Article IV of the Fund's Articles of Agreement: An Overview of the Legal Framework," International Monetary Fund, Legal Department, Washington D.C., June 28.

IMF. 2006b. *People's Republic of China: 2006 Article IV Consultation - Staff Report; Staff Statement; and Public Information Notice on the Executive Board Discussion* (Washington D.C.: IMF, October).

IMF. 2007. *Staff Report on the Multilateral Consultation on Global Imbalances with China, the Euro Area, Japan, Saudi Arabia, and the United States* (Washington D.C.: IMF, June 29).

Keidel, Albert. 2008a. "China's Economic Rise – Fact and Fiction," *Carnegie Endowment for International Peace Policy Brief*, no. 61, July 2008.

Keidel, Albert. 2008b. "China's Economic Rise – A Technical Note," memo, Carnegie Endowment for International Peace, July 2008.

McCown, T. Ashby, Patricia Pollard and John Weeks. 2007. "Equilibrium Exchange Rate Models and Misalignments." *Occasional Paper*, 7, Office of International Affairs, March.

Mussa, Michael. 2007. "IMF Surveillance over China's Exchange Rate Policy," paper presented at the Conference on China's Exchange Rate Policy, Peterson Institute for International Economics, Washington D.C., October 19.

National Science Board. 2008. *Science and Engineering Indicators 2008* (Arlington, VA: National Science Foundation, two volumes).

Obstfeld, Maurice, and Kenneth Rogoff. 2004. "The Unsustainable US Current Account Position Revisited," *NBER Working Paper*, No. 10869, October.

Paulson, Henry M. Jr. 2008. "The Right Way to Engage China," *Foreign Affairs*, 87:5, September/October.

Pauly, Louis W. 1997. *Who Elected the Bankers? Surveillance and Control in the World Economy* (Ithaca: Cornell University Press).

Prasad, Eswar S. 2007. “Monetary Policy Independence, the Currency Regime, and the Capital Account in China,” paper presented at the Conference on China's Exchange Rate Policy, Peterson Institute for International Economics, Washington D.C., October 19.

Sanford, Jonathan E. 2006. China, the United States and the IMF: Negotiating Exchange Rate Adjustment. (Washington, D.C.: Congressional Research Service, April).

Shih, Victor C. 2008. *Factions and Finance in China: Elite Conflict and Inflation* (Cambridge: Cambridge University Press).

Sobel, Mark. 2007. Statement before the Joint Hearing on Currency Manipulation and Its Effects on US Business and Workers, Committee on Ways and Means, Committee on Energy and Commerce, and Committee on Financial Services, United States House of Representatives, Washington D.C., May 9.

Solomon, Robert. 1982. *The International Monetary System, 1945-1981* (New York: Harper & Row).

Taylor, John B. 2007. *Global Financial Warriors: The Untold Story of International Finance in the Post-9/11 World* (New York: W.W. Norton).

Taylor, John B. 2009. The Financial Crisis and the Policy Responses: An Empirical Analysis of What Went Wrong,” *NBER Working Paper*, no. 14631, January.

US Treasury. 2007. *Report to Congress on International Economic and Exchange Rate Policies* (Washington, D.C.: Department of Treasury, December).

Vines, David. 2006. “Comments on ‘Global Imbalances and Emerging Markets,’” in Alan Ahearne, ed. *European and Asian Perspectives on Global Imbalances* (Asia Europe Economic Forum), 40-51.

Webb, Michael C. 1995. *The Political Economy of Policy Coordination*, Ithaca: Cornell University Press.

Wolf, Martin. 2009. *Fixing Global Finance: How to Curb Financial Crises in the 21st Century* (New Haven and London: Yale University Press).

Yu, Yongding. 2006. “Global Imbalances: China’s Perspective,” paper prepared for conference on “European and Asian Perspectives on Global Imbalances,” Beijing, 12-14 July.