Peterson Institute for International Economics

Policy Brief

NUMBER PB09-21

SEPTEMBER 2009

The Future of the Dollar

Richard N. Cooper

Richard N. Cooper has been the Maurits C. Boas Professor of International Economics at Harvard University since 1981 and is chairman emeritus of the Advisory Committee of the Peterson Institute for International Economics. He was chairman of the National Intelligence Council (1995–97); chairman of the Federal Reserve Bank of Boston (1990–92); undersecretary of state for economic affairs (1977–81); deputy assistant secretary of state for international monetary affairs (1965–66); the Frank Altschul Professor of International Economics (1966–77), provost (1972–74), and assistant professor (1963–65) at Yale University; and senior staff economist at the Council of Economic Advisers (1961–63).

Note: An earlier version of this policy brief was presented at a conference in Seoul on June 1, 2009, sponsored by the Asian Development Bank Institute and the Northeast Asia Research Foundation.

The US dollar is not the world's key currency by policy design, just as English is not the leading global language by policy design. It is the evolutionary outcome of practice and experience. It would take both a major shock to the dollar and a viable alternative to dislodge it from widespread use. Like a common language, the dollar enjoys "network externalities"—the greater the number of people who use and accept it, the more useful it is to everyone, and the more entrenched it becomes. Also, what is not quite the same thing, the dollar enjoys a large market in low-risk and highly liquid securities, most notably US Treasury bills; the liquidity both enhances and is enhanced by the network externalities. Most of the world's foreign exchange transactions directly involve the US dollar. It is easy to hold and easy to use, even on a large scale. In short, it is highly convenient.

The dollar, however, has a disadvantage as a store of value in that its purchasing power is not constant (a concept that is itself ambiguous and varies from country to country). It shares this disadvantage with all other national currencies, and indeed over the past half century few countries have had a lower rate of inflation than the United States. Moreover, interest rates on securities should, over time, compensate for any persistent decline in purchasing power, especially (in the case of the US dollar) from a US perspective; indeed, they may overcompensate in terms of internationally traded goods and services insofar as their prices rise less rapidly than US domestic consumer prices.

A major change in these conditions could in time undermine confidence in the US dollar as a store of value. Erosion of its role as a temporary store of value would eventually reduce its role as a currency for transactions, although the two functions need not evolve in lock-step.

Are there feasible alternatives to the US dollar as a widely used international currency? Two categories come to mind: a currency in actual use, such as the euro, the yen, the British pound, or even (as Nouriel Roubini has recently suggested) the Chinese yuan; and a synthetic currency designed for the purpose, of which the special drawing rights (SDRs) is currently the leading candidate, as recently hinted by Governor Zhou Xiaochuan of the People's Bank of China. I discuss each of these alternatives below.

OTHER MAJOR CURRENCIES AS ALTERNATIVES TO THE US DOLLAR

The euro was created legally in 1999 and began to circulate as currency in 2002. It has now replaced national currencies in 16 countries; it is widely used in EU members that have not yet formally adopted it but are committed to doing so and in a number of would-be members of the European Union. Debt outstanding in 1998 was converted into euros, and since then participants in euroland have issued debt denominated in euros. The euro-based capital market has evolved greatly in the past decade.

Despite great progress, the euro capital market is still quite fragmented, with varying degrees of liquidity depending on the security. Holders of international reserves cannot hold euros; they have to hold euro-denominated securities, and the type of security makes a great deal of difference. The

Table 1 Government debt securities, September 2008 (billions of dollars)

Country	Total	Maturity under one year
Japan	7,890	2,327
United States	7,323	2,125
Italy	1,807	412
Germany	1,442	266
China	1,406	780
France	1,377	329
United Kingdom	843	105
Canada	708	150
Spain	514	118

Source: Bank for International Settlements.

most prevalent euro-denominated government securities are those issued by the Italian government, with $1.8 trillion outstanding at the end of September 2008 (see table 1). Many central banks would hesitate to hold such securities, since Italian public debt exceeds GDP and the Italian government is not known for budgetary discipline or efficiency. German government debt outstanding was $1.4 trillion at the end of September 2008. But Germany over the years has had an aversion to short-term debt, so only $266 billion of this debt had a maturity under one year. Moreover, German buyers tend to hold to maturity, so the secondary market is much less developed than it is in the United States or the United Kingdom, and German bonds are correspondingly less liquid. Table 1 also reports the smaller amounts of euro-denominated government debt of France and Spain, the next two largest issuers in euroland. So while in total there is much outstanding euro-denominated public debt, the market is more fragmented and much less liquid than the market in US government securities, which in September 2008 totaled $7.3 trillion, including $2.1 trillion of short-term debt.

The secondary market is much better developed in the United Kingdom, but the amount of pound-denominated British government debt at $0.8 trillion is significantly smaller than the debt of the larger euroland countries. Canada has a somewhat smaller and less developed market than the United Kingdom.

Japan has extensive government debt, at $7.9 trillion, even more than the United States, and $2.3 trillion of this debt is short-term. There are three potential problems with Japanese securities as a basis for an international currency. First, the yield has been exceptionally low, below 1 percent on short-term securities, during most of the past two decades. Second, while Japan has a relatively free market in public debt, it has a strong tradition of "guidance" by the Ministry of Finance, and this tradition has not entirely vanished. Foreigners might worry about new guidance that would limit their freedom of action and even discriminate against them in favor of domestic holders. Third, among rich countries, Japan has the highest ratio of debt to GDP, well over 100 percent. This does not pose a financing problem with interest rates as low as they have recently been, but it might do so in the future, particularly in view of the rapid aging of Japanese society (which I discuss further below).

China has almost as much government debt outstanding as Germany, $1.4 trillion, and over half of it is short term. China's fiscal policy has been conservative, and the debt to GDP ratio is moderate at about 40 percent. But the Chinese capital market, including that for government securities, is not well developed; most purchasers hold until maturity. Foreigners at present do not have access to Chinese government securities at all, and the Chinese currency is not convertible for capital account transactions. Thus the yuan is not suitable for being an international currency at present. All that could change in the next few decades. Indeed, among the many objectives of China's government are a much improved capital market and a fully convertible currency. But China's financial system requires many improvements before these objectives can be securely achieved, and these improvements are not likely to take place quickly.

I conclude that, essentially on technical (market) grounds, none of the other leading currencies in the world today is ready to replace the US dollar in its international role. The international role of the euro is likely to increase in the coming decade as non-euroland members of the European Union and aspiring candidates increasingly use euros in their transactions with euroland countries—for invoicing, payment, and holding international balances. Other countries closely linked economically to Europe, such as Morocco, Tunisia, and perhaps Egypt, are likely to do the same. But this increasing use of the euro is not likely to displace the dollar at the global level. In a growing world economy, there is room for the euro to increase its share in reserve holdings even while the value of dollar holdings continues to rise. For diverse perspectives on the future of the euro, see Pisani-Ferry and Posen (2009).

Moreover, on current benign projections for the world economy, the shares of Europe and Japan are likely to fall significantly over the next two decades, largely for demographic reasons (Cooper 2008). Both parts of the world have low birth rates and are aging rapidly. The share of the United States, in contrast, will decline only modestly, due to higher birth rates and continued significant immigration, while those of China and other developing countries will grow significantly. Thus the relative importance of Europe and Japan as trading destinations will gradually decline as that of successful developing

countries increases, while the United States continues to be by far the largest national economy, with only slight decline in share.

For all these reasons, and assuming the United States continues to manage its monetary and fiscal affairs in a reasonable fashion and the US capital market remains open, the dollar is not likely to be seriously displaced.

A SYNTHETIC CURRENCY AS AN ALTERNATIVE

What about the other possibility, a synthetic currency displacing the US dollar in its international role, as a matter of conscious and deliberate collective action? This possibility, suggested by Governor Zhou of China's central bank in the spring of 2009, could be achieved by substantially augmenting the role of the SDR, a synthetic unit of account of the International Monetary Fund (IMF) defined in terms of four currencies: the US dollar, the euro, the Japanese yen, and the British pound. What is not generally known is that such a move has been an official objective of the international community since 1978, as stated in the second amendment to the IMF's Articles of Agreement: members shall conduct their policies with respect to reserve assets consistent with "the objectives of promoting better international surveillance of international liquidity and *making the special drawing right the principal reserve asset in the international monetary system*" (Article VIII.7, emphasis added).

The issues here are conceptual, practical, and (if I may say so) aesthetic. The conceptual issues concern the net gains that may be expected to accrue to the world at large from creating a man-made international currency, compared with the current nonsystematic practices, relying mainly on the US dollar. I will not review these gains in this brief, except to say that they are not completely obvious. Most of these gains will not occur without other important changes in the functioning of the international financial system, including international engagement in the role of national exchange rate policies, where changes would, if anything, be more controversial than achieving wide acceptance of a synthetic international currency.

The aesthetic issue concerns largely the offense that some observers take at having a national currency play the leading international role: It creates an asymmetry in a system that at least formally and legally (as in the United Nations Charter and most other international treaties) treats all nations as equal. It also appears to give special privileges to the nation whose currency is used. I discuss this issue further below.

Most of the issues are practical, in principle solvable but often with difficulty and with undesirable and perhaps unacceptable side effects. One practical matter concerns the principles that would govern issuance of the synthetic currency, including who exactly would decide. SDR creation under existing IMF arrangements involves a quinquennial evaluation of whether the world economy needs additional liquidity and a decision by IMF governors (essentially the finance ministers of the world) by an 85-percent-weighted vote (which gives the United States and the members of the European Union taken together effective veto power) on when and how much. Until 2009, only two successful issuances had been decided, in the late 1960s and in the late 1970s, for a total of SDR 22 billion. A third, involving distribution to new members such as China and Russia, was decided in principle some years ago but implemented only in 2009, as was a new allocation worth $250 billion in response to the 2008–09 global financial and economic crisis. Many transactions in SDRs are in fact between national monetary authorities and the IMF itself. This arrangement is unnecessarily cumbersome and time-consuming if the SDR is to become a truly international currency.

International use of the euro will grow, perhaps even more rapidly than that of the dollar for some years, but…it is not likely to displace the dollar.

Only national monetary authorities, the IMF, and selected designated institutions such as the World Bank and the Bank for International Settlements can use SDRs as currently constituted. Private parties outside the United States account for most holdings of US dollars, and financial markets are operated by and largely for private parties, with governments and central banks taking advantage of them. If the SDR were to become a truly international currency, it would have to be made accessible to private parties, or else the modus operandi of international financial relations would have to be radically revised. This applies to holdings of and payments in SDRs. Nothing prevents transactors in many countries today from using the SDR as a unit of account in their transactions with foreigners. The SDR is priced daily, indeed hourly, in terms of other currencies, so there is no ambiguity about its value at any moment. That it is not used widely suggests either that inertia in human behavior is very high, however irrational that may be, or that transactors see no compelling reason to shift to SDRs from dollars or whatever currency they may be using.

A third practical issue is, what would become of all the US dollars held in both private and official balances if the

SDR (or some other synthetic unit) replaced the US dollar? One approach would be to leave them and substitute SDRs through incremental growth, such that the US dollar (and other national currencies now held abroad) would gradually recede in relative importance, without any formal displacement. Given the amount of foreign balances held today (over $5 trillion in official reserves alone), it would take a very long time for the SDR to become the predominant reserve asset through such an approach—and perhaps it would never predominate in private balances, unless the process were forced in some way.

A deliberate international decision to create an alternative global currency could displace the dollar, but that task would confront formidable practical difficulties.

An alternative approach would involve the creation of a "substitution account" (Kenen 1981), whereby at least official holders and perhaps even private holders of dollars and other currencies would exchange their holdings for an equivalent value of SDRs. The question then arises, what would become of the dollars and other national currencies received in this arrangement—e.g., by the IMF or by an institution created for the purpose? Would they be held forever or amortized at some agreed rate? If they were amortized, what would be the implications for the world economy of both the United States and Europe having to run surpluses with no obvious counterpart deficits? And would the obligors promise to maintain their SDR value? The latter condition would be a show-stopper for the United States, since no Congress would provide an unconditional guarantee of value for assets that, though issued by the US government, were issued in US dollars and voluntarily acquired by foreign parties.

Identifying the practical problems that would have to be resolved in creating a synthetic international currency is useful, since it suggests that the gains from such a move would have to be sufficiently substantial to drive governments to try to solve those problems.

But it may be asked, won't the US response to the current financial and economic crisis result in such a large public debt that the viability of the dollar as an international currency, and the willingness to hold it, comes into doubt? Such an outcome is possible but highly unlikely. It is unlikely because, messy as the US decision-making process is, the United States has so far not been fiscally indisciplined and is not likely to be in the future. The current borrowing needs are very large, partly to finance a recession-induced budget deficit augmented by a fiscal stimulus package and partly to finance support to financial institutions whose viability has been impaired by the financial crisis. The latter financing involves purchases of financial assets, many of which will have significant value when the government support is unwound, so they will result in a substantial reduction of the budget deficit in future years (although exactly when and by how much is not yet known). The public debt will grow relative to GDP. But most other countries are also running substantial budget deficits and will also be adding to their outstanding debt, which relative to GDP is typically higher than that of the United States. And other rich countries are aging more rapidly and have problems of unfunded public entitlements that are comparable to or even worse than those in the United States. Thus in relative terms the financial position of the United States will not worsen significantly.

Some are concerned about the possibility of much higher inflation in the United States. This will not be a problem for the next several years. To be sure, the Federal Reserve has added significantly to its liabilities, so it must have an "exit strategy" as the economy and especially financial markets return to normal. But developing such a strategy is not a formidable technical problem and is being worked on now. Again, in the international context, a comparative perspective must be borne in mind; other countries face similar challenges. The SDR, incidentally, does not address the issue of inflation; since it is a synthetic unit of four currencies, the erosion of the real value of the SDR will correspond to the erosion of the real value of the component currencies, weighted appropriately. Some people have suggested that a new international unit of account and store of value should for this reason not be linked to any currency, and gold has been offered as a candidate. This is not the place to review the compelling disadvantages of the gold standard, both conceptually and in practice (Cooper 1982, 1986). Suffice it to say its "disciplines" would be politically unacceptable in today's world.

BENEFITS AND COSTS TO THE ISSUER FROM INTERNATIONAL USE OF ITS CURRENCY

A word should be said about the alleged gains that accrue to the United States as issuer of the national currency that is widely used internationally—what Charles de Gaulle in the Bretton Woods days of fixed exchange rates called an "exorbitant privilege." I have always thought the net benefits, usually unspecified but as in de Gaulle's expression implied to be large, were greatly exaggerated.

The gains usually mentioned are three: seigniorage, ease of financing budget (and possibly other) deficits, and employment and profits in the financial market. Seigniorage arises from the difference between the face value of a unit of currency and its cost of production. It is entirely true that the United States benefits from seigniorage on the estimated $380 billion of greenbacks (currency notes) held around the world: Americans received goods and services or assets for them and pay no interest on them. But notes are a small part of the international holdings of the dollar. Most dollar assets owned abroad pay an interest rate in competition with interest rates on other financial assets, denominated in either dollars or other currencies. The interest rate on Treasury bills is no doubt lower than otherwise because of the high liquidity of those instruments. The high liquidity is due in part, but only in part, to foreign demand for them. Lately some economists have suggested that Americans gain from the equity premium, being able to borrow at low interest rates from foreigners and investing in higher-yield equities. It is entirely true that America earns more on its foreign investments than it pays on its (larger) foreign liabilities and that this difference in significant measure is explained by the much higher fraction of equity in assets than in liabilities. But anyone who is willing to take risk can benefit from the equity premium, and many individual foreigners (and perhaps sovereign wealth funds) do so. That gain arises from risk taking, not from seigniorage.

China is now stuck with its huge amount of dollar holdings for the foreseeable future; there is no low-cost way for China to disgorge them at its own initiative.

Having a larger potential clientele for one's government securities of course makes it easier to finance government deficits in normal times. It also means, however, that the government has to maintain the confidence of this larger and diverse clientele, especially in abnormal times.

International use of the dollar undoubtedly brings business to some US financial institutions. But the growth of London as the leading international financial center suggests that financial activity and the national origin of the currencies used are separate issues. London has adapted well to international use of the dollar, as it increasingly is to growing international use of the euro.

Moreover, against benefits must be set potential costs. Two come to mind. First, international opinion must be taken into account when framing economic policy, especially monetary policy, and international opinion may be more demanding than domestic opinion. (Of course, international opinion must be taken into account these days by any country that relies significantly on foreign capital, particularly foreign private capital, for its development; this is not a peculiarity of reserve-currency countries.)

Second, to the extent a currency's international role raises world demand for it, its value in terms of other currencies is enhanced, which makes producers in the country issuing that currency less competitive in world markets than they would otherwise be. For this reason alone, many Americans would actually welcome a diminished international role for the dollar.

CHINA AND THE US DOLLAR

A quite different but related question is sometimes asked, particularly by those concerned with US national security: With its extensive dollar holdings, could China (or any other country with large dollar holdings) destabilize the US financial system, or otherwise seriously harm the US economy, if it chose to use its dollar holdings as a weapon? The basic answer is negative, although it could cause transitory turbulence in particular markets. To see why, one must look at the actions that the Chinese (or whichever) government could actually take. There are broadly three possibilities. Since China still runs a balance of payments surplus, two of these possibilities can be framed in terms of what China does with its increased intake of dollars; analogous arguments apply to changes in China's outstanding holdings of dollars.

The first possibility is that China could simply stop intervening in the foreign exchange market to acquire additional dollars or any other currency. The consequence of such an action would be for the Chinese yuan to appreciate against the US dollar (and other currencies), reducing the competitiveness of China's exports in world markets. Since this is what many American economists (e.g., Goldstein and Lardy 2009) and more subtly the American government have been asking China to do for the past half decade, it hardly seems a good way to harm the United States—unless, as Ronald McKinnon (2006) and some others have argued, this has been an utterly misguided recommendation by these Americans.

The second possibility is that the Chinese could switch their foreign exchange intervention from dollars to euros or yen or some other currencies. So long as China is running a surplus, this change would lead to an appreciation of the euro or yen or other currencies, and possibly the yuan, against the US dollar. As noted, some appreciation of the yuan against the dollar would be generally welcome. In many periods, Americans, particularly manufacturers, might also welcome some depreciation of the

dollar against the other currencies. But this development would be distinctly unwelcome, especially at the current time, by Europe and Japan, both of which would make their displeasure known to the Chinese. If the yen dropped below 90 per dollar, the Japanese authorities would likely resume their intervention (which ceased in spring 2004) in the foreign exchange market to prevent further appreciation of the yen. That is, Japan would replace China as the acquirer of dollar securities. European decision making is more complicated, but if the euro rose above $1.60 per euro, the European Central Bank (ECB) would likely ease monetary policy to reduce the upward pressure on the euro, leading investors around the world to acquire dollar- instead of euro-denominated securities, thereby substituting for the erstwhile Chinese purchases. If that did not suffice, the ECB might intervene directly in the foreign exchange market, thus acquiring dollar-denominated securities. In either case, the Europeans would complain vigorously to China about its acquisition of euros, since while the ECB formally takes a neutral position toward the use of euros as an international currency, it has actively discouraged Iceland and some Central European countries from adopting the euro, and it would not appreciate great appreciation of the euro against the dollar and other major currencies. The main point is that Americans are less sensitive to the exchange rate of the dollar than are export-dependent Japanese and Europeans, and their actions directly or indirectly would offset China's withdrawal from the market in dollar securities.

The third possible action is that China could change the composition of its large reserves from one dollar security to another. For example, it was widely believed (China does not release such details) that in 2007 China held large amounts of US agency securities. By selling these and buying US treasuries China could no doubt have temporarily disequilibrated the market for agency bonds without influencing any exchange rates. But of course once US authorities learned what the Chinese were doing, they could reverse it through their own actions—e.g., by selling treasuries and buying agency securities. And indeed this particular possibility has now disappeared with the virtual nationalization of Fannie Mae and Freddie Mac, the two agencies with large volumes of outstanding securities.

In short, having acquired large amounts of dollar securities, for practical (and self-interested) reasons, China is now stuck with them for the foreseeable future; there is no low-cost way for China to disgorge them at its own initiative.

CONCLUSION

To sum up, the US dollar is likely to remain the dominant international currency for many years, certainly the next decade and probably longer. Given its initial advantage of wide acceptance, no other currency seems likely to overtake it. International use of the euro will grow, perhaps even more rapidly than that of the dollar for some years, but because of limitations on issuers and financial markets, it is not likely to displace the dollar. In a growing world economy, there is room for both.

A deliberate international decision to create an alternative global currency could displace the dollar, but that task would confront formidable practical difficulties. The prospective gains from such a creation would have to be sufficiently great to make governments willing to overcome the practical difficulties and to adopt the complementary policies (mainly concerning exchange rates) that would be necessary to give a new international currency a compelling advantage over present arrangements.

REFERENCES

Cooper, Richard N. 1982. The Gold Standard: Historical Facts and Future Prospects. *Brookings Papers on Economic Activity* 1982; reprinted in *The International Monetary System*. Cambridge, MA: MIT Press, 1987.

Cooper, Richard N. 1986. A Monetary System Based on Fixed Exchange Rates. In *Alternative Monetary Regimes*, ed. C. Campbell and D. Dougan. Baltimore, MD: Johns Hopkins University Press.

Cooper, Richard N. 2008. Doubling Our World's Economy. *World Policy Journal* XXV (Fall).

Goldstein, Morris, and Nicholas R. Lardy. 2009. *The Future of China's Exchange Rate Policy.* Policy Analyses in International Economics 87. Washington: Peterson Institute for International Economics.

Kenen, Peter B. 1981. The Analytics of a Substitution Account. *Banca Nazionale del Lavoro Quarterly Review* no.139 (December): 403–426.

McKinnon, Ronald. 2006. Why China Should Keep its Exchange Rate Pegged to the Dollar: A Historical Perspective from Japan. Stanford University (October).

Pisani-Ferry, Jean, and Adam S. Posen, eds. 2009. *The Euro at Ten: The Next Global Currency?* Washington: Peterson Institute for International Economics.