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DOLLAR DOMINANCE, EURO ASPIRATIONS:
RECIPE FOR DISCORD?

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ABSTRACT

After nearly a century of dominance of the international monetary system, has the U.S. dollar finally met its match in the euro? When Europe's Economic and Monetary Union (EMU) came into existence in 1999, many observers predicted that the euro would soon join America's greenback at the peak of global finance. Achievements, however, have fallen short of aspiration. After an initial spurt of enthusiasm, international use of the euro actually appears now to be leveling off, even stalling, and so far seems confined largely to a limited range of market sectors and regions. The euro has successfully attained a place second only to the greenback – but it remains, and is likely to remain, a quite distant second without a determined effort by EMU authorities to promote their money's global role. The temptation will surely be great. In practical terms, it is difficult to imagine that EMU authorities will refrain entirely from trying to promote a greater role for the euro. But that, in turn, could turn out to be a recipe for discord with the United States, which has never made any secret of its commitment to preserving the greenback's worldwide dominance. A struggle for monetary leadership could become a source of sustained tensions in U.S.-European relations. Fortunately, however, there seems relatively little risk of a destabilizing escalation into outright geopolitical conflict.

After nearly a century of dominance of the international monetary system, has the U.S. dollar finally met its match in the euro? For many observers, the prospect has long been self-evident. Even before Europe's Economic and Monetary Union (EMU) came into existence in 1999, prominent economists such as George Alogoskoufis (later to become finance minister of Greece) and Richard Portes were predicting that "the fundamentals point toward a potentially large shift in favor of the euro" (Alogoskoufis and Portes 1997: 63). The new joint currency of the European Union (EU) could legitimately aspire to join America's greenback at the peak of global finance. Europe would become a new monetary power. Typical was the view of Nobel laureate Robert Mundell, who early on expressed no doubt that the euro "will challenge the status of the dollar and alter the power configuration of the system" (Mundell 2000: 57).

Achievements, however, have fallen short of aspiration. Admittedly, the euro has done well in exchange-rate terms. Its market value has soared from a low near $0.83 in mid-2002 to as high as $1.60 in mid-2008, before dropping back more recently. But exchange rates are at best an imperfect indicator of a currency's international standing. The real issue is not price but *use*: the extent to which the euro is being adopted by actors outside EMU for the standard functions of a medium of exchange, unit of account, or store of value. When it comes to international use, the shift in favor of Europe's money has, for the most part, been anything but large. After an initial spurt of enthusiasm, interest in the euro actually appears now to be leveling off, even stalling, and so far seems confined largely to a limited range of market sectors and regions. Not even a financial crisis as severe as this year's worldwide credit crunch, which began with the collapse of America's sub-prime mortgage market in mid-2007, has sufficed to tip global preferences away from the dollar.

In short, power configurations have changed much less than expected. The euro has successfully attained a place in international finance second only to the greenback – but it remains, and is likely to remain, a quite distant second. Without a determined effort by EMU authorities to promote their money's role, any challenge to the dollar can be expected to be modest at best.

Would Europe undertake such an effort? No one really knows, of course. But the temptation will surely be great. European policy makers understand the material benefits that would result from wider use of their currency. These include a sizable gain of seigniorage, which would accrue from increased foreign holdings of euros or euro-denominated assets, as well as a higher degree of macroeconomic flexibility that would derive from the ability to finance external deficits with Europe's own money. In practical terms, it is difficult to imagine that EMU authorities will refrain entirely from trying to encourage a greater role for the euro. But that, in turn, could turn out to be a recipe for discord with the United States, which has never made any secret of its commitment to preserving the greenback's worldwide dominance. An overt struggle for monetary leadership could become a source of sustained tensions in U.S.-European relations.

The purpose of this essay is two-fold – first, to review the euro's global performance to date; and second, to explore the implications of a possible leadership struggle for monetary dominance in the future. A careful look at a broad array of available data, spelled out in the first two sections of the essay, confirms the euro's limited achievements in most international uses, falling far short of enthusiasts' aspirations. A glimpse at prospects for the dollar-euro rivalry in the future, in the essay's final section, confirms the possibility of U.S.-European tensions but, happily, suggests little risk of a destabilizing escalation into outright geopolitical conflict.

THE BROAD PICTURE

Early forecasts for the euro's future were strikingly optimistic. A decade ago U.S. economist Fred Bergsten (1997) proclaimed emphatically that in terms of international use, the euro would achieve "full parity" with the greenback in as little as five to ten years. Alogoskoufis and Portes (1997) thought that it might even happen "immediately." In fact, however, nothing like that has yet come to pass. It is perhaps not surprising, therefore, that as the years have gone by, enthusiasts have grown more hesitant to set a date for the euro's ascendance. The most notable exceptions are Menzie Chinn and Jeffrey Frankel, who in successive econometric studies have daringly suggested that Europe's currency might overtake the dollar by 2022 (Chinn and Frankel 2007) or possibly even as early as 2015 (Chinn and Frankel 2008). But even that is a lot farther off than many were forecasting back when the euro was born. Enthusiasts still firmly believe that the euro is the currency of the future. But, frustratingly, the future keeps receding.

Even now, in the midst of the greatest financial crisis since the Great Depression, the dollar has retained its historical dominance. If ever there was an opportunity to tip preferences in favor of the euro, it should have been during the past year, following the sub-prime mortgage collapse in the United States. Very soon the soundness of America's entire monetary structure was thrown into question. One after another, venerable U.S. banking institutions fell into insolvency; whole classes of "toxic" securities become unsalable at any price; and the Treasury and Federal Reserve were forced into ever-broader interventions to keep the system afloat. Yet even at moments of greatest panic, market actors have looked to the greenback, not the euro, for safety. As the crisis has intensified in recent months, spreading to Europe and elsewhere, the dollar has actually risen sharply against the euro. Global demand for U.S. Treasury bills is so great that yields have fallen nearly to zero. The future of Europe's money, it seems, still lies out of reach.

A structural disadvantage

Will the future ever arrive? Of course it will, say the currency's fans. "The euro has the capacity to catch up," firmly asserts one source (Walter and Becker 2008: 10). Declares another: "To keep the euro down forever, you would need to rely on some rather far-fetched conspiracy theories" (Münchau 2008). Conspiracy theories, however, are hardly necessary to warrant a healthy dose of skepticism. A decade after the monetary union's birth, it is becoming increasingly clear that the obstacles to the euro's path are by no means trivial, as Paola Subacchi and I argued earlier this year in a Chatham House Briefing Paper (Cohen and Subacchi 2008). In fact, there are serious deficiencies inherent in the institutional design of EMU that are bound to limit the currency's appeal (Cohen 2003, 2008). The euro's handicaps include troubling ambiguities in EMU's governance structure – difficult to avoid when a single currency is jointly managed by more than one sovereign state – as well as a strong anti-growth bias built into the bloc's provisions for monetary and fiscal policy. As a rival to the dollar, Europe's money is at a distinct structural disadvantage.

The core problem is that the euro area – also referred to as the euro zone or the eurosystem – is an artificial construct, lacking the clear lines of authority traditionally associated with the management of money by a single national government. Though the bloc does have a central monetary agency, the European Central Bank (ECB), there is neither a common regulatory regime nor a unified fiscal authority to provide overall direction. As Jean-Claude Trichet, the ECB's president, has lamented: "We are not a political federation... We do not have a federal budget" (as quoted in the *New York Times*, 6 October 2008). Effectively the euro is a currency without a country, the product of an international treaty rather than the expression of one sovereign power. For actors outside EMU, Europe's money can be considered only as good as the political agreement underlying it.

The dilemma has long been apparent (Cohen 2008). The underlying political agreement might remain solid in "normal" times. But would it hold up in the midst of a crisis? Under the Maastricht Treaty, EMU's founding document, few specific tasks were assigned to the ECB to maintain financial stability. For most supervisory or regulatory powers the ruling principle was to be decentralization, otherwise known as subsidiarity – the notion that the lowest level of government that can efficiently carry out a function should do so. Formal authority for crisis management was to remain at the national level, just as it did before EMU. Watchful observers had repeatedly warned about the risks of such a fragmented governance structure, which left EMU remarkably unprepared to cope with any major disruption. In the words of the International Monetary Fund (IMF 2007: para. 12): "The core problem is the tension between the impulse toward integration, on the one hand, and the preference for a decentralized approach, on the other.... This setting rules out efficient and effective crisis management and resolution." No one, it seemed, was directly accountable for the stability of the euro area as a whole.

Now, with the spread of the current financial crisis, EMU's chickens have come home to roost. The necessary political agreement has proved lacking. While the U.S. Treasury and Federal Reserve have been able to react to developments decisively and with alacrity (if not always with great efficacy), European governments remain divided and uncertain. The ECB has been active in injecting liquidity into the system – but under the Maastricht Treaty that is all it can do. National policy makers, in the meantime, have clung to a piecemeal, patchwork approach – an "every-country-for-itself" response that certainly has done little to bolster confidence in Europe's joint currency. Even when an agreement was announced in mid-October to recapitalize financial institutions and guarantee inter-banking lending, the details of implementation were left to individual governments. Policy makers resisted setting up a Europe-wide fund for fear that their own taxpayers might end up bailing out other countries' banks or depositors. The absence of effective coordination no doubt helps explain why, despite America's considerable travails, global preferences have still failed to tip toward the euro. Market actors recognize that in the end, Europe's governments simply don't seem to trust each other enough to act decisively in their common interest. As the *Wall Street Journal* (7 October 2008) wryly comments: "This is a poor record for the EU 51 years after its founding."

To a large extent, the hopes of euro enthusiasts have always been a reflection of their ambitions for the broader EU project. The appeal of the currency would grow naturally with the construction of a united Europe. But market forces alone cannot guarantee success. Given

EMU's structural handicaps, it seems clear that a determined public effort will be required if the currency is ever to live up to its fans' aspirations. Promotion of the international role of the euro would have to be made an explicit goal of policy. Otherwise, Europe's money in a sense could turn out *always* to be the "currency of the future" – forever aspiring to catch up with the dollar but destined never to quite get there.

Vague vision

The vision of euro enthusiasts was always a bit vague. What does it mean to "catch up with" or "overtake" the dollar? At issue is the degree or extent of use of a money for various international purposes – what is commonly referred to as currency "internationalization." Cross-border usage of Europe's currency was expected to grow. Without further explication, however, the notion of currency internationalization is ambiguous at best. In practical terms, at least three separate dimensions are involved: trajectory, scope, and domain. To assess the euro's achievements and prospects, all three dimensions must be considered.

By *trajectory*, I mean the path traced by the euro as its use increases. Can the growth of usage be expected to continue ever upwards until parity with the dollar (or more) is attained, or is some ceiling likely to be hit short of that goal? By *scope* I mean the range of functional categories of use. Can euro usage be expected to grow for all international purposes, or just a select few? By *domain* I mean the geographic scale of use. Can euro usage be expected to expand across most parts of the globe, or in just a more limited number of countries or regions?

Euro enthusiasts anticipated that Europe's currency would do well in all three dimensions. Cross-border usage would not bump up against a low ceiling and would be extensive in terms of both function and geography. In short the euro's reach would in time span the globe, fully matching if not surpassing the dollar in both scope and domain. Reality, however, has turned out to be much more mundane. The vision of the currency's fans has proved faulty.

For a broad picture of what is really happening, there is no more authoritative source than the *Review of the International Role of the Euro* published annually by the European Central Bank (ECB). The most recent edition of the review appeared in June 2008, covering the period to the end of 2007 (ECB 2008). Data are provided on all three dimensions involved. With respect to all three, the Bank's conclusions are unambiguous – and damning. The euro's reach, it turns out, has greatly exceeded its grasp.

Concerning trajectory, the Bank observes that international use of the euro has decelerated noticeably and would appear to be stabilizing. A fast early start was certainly to be expected, once market actors were persuaded that the euro was here to stay. From the moment of its birth, Europe's new money clearly enjoyed many of the attributes necessary for competitive success. These included a large economic base in the membership of the euro zone, initially numbering some eleven countries – including some of the richest economies in the world – and soon to comprise sixteen. They also included unquestioned political stability and an enviably low rate of inflation, all backed by a joint monetary authority, the ECB, that was fully committed to preserving confidence in the currency's future value. Moreover, there was every reason to believe that sooner or later the global position of the dollar would weaken, owing to the

America's persistent payments deficits and looming foreign debt. Hence it was no surprise that in the euro's early days, use seemed to be expanding exponentially. "Momentum has led to an increase in the international role of the euro," proclaimed the Bank in 2002 (ECB 2002: 11). But subsequently, it is plain, that momentum has slowed considerably. In its latest review, the Bank ruefully concedes that after its fast start, the international role of the euro "has been broadly stable for around five years" (ECB 2008: 11).

In effect, the euro has done little more than hold its own as compared with the past aggregate market shares of EMU's "legacy" currencies. Given the fact that Germany's old Deutsche mark (DM) had already attained a number-two ranking in the monetary system, second to the greenback, anything less would have been a real shock. But beyond that, a ceiling does indeed appear to exist. Straight-line extrapolation of the euro's initial acceleration far into the future does not seem warranted.

Likewise, with respect to scope, it is evident that growth of euro usage has been uneven across functional categories. The expansion of international use has been especially dramatic in the issuance of debt securities, reflecting the growing integration of EMU financial markets. There has also been some modest increase in the euro's share of trade invoicing and central-bank reserves. But in other categories, such as foreign-exchange trading or banking, the dominance of the dollar remains as great as ever. The Bank's polite way of putting this is that use of the euro has been "heterogeneous across market segments" (ECB 2008: 7).

The picture is also clear with respect to domain, which is sharply bifurcated. For the most part, internationalization of the euro has been confined to countries with close geographical and/or institutional links to the euro zone – what might be considered EMU's natural hinterland. "The euro's turf," economist Charles Wyplosz (1999: 89) calls it. These countries include the newest members of the EU, all destined eventually to join EMU, as well other candidate states (e.g., Croatia, Montenegro) and non-member neighbors like Norway and Switzerland. They also include most of the nations around the Mediterranean littoral as well as a good portion of sub-Saharan Africa. In these countries, where trade and financial ties are deep, the euro obviously enjoys a special advantage. Elsewhere, in stark contrast, scale of use drops off abruptly, and Europe's currency remains very much in the greenback's shadow. Concludes the ECB (2008: 7): "The Review confirms the largely regional character of the euro."

DETAILS

The ECB's broad picture is corroborated by a more detailed look at the various categories of euro usage. The conventional framework for analysis of international currencies separates out the three standard functions of money – medium of exchange, unit of account, store of value – at two levels of analysis: the private market and public policy. Following that lead, we can speak of the role of the euro at the private level in foreign-exchange trading (medium of exchange), trade invoicing and settlement (medium of exchange and unit of account), financial markets (store of value), and currency substitution (all three functions). At the level of public policy, we can speak of the role of the euro as an anchor (unit of account) and reserve currency (medium of exchange and store of value).

Because the available data on most of these roles are not nearly as complete as we would like, a considerable amount of subjective judgment about their meaning ultimately is required. Authoritative interpretation of ambiguous statistics is of course never easy. Without sufficient information, sincere individuals may sincerely disagree. Is the glass half full or half empty? What might seem to a euro enthusiast to be a glass soon be overflowing may appear to others to be disappointingly stagnant. Nonetheless, in this instance the overall impression seems clear. In the face of the evidence, it is hard to sustain the view that Europe's currency is well on track to overtake the dollar. The data plainly suggest otherwise.

Foreign-exchange trading

Consider, for example, the foreign-exchange market, where the dollar has long dominated wholesale trading in its role as a vehicle currency (the intermediary for trades between other less widely used monies). The main source of information on the currency distribution of foreign-exchange trading is the Bank for International Settlements (BIS), which since 1989 has published a triennial survey of foreign-exchange market activity. A summary of market shares since 1989 for the dollar, euro (since its birth), and the euro's legacy currencies (prior to its birth) is provided in Table 1. Market shares are measured by the percentage of transactions in which each currency appeared. (Since every transaction involves two currencies, percentages add up to two hundred percent.) The survey is always taken at the same time of year, in the month of April.

[Table 1]

Two facts stand out. The first is the overwhelming dominance of the dollar, which in 2007 appeared on one side or the other of some 86 percent of all market transactions, down only slightly from its level in 1989 and up substantially from the early 1990s. The second is the relatively poor showing of the euro, whose share, at 37 percent, has been essentially flat since the start of EMU. There certainly has been no challenge to the greenback in this category of use.

A similar picture also emerges from the data reported by the Continuous Linked Settlement (CLS) system, which was launched in 2002. The CLS system is managed by CLS Bank International, a single-purpose institution operating under the supervision of the U.S. Federal Reserve. According to CLS data as reported by the ECB (2008: 36), the average shares of the dollar and euro in 2007 were, respectively, 90.5 percent and 37.8 percent – not significantly different from the BIS numbers.

Superficially, it might even appear from the BIS numbers that the euro's role in foreign-exchange trading has actually fallen over time, since its share is clearly less now than it was for the combination of the DM and EMU's other legacy currencies prior to 1999. But that would be a misinterpretation. The apparent decline of the euro's share is really an artifact of the statistics, due entirely to the elimination of trading among legacy currencies once the monetary union began. After netting out, the euro's share overall is in fact marginally greater than before.

On the other hand, it is also evident from the BIS surveys that most transactions involving the euro are concentrated in the EU and neighboring countries – evidence of the currency's bifurcated domain. Beyond the European hinterland, euro turnover is strikingly low, at 20 percent or less. The share of the dollar, by contrast, is much more equally distributed across regions. The greenback even dominates activity within Europe's markets, at close to 90 percent of turnover as compared with less than 50 percent for the euro. The greenback functions as a vehicle currency globally, the euro does not.

Why has the dollar remained so popular as a foreign-exchange vehicle? Low transactions costs combined with inertia would appear to provide much of the explanation. Trading costs for the euro have come down sharply since the currency was launched and are now roughly commensurate with those for the greenback (Papaioannou et al. 2006). But since no significant price advantage is offered, ingrained habit and institutional rigidities have favored continued use of the dollar. Switching from one money to another can be costly, involving an expensive process of financial adaptation. The same scale economies and network externalities that make a currency attractive in the first place thus also promote a pronounced stickiness of user preferences – what economists call "hysteresis" or "ratchet effects." In the words of one commentary: "These findings are consistent with the stylized facts that network externalities/path dependence will tend to 'lock in' the dominance of the network good, here, the dollar" (Lim 2006: 28). The greenback is the beneficiary of a natural advantage of incumbency.

Trade invoicing and settlement

Once the euro was created, it was natural to expect growth in its role as a settlement or invoicing currency for trade in goods and services. The large size of the EMU economy was bound to encourage adoption of the new money in import and export markets, for reasons of transactional convenience. Data from the ECB's annual reviews and other sources (Kamps 2006) show a significant increase in the euro's share of trade between EMU countries and the rest of the world, from an estimated 40 percent or so in 2000 to as much as 60 percent by 2006. Concludes one recent analysis: "The euro has clearly more than replaced the legacy currencies in European imports and exports" (Papaioannou and Portes 2008: 37).

Here too, however, there has been a leveling off after a fast start. As the ECB (2007: 34) puts it, "the role of the euro as a settlement currency for euro area [trade] appears to have stabilized." Little overall change has occurred in recent years. Moreover, here too the geographic pattern is sharply bifurcated. The increase in usage has been concentrated mainly in Euroland's trade with neighbors – particularly non-euro EU members and candidate states, where the euro now dominates in invoicing and settlement. Outside the European region, use of the currency for trade with EMU economies remains limited; in transactions between third countries, where neither counterparty is an EMU member, it is practically non-existent. According to the ECB (2008: 42), this plainly indicates that "close proximity to or institutional links with the euro area or the EU... remain the determining factors for the use of the euro in international trade transactions."

Once again, the contrast with the dollar is striking. The greenback dominates in U.S. trade with all parts of the world and is also widely used for trade between third countries. Overall, America's currency is thought to account for roughly half of global exports – close to three times as much as the euro.

Could the euro yet catch up? Much depends on what happens in the world's markets for primary products of various kinds: foodstuffs, agricultural raw materials, minerals, and fuels. At present, virtually all transactions in reference-priced and organized-exchange traded commodities are invoiced and settled in dollars. Most notably, this includes the global market for oil, the world's most widely traded commodity. In commodities markets, as in the foreign-exchange market, the dollar enjoys an incumbency advantage that will be difficult to overcome. As one authoritative study concludes (Goldberg and Tille 2005: 29): "The role of the dollar as a transaction currency in international trade has elements of industry herding and hysteresis" that militate against rapid change.

The point is conceded even by euro enthusiasts. Acknowledges one source (Papaioannou and Portes 2008: 38): "Theories of network externalities suggest that it is unlikely that these markets will switch to another currency, unless transactions costs (broadly defined to include exchange rate volatility, inflation, and other risk considerations) in the dollar increase significantly." A weak hope is held out that "the euro might still play some role in newly established markets" (Papaioannou and Portes 2008: 38), but such prospects do not look bright. Concludes another recent study (Kamps 2006: 22), "it is evident that the dollar is still the dominant currency in world trade and that the euro is not likely to challenge the leading role of the U.S. dollar in the foreseeable future."

Financial markets

With the birth of EMU, it was also natural to expect growth in the euro's role in global financial markets. Introduction of the euro promised to create the largest single-currency capital market in the world, with a huge pool of savings and increasingly attractive transactions costs. Data show that the consolidation of EMU financial markets has shrunk euro trading costs significantly. Just as in the foreign-exchange market, costs for euro-denominated corporate and government securities, as measured by bid-ask spreads, are now commensurate with those for the dollar (Biais et al. 2006; Dunne et al. 2006). The result, not surprisingly, has been a dramatic increase in use of the euro for international bonds and notes.

Indeed, by mid-decade, the euro had actually surpassed the dollar as the world's most important currency of issue, with net new issues in euros rising faster than for any other currency. At the end of 2007, according to the ECB (2008), euro issues accounted for roughly one-third of the outstanding stock of international debt instruments (defined as issues in a currency other than that of the borrower's home country), up from just 19 percent in 1999. Over the same period, the greenback's share fell from around 50 percent to 43 percent. The securities markets have proved to be, by far, the area of greatest success in the internationalization of the euro.

Yet even here success has been qualified. In this role too there has been a leveling off after a fast start. Indeed, since 2005, when the euro share in the stock of international issues peaked at 33.8 percent, the currency's share has actually dropped marginally to 32.2 percent at the end of 2007, while the dollar's share rose correspondingly (ECB 2008). Moreover, here too it is clear that the geographic pattern is sharply bifurcated, in terms of both borrowers and investors. On the supply side, where the euro performs a financing function (a medium for borrowing), most new issues come from neighboring countries like Britain, Denmark, and Sweden. Issuers farther afield, in Latin America or Asia, continue to borrow mainly in dollars. Likewise, on the demand side, where the euro performs a store-of-value function (an investment medium), the largest part of new euro-denominated issues is taken up by investors within EMU itself, making them effectively "domestic," while most of the rest go to the nearby European region. Elsewhere, available data indicate that the dollar still dominates in holdings of debt instruments as foreign assets. Once again, the ECB (2008: 23) concludes: "These figures confirm the geographical pattern of the international role of the euro."

Finally, it should be noted that the euro's success in securities markets, however qualified, has not been matched by comparable gains in international banking, despite a sharp fall in euro-area banking costs at the wholesale level. At the end of 2007, the euro's share of international bank loans (excluding interbank activity) stood at some 22 percent, close to its level at the time of the currency's birth, while its share of international deposits, at 21 percent, was actually lower than in 1999 (ECB 2008). Here too a distinctively regional pattern has prevailed, showing a modest increase of cross-border banking business with the European hinterland offset by a decline in other parts of the world, mainly to the benefit of the greenback. Very few loans by banks outside the euro zone to non-EMU borrowers or deposits in non-EMU banks from savers outside the euro area are denominated in euros (Lane and Wälti 2007: 225). The ECB (2008: 33) suggests that these patterns probably reflect the fact that the use of the euro in international banking is strongly linked to the proximity of counterparts.

Currency substitution

Another traditional indicator of the internationalization of a national money is the extent to which banknotes come to be held and used beyond the borders of the issuing country or countries – a process that economists call currency substitution. As the popular synonym "dollarization" implies, the most prominent example of currency substitution in the modern era involves the greenback, which is known to circulate extensively in many parts of the world, from Latin America to the Middle East and southeast Asia. The U.S. Treasury (2006) estimates that something on the order of 60 percent of Federal Reserve notes by value are presently located outside the United States, amounting to perhaps $450 billion. But now with EMU, the dollar is no longer alone. Foreign holdings of euro banknotes are known to be rising at a fast pace, amounting at the end of 2007 to some 10 to 20 percent of euro banknotes by value (ECB 2008). With roughly 700 billion euros overall then in circulation, that amounted to something between 70 to140 billion euros in total. This too may be regarded as an area of success in the internationalization of Europe's money.

But here also success has been mainly regional in nature, rather than global. The greatest gains have been concentrated in the euro area's immediate neighbors, particularly to the east and southeast. In some other parts of the world, use of euro banknotes has also increased, but at much more moderate rates.(ECB 2008).

To some degree, the apparent spread of "euroization" is misleading, insofar as it reflects the expectation in newer EU members or candidate countries that the euro will one day become legal tender. Once these economies formally become part of the euro zone, the banknotes within their borders will no longer be "abroad." Nonetheless, a good part must be considered genuine currency substitution, reflecting real economic motivation. One impetus is proximity, which makes it convenient to have euro banknotes on hand to buy goods or to travel in EMU countries. Another is the availability of high-denomination notes – up to 250 and 500 euros – that are attractive for large transactions or as a store of value. These denominations are much larger than anything available in U.S. dollar banknotes, the largest of which is $100. The phenomenon of euroization, at least in the European region, would appear to be here to stay.

Anchor currency

At the level of public policy, an international currency can play a prominent role as an anchor for exchange rates. Euro enthusiasts point proudly to the fact that in the short time since 1999 as many as 40 countries have formally aligned their exchange-rate policy with the euro, as compared with no more than 60 for the dollar (Walter and Becker 2008). These 40 countries include some 29 single-currency pegs and eleven arrangements that include the euro as part of a currency basket. Surely this is evidence that Europe's money is catching up with the greenback.

In fact, however, there is far less here than meets the eye. Of the 40, four are European mini-states (Andorra, Monaco, San Marino, Vatican); eight are EU members (Bulgaria, Czech Republic, Denmark, Estonia, Latvia, Lithuania, Romania, Slovakia), and four are actual or potential candidates for EU membership (Bosnia, Croatia, Macedonia, Serbia). None of these governments have much choice in the matter. The mini-states are literally embedded in the euro zone; apart from Denmark, all the others are obligated to adopt the currency sooner or later as part of their terms of EU membership. Another sixteen include the fourteen members of the CFA Franc Zone in Africa together with two affiliated economies (Cape Verde, Comoros), all of which were long pegged to the French franc, a euro legacy currency, even before Europe's money was born. And the few others are either in the European hinterland or have well established institutional ties with the EU or EU member countries. Once more, what is really demonstrated is the strictly regional character of the euro.

Looking beyond formal (de jure) exchange-rate policies to actual (de facto) behavior, as indicated by the co-movement of currencies, Gabriele Galati and Philip Wooldridge (2006: 11-12) claim to find evidence of an "increasingly important gravitational pull" toward the euro, though they concede that "it is unclear whether [this] reflects a structural change or cyclical developments." However, in a more refined study David Cobham (2008) constructs a hierarchy of indicators for de facto anchoring to the euro and dollar. Three degrees of pegging are identified: (1) a "very narrow" margin of fluctuation; (2) a "narrow" margin; and (3) "relatively more aligned" with one anchor currency or the other. Cobham's analysis shows that over the period from 1999 to 2007, some 23 countries anchored "narrowly" or "very narrowly" to the euro, as contrasted with just 16 to the dollar – seeming to confirm Galati and Wooldridge's interpretation. However, Cobham also shows that the number of countries "narrowly" or "very narrowly" pegged to the dollar actually rose over the period, while that for the euro remained unchanged. Moreover, far more countries are "relatively more aligned" with the dollar (30) than with Europe's currency (16). And perhaps most critically, it is clear that most of the economies that follow the euro are quite small as compared with some of the much larger financial powers aligned with the greenback (including China, Hong Kong, Saudi Arabia, and the United Arab Emirates). The countries that are "narrowly" or "very narrowly" pegged to the dollar are far more important when weighted by income or share of world trade. If any currency is exerting increasing gravitational force, it would appear to be the greenback, not the euro.

The reality is that almost all of the currencies "narrowly" or "very narrowly" aligned with the euro come from Europe's natural hinterland and have been linked to EMU from the start. It is obvious that Europe's money plays an important role as an anchor currency. But the data clearly do not justify the assertion, as one source put it recently, that in this respect "the importance of the euro is steadily increasing" (Papaioannou and Portes 2008: 32). On the contrary, what we see again is a distinct regional focus and a quick takeoff followed by relative stability.

Reserve currency

Finally, we come to the role of the euro as a reserve currency – a money that central banks hold in their reserves and use for intervention purposes to manage their exchange rates. The best source of information available on reserve-currency preferences is the IMF, which since 2005 has maintained a public database on the Currency Composition of Official Foreign Exchange Reserves (COFER). The COFER data are regrettably incomplete, since not all countries report the distribution of their holdings. Most importantly, many Asian central banks (including China) are absent. But with about two-thirds of global reserves included, the data are considered sufficiently comprehensive to be useful for analytical purposes. A summary of market shares for the euro and dollar since 1999 is provided in Table 2. Most noticeable is what looks like a considerable shift in favor of the euro over time. While the dollar's share of allocated reserves declined from 71.5 percent at the end of 1999 to just 64 percent in 2007, the euro's share rose from 17.9 percent to 26.3 percent.

[Table 2 here]

Here too, however, there is far less than meets the eye. In the first place, the decline of the dollar's share is more apparent than real. In 1999 the greenback was at an artificial peak, reflecting the success of the Clinton's Administration's determined "strong-dollar" policy in preceding years. The 64-percent figure reached in 2007 is no lower than the dollar's share in the mid-1990s and is significantly above its nadir in 1990, when the percentage sank to as low as 45 percent. Over the course of the 1980s reserve managers around the globe had diversified actively into the DM and yen, before switching back again to the greenback in the 1990s. Second, it is evident that almost all of the euro's gain came in its first four years of existence. Since 2002 the relative positions of the dollar and euro have barely changed. Even now the euro's percentage of global reserves is less than the 39-percent share attained by EMU's legacy currencies in 1990, though it is higher than the legacy currencies' share of around 20 percent in 1998 (Wooldridge 2006: 35).

Furthermore, as a variety of studies have demonstrated, little of the apparent shift since 1999 has resulted from direct conversions out of the greenback into Europe's currency (Lim

2006; Truman and Wong 2006; Wooldridge 2006). As much as half of the euro's net gain has come at the expense of Japan's faltering yen and miscellaneous other currencies rather than the dollar. The rest has resulted from the sharp appreciation of the euro's nominal exchange rate since its low early in the decade (a price effect) rather than deliberate dollar sales (a quantity effect). Indeed, when measured at constant exchange rates, the euro's share of global reserves has actually declined modestly in recent years rather than risen (ECB 2008). As Edwin Truman and Anna Wong (2006: 36) conclude: "The available evidence suggests that the amount of *active* diversification of countries' foreign exchange reserves has been limited" (emphasis in the original). In reality, the trajectory of Europe's currency has been essentially flat after its fast start. The greenback's share of reserves is still almost two and a half times greater.

But what of the future? Little encouragement is provided by a formal study by Papaioannou et al. (2006) intended to quantify the potential monetary gains for central banks from reserve diversification, employing a finance-based approach. A "dynamic mean-variance currency portfolio optimizer with rebalancing costs" is developed to obtain what might be considered an optimal composition of global reserves since the euro's birth. Included are the five most widely used international currencies – the dollar, euro, yen, pound sterling, and Swiss franc. Interestingly, the optimizer calls for roughly equal allocations of about ten percent for each of the four non-dollar currencies, including the euro. Since the actual share of Europe's currency in global reserves is already well above ten percent, that would seem to leave little reason to expect much further growth.

Euro enthusiasts, however, remain undaunted. Some, like Papaioannou and Portes (2008), pin their hopes on the possibility of a sudden tipping point, when the floodgates will open and central banks worldwide will rush to trade in their dollars for euros. In their words: "Theories of network externalities usually feature multiple equilibria... suggesting that there might be an abrupt switch between equilibria if expectations change.... There are some noteworthy dynamic patterns" (Papaioannou and Portes 2008: 23, 25). But if the current financial crisis has not been "dynamic" enough to shift preferences, it is hard to see what might suffice to do the trick.

Others simply recycle old predictions. Typical is bank economist Werner Becker (2008: 19), who firmly declares that "the euro's share is likely to increase to 30% to 40% by 2010," albeit without any supporting explanation or evidence. Bravest are Chinn and Frankel (2007, 2008), who have been prepared to back their forecast of a euro takeover with hard data, formal modeling, and a variety of detailed scenarios. Their focus is on the reserve-currency preferences of central banks. Their latest projections suggest that Europe's currency could surpass the greenback in official holdings as early as 2015. Should we be persuaded?

It is obvious that central-bank preferences may be influenced by an abundance of factors. Economists like Chinn and Frankel, naturally enough, find it convenient to focus on purely economic determinants, emphasizing considerations that make a currency attractive to private market actors. A typical list would include confidence in a money's future value, backed by macroeconomic stability in the country of origin; well developed financial markets that give assurance of a high degree of transactional liquidity ("exchange convenience") and reasonable predictability of asset value ("capital certainty"); and a broad transactional network based on an economy that is large in absolute size and well integrated into world markets. The logic is unexceptionable. It is not unreasonable to assume that central-bank choices are related in some way to prevailing market practice. It is simply not efficient for a public authority to rely on a currency that is not already extensively used at the private level.

But there is also a political side, as even mainstream economists are now beginning to acknowledge (Posen 2008). Political considerations include both the quality of governance in the reserve center and the nature of its diplomatic and security relations. Is the issuer of a reserve currency capable of effective policy management at home? Can it project power abroad? Does it enjoy strong foreign-policy ties with other countries – perhaps a traditional patron-client linkage or a formal military alliance? Though it is by no means easy to operationalize many of these factors for empirical purposes, it is hard to deny their importance.

Yet, conveniently, Chinn and Frankel set all such considerations aside in order to build a parsimonious model that they feel they can use for forecasting purposes. Only three independent variables are highlighted in their regressions, all chosen presumably because the numbers are readily available: country size (relative income), foreign-exchange turnover (representing the depth of competing financial markets), and trend exchange-rate changes (representing the rate of return on currency balances). The result is a series of scenarios that are simplistic at best and at worst seriously misleading. For example, why should we believe that the attractiveness of the euro will be increased by adding more countries to Euroland's economic base? Analysis suggests, to the contrary, that enlargement of EMU, by adding a diverse collection of new members with significantly different interests and priorities, could actually diminish the currency's appeal, not enhance it (Cohen 2007). Why should we assume that foreign-exchange turnover is an accurate proxy for the depth and breadth of financial markets? A high volume of currency trading may reinforce a currency's exchange convenience, but it does little to augment capital certainty.

Most importantly, why should we assume that politics, either at home or abroad, will play no part in the outcome? To ignore the political side in a context like this is like trying to put on a production of Hamlet without the prince. With the conspicuous exception of China, most of the biggest dollar holders around the world are all formal or informal allies of the United States, who are unlikely to risk seriously alienating their most powerful patron for the sake of a few basis points of return on their reserves. This is certainly true of the fragile regimes in Saudi Arabia and other Gulf states, which under a series of unwritten understandings dating back decades are highly dependent on security assurances from Washington for protection against enemies, both within and without. Middle Eastern governments, as one knowledgeable source puts it (Momani 2008: 297), "are unwilling to purposefully undermine the dollar because they are ultimately mindful of their precarious security situation." The same is manifestly also true of Japan, which has long relied on its defense alliance with the United States as a shield against external threats.

EMU, by contrast, is no more than a club – a gaggle of states with limited military capabilities and foreign-policy interests that only partly overlap or coincide. In practical terms, it is virtually impossible for Europe to substitute for the political influence of the United States. As Adam Posen (2008: 80) comments: "The European Union, let alone the eurozone itself, is unable or unwilling to offer these systemic or security benefits beyond a very limited area." Echoes Bessma Momani (2008: 309): "While there are viable currency alternatives to the US dollar, there are no alternatives to the US military security umbrella." Chinn and Frankel are to be applauded for the bravery of their dramatic forecasts, which have attracted headlines. But they are almost certainly wrong.

DISCORD?

In sum, the conclusion seems undeniable. As an international currency, the euro's prospects are limited. There is no doubt of the money's dominance in its own neighborhood; nor can one deny the considerable success it has attained in such activities as bond issuance and currency substitution. But overall, after a fast start, its trajectory has clearly bumped up against a firm ceiling, falling short of enthusiasts' aspirations. Left on its own, Europe's money appears destined to remain in the dollar's shadow far into the foreseeable future.

But what will happen if EMU authorities choose not to leave the euro on its own? Officially, European aspirations remain modest. According to authoritative statements by the ECB, the euro's development as an international currency – to the extent it happens – will mainly be a market-driven process, simply one of many possible byproducts of monetary unification. From the very beginning, the ECB has insisted that euro internationalization "is not a policy objective [and] will be neither fostered nor hindered by the Eurosystem.... The Eurosystem therefore adopts a neutral stance" (ECB 1999: 31, 45). Behind the scenes, however, there are known to be considerable differences of opinion, with the eventual direction of policy still unsettled. While many in Europe are indeed inclined to leave the future of the euro to the logic of market competition, many others – aware of the dollar's strong incumbency advantages -- favor a more proactive stance to reinforce their currency's potential. The chance of a leadership struggle with the United States, accordingly, cannot be entirely ruled out. The risk of discord is real. The question is: Should we be worried?

Leadership struggle

Much depends on how aggressive policy makers on each side might choose to be in promoting their respective monies. As I have noted elsewhere (Cohen 2004), a critical distinction must be drawn between two different kinds of leadership aspirations in monetary affairs: *informal* and *formal*. Much rides on the difference.

Informal leadership refers to dominance among *market* actors – the scope of a money's use for private market purposes. At this level, a competitive struggle already exists. In EMU, policy is already actively engaged in trying to improve the appeal of the euro, particularly via financial-market reform; in defensive reaction, the United States will do what it can to sustain the attractiveness of the greenback. The consequences of an informal leadership struggle, however, are apt to be largely benign, since governments take this sort of contestation very much in stride. Rivalry to promote or sustain each currency's competitiveness can be regarded as natural feature of a decentralized monetary system based largely on market principles. The global community might even benefit if the result is lower transactions costs and more efficient capital markets.

But what if the players elect to go a step further, to seek to alter the behavior of *state* actors – what I term formal leadership? The aim in this case is alter currency choices at the level of public policy: to induce governments to switch to a different reserve currency or perhaps even to adopt the foreign currency domestically in place of their own national money. The result, ultimately, would be the formation of organized currency blocs, not unlike the old sterling area that coalesced around Britain's pound in the interwar period.

As in inter-state relations generally, tactics in a formal leadership struggle in monetary affairs may involve varieties of either coercion or persuasion, depending on circumstances. Currencies might be directly imposed on client states in a manner similar to what Susan Strange (1971) meant by a "Master Currency." In the language of Jonathan Kirshner (1995), countries could be threatened with *enforcement* or *expulsion* if they do not align themselves monetarily – a threat of sanctions, say, or a withdrawal of past commercial or financial privileges. Alternatively, attractive inducements of an economic or political nature might be offered to reshape policy preferences in manner analogous to Strange's notion of a "Negotiated Currency" – what Kirshner (1995) describes as *entrapment*.

Whatever the tactics used, the consequences for the global monetary system could be dangerous. In a formal leadership struggle, by definition, competition becomes more overtly politicized and hence less easy to contain. Economically, increasingly antagonistic relations could develop between mutually exclusive groupings, reversing decades of multilateral liberalization in trade and financial markets. Politically, currency rivalry could become transformed into serious geopolitical conflict.

Many observers discount the probability of a formal leadership struggle, pointing to the evident perils involved. Any efforts to alter prevailing currency choices at the state level would imply a cutback of dollar accumulations, which in turn could lead to a sharp depreciation of the greenback, causing massive losses on existing reserve holdings. Would governments truly risk such self-inflicted wounds? To avert a doomsday scenario, it makes more sense for state actors to support the greenback – or, at least, not undermine it -- whether they like it or not. Optimists see this as nothing more than enlightened self-interest.

Others, however, see it as more like the notorious balance of terror that existed between the nuclear powers during the Cold War – a "balance of financial terror," as former Treasury Secretary Larry Summers (2004) has described it. A fear of mutually assured destruction is surely a powerful deterrent to overtly destabilizing behavior. But fear cannot rule out the possibility of miscalculation or even mischief by critical players. In fact, the balance of financial terror is inherently unstable and could conceivably break down at any time.

Breakdown?

Will the balance break down? Prediction is hazardous, of course; a doomsday scenario can hardly be excluded. But I am less persuaded than some observers, such as Kirshner (2008), that the wolf is actually at the door, ready to wreak systemic havoc. Certainly the foundations for a confrontation over formal leadership are in place, suggesting that a threat somewhere, sometime, is possible. There seems little reason for concern in the Western Hemisphere, where a dollar bloc has effectively existed for some time, there, the greenback remains largely unchallenged. Conversely, few question the euro's increasing dominance in EMU's nearby hinterland, including much of Africa. But elsewhere room does indeed exist for serious clashes. The greatest danger is to be found in the Middle East, where the greenback has long reigned supreme. Here, as I have previously suggested (Cohen 2006), Europe could understandably be tempted to seek a greater role for the euro.

With its concentration of wealthy oil exporters, the Middle East would seem a prize well worth fighting for. At the moment, America's dollar is not only the standard for invoicing and payments in world energy markets. It also accounts for the vast majority of central bank reserves and government-held investments in Middle Eastern countries and. Except for Kuwait, is the sole anchor for their exchange rates. Yet overall, the region's commercial ties are far more oriented toward Europe – a disjunction that many Europeans find anomalous, even irrational. Repeatedly, the question is asked: Would it not make more sense for the area to do business with its largest trading partner, Europe, in Europe's own currency rather than the greenback? And if so, would it not then make sense to switch to the euro as an anchor and reserve currency as well? Europe is well placed to make the Middle East a currency battleground.

Certainly, the possibility of a switch to the euro is tempting from a European perspective. Displacement of the dollar might go far toward restoring a measure of Europe's historically privileged position in the region. Arguably, the prospect might be tempting for Middle Eastern governments too from a purely economic point of view. It is well known that from time to time oil exporting states have explored alternatives to the dollar, only to be discouraged by the lack of a suitable substitute. Now, with the arrival of the euro, many see the possibility of a truly competitive rival to the greenback. Talk of a switch to the euro (or to a currency basket heavily weighted toward the euro) has been particularly intense in recent years as a result of the dollar's most recent bout of weakness.

Any effort to capitalize on the greenback's travails, however, would surely provoke determined resistance from the United States, which has long linked the region's use of the dollar to broader security concerns. For Washington, there is no higher politics than the Great Game being played out today in the energy-rich Middle East. America needs both the region's oil and continued support for the greenback; the security assurances provided to local governments are the price paid for both. With so much at stake, the level of U.S. tolerance for a formal currency challenge from Europe would be correspondingly low, making geopolitical conflict a virtual certainty.

Indeed, for some observers, the conflict has already begun. Theories abound that America's 2003 attack on Iraq, following as it did shortly after Saddam Hussein's decision to demand payment in euros for Iraqi oil exports, was motivated above all by a desire to sustain the dollar's role in the region. Though the idea is wholly unsubstantiated by hard evidence, one need not be a sensationalist to recognize the seeds of truth that it contains. A battle of currencies in the Middle East could get nasty.

Would Europe risk it? In the end, however strongly tempted, the Europeans are more likely to keep their aspirations in check, averting direct confrontation with Washington. Even after the Bush Administration's decision to promote "regime change" in Iraq, there is no consensus among Europeans to risk the broader political and security relationship that they have long enjoyed with the United States. Beyond their currency's natural home in Europe's immediate neighborhood, therefore, they will most probably act with restraint. Maneuvering for advantage in the Middle Eastern region will undoubtedly persist, but the euro's challenge to the dollar is unlikely to be allowed to get out control.

CONCLUSION

The bottom line, therefore, is clear. Despite the aspirations of euro enthusiasts, the dollar has not in fact met its match. The greenback's margin of dominance may be narrowing somewhat, as U.S. payments deficits persist. But with serious deficiencies of its own, which put it at a distinct structural disadvantage, the euro has little natural appeal beyond the European hinterland. In the absence of determined effort to overcome the obstacles to the euro's path, Europe's money seems destined to dominate in no more than its own regional backyard.

Can Europe's leaders undertake the reforms needed to improve EMU's governance structure? Can they frame the policies needed to promote the euro's role without provoking a serious conflict with the United States? These are not questions that can be answered here. But, plainly, they are questions that must be answered eventually if the aspirations of the currency's enthusiasts are ever to be fulfilled. Otherwise, the data and political analysis alike both point to the same conclusion. America's dollar, long pre-eminent in monetary affairs, will remain the only truly global currency.

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Table 1

Currency Distribution of Foreign-Exchange Market Turnover
(percentage share of daily transactions in April)

	1989	1992	1995	1998	2001	2004	2007
Dollar	90	82.0	83.3	87.3	90.3	88.7	86.3
Euro	–	--	--	--	37.6	37.2	37.0
Deutsche mark	27	39.6	36.1	30.1	--	--	--
French franc	n/a	3.8	7.9	5.1	--	--	--
Other EMU currencies	n/a	11.8	15.7	17.3	--	--	--
All other currencies	n/a	62.8	57.0	60.2	72.1	74.1	76.7

NB. Because every transaction involves two currencies, percentages add up to two hundred percent.
Source: Bank for International Settlements.

Table 2

Dollar and Euro Shares of Official Foreign-Exchange Reserves
(percentages, end of year)

	1999	2000	2001	2002	2003	2004	2005	2006	2007
Dollar	71.0	71.1	71.5	67.1	65.9	65.9	66.9	65.4	64.0
Euro	17.9	18.2	19.2	23.8	25.2	24.8	24.0	25.1	26.3

Source: International Monetary Fund