



# Theories of International Currencies and the Future of the World Monetary Order<sup>1</sup>

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The international standings of currencies form a principal characteristic of the international monetary order, shaping the world economic and political system by influencing the economic and political relationships among countries. This paper provides a systematic review of the literature on international currencies, encompassing both economics and political science, with the aim of providing useful groundwork to help develop a better analytical framework for the study of international currency standing. In particular, this paper discusses the international currency concept, the benefits and costs of issuing an international currency, and the determinants of international currency standing. It also assesses conflicting prospects for the future of the US dollar as the world's key currency, addressing the likelihoods of further internationalization of the euro and the renminbi, the dollar's main potential rivals. In addition calls attention to certain political economy factors as salient issues for the future study of international currency standing.

In the wake of the global financial crisis in the late 2000s, active debate about the future of the US dollar (hereafter dollar), and accordingly that of the international monetary order, has resurfaced, particularly as the crisis originated from the United States and US crisis management policies have stirred strong concerns about the dollar's status as the leading international currency. In fact, the debate about the dollar's status as the key international currency is not new. It goes back as far as to the 1960s, when sustainability of the Bretton Woods system began to be questioned, and has emerged almost any time the dollar has lost substantial value.<sup>2</sup> History has until now favored those predicting sustainability of the dollar-centered international monetary system. The dollar's future appears to have become more questionable recently, however, since unlike in the past, there are potential alternatives to it, in particular the euro and maybe also the Chinese renminbi in the longer term.<sup>3</sup> Will the dollar maintain its key currency status again this time, or will a new international monetary order arise? And why does the future of the dollar matter, for the United States and for the world? To be able to answer these important questions, we need solid knowledge of the determinants of a currency's international status, and of what the international use of a currency entails for the country issuing it.

This study provides a systematic and comprehensive review of the literature on international currencies, embracing both economic and political studies and

<sup>1</sup>I wish to thank Barry Eichengreen, Michael Marking, four anonymous reviewers, the editors, and seminar participants at the Bank of Korea for helpful comments on earlier versions of this paper.

<sup>2</sup>Exchange rates are in fact only an imperfect indicator of a currency's international standing, since that depends fundamentally on the currency's use rather than its price (Cohen 2009b:742).

<sup>3</sup>The renminbi is also known popularly as the yuan. The renminbi, meaning "people's money" in Chinese, is the official name of China's currency, while the yuan, which literally means "round" in Chinese, is its primary unit.

with a particular focus on the following issues: the international currency concept, the benefits and costs of issuing an international currency, the determinants of international currency status, and the future prospects for the current dollar-centered international monetary order. In assessing the competing prospects for the future of the international monetary system, this paper anticipates the emergence of an *uneven* multiple international currency system, in which the euro and the renminbi play the roles of regional currencies in Europe and Asia, respectively, limiting the dollar's influence in those regions, but the dollar retains its status as the prime international currency at the global level.

This prospect for the future of the international monetary order is open to change, if new significant determinants of international currency standing are found leading to developments different from our forecast (although it is of course also possible that they might reinforce it). The main objective of this study is actually not to present an infallible outlook for the future, but rather to provide useful groundwork to help develop a better analytical framework for study of international currencies. In this regard, it calls attention to specific political economy factors, including both domestic and systemic ones, as salient issues for further study of international currency standing. They are: domestic actors' preferences regarding currency internationalization, financial liberalization, the role of the state, and international political power.

This paper is organized as follows. It first discusses the concept of an international currency and then examines the benefits and costs of issuing one. It next addresses economic and political factors that affect international currency standing and following this examines and assesses conflicting prospects for the future of the dollar and produces an outlook for the international monetary order. It moves on to consider issues on which more research is needed for further development of the study of international currencies and then in the final section provides conclusions.

### **The International Currency Concept**

An international currency is usually defined as a currency that is used elsewhere beyond its home country. The concept can be further elaborated for more systematic analysis, however, and there are broadly two ways of doing so. One is to conceptualize an international currency in terms of its functions, and the other to categorize international currencies in accordance with the natures of the factors supporting their international use. The former approach is widely adopted in economics research, while the latter is used increasingly in political economy study.<sup>4</sup>

#### *Functional Conceptualization*

Conceptualizing international currencies on the basis of their monetary functions is the most widely used way of defining them. This method was proposed by Cohen (1971) in his writing in the early 1970s about the British pound sterling and subsequently refined by Kenen (1983), Krugman (1984), and others. Just like a domestic currency, an international currency performs the three functions of money—as a medium of exchange, a unit of account, and a store of value. It does so at two distinct levels, however, for private and public transactions, and accordingly plays six roles in total. As a medium of exchange, it is used by private actors to settle international economic transactions or by govern-

<sup>4</sup>Meanwhile, Cohen (1998) classifies currencies into seven groups in accordance with the scopes of their "authoritative domains," which combine their territorial and transactional domains. Thimann (2009) also suggests a new concept, the "global" roles of currencies. This concept encompasses both the cross-border and the domestic uses of currencies, to reflect their overall importances in the world economy.

ments as a foreign exchange market intervention currency. As a unit of account, at the private level, it denominates international economic transactions while at the public level playing the role of an anchor to which governments peg their currencies. As a store of value, it is used as an investment asset at the private level or as a reserve currency at the public level. Each of these six functions can be interrelated with the others to some extent, although not inevitably (Cohen 1971:28–32).<sup>5</sup>

The number of currencies that perform all of these roles of an international currency is obviously very limited. The dollar is currently the only one that does so on a global scale, in serving as the world's key currency. Some currencies such as the euro and the yen also perform all of these roles, but only within more limited geographical regions. Other currencies usually perform only some of the six money roles.

The functional conceptualization of international currencies makes significant contribution to the study of international currencies, by providing an analytical framework for evaluating currency internationalization in terms of the scope of the monetary functions of the currency concerned, and also the degree of its internationalization in terms of each of the recognized monetary functions.

### *The Political Economy Conceptualization*

The political economy approach in the study of international currencies was pioneered by Strange (1971), who like Cohen (1971) considered sterling in the early 1970s. Directing attention to the *politics* of international currencies, she raised the following two questions: “Under what political, as distinct from economic, circumstances do people start to use—either for all or for only some monetary purposes—a currency which is either issued or controlled by a state other than their own?”; and “What political consequences can be expected to follow, for both parties, from this international use of currency?” In addressing these questions, Strange classified international currencies into four categories: “master currencies,” “top currencies,” “negotiated currencies,” and “neutral currencies,” highlighting how both economic and political factors shape currencies’ international uses.

A master currency is the currency of a hegemonic or imperial state that coerces its use by other states. It thus always derives its status from the political relationships between the issuing and the subordinate states. Sterling in the sterling area and the French franc in the franc zone in the past were examples. A top currency, in contrast, is one that is most favored by the world market for various monetary purposes due to its economic superiority. Its status is therefore determined primarily by economic factors, and it tends to be the currency of the predominant state in the world economy. The dollar in the 1950s was one example. A negotiated currency meanwhile occurs when the issuing state bargains or negotiates politically with other states for their use of its currency, offering inducements such as military and diplomatic support or economic benefits. Examples of

<sup>5</sup>Empirical studies of international currency choice have usually focused on the currency composition of foreign exchange reserves as the main indicator of the international use of currencies, largely due to the high availability of the data, which have been publicly provided by the IMF. The data have several drawbacks, however. For example, they do not cover China, the biggest holder of foreign exchange reserves. Currency compositions can also change owing to fluctuations in value of the currencies held, rather than changes in central bank choice. Recently, studies examining variables other than foreign exchange reserves as indicators of currencies’ international use have been growing. For instance, Goldberg and Tille (2005) analyze the choice of currency in invoicing international trade transactions, and Meissner and Oomes (2008) examine the determinants of anchor currency choice. Research such as Cohen (2005), Flandreau and Jobst (2009), and Habib and Joy (2008) address the choice of currency for international bond security denomination and the circulations of currencies in the foreign exchange markets. Meanwhile, Truman and Wong (2006) present changes in the quantity share of the dollar in foreign exchange reserves reported in the IMF data, thereby eliminating valuation effects.

negotiated currencies include sterling in the postwar period and the dollar in the 1960s.<sup>6</sup> Finally, a neutral currency is a currency whose international use stems primarily from the strong, but not necessarily dominant, economic position of its issuing state, which has no interest in promoting its international use. Examples include the Swiss franc and the deutschmark (Strange 1971). Importantly, Strange emphasized that this typology of international currencies is not entirely mutually exclusive, and that some currencies can be of more than one type at the same time. Even if a certain currency is a top currency for some users, for example, it can also be a master, neutral, or negotiated currency for others.

This political economy typology of international currencies provides a useful framework for analyzing the effects of political as well as economic factors on international currency status, to thereby expand our understanding of the mechanisms through which a currency is used internationally. This typology has in fact been neglected for a long time. However, Eric Helleiner (2008) has shed new light on it recently, and since then, a growing number of political economy studies of international currencies use it, paying particular attention to the top currency and negotiated currency concepts.<sup>7</sup>

### **Benefits and Costs of Issuing an International Currency**

The state issuing an international currency may enjoy significant benefits, but it may also bear substantial costs. Indeed, some states have endeavored to facilitate the internationalization of their currencies in pursuit of the benefits, while others have deliberately held back from it in fear of the costs. What are the major benefits and costs of issuing an international currency? This section addresses this question first from the economic, and then from the political economy perspective, and at the end draws attention to the changing balance between the benefits and the costs over the lifetime of an international currency.

#### *The Economic Perspective*

One of the most familiar benefits of issuing an international currency may be seigniorage, the difference between the face value of a currency and its production cost. Seigniorage is generated at the international level when foreigners hold the domestic currency, or financial claims denominated in it, in exchange for traded goods and services (Cohen 2009a:10).<sup>8</sup> More broadly, international seigniorage also encompasses gains due to the difference between the interest paid on foreign assets acquired by the issuing country and that on assets denominated in its own currency acquired by foreigners (Aliber 1964:446; Chinn and Frankel 2007:289).<sup>9</sup> These gains arise, in part, as increased demand by foreigners for the domestic assets tends to reduce the required return on them (Genberg 2010:66). They should not be overemphasized, however. Empirical studies usually show the interest saving from the currency's foreign circulation to be modest: Dobbs et al. (2009:19), for example, estimate its annual size for the dollar at <0.1% of US gross domestic product (GDP). Cooper (2009) also argues that such US gains stem from US investors' risk taking, rather than seigniorage, indicating that the share of equity in US foreign assets is higher than that in US foreign liabilities.

<sup>6</sup>Strange (1971:4) characterizes a negotiated currency primarily as a currency in decline, that is, one that has lost or is losing its political dominance as a master currency or its economic dominance as a top currency. As Helleiner (2008) points out, however, a negotiated currency can also be a currency on the rise.

<sup>7</sup>See, for example, Helleiner and Kirshner (2009b).

<sup>8</sup>About one-half of all dollar notes and coins are circulating outside the United States (Dobbs, Skilling, Hu, Lund, Manyika, and Roxburgh 2009:20).

<sup>9</sup>According to one estimate, the annual return on US investments overseas is 1.2% higher than its payments on overseas debt (Chinn and Frankel 2007:289).

The more significant benefit accruing to the state issuing an international currency may be its ability to finance balance of payments deficits with its own currency, and the expansion in its macroeconomic flexibility that results.<sup>10</sup> Indeed, the US ability to run balance of payments deficits by printing extra dollars was criticized as US “exorbitant privilege” by Valéry Giscard d’Estaing, a French finance minister in the 1960s (Eichengreen 2011a:4).<sup>11</sup> Much emphasis has been traditionally placed on this ability of the issuing country to run balance of payments deficits; recently, however, greater attention is being paid to its ability to evade the effects of market discipline on its macroeconomic policies in general. It is also increasingly stressed that the ability to borrow internationally in the domestic currency reduces the problem of currency mismatch, from which many emerging market economies suffered severely during the recent global financial crisis as well as the 1997 Asian crisis (Dobson and Masson 2009:125; Genberg 2010:66–67).<sup>12</sup>

In addition, domestic financial institutions, firms, and consumers may benefit from currency internationalization. Domestic financial institutions may gain in business through their competitive advantage in dealing in the currency (Chinn and Frankel 2007:289). The resultant more profitable financial sector may in turn benefit the domestic nonfinancial sector by lowering the costs of capital in the economy (Kenen 2009:6). Domestic firms may also benefit by shifting exchange rate risks to their foreign counterparts (Tavlas 1991:12); although the development of derivatives has increased the ease of hedging against exchange rate risk, hedging is costly. Moreover, domestic consumers may also profit, as their purchasing power grows with the rise in the currency’s value due to its broad acceptability (Wright and Trejos 2001; Kannan 2009).

However, there can also be substantial costs involved in issuing an international currency. Indeed, it is widely indicated that Japan and Germany were in the past reluctant to push internationalization of their currencies due to such costs. One of the main costs is that domestic monetary policy can be constrained due to foreigners’ holdings of the currency. Where the main focus of a central bank’s monetary policy is on the control of monetary aggregates, such holdings may render demand for the currency less stable, thereby complicating setting of the appropriate target rate for money supply growth. Also, where the central bank’s main monetary policy tool is short-term interest rate setting, internationalization of the domestic currency may limit its ability to affect interest rates through open market operations, by broadening the scope for residents and nonresidents to buy and sell financial instruments denominated in the currency (although this limitation is not very severe for countries with large domestic government debt markets, such as the United States) (Kenen 2009:7; Genberg 2010:64–65).

The domestic policy of the state issuing an international currency is also constrained due to its accompanying international responsibilities. This problem is best illustrated by the so-called Triffin Dilemma, presented by Robert Triffin in 1947, that the country issuing the major reserve currency must supply it to the world in order to lubricate world trade and growth—mainly through running a current account deficit—but that its unlimited supply will eventually erode confidence in the currency’s value, exposing the country to the risk of foreigners abruptly reducing or liquidating their holdings of the currency.<sup>13</sup> The dilemma was originally presented to describe the problem inherent in the Bretton Woods

<sup>10</sup>See Cohen (1971; 2009a:10), Kirshner (2008:424), and Salant (1964).

<sup>11</sup>The term “exorbitant privilege” is often misattributed to French President Charles de Gaulle, but it was in fact coined by Giscard, his finance minister (Eichengreen 2011a:4).

<sup>12</sup>Thanks to Barry Eichengreen for noting this point.

<sup>13</sup>Thanks to an anonymous reviewer for noting this point.

system, which had adopted a gold exchange standard in which the dollar was its principal reserve currency and convertible to gold at the fixed official price of 35 dollars per ounce. As foreign holdings of dollars exceeded US holdings of gold, confidence in the US commitment to gold convertibility of the dollar declined, causing a series of speculative attacks against the dollar and eventually leading the United States to abandon gold convertibility in 1971, closing the system (Eichengreen 1996:113–135; 2011a:49–62).<sup>14</sup> Despite thus originally referring to the fixed exchange rate system under Bretton Woods, however, the dilemma is applicable to any country issuing a consequential international currency, including the contemporary United States.

Additionally, where other states peg their currencies to an anchor currency, the state issuing that currency loses its ability to use the exchange rate as a macroeconomic policy tool (Cohen 1971:42). Appreciation of the domestic currency due to its increasing international acceptability may also hurt the economy's export sectors.

### *The Political Economy Perspective*

Meanwhile, political economy study emphasizes that the international use of a currency enhances the issuing state's *power*—in particular its international monetary power, which exists when its monetary relationship with another state influences that state's behavior (Andrews 2006:1).

In greater detail, the international use of a currency boosts the issuing state's policy autonomy, which is the internal dimension of its power, as it increases its ability to avoid the burdens of adjustment of its external imbalances—either by “delaying” adjustment or by “deflecting” these burdens onto others (Cohen 2006). It is able to delay adjustment since the international demand for its currency enables it to finance its deficits effectively with its own money (Cohen 2006). It can meanwhile also deflect its adjustment burdens onto others via its ability to depreciate its currency, in which its debt to foreigners is denominated, or by using the exchange rate as an instrument to pressure foreign countries to adopt expansionary macroeconomic policies to help improve its external balances without adjustment (Henning 2005; Helleiner and Kirshner 2009a:6).<sup>15</sup> Such a rise in the state's policy autonomy also boosts its potential for influence over others, which is the external dimension of power, given that autonomy is the essential precondition for such influence (Cohen 2006).<sup>16</sup>

Indeed, a currency's international use is likely to increase its issuing state's coercive power—its “hard power”—to influence other states in direct ways, as their dependence on the currency for international economic activities may confer substantial political leverage or advantages to the issuing state (Kirshner 1995; Cohen 1998:127–128). For instance, the United States took advantage of other states' dependence on the US-based dollar clearing network as a foreign policy instrument during the Panama crisis of the late 1980s, and also in its international initiative to strengthen anti-money laundering regulation in the 1980s and 1990s (Kirshner 1995:159–166; Helleiner 1999:72–73). The dollar's status as the world's key currency also renders the United States capable of exercising substantial influence over international financial crisis management,

<sup>14</sup>Triffin's fear had in fact been that the US government would resort to deflationary policies to defend the system, depriving the world of dollar liquidity. Yet, it instead opted to abandon the system, in order to pursue its own domestic and foreign policy goals such as the Vietnam War (Eichengreen 1996:113–135; 2011a:49–62).

<sup>15</sup>Cohen (2006) argues that a lower degree of economic openness and a higher degree of economic adaptability increase the ability to deflect such adjustment burdens.

<sup>16</sup>Cohen (2009a) argues that the rise in policy autonomy due to the internationalization of the domestic currency stems particularly from its private and public store of value and trade invoicing and settlement functions.



as the country has unequaled ability to provide dollars for foreign governments and private financial institutions (Helleiner and Kirshner 2009a:6).<sup>17</sup>

There may of course be limitations on the use of coercive power by the state issuing an international currency, as excessive application of such power may ultimately lead other states to seek ways of escaping dependence on the currency (Kirshner 1995). However, the wide international use of a currency may also reduce the issuing state's need to exercise coercive power by increasing its "soft power"—its ability to get others to do what it wants through attraction rather than use of coercion or payment—through a heightening of its "structural power."

Kirshner (2008:424–425) notes two distinct strands of structural power in relation to currency internationalization. One is Strange (1988) concept, which emphasizes the power to shape the framework within which actors relate to each other. For example, the dollar's primary international status helps to ensure that discussions of the international monetary system take place within the context of dollar primacy. The other concept of structural power relevant to international currencies is that of Hirschman (1980), which stresses the transformation of actors' perceptions of their own interests by the structure of their economic relations—that is, "entrapment" in Kirshner (1995) term. For instance, those who use the dollar tend to develop a vested interest in dollar stability or may support close ties with the United States (Helleiner and Kirshner 2009a:6).

The international use of a currency enhances the issuing state's soft power in a symbolic manner as well, since currencies have long been regarded as core, tangible symbols of sovereignty and their extensive cross-border uses as highly visible signs of the elevated ranks of the issuing countries (Cohen 1998:121; Helleiner 2006:82).<sup>18</sup>

### *The Changing Balance between Benefits and Costs over Time*

A large part of the research on currency internationalization tends to treat the benefits and the costs of issuing an international currency as static. Yet, a currency's superior international standing can never be permanent, and the balance between the benefits and the costs of issuing an international currency also changes over its lifetime.<sup>19</sup> Foreign demand for a currency usually rises in the early stages of its international use, but declines over time as its supply is expanded beyond the point of its need. As a result, the benefits of issuing an international currency are likely to decline over time, while its costs are likely to increase (Mundell 1993:17; Cohen 1998:124–129).

In detail, for example, as the growth of a currency's overseas circulation reaches the point at which confidence in its value is threatened, the issuing state may need to raise interest rates to maintain its financial attractiveness, which will reduce its net international seigniorage gains to zero or even negative. In this circumstance, domestic policy autonomy may be largely inhibited by the necessity of avoiding sudden or substantial abandonment of the currency by foreigners, thus placing constraints on the issuing country's coercive power as well. The country's soft power may in addition also decline, as holding the currency becomes a losing proposition. Such loss of the benefits of issuing an international currency, and growth in its costs, may intensify if other currencies emerge as alternative international currencies (Cohen 1998:124–129).

<sup>17</sup>During the recent global financial crisis, for example, their swap lines with the Federal Reserve provided dollar liquidity to major foreign central banks and played a critical role in helping to stabilize their economies (see Aizenman and Pasricha 2010). Such ability of the United States to support foreign countries in crisis may enhance its capacity to influence their policies in its favor in return.

<sup>18</sup>Nobel laureate economist Mundell (1993) also notes: "Great powers have great currencies."

<sup>19</sup>Thanks to an anonymous reviewer for noting this point.

The experience of sterling is a good illustration of such a phenomenon. Sterling's status as the primary international currency before World War II allowed Britain to finance its huge military expenditure during the war. After the war, however, as sterling's international position was permanently taken over by the dollar, its debt overhang from the war became a vexing problem for the country, complicating management of its economic decline and exacerbating its chronic financial crises in the 1960s (Eichengreen 1996:103; 2011a:40–42; Kirshner 2008:426).

### **Determinants of International Currency Status**

Even if certain states have attempted to promote internationalization of their currencies, to grasp its potential benefits while being willing to bear its potential costs, they have not always succeeded. The Japanese government's drive for yen internationalization from the late 1990s may be one example.<sup>20</sup> What factors then determine currency internationalization? Economists have long endeavored to address this question, presenting a list of possible economic factors. In recent years, political scientists have also begun to pay growing attention to this issue, providing a complementary analytical framework.

#### *Economic Factors*

The various economic factors cited in the literature as the major determinants of currency internationalization can be grouped into three broad categories: confidence, liquidity, and transactional network (Helleiner 2008).<sup>21</sup>

Confidence in the stability of a currency's value is critical to its international use, as instability in a currency's value raises the risk of holding it, diminishing its attractiveness as a store of value (Lim 2006:7). Confidence in a currency can be affected by diverse factors, including government monetary and fiscal policies and the issuing country's current account and net-debtor positions, which affect its solvency risk (Tavlas and Ozeki 1992:19).

Liquidity is another salient economic attribute of an international currency, as users normally hold their international money in the form of liquid, interest-bearing assets rather than currency balances. The existence of well-developed and open financial markets in the issuing country, which lowers the currency's transaction costs, is accordingly important for its international use (Lim 2006:7). Indeed, the dollar's rise as an international currency took place only after creation of the Federal Reserve in 1913, which was an essential arrangement for the development of US financial markets (Broz 1997). Sterling's position as the leading international currency was also supported by London's financial markets. In contrast, the tightly regulated financial markets in Japan and Germany were frequently indicated as the principal obstacles to internationalization of the yen and the deutschmark (Aliber 1964; Tavlas 1991).

The international use of a currency is affected by the scale of the issuing country's transactional networks in the world economy as well, since the benefits of using a particular currency increase with the number of other parties using it due to network externalities, just as with the global use of English as a *lingua franca* (Kindleberger 1967). Factors determining the issuing country's integration

<sup>20</sup>For Japan's policy of the internationalization of the yen after the late 1990s, see, for example, Grimes (2003) and Katada (2008).

<sup>21</sup>In fact, both liquidity and transactional network are largely related to currency use convenience. To simplify further, therefore, the economic determinants of international currency standing may be divided into two categories: confidence and convenience. Yet, the factors that affect liquidity are quite different from those that influence the transactional network. To keep the differences clear, this paper thus discusses liquidity and the transactional network separately.



into the world economy, such as its economic size, thus influence the currency's international use. Yet, network externalities also give rise to inertia and path dependency in the choice of use of an international currency and thus create incumbency advantages for the dominant international currency, implying that the international use of a currency is nonlinearly related to the issuing country's economic size (Krugman 1984; Chinn and Frankel 2007). Indeed, while the dollar accounts for more than 60% of the world's foreign exchange reserves today, the US share of gross world product is only slightly higher than 20%. The slower erosion of sterling's international standing than that of actual British economic hegemony is another example widely referred to in this respect.<sup>22</sup> Notably, the power of network externalities suggests that the use of a single international currency is more efficient than use of multiple ones, implying monopoly by a single international currency as a natural consequence (Kenen 2002; Lim 2006).

Some recent studies argue, however, that the effect of network externalities on international currency choice is weak, particularly in connection with currency use as a store of value (although it may be strong in terms of use as a medium of exchange), and emphasize the feasibility of a multiple international currency system.<sup>23</sup> These studies point out that reserve currency diversification provides benefits, that advances in information technology have substantially lowered the transaction costs of using multiple international currencies, and that the growth of the global economy has led to a possibility of deep and liquid markets for more than one international currency.

These studies show that sterling, the French franc, and the deutschmark indeed shared the reserve currency role in the 1910s, and sterling, the franc, and the dollar in the 1920s and 1930s (Eichengreen 2005, 2010, 2011a). They also find—contrary to the conventional account that sterling did not lose its dominant reserve currency status until the end of World War II—that the dollar first took over sterling's position as the leading reserve currency in the mid-1920s, although sterling subsequently regained that position in the early 1930s (Eichengreen and Flandreau 2008; Eichengreen 2011a). With regard to sterling's reclaiming of its international standing in the 1930s, and its prolonged use as an international currency after World War II, they note this to have been largely due to the use of sterling in the sterling area, which was a political rather than an economic factor (Eichengreen and Flandreau 2008; Eichengreen 2011a). Ultimately, history thus appears to show that the effects of network externalities are limited, and that the dollar's dominance during the second half of the twentieth century may be a peculiar, rather than typical, case of the international monetary order.

#### *Political Economy Factors*

Meanwhile, Helleiner (2008) provides a useful framework for understanding how politics influences international currency standing, identifying two discrete channels through which it can impact a currency's international use: a direct and an indirect one. Through the indirect channel, politics affects the currency's international use by impacting its economic determinants, which were discussed above. Through the direct channel, politics influences its international status more directly, without regard to those economic determinants.

In relation to the indirect channel, Walter (2006) argues that domestic policies and institutional arrangements affect a currency's international use by influencing the confidence in it and its liquidity. International monetary leadership

<sup>22</sup>See, for example, Chinn and Frankel (2007), Flandreau and Jobst (2009), and Krugman (1984).

<sup>23</sup>See, for example, Eichengreen (2005, 2010, 2011a) and Eichengreen and Flandreau (2008).

requires conservative monetary policy, and the government's credibility in carrying this out is influenced by domestic political and economic institutions such as central bank independence. Particular kinds of domestic institutions, such as limited government and pro-creditor legal frameworks, are also conducive to financial market development.

With regard to the direct channel, on the other hand, Helleiner (2008) elucidates the ways in which politics affects international currency standing by revisiting Strange's (1971) concept of an international currency. Politics matters in particular for master and negotiated currencies, as discussed earlier, while top and neutral currencies derive their international standings mainly from their inherent economic attractiveness, with the role of politics relatively limited. For a master currency, the issuing state plays the primary role, as it exercises coercive power over subordinate states. For a negotiated currency, however, both the issuing state and the foreign states supporting the currency, and their interactions, influence its international use (Helleiner 2008:364).

The issuing state's decision on whether to promote or hinder the international use of its currency hinges on various political economy factors at both the domestic and the international levels, including the political struggle between those who benefit and those who lose from internationalization of the currency, policymakers' perceptions of the benefits and costs of internationalization, the political and economic relationships between the issuing state and other states, and the actions of states issuing other international currencies. A state's decision on whether to support a foreign currency's international use can also be affected by diverse political economy factors at both of these levels—for example, its political, security, and economic relations with the issuing state, the pressures from private domestic interests with close ties to the issuing state, the ideational beliefs of key policymakers, and other states' choices concerning whether or not to support the currency's international standing (Helleiner 2008:365–366).

### *Relative Weights of Determinants*

The relative importances of the diverse determinants of international currency status remain controversial. Different perspectives or theories put different weights on various of these determinants, depending upon which type of factor—political or economic—they regard as more critical, and also upon which individual political or economic factors they emphasize.

However, there are some noteworthy points that may help in considering this vital issue. First, when a currency is either on the rise or in decline internationally, the weight of political factors is likely to increase and that of economic ones to decrease. The currency's intrinsic economic properties tend in such times not to be strong enough to secure its status as a top currency, and its characteristics as a negotiated currency are accordingly likely to strengthen. The balance between states and markets in the global economic system may also affect the relative importances of the political and the economic determinants of international currency standing (Helleiner 2009:87). Given such recent noticeable trends as the substantial rise in states' holdings of foreign exchange reserves, and the emergence of sovereign wealth funds as new major global investors, states' influences in the global economy, relative to that of the markets, appear to have strengthened, implying a growing weight of political factors in the determination of international currency status (Helleiner 2009:77–78).

There is of course still need for further study of other potential determinants of international currency standing, and this issue will be discussed in a later section.

### Conflicting Views on the Future of the Dollar

The future prospects for the international monetary order differ depending upon which determinant of international currency standing is stressed, and upon how contemporary developments related to that determinant are evaluated.<sup>24</sup>

#### *The Positive Outlook*

The sanguine view of the dollar's future holds that the dollar's economic attributes as an international currency remain strong and/or that political conditions are in its favor.<sup>25</sup>

In more detail, with regard to the dollar's economic attractiveness and its political underpinnings, the positive view emphasizes the United States' global supremacy in political and military power as the ultimate source of confidence in the dollar, the absence of financial markets in other currencies matching the US Treasury market in terms of liquidity and scale, and the likelihood of network externalities and inertia helping the dollar to preserve its dominant position.<sup>26</sup> It is in addition said that foreign states may have strong motivations for supporting the dollar. The so-called Bretton Woods II thesis, for example, claims that East Asian countries have supported the dollar's value by accumulating massive amounts of dollar reserves to keep their own currencies undervalued and thereby boost their exports (Dooley, Folkerts-Landau, and Garber 2004, 2009). McKinnon (2009:47) also argues that emerging economies peg to the dollar for the sake of domestic price stability.

The political base of the euro's economic attractiveness is in contrast fragile, as absence of a central political authority in the eurozone adversely affects confidence in the euro and the development of euro financial markets.<sup>27</sup> Europe is moreover unlikely to assume the role of "importer of last resort," as the United States has, which would expand other countries' opportunities to obtain the euro. European policymakers appear in addition to have actually discouraged expansion of the eurozone, through measures such as imposition of strict requirements for eurozone entry and opposition to unilateral pegging to the euro, owing to worries about appreciation of the euro, constraints on monetary policy, etc. The possibility of active promotion of euro internationalization causing direct conflict with the United States is also likely to discourage efforts in this direction.<sup>28</sup> Indeed, the euro's international role has a strong regional character, being largely limited to its European hinterland (ECB 2010).

Meanwhile, despite China's great economic size, strong economic growth, large current account surplus, low inflation, exchange rate stability, etc.,<sup>29</sup> the economic attractiveness of the renminbi is at least at this moment far lower than that of the euro—due largely to its low convertibility, particularly in the capital account, and to the underdevelopment of Chinese financial markets. The authoritarian nature of the Chinese political regime has also been often indicated as a factor inimical to financial market development and confidence in the renminbi, as it may raise foreign doubts about the Chinese commitment to a market economy. The

<sup>24</sup>Helleiner and Kirshner (2009a) divide the conflicting perspectives as to the dollar's future into three categories, in accordance with their relative emphases on certain determinants of international currency standing—the "market based," the "instrumental," and the "geopolitical" perspectives.

<sup>25</sup>See, for recent examples, Cohen (2009b), Cooper (2009, 2010), James (2009), and McNamara (2008).

<sup>26</sup>See, for example, Cooper (2010), Helleiner (2009), James (2009), and McNamara (2008).

<sup>27</sup>See Cooper (2010:2) for details on the fragmentation and resulting low liquidity of the euro capital market.

<sup>28</sup>See Cohen (2009b,d), Cooper (2009, 2010), D'Arista (2009), Helleiner (2009), and McNamara (2008).

<sup>29</sup>China overtook Germany as the world's largest exporter in 2009 and also became the world's second largest economy in 2010, surpassing Japan. China is in addition the second largest recipient of foreign direct investment. Furthermore, the size of its foreign exchange reserves is the largest in the world.

Chinese government is moreover seen as unlikely to adopt aggressive reform for development of the Chinese financial markets, which would require abandonment of the Chinese development model whose main instruments include credit controls and export-led growth. The renminbi is consequently judged not likely to pose a serious threat to the dollar in the foreseeable future.<sup>30</sup>

### *The Negative Outlook*

In contrast, the gloomy prospect for the dollar's future expects erosion of its dominant position, with conceivable degradation from top to negotiated currency status, due to a decline in its economic attractiveness and/or retreat of foreign, and also possibly domestic, support for it.<sup>31</sup> Notably, many holding this view do not usually expect a single currency to replace the dollar as the dominant international currency. They instead tend to anticipate emergence of a multiple international currency system, generally one based on the dollar, the euro, and the renminbi.<sup>32</sup> In this view, therefore, while the dollar will no longer be dominant as before it will not lose its international status entirely but remain one of the major international currencies.

Firstly, regarding the dollar's economic attractiveness, the huge US current account deficit and loose US fiscal and monetary policies since the global financial crisis are believed likely to damage foreign confidence in the dollar.<sup>33</sup> Moreover, the fall in US import capacity since the crisis may reduce foreigners' motivations for holding dollars. At the same time, trade patterns in many East Asian countries, major holders of dollar reserves, have increasingly shifted away from the United States to the intraregional and European markets (Helleiner 2009:78–80). Skeptics of the dollar's future also stress the limitations of network effects and inertia in international currency use.<sup>34</sup>

The political foundation of foreign support for the dollar appears to have weakened as well, as China, a geopolitical rival of the United States, has become the biggest dollar holder (Helleiner 2009:81; Kirshner 2009:195–196).<sup>35</sup> Serious observers of course usually deny the likelihood of China dumping its enormous dollar holdings; the resulting abrupt dollar depreciation would be very much against its own interests, due to not only the substantial decline in value of its dollar holdings that would ensue but also the consequent loss of Chinese export competitiveness.<sup>36</sup> Yet, it is still possible that China will eventually diversify its reserve portfolio, moving to alternatives such as the euro.<sup>37</sup> Traditional US allies such as Western Europe and Japan are in addition no longer bound to the United States with the end of the Cold War

<sup>30</sup>See Cohen (2009d), Cooper (2009, 2010), Dobson and Masson (2009), Eichengreen (2009a), Helleiner (2009), IMF (2010), Lee (2010), Wu (2009), and Wu, Pan, and Wang (2010). A recent simulation by Lee (2010) estimates, for example, that the renminbi's share in international reserves will grow only gradually to reach 11.6% in 2035, even if the renminbi gains full convertibility by 2020 and China enjoys a high real annual growth rate of 9.5% through 2035. The estimate meanwhile shows the renminbi's share being limited to 2.7% in 2035 if Chinese real annual growth slows to average 6% during the period. Note, however, that this simulation is based on Chinn and Frankel (2008), whose analysis concentrates on the economic determinants and pays little attention to political factors.

<sup>31</sup>See, for example, Bergsten (2011), Chinn and Frankel (2008), Cohen (2009c,d), Eichengreen (2010, 2011a,b), and Kirshner (2009).

<sup>32</sup>Meanwhile, Chinn and Frankel (2008) estimated that the euro would overtake the dollar by as early as 2015 as the tipping point, due largely to a rise in economic size of the euro area.

<sup>33</sup>See, for example, Eichengreen (2011a) and Ferguson (2009).

<sup>34</sup>See, for example, Eichengreen (2005, 2010, 2011a).

<sup>35</sup>China is estimated to possess about one-half of all US Treasuries held by official foreign holders (Eichengreen 2011a:135). Russia, meanwhile, another geopolitical rival of the United States, is the world's third largest foreign exchange reserve holder.

<sup>36</sup>See, for example, Cooper (2009:5–6), Eichengreen (2011a:135–136), and Kirshner (2009:198).

<sup>37</sup>See Bowles and Wang (2008), Eichengreen (2011a:51), and Kirshner (2008:429; 2009:198).

and have in fact become rather wary of US unilateralism, although such concerns appear to have weakened to some extent since Barack Obama gained the US presidency in 2009.<sup>38</sup>

Meanwhile, it is also possible that US willingness to defend the dollar's international role might falter. If domestic support for it weakens, US policymakers may be reluctant to offer the inducements necessary to encourage continued foreign backing of the dollar's international position. Increased protectionist pressures in the United States targeting China might for instance reduce US willingness to provide an open market to China, weakening that country's motivation to hold dollars (Helleiner and Kirshner 2009a:14). Indeed, Bergsten (2009a, 2011), director of the major US think tank the Peterson Institute for International Economics, argues that the dollar's role as the leading international currency is no longer in the US national interest. The dollar's prominent international position, he asserts, encourages huge inflows of foreign capital to the United States, with detrimental macroeconomic effects on its economy as shown in the recent global crisis, while also impeding the currency's substantial decline against the renminbi and other currencies which he argues is necessary for US economic recovery.

The negative view as to the dollar's future also stresses that there are, or will be in the not distant future, alternatives to the dollar—the euro, and perhaps also the renminbi in the longer term. It argues that the dollar's dominant position has been abetted by the absence of rivals, and that the existence of alternative currencies will raise the likelihood of foreigners' withdrawal from the dollar.<sup>39</sup>

### A Tentative Assessment of the Competing Prospects

Which prospect for the future of the international monetary order is more convincing? It is always very difficult for any social science research to predict the future accurately. Moreover, as will be discussed in the following section, a set of important issues remain that need further research if we wish to improve our understanding of international currency standing. Given the fierce debate over the dollar's future now going on, however, it may still be worth contemplating the question here, albeit tentatively. As discussed above, a key area in which the optimistic and pessimistic views of the dollar's future conflict is in their contrasting assessments of the possibilities of the dollar's potential rivals, the strongest recently being the euro and the renminbi, challenging its international position. The sanguine view emphasizes that the dollar's attractiveness remains relatively strong vis-à-vis its alternatives, largely due to their own defects as international currencies, while the negative view implicitly assumes the opposite, highlighting the dollar's own weaknesses. This paper thus assesses the validity of these two opposing future prospects for the dollar, by evaluating the likelihoods of the euro and the renminbi threatening its position, and by in addition analyzing the potential to challenge it of the Special Drawing Right (SDR)—a synthetic unit of account of the International Monetary Fund (IMF) composed of the dollar, the euro, the yen, and sterling—which has attracted rising interest of late.<sup>40</sup>

<sup>38</sup>See Calleo (2009:185), Eichengreen (2011a:122), Helleiner and Kirshner (2009a:16–17), and Kirshner (2009).

<sup>39</sup>See, for example, Eichengreen (2011a).

<sup>40</sup>There in fact appears little doubt that the dollar's intrinsic economic attractiveness as an international currency has weakened since the global financial crisis, even though it has still played the role of safe haven currency during the crisis.

*The Euro*

The European debt crisis, which started from Greece in the spring of 2010, spread to Ireland by the end of that year, and most recently reached Portugal in 2011, has highlighted how the peculiar characteristic of the euro as a currency without a state can be a serious problem for it. In the absence of a central authority, eurozone countries' cooperative management of the crisis has been clumsy, damaging the credibility of eurozone governance and accordingly market confidence in the euro. Many observers, including Noble laureate economist Krugman (2010a), have indeed even postulated the possible breakup of the euro, warning that debt-ridden countries may choose instead of painful and politically costly austerity to exit the eurozone, to make devaluations of their national currencies possible.<sup>41</sup> And in fact, many euro-skeptics ultimately criticize the lack of a central eurozone political authority as meaning that euro adoption took place before member countries were even ready for a single currency.

Although disintegration of the eurozone may thus be no longer absolutely unthinkable, however, its possibility is not likely high. Most of all, the political will for European integration, in creating and preserving the euro, should not be underestimated. The euro has in fact been a fundamentally political, rather than a mere economic, project, and its collapse would threaten the very existence of the European Union (EU) (Eichengreen 2009b, 2011a; Wolf 2011). Indeed, in the course of the crisis, eurozone governments have made strong commitments to save the euro, thereby strengthening their crisis management capabilities. In May 2010, they created the European Financial Stability Facility (EFSF), a temporary eurozone rescue fund with a lending capacity of 440 billion euros which together with the IMF has bailed out the three crisis-hit countries, and they have since established a plan to replace the EFSF in mid-2013 when its operation expires with the European Stability Mechanism, a permanent crisis management program. As the Greek crisis worsened from mid-2011, eurozone governments reaffirmed their commitments to the euro by agreeing on a second Greek bailout, while at the same time, in an attempt to avoid crisis contagion to larger eurozone countries, particularly Italy and Spain, significantly strengthening the effectiveness of the rescue fund—by enabling it to provide precautionary credit lines to countries at risk, to finance recapitalization of ailing banks in both bailout and non-bailout countries, and to purchase the bonds of stricken governments on the open market.<sup>42</sup> They have furthermore agreed to increase the 440 billion euro rescue fund's firepower to near 1,000 billion euros, as well as on a 50% private sector haircut on Greek government bonds. In an additional move to stem contagion, the European Central Bank has begun purchasing Italian and Spanish government bonds, to push their yields down, thereby implying a determination to play the role of eurozone lender of last resort to troubled countries.<sup>43</sup>

It should be noted, in addition, that if a country did choose to stay outside the eurozone this might actually make it more vulnerable to substantial external

<sup>41</sup>See, for example, Krugman (2010a,b).

<sup>42</sup>Defending the measures associated with the second Greek bailout, German Chancellor Angela Merkel claimed: "It is our historic task to protect the euro. Europe without the euro is unthinkable" (Oakley, Jenkins, and Peel 2011).

<sup>43</sup>The demand for issuance of common eurozone bonds backed by the eurozone governments as a group has also grown during the crisis, partly as a means to lower struggling states' borrowing costs. Its realization in the near future does not appear easy, especially given the strong German opposition to it. However, if such genuine euro-bonds can actually be issued, this can lay the groundwork for an integrated European bond market and create an alternative to US Treasury bonds (Eichengreen 2011b).



shock, while the costs to it of reintroducing the national currency would likely exceed the benefits (Eichengreen 2011a:128–129; *The Economist* 2011a).<sup>44</sup> Despite virulent domestic protests against the painful austerity measures attached to the rescue packages, the Greek parliament thus decided in November 2011 to form a government of national unity to start implementation of the second package, rather than rejecting it and leaving the eurozone.

It should be pointed out as well that the overall eurozone public debt and fiscal deficit situations are sounder than those of the United States (Wolf 2011). Major eurozone countries, moreover, including France and Germany, have credible medium-term plans for bringing their deficits and debts under control (*The Economist* 2011c). In contrast, although the United States did raise its statutory ceiling on federal debt in early August 2011, after a long and acute bipartisan impasse over this issue, thus avoiding a potentially catastrophic debt default, the country's ability to address its huge fiscal deficit remains unclear.<sup>45</sup> Indeed, a few days after the debt ceiling hike, Standard and Poor's, the world's second largest rating agency, downgraded the US long-term sovereign credit rating by one notch from triple A to double A plus, questioning the validity of the US fiscal consolidation plan. Meanwhile, as the rating downgrade disturbed the markets and, more fundamentally, the US economy showed signs of weakening, the Federal Reserve announced its intention to keep interest rates close to zero until mid-2013, creating, along with the rating downgrade, long-term threats to the dollar's status as the world's dominant reserve currency.<sup>46</sup>

And indeed, the euro's share in total global foreign exchange reserves has hardly changed despite outbreak of the eurozone debt crisis, standing at 26.7% in the second quarter of 2011 compared to 26.3% in 2007. According to research by Standard Chartered Bank, moreover, China has from 2011 begun to increase the share of the euro in its accumulation of new reserves, diversifying away from the dollar in earnest (Anderlini and Alloway 2011; *The Economist* 2011b). Meanwhile, with Estonia's accession at the beginning of 2011, the eurozone has actually expanded during the crisis.

It may thus be reasonable to anticipate likelihood of the euro managing to survive, despite the European debt crisis. Its international use may even increase to some extent, as the links between the eurozone and non-eurozone members of the EU and aspiring candidates to it deepen, leading them to increase their use of the euro in transactions with the eurozone (Cooper 2010). Barring a substantial strengthening of the political foundations of the euro, however, its international use is likely to be limited largely to its European backyard.

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<sup>44</sup>For instance, if Greece were to abandon the euro and reintroduce the drachma, the costs of doing so would likely overwhelm the benefits. In this circumstance, some Greek banks would go bankrupt even if capital controls were employed. The new drachma would fall sharply in value, increasing Greece's debt burden. Inflation would then emerge as import prices rose and the government needed to print money to finance its deficit. External financial assistance would also be unavailable. The increase in Greek exports would meanwhile be only moderate, as they account for a small portion of GDP (*The Economist* 2011a). There is meanwhile also some market opinion that departure of weak economies like Greece from the eurozone might not even trigger a euro collapse, but rather in fact strengthen the currency in the long run (*The Economist* 2011b).

<sup>45</sup>The hike in the debt ceiling was accompanied by an agreement on deficit reduction of 2.4 trillion dollars over the next decade, while it was widely assessed that a 4 trillion-dollar cut was necessary to put US government debt on a meaningful downward path (*The Economist* 2011d). In the meantime, no revenue-raising measures were introduced.

<sup>46</sup>Immediately after the US rating downgrade, ironically, prices of US Treasuries surged, revealing the market sentiment that there was still no alternative to the dollar as safe haven currency at a time when worries about the euro's future had become prevalent. However, the announcement by the Federal Reserve led the Swiss franc and the yen to rise sharply against the dollar, while gold also soared to a record high.

*The Renminbi*

Meanwhile, as part of its strategy to reduce China's dependence on the dollar and enhance its influence in the world (Zhang 2009; Lee 2010), the Chinese government has begun since the global financial crisis to push enthusiastically ahead with renminbi internationalization, focusing on the promotion of renminbi use in international trade and the development of the offshore renminbi market in Hong Kong.<sup>47</sup> As a result, and despite the many obstacles discussed earlier, internationalization of the renminbi has accelerated in the recent few years, although its degree does still remain low.<sup>48</sup> It is however unlikely that the renminbi will evolve into *the* dominant international currency, displacing the dollar, in the foreseeable future, although it may possibly develop into a regional currency in Asia, similar to the euro in Europe.

This paper agrees with the majority of studies of renminbi internationalization that capital account convertibility and development of the Chinese financial markets will help to achieve it; in contrast to them, however, this paper does not necessarily see capital account inconvertibility and the underdevelopment of Chinese financial markets as the most serious obstacles to renminbi internationalization.<sup>49</sup> For the Chinese government has in fact recently set up plans for developing Shanghai into a leading international financial center by 2020, and to also achieve capital account convertibility by that year (Lardy and Douglass 2011; Xinhua News 2011). Its new Five-Year Plan for 2011–2015 has also adopted, for the first time, specific measures for increasing domestic demand, reflecting thereby a willingness to shift from the traditional Chinese development model. And although such a great change is not possible overnight, it may not be impossible given a decade. Indeed, there is a precedent: the evolution of New York into a leading international financial center within 10 years after creation of the Federal Reserve in 1913, and the dollar's coincident obtaining of leading international currency status from a position in which it had lacked any significant international role (Eichengreen 2011a:146). Even if such substantial change is not realized, meanwhile, development of the offshore renminbi market in Hong Kong may still help to promote renminbi internationalization to a significant extent.<sup>50</sup> In fact, whether financial liberalization and capital account convertibility are prerequisites for currency internationalization is an issue that needs further systematic research. This will be discussed in detail in the next section.

The matter of financial liberalization and capital account convertibility set aside for the moment, there remain other very significant hurdles to internationalization of the renminbi, and especially to its displacement of the dollar as the dominant global currency. Firstly, China's economic size amounts to a mere one-third that of the United States currently. And under the assumption of 7% annual growth for the next decade in China, its GDP will still be only half that of the United States in 2020 (Eichengreen 2011a:147).<sup>51</sup> In the early 1910s, in

<sup>47</sup>For the details of the Chinese policies for renminbi internationalization and recent developments, see, for example, Chen and Cheung (2011), Lee (2011), and Park (2010).

<sup>48</sup>For example, the volume of China's international trade settled in the renminbi jumped from 3.6 to 500 billion renminbi between 2009 and 2010. Nonetheless, this still accounts for only 2% of total world trade (Barlow 2011b).

<sup>49</sup>Studies emphasizing the capital account inconvertibility of the renminbi as a critical obstacle to its internationalization include Bergsten (2011), Cohen (2009d), Cooper (2009, 2010), Dobson and Masson (2009), Eichengreen (2009a), Helleiner (2009), IMF (2010), Lee (2010), Park (2010), and Wu et al. (2010).

<sup>50</sup>Renminbi deposits in Hong Kong rose from 64 to 370.6 billion renminbi between January 2010 and January 2011, and issuance of renminbi-denominated bonds there from 16 to 35.7 billion renminbi between 2009 and 2010 (Lee 2011).

<sup>51</sup>Although the 7% assumption for annual growth is lower than China's recent rate of about 9–10%, it reflects the country's less favorable demographics in the coming years and is still exceptionally high by historical standards (Eichengreen 2011a:147).

contrast, when the dollar began its rise to leading international currency status, the US economy was the world's largest, more than double the size of Britain's.<sup>52</sup> China has in addition been consistently running huge trade surpluses, constraining other countries' accumulation of renminbi. And although the Chinese government has of late been encouraging foreign lending and investment in the renminbi (Eichengreen 2011a:49), the supply of renminbi through this channel may be limited initially due to the currency's low acceptability. Moreover, despite China's rapid economic rise, US international power is still far greater than China's politically, especially outside of Asia, and this may curb global expansion of the renminbi beyond the region; in fact, this issue of the effect of international political power on international currency standing is another important one demanding more research, which will be discussed further in the following section. Ultimately then, replacement of the dollar by the renminbi as the dominant global currency seems unlikely, at least in the foreseeable future.

The renminbi may, however, be able to grow into the position of a regional currency in Asia, where China's influence, both economic and political, is much stronger than it is in the rest of the world. Indeed, the volume of China's trade with Asian countries surpassed that of the United States in 2009. Hong Kong, the key offshore financial center for the renminbi, is one of the leading international financial centers in the world, ranked third after only London and New York in the Global Financial Centers Index of the Z/Yen Group in September 2010 (Yeandle 2010). Shanghai's status as an international financial center has also been rising rapidly in recent years, and it stood sixth in the index. Moreover, even though China has run large trade surpluses against the world as a whole, it has on average recorded trade deficits against its East Asian neighbors over the past decade.<sup>53</sup> China's local currency swap arrangements with foreign countries, the principal goal of which is promoting renminbi internationalization, also center on Asian countries, with 10 of the total 14 partner countries being Asian.

Growth of the renminbi into a regional currency in Asia would of course not mean complete disappearance of the dollar in the region. In particular, geopolitical factors seem likely to help slow reduction in the dollar's influence in Asia to a degree. Geopolitical rivals of China such as Japan and India, for example, may not wish to depend solely on the renminbi if there is an alternative, which the dollar may continue to be, although smaller countries may have stronger incentives to accommodate China more as its power increases.

### *The Special Drawing Right*

The idea of enhancing the role of the SDR has attracted great attention recently, particularly since Zhou (2009), Governor of the Chinese central bank, as well as a United Nations commission (2009) chaired by Nobel laureate economist Joseph Stiglitz called for creation of a global super-sovereign reserve asset and augmentation of the SDR's role in this respect.<sup>54</sup> Many advocates of this idea suggest creation of a "substitution account" through which dollars can be converted into SDRs, arguing that this might benefit both large dollar holders like China as well as the United States, since it would make possible the exchange of dollars for SDRs without causing large dollar depreciation.<sup>55</sup> If SDRs are created on a regular and substantial basis to meet the growing demand for reserves and

<sup>52</sup>For the economic sizes of the major countries at that time, see Krasner (1976:345).

<sup>53</sup>According to IMF data, China's trade deficit against the other ASEAN Plus Three countries—Japan, South Korea, and the 10 ASEAN countries—amounted to 82 billion dollars in 2009.

<sup>54</sup>For recent discussions on the SDR, see Bergsten (2009a,b), Cooper (2010), Eichengreen (2011a), Kenen (2010), Ocampo (2010), and Williamson (2009).

<sup>55</sup>See, for example, Bergsten (2009a, 2011) and Kenen (2010).

issued to countries, this might reduce the pressure on countries to accumulate additional reserves, helping to alleviate one source of the global imbalances and accordingly contributing to international monetary system stability (Cooper 2010; Eichengreen 2011a:137–138).

There are a number of significant economic and political problems hindering realization of this idea, however. Most of all, there is no private market in which SDRs can be traded, as their use is currently restricted to official transactions between the IMF and its member countries. The lack of any use of SDRs in private markets substantially limits their usefulness, reducing central banks' incentives for holding them as reserve assets.<sup>56</sup> Creation of a private market for SDRs is a difficult task, however, given that the first private entities issuing SDR bonds will have to provide additional compensation for the holders due to their illiquidity, that market participants may favor tailor-made currency baskets suiting their needs more clearly than the SDR does, and that any fluctuations in the SDR's value in line with changes in the values of its component currencies may heighten exchange rate risks (Eichengreen 2011a:138–140). Indeed, the attempt by the IMF to create a private market in SDRs in the early 1980s ended in failure (Cooper 2010; Eichengreen 2011a:138–140).

Governance of SDR issuance is another important problem. Under the existing IMF rules, in order for SDRs to be issued members holding 85% of total fund voting power must agree on it, a requirement hindering timely and sufficient SDR creation. If SDRs are to be supplied appropriately, the IMF may need discretionary authority over their issuance, making it in this regard similar to a global central bank. This would require a fundamental reform of IMF governance, however, which is not likely possible in the near future (Kenen 2010; Eichengreen 2011a:141). Additionally, creation of a substitution account would involve the sensitive political question of who would bear the losses if the currencies absorbed by the account depreciated against other currencies (Kenen 2010; Eichengreen 2011a:141–143).

Ultimately, the likelihood of the SDR becoming the dominant global reserve asset appears very low. Indeed, even many proponents of a strengthening of the SDR's role anticipate that a substitution account would not undermine the dollar's international position, and that the SDR would be able to play only a modest role, mainly as a reserve asset subsidiary to the international currencies issued by national governments.<sup>57</sup> And in fact, if China were serious about facilitating use of the SDR, one might expect it to be trying to create a liquid market in SDR claims by, for example, issuing its own SDR-denominated bonds in Hong Kong (Eichengreen 2011a:140). However, China is apparently devoting much greater effort to promoting internationalization of its own national currency.

At this point, one may then wonder what China's motivations were, in suggesting enhancement of the SDR's role. One answer is that China may have been practicing symbolic politics, by signaling its discontent with the existing dollar-centered international monetary system while also showing itself a proponent of a rules-based multilateral system. In addition, its suggestion may have been a response to domestic demands to find alternatives to the dollar (Eichengreen 2011a). Furthermore, given that China has called for expansion of the SDR basket to include the renminbi, the Chinese proposal may have been ultimately intended to increase the renminbi's reputation as an international currency (Lee 2010:4).

<sup>56</sup>In the absence of private markets for SDRs, central banks wishing to use SDRs have to convert their SDRs into dollars or euros. This process currently takes a minimum of 5 days, an "eternity in a crisis" (Eichengreen 2011a:138).

<sup>57</sup>See, for example, Kenen (2010) and Ocampo (2010).

*A Multiple Currency System, with the Dollar First among Others*

Eventually, an *uneven* multiple international currency system appears likely to emerge. In this system, the dollar's international standing will decline significantly, largely due to the substantial rise of the renminbi in Asia while the euro's international role does not change considerably. However, the renminbi is unlikely to overtake the dollar at the global level. Its role as an international currency is likely to be largely restricted to its Asian hinterland, similar to that of the euro in Europe. This system will thus be an uneven multiple currency system. The euro and the renminbi may be unable to compete with the dollar at the truly global level, leaving it first among the three of them. Yet, both the euro and the renminbi may play the roles of regional currencies in their own backyards, limiting the dollar's influences there.

The emergence of such an international monetary system may contribute positively to the world economy, since it may help reduce the global imbalances by providing alternatives to the dollar. Especially, although the renminbi's role is likely to be limited largely to Asia, its rise in that region may substantially impact the global imbalances, as it will mean diversification of the reserve currency portfolios of Asian countries including China itself, which are currently the world's largest dollar holders.

**Remaining Salient Issues for Further Study**

This study's assessment of the prospects for the future of the international monetary order presented in the previous section is tentative, and there remain some important issues worth greater future investigation to improve our understanding of international currency standing. This paper calls special attention in this regard to political economy issues, given the strong potential contributions of political economy research to the international currency literature despite its still early stage of development. In particular, this paper suggests four distinct political economy issues, encompassing both domestic and international ones, for further research. They are: domestic actors' preferences regarding currency internationalization, financial liberalization, the role of the state, and international political power.

*Domestic Actors' Preferences*

More research on domestic actors' preferences regarding currency internationalization appears helpful for strengthening our understanding of the varying degrees of states' willingness to see their currencies internationalized, which may in turn have a significant effect on that happening. There are in fact some studies identifying the preferences of domestic groups regarding currency internationalization, based upon its potential benefits and costs.<sup>58</sup> These studies tend, however, to assume that domestic financial institutions with high levels of international business activities are the strongest advocates of currency internationalization, something which appears inapplicable to the cases of the yen and the deutschmark.<sup>59</sup> As Kenen (2009:6) notes, domestic financial institutions' new profit opportunities from internationalization of the home currency can be partly offset if foreign financial institutions enter into the domestic financial markets. In this regard, the following hypothesis will be worth testing in future study: that domestic financial institutions' preferences regarding internationalization

<sup>58</sup>See, for example, Broz (1997).

<sup>59</sup>Meanwhile, Frank (2003) argues that multinational corporations are strong supporters of the international uses of their home currencies.

of their home currency are affected by their own competitiveness vis-à-vis foreign financial institutions in their home country financial markets.

### *Financial Liberalization*

The next issue of note is the effect of financial liberalization on currency internationalization.<sup>60</sup> As mentioned earlier, a majority of the studies addressing renminbi internationalization tend to presuppose capital account convertibility as one of the preconditions necessary for it. Their underlying logic is that limits on liberalization raise the transaction costs of the currency concerned, and that competition among alternative currencies will lead to abandonment of those with higher transaction costs (Genberg 2010:66).

Yet, financial liberalization associated with currency internationalization also involves a government's liberal attitude toward its currency in a broad sense, going beyond mere capital account convertibility to adoption, for example, of free exchange rate floating and interest rate liberalization. Capital account liberalization in fact requires that such comprehensive liberal policies be in place and is thus a controversial political economy issue. If China liberalizes its capital account prior to free floating of the renminbi, for instance, this may generate large-scale speculative capital inflows to the country based on expectations of renminbi appreciation, which may challenge the central bank's ability to maintain price stability. And if China adopts capital account convertibility without interest rate liberalization, this will likely lead domestic depositors to shift their funds out of the Chinese banking system, potentially creating a systemic liquidity crisis in the country (Lardy and Douglass 2011:3–6, 14). It is in this context that the Chinese development model is indicated to be a serious obstacle to renminbi internationalization. And indeed, the negative effects on yen internationalization of the Japanese government's reluctance to liberalize the Japanese financial sector seem to offer a strong historical basis for such an argument.<sup>61</sup>

The relationship between financial liberalization and currency internationalization is an issue that needs to be elaborately tested, however, rather than presupposed. Indeed, contrary to the common perception, a recent study by He and McCauley (2010) suggests full capital account liberalization to be neither a necessary nor a sufficient condition for currency internationalization, and that promoting development of offshore markets can help currency internationalization while allowing the issuing country to retain control over its capital account. The study emphasizes how the significant US capital controls in the 1960s and early 1970s did not in fact undermine the dollar's international role, but in some ways rather contributed to growth of the eurodollar market, without which the dollar may not have obtained the dominant international currency standing it enjoys today.

Thus, as Subacchi (2010) notes, China's experiment of trying to achieve renminbi internationalization mainly through its offshore market in Hong Kong, with limited liberalization on the mainland, should not be judged *ex ante* as doomed to fail simply because of the lack of historical precedents. The strategy may allow China to push internationalization of the renminbi gradually under conditions of financial stability, providing it an opportunity to learn from Hong Kong's experience of renminbi internationalization.

<sup>60</sup>Thanks to an anonymous reviewer for noting this issue.

<sup>61</sup>See Cohen (2009d:152–154), Eichengreen (2011a:44–45), Katada (2008:401–404), Helleiner (2009:73–74), and Park (2010:6).



*The Role of the State*

Another issue deserving greater attention is the role of the state in currency internationalization. A state's role in internationalization of its currency is likely to be especially significant in both the nascent and the declining stages of currency internationalization, when the currency's inherent economic attractiveness is not strong enough to qualify it as a top currency. Indeed, in its early days in the 1910s and 1920s, the Federal Reserve played a crucial role in promoting dollar internationalization by actively building a market for dollar-denominated trade acceptances, growth of which was crucial to the success in internationalization of the dollar (Eichengreen 2011a:28–30). Moreover, during the 1900s and 1910s, US policymakers directly encouraged many countries in the Caribbean and Central America—a region where the United States had great influence—to increase their usage of the dollar, even calling for the creation of a dollar-based monetary union involving all countries in the Americas, for the economic and political benefits of the United States (Helleiner 2003).

This paper draws attention in this regard to two specific government policies that the Chinese government may employ in its drive for renminbi internationalization. The first is purchases of the sovereign debt of its Asian neighbors. This policy puts upward pressure on the values of these countries' currencies and is thus likely to heighten their incentives to buy Chinese debt in response, if allowed, to keep the values of their own currencies from rising and in turn defend their exports, which will ultimately help renminbi internationalization. Indeed, the Chinese purchases of large amounts of Japanese and South Korean government bonds during fall 2010 caused significant rises in the yen and the Korean won, leading the Japanese finance minister to complain about how China's closed capital account prevented Japan from reciprocating (Financial Times 2010). In this regard, it is worth noting that diversification of China's foreign exchange reserve portfolio is one of the main goals of its new 5-year Plan. And if the diversification is actually pursued through a growing purchase of Asian government bonds, it may help facilitate renminbi internationalization particularly in the Asian region.

The second Chinese policy to note is that of permitting only a limited group of prestigious foreign financial institutions to participate in the renminbi business at the early stage of renminbi internationalization. The Chinese government is, for example, now considering introduction of a system enabling only qualified foreign institutions to invest their offshore renminbi deposits in mainland equity and bond markets, with launch of this system widely expected in 2011 (Barlow 2011a). Although such a policy will restrict overall foreign access to the domestic financial markets, it may offer a small prestigious group of foreign financial institutions opportunities to preempt the market for the international renminbi business and capture rents from renminbi internationalization, thereby encouraging them to become its powerful and effective promoters overseas. And in fact, a group of prominent international banks, among them HSBC, Standard Chartered, Citigroup, and JPMorgan, have recently been holding international roadshows to promote use of the renminbi by their corporate customers for trade deals with China, instead of the dollar. Some of them have moreover offered financial incentives, such as discounted transaction fees, to firms opting to settle their trades in renminbi (Cookson 2010).

*International Political Power*

Finally, more direct and systematic research on the impacts of international political power on the international monetary order is needed.<sup>62</sup> Although the

<sup>62</sup>Thanks to an anonymous reviewer for noting this issue.

linkages between these two variables have sometimes been noticed in discussion of the effects of politics on international currency standing, the literature has rarely considered this issue explicitly in measurable ways. However, any change in the balance of inter-state power may significantly impact currencies' international statuses by affecting countries' international currency choices. Indeed, the rise of the dollar's international status in the 1910s and 1920s was coincident with the outbreak of World War I, which shifted international political power profoundly to the United States.<sup>63</sup>

For analyzing this issue, one of the central problems is how to measure and portray changes in international political power. In this regard, great attention needs to be paid to soft, as well as hard, power. States may in fact be reluctant to exercise hard power to influence other countries' international currency use, out of concerns about potential political conflicts with them, and soft power may consequently play a more prominent role. One of the major sources of a state's soft power may be other states' economic dependence on it, since this may transform their perceptions of their own interests in ways that bring them into line with its interests (Hirschman 1980; Kirshner and Abdelai 1999/2000). In this respect, the state issuing the existing dominant international currency may have incumbency advantages, as other states' dependence on that currency may strengthen its soft power, as discussed earlier. Likewise, a state's military capacity and others' security dependence on it may also be an important source of its soft power.<sup>64</sup> Ross's (2006) international security study of Asian countries' responses to China's rising power finds, for example, that, while those Asian states vulnerable to Chinese military attack have accommodated China, those under US military protection have enhanced their cooperation with the United States.

As regards the future of the international monetary order, what is at issue now is the degree to which the United States has been "losing" power, China "gaining" power, and Europe holding its own.<sup>65</sup> Taking only a quick glance at this question, US economic power still appears far greater than that of China, as discussed earlier. The dollar's role as the dominant international currency may also reinforce US soft power. The United States has unmatched military superiority over China, moreover, continuing to provide security assistance to its allies around the world despite cessation of the Cold War.<sup>66</sup> Overall, US soft power appears still much stronger than those of China or Europe, especially globally, although theirs may have grown in their own respective regions. Under these circumstances, the dollar may be advantaged on the global scene, as strong centripetal forces may work to ensure continued use of the dollar by some states and their firms in both Europe and Asia, while the euro and the renminbi may not exert any such influences in the dollar's hinterland. This rough analysis is in line with this paper's anticipation of emergence of an uneven international currency system. Yet, the investigation is of course only preliminary, and more systematic research is needed as to how states adjust their international currency uses in response to changes in the balance of inter-state power.

<sup>63</sup>As discussed earlier, sterling regained its leading international currency status in the 1930s, but this was at the time when the Great Depression hit the United States hard.

<sup>64</sup>Sources of soft power should not be confused with soft power *per se*. Although factors such as culture may be an important source of soft power, its sources need not always be soft. Military capacity can also contribute to it. See, for example, Ross (2006).

<sup>65</sup>In the case of Europe, further political integration that brings a common foreign policy into the eurozone appears necessary for enhancement of its international political power.

<sup>66</sup>In 2010, US military spending accounted for 43% of that of the world as a whole, while that of China accounted for only 7% (SIPRI 2011).

### Conclusions

The international monetary system shapes the world political as well as economic order, by affecting the political and economic relationships among countries. The study of international currencies, which influence the characteristics of the international monetary system, is thus vital for understanding the establishments of and changes in these world orders. To this end, this paper has offered a systematic review of the literature on international currencies, with the main aim of providing a solid stepping stone for development of a better analytical framework for the study of international currency standing.

This study has also presented a provisional outlook for the international monetary order, anticipating that it may shift to an uneven multiple international currency system in which the euro and the renminbi play the roles of regional currency in Europe and Asia, respectively, limiting the dollar's influence in those regions, but the dollar remains as the first international currency globally. Further development of our understanding of international currencies will of course help to make such forecasts more reliable. In this regard, this study has highlighted, among others, four political economy issues—domestic groups' preferences regarding currency internationalization, financial liberalization, the role of the state, and international political power—as salient factors needing further research. The study of these issues is expected to add considerable depth to our understanding of the *dynamics* of international monetary order change.

The ongoing Chinese experiment in internationalization of the renminbi is certainly a remarkable case for this study. Yet, revisiting important historical cases—such as the rise of the dollar as the leading international currency in the 1910s and 1920s, its temporary loss of that international status in the 1930s and regaining of it after World War II, the failure of internationalization of the yen, etc.—may also generate valuable insights to this topic of study.

### References

- AIZENMAN, JOSHUA, AND GURNAIN KAUR PASRICHA. (2010) Selective Swap Arrangements and the Global Financial Crisis: Analysis and Interpretation. *International Review of Economics and Finance* 19: 353–365.
- ALIBER, ROBERT Z. (1964) The Costs and Benefits of the U.S. Role as a Reserve Currency Country. *Quarterly Journal of Economics* 78: 442–456.
- ANDERLINI, JAMIL, AND TRACY ALLOWAY. (2011) Trade Reveal China Shift from Dollar. *Financial Times*, June 20.
- ANDREWS, DAVID M. Ed. (2006) *International Monetary Power*. Ithaca, NY: Cornell University Press.
- BARLOW, JONATHAN. (2011a) The Great Renminbi Guessing Game. *FinanceAsia*, April 26.
- BARLOW, JONATHAN. (2011b) China Focus: The Future of Renminbi Trade. *FinanceAsia*, June 14.
- BERGSTEN, C. FRED. (2009a) The Dollar and the Deficits: How Washington Can Prevent the Next Crisis. *Foreign Affairs* 88: 20–38.
- BERGSTEN, C. FRED. (2009b) We Should Listen to Beijing's Currency Idea. *Financial Times*, April 8.
- BERGSTEN, C. FRED. (2011) Why the World Needs Three Global Currencies. *Financial Times*, February 15.
- BOWLES, PAUL, AND BAOTAI WANG. (2008) The Rocky Road Ahead: China, the US and the Future of the Dollar. *Review of International Political Economy* 15: 335–353.
- BROZ, J. LAWRENCE. (1997) *The International Origins of the Federal Reserve System*. Ithaca, NY: Cornell University Press.
- CALLEO, DAVID P. (2009) Twenty-First Century Geopolitics and the Erosion of the Dollar Order. In *The Future of the Dollar*, edited by Eric Helleiner and Jonathan Kirshner. Ithaca, NY: Cornell University Press.
- CHEN, XIAOLI, AND YIN-WONG CHEUNG. (2011) Renmini Going Global. *China & World Economy* 19: 1–18.
- CHINN, MENZIE, AND JEFFREY A. FRANKEL. (2007) Will the Euro Eventually Surpass the Dollar as Leading International Reserve Currency? In *G7 Current Account Imbalances: Sustainability and Adjustment*, edited by Richard H. Clarida. Chicago, IL: University of Chicago Press.

- CHINN, MENZIE, AND JEFFREY A. FRANKEL. (2008) *The Euro May over the Next 15 Years Surpass the Dollar as Leading International Currency*. NBER Working Paper No. 13909. Cambridge, MA: National Bureau of Economic Research.
- COHEN, BENJAMIN H. (2005) Currency Choice in International Bond Issuance. *BIS Quarterly Review* June: 53–66.
- COHEN, BENJAMIN J. (1971) *The Future of Sterling as an International Currency*. London: Macmillan.
- COHEN, BENJAMIN J. (1998) *The Geography of Money*. Ithaca, NY: Cornell University Press.
- COHEN, BENJAMIN J. (2006) The Macrofoundations of Monetary Power. In *International Monetary Power*, edited by David M. Andrew. Ithaca, NY: Cornell University Press.
- COHEN, BENJAMIN J. (2009a) Currency and State Power. Paper presented at conference to honor Stephen D. Krasner, Standard University, December 4–5.
- COHEN, BENJAMIN J. (2009b) Dollar Dominance, Euro Aspirations: Recipe for Discord? *Journal of Common Market Studies* 47: 741–766.
- COHEN, BENJAMIN J. (2009c) The Future of Reserve Currencies. *Finance & Development* 46: 26–29.
- COHEN, BENJAMIN J. (2009d) Toward a Leaderless Currency System. In *The Future of the Dollar*, edited by Eric Helleiner and Jonathan Kirshner. Ithaca, NY: Cornell University Press.
- COOKSON, ROBERT. (2010) Banks Back Switch to Renminbi for Trade. *Financial Times*, August 26.
- COOPER, RICHARD N. (2009) *The Future of the Dollar*. Policy Brief No. PB09-21. Washington, DC: Peterson Institute for International Economics.
- COOPER, RICHARD N. (2010) Does the SDR Have a Future? *Journal of Globalization and Development* 1: Article 11.
- D'ARISTA, JANE. (2009) The Evolving International Monetary System. *Cambridge Journal of Economics* 33: 633–652.
- DOBBS, RICHARD, DAVID SKILLING, WAYNE HU, SUSAN LUND, JAMES MANYIKA, AND CHARLES ROXBURGH. (2009) An Exorbitant Privilege? Implications of Reserve Currencies for Competitiveness. Discussion Paper. McKinsey Global Institute.
- DOBSON, WENDY, AND PAUL R. MASSON. (2009) Will the Renminbi Become a World Currency? *China Economic Review* 20: 124–135.
- DOOLEY, MICHAEL P., DAVID FOLKERTS-LANDAU, AND PETER GARBER. (2004) The Revived Bretton Woods System. *International Journal of Finance and Economics* 9: 307–313.
- DOOLEY, MICHAEL P., DAVID FOLKERTS-LANDAU, AND PETER GARBER. (2009) Bretton Woods II Still Defines the International Monetary System. *Pacific Economic Review* 14: 297–311.
- ECB (EUROPEAN CENTRAL BANK). (2010) *The International Role of the Euro*. Frankfurt: European Central Bank.
- EICHENGREEN, BARRY. (1996) *Globalizing Capital: A History of the International Monetary System*. Princeton, NJ: Princeton University Press.
- EICHENGREEN, BARRY. (2005) *Sterling's Past, Dollar's Future: Historical Perspectives on Reserve Currency Competition*. NBER Working Paper No. 11336. Cambridge, MA: National Bureau of Economic Research.
- EICHENGREEN, BARRY. (2009a) The Dollar Dilemma: The World's Top Currency Faces Competition. *Foreign Affairs* 88: 59–68.
- EICHENGREEN, BARRY. (2009b) Stress Test for the Euro. *Finance & Development* 46: 19–21.
- EICHENGREEN, BARRY. (2010) Managing a Multiple Reserve Currency World. In *The Future Global Reserve System: An Asian Perspective*, edited by Jeffrey D. Sachs, Masahiro Kawai, Jong-Wha Lee, and Wing Thy Woo. Manila: Asian Development Bank.
- EICHENGREEN, BARRY. (2011a) *Exorbitant Privilege: The Rise and Fall of the Dollar and the Future of the International Monetary System*. Oxford: Oxford University Press.
- EICHENGREEN, BARRY. (2011b) Why the Dollar's Reign Is Near an End. *Wall Street Journal*, March 2.
- EICHENGREEN, BARRY, AND MARC FLANDREAU. (2008) *The Rise and Fall of the Dollar, or When Did the Dollar Replace Sterling as the Leading Reserve Currency?* CEPR Discussion Paper No. 6869. London: Center for Economic Policy Research.
- FERGUSON, NIALL. (2009) "Chimerica" Is Headed for Divorce. *Newsweek*, August 15.
- FINANCIAL TIMES. (2010) Mending Fences in Beijing and Tokyo. September 14.
- FLANDREAU, MARC, AND CLEMENS JOBST. (2009) The Empirics of International Currencies: Network Externalities, History and Persistence. *Economic Journal* 119: 643–664.
- FRANK, ELLEN. (2003) The Surprising Resilience of the US Dollar. *Review of Radical Political Economy* 35: 248–254.
- GENBERG, HANS. (2010) The Calculus of International Currency Use. *Central Banking* 20: 63–68.
- GOLDBERG, LINDA S., AND CEDRIC TILLE. (2005) *Vehicle Currency Use in International Trade*. NBER Working Paper No. 11127. Cambridge, MA: National Bureau of Economic Research.

- GRIMES, WILLIAM W. (2003) Internationalization of the Yen and the New Politics of Monetary Insulation. In *Monetary Orders: Ambiguous Economics, Ubiquitous Politics*, edited by Jonathan Kirshner. Ithaca, NY: Cornell University Press.
- HABIB, MAURIZIO MICHAEL, AND MARK JOY. (2008) *Foreign-Currency Bonds: Currency Choice and the Role of Uncovered and Covered Interest Parity*. ECB Working Paper No. 947. Frankfurt: European Central Bank.
- HE, DONG, AND ROBERT N. MCCAULEY. (2010) *Offshore Markets for the Domestic Currency: Monetary and Financial Stability Issues*. BIS Working Paper No. 320. Basel: Bank for International Settlements.
- HELLEINER, ERIC. (1999) State Power and the Regulation of Illicit Activity in Global Finance. In *The Illicit Global Economy and State Power*, edited by H. Richard Friman and Peter Andreas. New York, NY: Rowman and Littlefield.
- HELLEINER, ERIC. (2003) Dollarization Diplomacy: US Policy towards Latin America Coming Full Circle? *Review of International Political Economy* 10: 406–429.
- HELLEINER, ERIC. (2006) Below the State: Micro-Level Monetary Power. In *International Monetary Power*, edited by David M. Andrews. Ithaca, NY: Cornell University Press.
- HELLEINER, ERIC. (2008) Political Determinants of International Currencies: What Future for the US Dollar? *Review of International Political Economy* 15: 354–378.
- HELLEINER, ERIC. (2009) Enduring Top Currency, Fragile Negotiated Currency: Politics and the Dollar's International Role. In *The Future of the Dollar*, edited by Eric Helleiner and Jonathan Kirshner. Ithaca, NY: Cornell University Press.
- HELLEINER, ERIC, AND JONATHAN KIRSHNER. (2009a) The Future of the Dollar: Whither the Key Currency? In *The Future of the Dollar*, edited by Eric Helleiner and Jonathan Kirshner. Ithaca, NY: Cornell University Press.
- HELLEINER, ERIC, AND JONATHAN KIRSHNER, Eds. (2009b) *The Future of the Dollar*. Ithaca, NY: Cornell University Press.
- HENNING, C. RANDALL. (2005) *The Exchange Rate Weapon, Macroeconomic Conflict and Shifting Structure of the Global Economy*. EUI Working Paper RSCAS No. 2005/11. Florence: European University Institute.
- HIRSCHMAN, ALBERT O. (1980) *National Power and the Structure of Foreign Trade*. Berkeley: University of California Press.
- IMF (INTERNATIONAL MONETARY FUND). (2010) *Reserve Accumulation and International Monetary Stability: Supplementary Information*. Washington, DC: IMF.
- JAMES, HAROLD. (2009) The Enduring International Preeminence of the Dollar. In *The Future of the Dollar*, edited by Eric Helleiner and Jonathan Kirshner. Ithaca, NY: Cornell University Press.
- KANNAN, PRAKASH. (2009) On the Welfare Benefits of an International Currency. *European Economic Review* 53: 588–606.
- KATADA, SAORI N. (2008) From a Supporter to a Challenger? Japan's Currency Leadership in Dollar-Dominated East Asia. *Review of International Political Economy* 15: 399–417.
- KENEN, PETER B. (1983) *The Role of the Dollar as an International Currency*. Occasional Papers No. 13. New York: Group of Thirty.
- KENEN, PETER B. (2002) The Euro Versus the Dollar: Will There Be a Struggle for Dominance? *Journal of Policy Modeling* 24: 307–314.
- KENEN, PETER B. (2009) *Currency Internationalization: An Overview*. BIS Research Paper. Basel: Bank for International Settlements.
- KENEN, PETER B. (2010) Reforming the Global Reserve Regime: The Role of a Substitution Account. *International Finance* 13: 1–23.
- KINDLEBERGER, CHARLES P. (1967) *The Politics of International Money and World Language*. Essays in International Finance No. 61. Princeton, NJ: Princeton University.
- KIRSHNER, JONATHAN. (1995) *Currency and Coercion: The Political Economy of International Monetary Power*. Princeton, NJ: Princeton University Press.
- KIRSHNER, JONATHAN. (2008) Dollar Primacy and American Power: What's at Stake? *Review of International Political Economy* 15: 418–438.
- KIRSHNER, JONATHAN. (2009) After the (Relative) Fall: Dollar Diminution and the Consequences for American Power. In *The Future of the Dollar*, edited by Eric Helleiner and Jonathan Kirshner. Ithaca, NY: Cornell University Press.
- KIRSHNER, JONATHAN, AND RAWI ABDELAI. (1999/2000) Strategy, Economic Relations, and the Definition of National Interests. *Security Studies* 9: 119–156.
- KRASNER, STEPHEN D. (1976) State Power and the Structure of International Trade. *World Politics* 28: 317–347.



- KRUGMAN, PAUL. (1984) The International Role of the Dollar: Theory and Prospect. In *Exchange Rate Theory and Practice*, edited by John Bilson and Richard Marston. Chicago, IL: University of Chicago Press.
- KRUGMAN, PAUL. (2010a) The Euro Trap. *The New York Times*, April 30.
- KRUGMAN, PAUL. (2010b) The Making of a Euromess. *The New York Times*, February 15.
- LARDY, NICHOLAS, AND PATRICK DOUGLASS. (2011) *Capital Account Liberalization and the Role of the Renminbi*. Working Paper WP 11-6. Washington, DC: Peterson Institute for International Economics.
- LEE, CHI-HUN. (2011) *Recent Progress in the Internationalization of the Renminbi*. Seoul: Korea Center for International Finance (in Korean). Available at <http://www.kcif.or.kr>. (Accessed March 23, 2011.)
- LEE, JONG-WHA. (2010) Will the Renminbi Emerge as an International Reserve Currency? Asian Development Bank. Available at <http://aric.adb.org/grs/report.php?p=Lee>. (Accessed April 16, 2011.)
- LIM, EWE-GHEE. (2006) *The Euro's Challenge to the Dollar: Different Views from Economists and Evidence from COFER (Currency Composition of Foreign Exchange Reserves) and Other Data*. IMF Working Paper WP/06/153. Washington, DC: International Monetary Fund.
- MCKINNON, RONALD. (2009) US Current Account Deficits and the Dollar Standard's Sustainability: A Monetary Approach. In *The Future of the Dollar*, edited by Eric Helleiner and Jonathan Kirshner. Ithaca, NY: Cornell University Press.
- MCMANARA, KATHLEEN R. (2008) A Rivalry in the Making? The Euro and International Monetary Power. *Review of International Political Economy* 15: 439–459.
- MEISSNER, CHRISTOPHER M., AND NENKE OOMES. (2008) *Why Do Countries Peg the Way They Peg? The Determinants of Anchor Currency Choice*. IMF Working Paper WP/08/132. Washington, DC: International Monetary Fund.
- MUNDELL, ROBERT A. (1993) *EMU and the International Monetary System: A Transatlantic Perspective*. Working Paper No. 13. Vienna: Austrian National Bank.
- OAKLEY, DAVID, PATRICK JENKINS, AND QUENTIN PEEL. (2011) Euro Rescue Deal Fails to Dispel Fears. *Financial Times*, July 22.
- OCAMPO, JOSE ANTONIO. (2010) Building an SDR-Based Global Reserve System. *Journal of Globalization and Development* 1: Article 14.
- PARK, YUNG CHUL. (2010) RMB Internationalization and Its Implications for Financial and Monetary Cooperation in East Asia. *China & World Economy* 18: 1–21.
- ROSS, ROBERT S. (2006) Balance of Power Politics and the Rise of China: Accommodation and Balancing in East Asia. *Security Studies* 15: 355–395.
- SALANT, WILLIAM A. (1964) The Reserve Currency Role of the Dollar: Blessing or Burden to the United States? *Review of Economics and Statistics* 46: 165–172.
- SIPRI (STOCKHOLM INTERNATIONAL PEACE RESEARCH INSTITUTE). (2011) *SIPRI Yearbook 2011: Armaments, Disarmament and International Security*. Oxford: Oxford University Press.
- STRANGE, SUSAN. (1971) *Sterling and British Policy: A Political Study of an International Currency in Decline*. London: Oxford University Press.
- STRANGE, SUSAN. (1988) *States and Markets*. London: Pinter Publication.
- SUBACCHI, PAOLA. (2010) “One Currency, Two Systems”: China’s Renminbi Strategy. Briefing Paper IE BP 2010/11. London: Chatham House.
- TAVLAS, GEORGE S. (1991) *On the International Use of Currencies: The Case of the Deutsche Mark*. Essays in International Finance No. 181. Princeton, NJ: Princeton University.
- TAVLAS, GEORGE S., AND YUZURU OZEKI. (1992) *The Internationalization of Currencies: An Appraisal of the Japanese Yen*. IMF Occasional Paper No. 90. Washington, DC: International Monetary Fund.
- THE ECONOMIST. (2011a) The Euro Crisis: If Greece Goes.... June 25.
- THE ECONOMIST. (2011b) The Euro’s Surprising Resilience: In Sickness and Wealth. June 25.
- THE ECONOMIST. (2011c) America’s Credit Rating: Wakey, Wakey. April 23.
- THE ECONOMIST. (2011d) The Debt Ceiling Deal: Nuts and Bolts. August 1.
- THIMANN, CHRISTIAN. (2009) *Global Roles of Currencies*. ECB Working Paper No. 1031. Frankfurt: European Central Bank.
- TRUMAN, EDWIN M., AND ANNA WONG. (2006) *The Case for an International Reserve Diversification Standard*. Working Paper 06-2. Washington, DC: Peterson Institute for International Economics.
- UNITED NATIONS. (2009) Report of the Commission of Experts of the President of the United Nations General Assembly on Reforms of the International Monetary and Financial System. Available at [http://www.un.org/ga/president/63/commission/financial\\_commission.shtml](http://www.un.org/ga/president/63/commission/financial_commission.shtml). (Accessed March 2, 2011.)



- WALTER, ANDREW. (2006) Domestic Sources of International Monetary Leadership. In *International Monetary Power*, edited by David M. Andrews. Ithaca, NY: Cornell University Press.
- WILLIAMSON, JOHN. (2009) *Why SDRs Could Rival the Dollar*. Policy Brief PB09-20. Washington, DC: Peterson Institute for International Economics.
- WOLF, MARTIN. (2011) Why the Eurozone Will Survive. *Financial Times*, March 8.
- WRIGHT, RANDALL, AND ALBERTO TREJOS. (2001) International Currency. *Advances in Macroeconomics* 1: Article 3.
- WU, FRIEDRICH. (2009) The Renminbi Challenge. *The International Economy* Fall 32–35, 53.
- WU, FRIEDRICH, RONGFANG PAN, AND DI WANG. (2010) Renminbi's Potential to Become a Global Currency. *China & World Economy* 18: 63–81.
- XINHUA NEWS. (2011) RMB Capital Account Liberalization to Be Achieved in Five Years: Forex Chief. January 18.
- YEANDLE, MARK. (2010) The Global Financial Centres Index 8. Z/Yen Group. Available at <http://www.zyen.com/PDF/GFCI%208.pdf>. (Accessed September 20, 2010.)
- ZHANG, MING. (2009) China's New International Financial Strategy amid the Global Financial Crisis. *China & World Economy* 17: 22–35.
- ZHOU, XIAOCHUAN. (2009) Reform the International Monetary System. People's Bank of China. Available at <http://www.bis.org/review/r090402c.pdf>. (Accessed May 5, 2010.)