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**Will History Repeat Itself?
Lessons for the Yuan**

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Abstract

For many observers, internationalization is the yuan's manifest destiny—an irresistible by-product of the remarkable economic success of the People's Republic of China (PRC). But is such confidence warranted? Recent history has seen the emergence of other currencies that were also expected, at least for a while, to attain wide, growing cross-border use. These included the deutsche mark (DM), the Japanese yen, and the euro (successor to the DM). Yet in the end their internationalization reached an upper limit, short of expectations. Will history repeat itself? Or will the yuan prove exceptional, the currency that finally managed to keep ascending where others faltered? The aim of this paper is to see what lessons may be drawn from these earlier experiences for the anticipated internationalization of the yuan. Much can be learned from their stories—first, about what may drive the internationalization of a currency, and second, about what may ultimately set a limit to the process. The main message of the analysis is that the challenge of internationalization is formidable, involving demanding conditions. Can Beijing sustain its record of price stability and effective policy management? Can the country succeed in shifting its industrial and trade structure toward exports of more advanced differentiated products? Can the yuan's convertibility be broadened? Can domestic financial markets be adequately developed? Can the country's political institutions be trusted? Can geopolitical tensions be avoided? Contrary to predictions of the yuan's "inevitable" rise, success in all these respects is by no means guaranteed.

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1. INTRODUCTION

There is a lot of talk about the potential role of the currency of the People's Republic of China (PRC), the yuan, as an international currency. For many observers, internationalization is the yuan's manifest destiny and a by-product of the PRC's remarkable economic success. Widespread use of the yuan is confidently said to be "inevitable" (e.g., Lee 2010; Subramanian 2011). The yuan has embarked on a Long March towards world status, reminiscent of the historic trek in the 1930s that was so pivotal in bringing the Chinese Communist Party to power in 1949. The only question, it seems, is how many years the Long March will take.

Is such confidence warranted? Recent history has seen the emergence of other currencies that, for a time, were also expected to soar to the top ranks of the "currency pyramid" (see Cohen 1998, 2004). In the end, their trajectories leveled off well short of what was anticipated. Limits slowed down and ultimately stalled the process of internationalization. Will history repeat itself? Or will the yuan prove to be the exceptional currency that finally managed to keep ascending where others faltered?

The aim of this paper is to see what lessons may be drawn from these earlier experiences for the future internationalization of the yuan. Analysis will be limited to the period since World War II. During that period three historical antecedents stand out. These are the deutsche mark (DM), the Japanese yen, and the euro (successor to the DM). Each seemed destined for greatness, only to fall short of expectations. Much can be learned from their stories—first, about what may drive the internationalization of a currency; and second, about what, ultimately, may set a limit to the process.

The paper is organized as follows. After the introduction, the three antecedents will be examined in turn. In each case, analysis will address the economic and political factors that influenced the eventual outcomes. The aim is to identify the key determinants that might be thought to have either promoted or hindered internationalization over time. What factors contributed to the international appeal of each currency, and what factors, in the end, limited their competitiveness? The penultimate section describes the main lessons suggested by these cases for the future prospects of the yuan. The final section concludes.

2. HISTORICAL ANTECEDENTS

It is axiomatic that a flourishing world economy requires some kind of internationally accepted money. Without this, nations would be reduced to crude barter, severely curtailing gains from cross border trade or investment. In the absence of a true world currency backed up by a global central bank, however, participants have little choice but to rely instead on a limited selection of national currencies to play vital international roles. At any given time, only a few currencies actually gain some degree of acceptance for use across borders. The conditions for successful internationalization are daunting, limiting the sample of historical antecedents that may be considered relevant to the aspirations of the yuan today.

2.1 Internationalization

Internationalization of a currency involves a multiplicity of roles, as specialists have long recognized. There is, in fact, a standard taxonomy for characterizing the roles of an international currency, which separates out the three familiar functions of money—

medium of exchange, unit of account, and store of value—on two levels of analysis: the private market and official policy. This adds up to six roles in all. Sources generally speak of the separate roles of an international currency at the private level in foreign exchange trading (medium of exchange), trade invoicing and settlement (unit of account and medium of exchange), and financial markets (store of value). At the official level, we speak of a currency's role as an exchange-rate anchor (unit of account), intervention currency (medium of exchange), or reserve asset (store of value). Although the six roles are interdependent to some extent, each is distinct in practical as well as analytical terms.

The scope of an international currency is defined by the number of roles it plays. Its domain is defined by its geographic range. At any given time, only a few national currencies tend to play any international role at all. Even fewer play all six roles, and even fewer still are used on a truly global scale. Since World War II, the US dollar has clearly dominated in terms of both scope and domain. Its only close rival these days is the euro, presently the second most important currency in the world, with Japan's yen a bit further behind. Other currencies are also used across borders—such as the pound sterling, Swiss franc, and Canadian and Australian dollars—but on a much more modest scale. These minor currencies can be found mainly in international banking or bond markets, or to a limited extent in central bank reserves. The yuan, by contrast, has gained little traction outside the PRC. Despite current talk of internationalization, the yuan's role on the global stage has yet to be realized.

2.2 Essential Qualities

Why are there so few international currencies? At the national level, the role of a currency can be promoted by the coercive powers of the state. Sovereign governments can deploy legal tender laws and related regulatory measures to compel residents to adopt the national currency for all legitimate monetary purposes. States enjoy a monopoly within their own borders, but at the international level the capacity for coercion is more limited. Monopoly is replaced by competition, and agents must be persuaded rather than compelled to make use of a currency. Competition for market share is the essence of the process of internationalization. A new entrant must have qualities that enhance its appeal relative to incumbents or other possible contenders. In short, the currency must be competitive.

What makes a currency competitive? Both economic and political factors are involved. On the economic side, analysts agree that three broad attributes are essential. First, at least during the initial stages of internationalization, is widespread confidence in a currency's future value backed by financial stability in the country of origin. This means a proven track record of relatively low and stable inflation is required. Second are the qualities of "exchange convenience" and "capital certainty"—a high degree of transactional liquidity and reasonable predictability of asset value. The key to both is a set of deep and well developed financial markets, sufficiently open to ensure some degree of access by non-residents. A minimum level of convertibility for foreign transactions is obviously necessary if a currency is to be used internationally. And third, a currency must promise a broad transactional network, since nothing enhances a currency's appeal more than the prospect of acceptability by others. Historically, this factor has usually meant a growing economy that is large in absolute size and well integrated into world markets. Without at least some of these essential attributes, no currency is likely to hold much appeal for international use.

On the political side, both domestic and international considerations play a role. Domestically, political stability and effective governance in the country of origin are

critical. Potential users are unlikely to be attracted to a currency that is not backed by adequate protection of property rights and genuine respect for the rule of law. Nor will they be drawn to a regime that lacks a demonstrated capacity for successful policy management.

Internationally, the experience of the dollar suggests that geopolitics and security considerations may also be of considerable importance. At the private level, a militarily powerful nation can provide a “safe haven” for nervous investors (James 2009; Norloff 2010). A strong defense ensures a more secure investment climate. At the official level, currency preferences of governments may be influenced by broader foreign-policy ties—traditional patron–client linkages, informal security guarantees, or formal military alliances. Can it be an accident that with the conspicuous exception of the PRC, most of the big dollar holders around the world are all formal or informal allies of the United States? The greater the ability of an issuing state to project power beyond its borders, the more likely it is that others will feel comfortable using its money.

2.3 Candidates

Realistically, few currencies are able to meet all these demanding economic and political qualifications. Given the substantial stakes involved, the competition that is at the heart of the process of internationalization is bound to be unforgiving.

In some cases, currencies are effectively disqualified because they fail to perform all three of the standard functions of money. They are not full-bodied currencies. That is especially true of so-called “artificial currency units” like the special drawing right (SDR) of the International Monetary Fund (IMF) or Europe’s old European currency unit (ECU), which have existed primarily as notional units of account. Neither the SDR nor the ECU was ever available for use as a medium of exchange. The same was also true of the “transfer ruble” created by the former Soviet Union for denominating trade within the Soviet-led bloc of “socialist” nations before the end of the Cold War. Trade among bloc members was based on strict bilateral balancing. Monetary values were expressed in transfer rubles, but these existed solely for accounting purposes. Trade with non-bloc members was done entirely in dollars or other Western currencies. The ruble that was used inside the Soviet Union was tightly regulated and rarely adopted for transactions abroad. Despite the Soviet Union’s geopolitical importance at the time, its national currency never had any real international standing.

In other cases, currencies are disbarred in practical terms by inconvertibility. Technically, Article VIII of the Charter of the IMF imposes a convertibility obligation on all IMF members. To this day, however, a majority of the IMF’s membership—mostly the least developed economies still take advantage of a legal loophole afforded by the Charter’s Article XIV to prolong rigid exchange and capital controls. No one would ever consider any of their currencies credible candidates for internationalization.

Interestingly, the PRC, too, still limits the convertibility of its currency. Even among observers who see internationalization as the yuan’s destiny, a natural assumption is that a minimum level of convertibility for current and capital-account transactions must come first. It is not clear, however, whether convertibility must be absolute. A critical question posed by the yuan is how much convertibility is necessary to encourage international use. The answer, as we shall see, is not self-evident.

Among convertible currencies, many fail to appeal internationally because they lack one or more essential attributes. Some issuing countries may have a poor record on inflation or lack sufficient depth and liquidity in their financial markets. Others may

simply not be big enough to offer a broad transactional network or project power effectively. Others may lack the requisite political stability or rule of law.

Incumbency also matters. Currency choice is notoriously subject to inertia owing to the often high cost of switching from one currency to another. Why go to the trouble of adapting financial practice to a different currency unless you can be sure that others will make use of it, too? A challenger must not only match at least some of the qualities of existing international currencies, it must also somehow offer advantages sufficient to persuade agents to risk making a potentially costly change. In practical terms, it is not easy to compete with a currency that is already as well established as the US dollar has been since World War II. The US dollar enjoys undoubted incumbency advantages. Not least is the fact that the language of its issuing country, English, happens as well to be the universal language of international business. The idea of converting from one currency to another is less appealing if it also means switching from one language to another.

In recent experience, the currencies that have managed to achieve even marginal acceptance for cross-border purposes are few. Since World War II, the dollar has dominated. Among all other currencies, only the DM, yen, and euro have for a time been competitive enough to also gain a significant share of the market for international money. Much can be learned from the stories of these three antecedents.

3. THE DEUTSCHE MARK

At the end of World War II, the picture was clear. There was just one international currency of any consequence—the dollar. Within the so-called sterling area the United Kingdom’s pound sterling, under heavy restriction, was still in use for some cross-border purposes but had already begun a long decline to fringe status (Cohen 1971; Schenck 2010). Ironically, when the first new challenger emerged in the 1960s and 1970s, it was a currency that had not even existed in 1945—the deutsche mark. The DM was created in 1948 as part of a major economic reform in the Western zones of occupied Germany, presaging the inauguration a year later of the new Federal Republic of Germany (otherwise known as West Germany). By the 1980s the DM was firmly established as the second most important currency in the world, before being absorbed into the newborn euro in 1999. Both economic and political considerations played pivotal roles in the story.

3.1 History

The Federal Republic’s beginnings were not auspicious. Following the devastation of war, the country lay in ruin with its cities and industries largely destroyed. But then began the *wirtschaftswunder*—Germany’s economic miracle—which generated rapid growth and persistent export surpluses. By the end of the 1950s the Federal Republic could already be described as the leading economy on the European continent and the region’s pre-eminent monetary power. By the 1960s the DM’s internationalization was well under way. By the 1970s, evidence of the currency’s growing prominence was manifest. Though never more than a distant second to the dollar, it was leagues ahead of all other currencies apart from Japan’s yen.

At the private level, the DM quickly emerged as one of the world’s most widely used currencies for both foreign-exchange trading and trade invoicing and settlement. In the foreign-exchange market, a currency’s share in total transactions indicates its importance as a “vehicle” for trades among third currencies. Comprehensive data on

the currency composition of such transactions in the global market were hard to come by prior to a series of triennial surveys conducted by the Bank for International Settlements (BIS) beginning in 1989. Earlier estimates for turnover in the interbank market in New York, released by the Federal Reserve Bank of New York, put the DM share of trades against the dollar in the range of 31–34% over the decade of the 1980s (Tavlas and Ozeki 1992). The BIS surveys suggest that globally, in 1989, the DM was involved on one side or the other of 27% of all currency trades—far below the dollar's share of 90%, but well above that of any other currency except for the yen, whose share as a vehicle currency was comparable. (Since each foreign exchange transaction has two sides, the total of shares adds up to 200%.) In 1998, just prior to the birth of the euro, the DM's share of global currency transactions was up slightly to 30% (BIS 1999).

Similarly, by as early as 1980 the DM's share in the denomination of global trade was estimated at 13.6%, rising to 15.3% by 1992, some 40% greater than Germany's share of total world exports (Thygesen et al. 1995; McCauley 1997). Only the dollar, with a share of global trade close to 50%, accounted for a larger proportion of invoicing.

The DM also gained some popularity in financial markets. Most indicative is a composite index of the currency composition of international assets constructed at the BIS for the years 1980–1995 (Frenkel and Goldstein 1999). This “international asset” aggregate combined holdings of bonds, notes, and cross-border banking claims for purposes of ready comparison. Over the period covered by the index, the DM attained a market share in the range of 14–15%. Again, this was second only to the dollar, though well below the dollar's share of half or more.

At the official level, Germany's currency was quickly adopted by a number of European neighbors as an anchor for the exchange rates of their own currencies. Stability compared to the DM became a high priority, for reasons to be explained below. Correspondingly, Germany's currency also became the preferred intervention medium for neighboring central banks, mostly replacing the dollar. According to one informed source (Tavlas 1991), the DM share of exchange-market interventions within Europe rose from around 25–30% in 1979 to as much as 75% by the end of the 1980s. That development, in turn, encouraged accumulations of DM in reserves, also in preference to the dollar. Estimates culled from various issues of the IMF annual report suggest that Germany's currency came to account for 12–16% of global reserves during the 1980s and 1990s.

3.2 Rise

What explains the successful rise of the DM? The roots of its internationalization lay in economics but were reinforced by politics. Two economic factors in particular stood out. One was Germany's growing importance in world trade, which mainly affected the DM's role as a medium of exchange and unit of account for private market actors. The other derived from Germany's disproportionate influence on general macroeconomic conditions, particularly within Europe, which mostly affected the currency's use at the official level. Both factors were amplified at the political level by the process of regional integration that began with the Coal and Steel Community in 1950 and the Rome Treaty of 1955—what has since been known as the “European project.”

Together, these economic and political considerations promoted a broad, albeit uneven, scope to the DM's internationalization. All six roles of an international currency were played to a greater or lesser extent. In terms of domain, however, the DM was quite localized, prevailing mainly around Europe. Elsewhere, the currency was less competitive. The DM's geographic range was regional, not global like the dollar's.

As indicated, a broad transactional network, reflecting a large and open economy, is generally considered essential to the internationalization of a currency. That proposition certainly seems to be confirmed by the German case. There is little doubt that the increased use of the DM for trade invoicing and settlement was directly linked to the Federal Republic's growing importance in international commerce, both as exporter and importer. By the 1990s, Germany had become the world's second-largest trading nation, with a share of global trade (exports plus imports) of around 10%—well behind the United States but ahead of Japan. On the selling side, Germany ranked as the second-largest exporter, with a pronounced comparative advantage in differentiated manufactured goods like machinery and transport equipment. These are the sort of products that, among advanced economies, typically are priced in the seller's own currency. (The major exception to this norm was Japan, as we shall see below.) Conversely, on the buying side the large size of the Federal Republic's domestic market gave German importers leverage to insist on denominating trade in DM, to avoid exchange risk. On both sides, therefore, use of the DM was stimulated.

The effect, however, was distinctly regional in scale, limited primarily to the Federal Republic's immediate neighbors. In the broader global economy, Germany was by no means a giant among nations—only about one-fifth the size of the US market and equal to no more than 60% of Japanese GDP. Its place in the world was substantial but hardly overwhelming. Within Europe, however, the Federal Republic was dominant—about 30% larger than France and 40% larger than the United Kingdom. In its own vicinity, Germany's large market was bound to exercise a strong gravitational pull.

In turn, the regional bias was reinforced by the European project of integration. By the 1980s nearly the entire continent west of the Iron Curtain was drawn together by a network of trade agreements, reducing or eliminating barriers to commerce in the region. Some countries were full members of the so-called common market, known today as the European Union (EU). Others were effectively included under other accords. Europe's increasingly close commercial ties naturally added to the weight of the regional leader's currency. With barriers falling, intra-European trade could logically be expected to grow faster than trade with countries elsewhere; and no economy was more important within the region than the Federal Republic. As nearby countries grew increasingly dependent on Germany, both as a market and a source of supply, it was only natural that they would be prepared to do more business using the DM.

A record of low inflation is also considered essential to internationalization. This proposition seems to be confirmed by the German case. The German public has a well-known aversion to inflation, dating back to the hyperinflation that swept the country after World War I. A pronounced "stability culture" has long prevailed, fully reflected in the hardline policies of the Federal Republic's central bank, the Bundesbank. Throughout the post-World War II period, Germany consistently ranked among the least inflationary of all economies. That preference was bound to have a disproportionate influence on general macroeconomic conditions across Western Europe, given the Federal Republic's central position in regional import and export markets. Neighboring states were driven to keep their own prices in line in order to avoid a loss of competitiveness relative to Germany. The imperative was to stop real exchange rates (nominal exchange rates adjusted for inflation differentials) from rising.

This meant that many European governments felt under pressure to match Germany's high interest rate as best they could. It may have been a bit of a caricature to suggest, as some observers did, that the Bundesbank was making monetary policy for all of Europe—a simplification that came to be known as the "German dominance hypothesis." Econometric evidence suggests a more nuanced picture, where interest rates often moved in tandem but were less than perfectly correlated (Von Hagen and

Fratianni 1990; Laopodis 2001). There is little question that a distinct asymmetry prevailed looking very much like the sequential Stackelberg leadership model of game theory, with the Bundesbank as the acknowledged leader. Other central banks then decided whether (or by how much) to follow German policy in response.

The same imperative also explains why stability in relation to the DM became a high priority. Neighbors felt compelled to anchor their nominal exchange rates to the DM as a kind of check to their own inflationary propensities. As one informed commentary put it (Frenkel and Goldstein 1999: 720): “The gradual hardening of exchange rate commitments... became the mechanism by which previously high-inflation members chose to discipline their own monetary policies, and it was to the Bundesbank and its anti-inflationary credibility that these countries turned for monetary policy leadership.” By the end of the 1980s the Bundesbank (1988: 14) was boasting that the DM “performs the function of a key currency, acting as a ‘stability anchor’ for the other pertinent currencies.”

It was only natural, therefore, that most interventions in Europe would be carried out in Germany’s currency and that a larger share of reserves would now be maintained in DM. Here too, the impact was reinforced by the European project, which from the late 1960s onward featured repeated attempts to promote some form of regional monetary integration. First, in 1972, came the so-called “snake,” a mutual intervention system aiming to link the currencies of Germany and its Common Market partners together in a joint float. When that experiment proved unsustainable, agreement was reached in 1978 to launch a new European Monetary System (EMS), designed in effect to create an improved “supersnake” for Europe. At the heart of the EMS was the Exchange Rate Mechanism (ERM), where in principle all interventions to sustain the joint float would be symmetrical within a matrix of bilateral cross-rates. In practice, however, the ERM soon evolved into something more like a spoke-and-wheel construct with Germany’s currency at the center—a DM zone. Studies show that by the 1980s almost all of Europe’s currencies were shadowing the DM to an extent (Bénassy-Quéré and Deusy-Fournier 1994; Frankel and Wei 1995).

3.3 Limits

Yet for all its achievements, German’s currency never came close to true global status. Even before its absorption into the euro, the DM had clearly reached its limit—a distant second to the dollar. Four factors, both economic and political, explain why.

First was sheer inertia, reflecting the dollar’s undoubted incumbency advantages in most parts of the world. Outside Europe, the DM offered no significant gains relative to the dollar. Only within the European neighborhood was Germany’s gravitational pull sufficient to make the DM truly competitive. Elsewhere, the dollar retained its traditional edge.

Second was the inaccessibility and relative backwardness of Germany’s financial markets, as compared with the global market for the dollar. Although convertibility of the DM for current account transactions was introduced as early as 1958 (along with most other European currencies), a panoply of capital controls persisted until as late as the mid-1980s, restricting foreign participation; the financial system could hardly be described as open. Moreover, institutional development was hindered by a variety of complex regulations and taxes. German bond and equity markets were notably thinner than corresponding markets in New York or London, offering a limited range of financial instruments. Accordingly, trading in DM-denominated claims was narrow and expenses were high, hampering transactional liquidity. It was hardly surprising, therefore, that use

of the Federal Republic's currency as an investment medium, though not insignificant, would lag considerably behind its other international roles.

Third was a notable reluctance on the part of the German government to do much to promote internationalization of the DM. Until the early 1980s the Bundesbank actively sought to restrict cross-border use—for example, by exercising firm command over the issue of DM obligations in the external bond market (Neumann 1986: 110). At issue was control of monetary policy, so critical to Germany's anti-inflationary stability culture. Public authorities feared that in time an undue constraint might be imposed on policy at home by an excessive accumulation of liabilities abroad—an apprehension that was widely shared by financial interests and other key constituencies across German society (Henning 1994). Over the longer term, it was thought, shifting currency preferences could generate much exchange rate volatility and uncertainty, threatening both price stability and export revenues. At no point did the government take a proactive stance on internationalization. If the DM was to emerge as a rival to the dollar, it would have to do it on its own.

Finally, there was the security dimension. The Federal Republic may have been a stable democracy with full respect for property rights and an earned reputation for effective policy management. However, it was also a divided nation on the front line of the Cold War, hardly what might be considered a safe haven for investors. For understandable historical reasons, the German government was reluctant to rebuild a strong military machine capable of projecting power abroad, relying instead on the protection of the United States. Foreign governments, therefore, had no reason to look to Germany for leadership on security issues. If they were to be attracted to use the DM, it would have to be for economic, not political reasons. As we know, the DM's economic appeal was limited largely to the European region, setting a natural limit to the currency's scope and domain.

4. THE YEN

In many ways, the story of the Japanese yen is similar. At the end of World War II, Japan lay in ruin, with its economy shattered and its currency virtually worthless. Then, Japan too enjoyed an economic miracle, with growth rates from the late 1950s onward that were the envy of the world. By the late 1960s, Japan's GDP had come to be the second largest in the world—larger even than Germany's. By the late 1970s the international standing of the yen was well established. Yet, Japan's currency ultimately reached its limit; indeed, more recently, it has in most respects gone into seemingly irreversible decline. Here, too, both economic and political considerations played pivotal roles.

4.1 History

The rise of the yen was impressive but uneven in both scope and domain. At both the private and official levels, the currency came to be used much more as a store of value than as a medium of exchange or unit of account. Geographically, its reach, like that of the DM, remained primarily regional, for the most part limited to the nations of East Asia. Overall, the yen never managed to climb above third place among international currencies, behind not just the dollar but the DM as well.

The yen's internationalization was most notable in financial markets, where persistent appreciation made the currency an especially attractive store of value. According to the composite index constructed at the BIS, the yen's share of claims in international asset

markets accelerated swiftly from little more than 3% in 1980 to 12.4% in 1995 (Frenkel and Goldstein 1999). Growth was especially rapid in the offshore bond market, where the proportion of new issues denominated in yen more than tripled between 1980 and 1995, from under 5% to above 17% (Iwami 2000). By the 1990s the yen's share of the bond market matched that of the DM, though both remained well short of the dollar. The Japanese currency was especially popular in the East Asian region, where the yen supplanted the dollar as the predominant vehicle for foreign borrowing. Included, most notably, were larger neighbors like Indonesia, the Republic of Korea, Malaysia, the Philippines, and Thailand. Within Japan, non-resident holdings of both bank deposits and securities expanded steadily through the 1980s and into the 1990s.

Likewise, for central banks the yen became an attractive complement to the dollar or DM for purposes of portfolio diversification. IMF estimates suggest that during the 1980s and early 1990s the yen's share of global reserves more than doubled, from just over 3% to close to 8%. That was only half the portion accounted for by the DM but well ahead of any other currency. Once again the yen was favored most in East Asian nations, where the currency's share of reserves topped 17% by 1990 (Tavlas and Ozeki 1992; Kawai 1996).

For other uses, the yen's performance was respectable but by no means overpowering. In foreign-exchange markets, the yen share of currency trades accelerated over the course of the 1980s to a peak of 27% in 1989 but never did surpass the proportion accounted for by the DM (BIS 1999). Here, too, the appeal was mainly regional. Japan's currency was most favored as a vehicle in East Asia, in financial centers like Singapore and Hong Kong, China, where the proportion of business done in yen was considerably higher than anywhere else. Likewise, in the invoicing of global trade, available evidence suggests that there was some expansion of use, but from a very low base and again concentrated mainly in East Asia. The yen's share in the denomination of trade more than doubled during the 1980s but in 1992 still accounted for less than 5% of the world total. That represented little more than half of Japan's share of global exports (Thygesen et al. 1995).

Finally, there was the yen's potential as a possible anchor for the exchange rates of other currencies. Over the course of the 1980s and into the 1990s there was much debate about whether, or to what extent, Japan and its neighbors might be coalescing into some kind of yen bloc, comparable to the emerging DM zone in Europe. In fact, most governments in the East Asian region preferred to maintain a managed float. Usually the float was in line with a currency basket of some kind, though the components of their baskets were rarely disclosed. Econometric analysis suggests that increasingly some of Japan's neighbors—including, in particular, the Republic of Korea, Singapore, and Thailand—did begin to shadow the yen more closely, putting greater weight on the yen relative to the dollar (Frankel 1993; Frankel and Wei 1995). However, in no economy other than the Republic of Korea did the yen actually surpass the dollar as an anchor; no country ever formally pegged to the yen. If there was a yen bloc, it was a feeble one. In the words of one contemporary analysis (Maehara 1993: 164): "From a policy perspective, it appears that the yen has not yet been perceived as a key regional currency to the extent that the deutsche mark is incorporated as an anchor currency in the European Monetary System." As another source declared (Bénassy-Quéré and Deusy-Fournier 1994: 138) more bluntly: "The yen zone is reduced to Japan." Correspondingly, there was also very little increase in the use of Japan's currency for intervention purposes.

4.2 Rise

As with the DM, the roots of the yen's internationalization lay mainly in economics, though in the yen's case—in contrast to the DM—there was little reinforcement from politics. Unlike Europe, post-World War II Asia never sought any sort of formal integration; there was no local equivalent of the European project. Nor did the Japanese government at the time actively promote foreign use of its currency. Widespread adoption of the yen occurred in the absence of—not because of—affirmative political support. Economic motivations dominated.

To begin, there was Japan's enviable inflation record, confirming again the importance of monetary stability in the process of internationalization. Over the course of the 1980s Japan recorded the lowest price increases of any advanced economy. Annual inflation averaged about 2.6%, lower even than Germany's 2.9% (Tavlas and Ozeki 1992). At the same time, decades of trade surpluses had made Japan the world's greatest creditor nation, even as the United States was becoming a net debtor. Together with the sustained strength of the yen's exchange rate and a seemingly stable political system, these considerations were bound to make the currency an attractive store of value for investors and central banks alike. A strong demand for yen-denominated claims was assured.

In turn, a series of regulatory reforms supported increased access to a growing yen supply as well. During the first decades after World War II, Japan's financial system was the most tightly managed of any industrial nation, inhibiting wider use of the yen. Domestic markets for equities and securities were relatively underdeveloped, and financial institutions were rigidly segmented. Beginning in the mid-1970s, however, a gradual process of deregulation began, prompted in particular by a slowing of Japan's economic growth. Interest rates were soon freed, encouraging investor appetite for a rapidly rising volume of public debt, and new markets were created or expanded for government liabilities, certificates of deposits, and other financial instruments. The traditional segmentation of institutions was relaxed and supervisory practices were strengthened, gradually increasing both exchange convenience and capital certainty.

Most importantly, capital controls were largely eliminated, opening the domestic system to greater foreign participation. Earlier, strict limitations on the movement of funds restricted both inward and outward investments, even though convertibility of the yen for current account transactions was restored as early as 1964. But that too began to change by the 1980s. In 1980, non-resident access was eased by a new Foreign Exchange and Trade Control Law, which established the principle that cross-border capital flows should now be free unless specifically restricted. In 1984, Tokyo committed to a panoply of further liberalization measures outlined in an agreement negotiated with the United States. The so-called Yen/Dollar Agreement grew out of discussions of the Working Group on Yen/Dollar Exchange Rate Issues—the Yen/Dollar Committee—that had been created jointly by the US Treasury and the Japanese Ministry of Finance in 1983. Subsequent years saw a flurry of measures to widen the scope of allowable foreign activity in domestic banking and capital markets (Shigehara 1991; Kawai 1996). Overall, the process of liberalization was by no means complete, as contemporary accounts emphasized (Garber 1996). Cumulatively, the government's initiatives did suffice to increase Japan's integration into world financial markets and to promote use of the yen for investment and reserve purposes.

Finally, there was the massive size of Japan's economy and foreign trade, exerting a strong gravitational pull on markets elsewhere. Without the promise of a broad transactional network, the yen would never have become the third most popular vehicle

in foreign exchange trading, nor would East Asian governments have given it so much weight in the management of their exchange rates. In the 1980s, Japan was seen as a new giant on the world stage, destined perhaps even to surpass the United States as a global economic power. The appeal of the yen for international use naturally followed. For many, it was only a matter of time before the currency would take its rightful place alongside the dollar and the DM at the peak of the Currency Pyramid (Kwan 1994; Hale 1995).

4.3 Limits

The anticipated rise of the yen failed to happen. As in the case of the DM, a limit was eventually reached, and internationalization of the yen peaked somewhere around the mid-1990s. Ever since, the currency's standing has gradually declined. In banking markets, the yen share of cross border claims has declined from 14% in the early 1990s to under 4% by 2010. Similarly, in bond markets the share has fallen from above 17% to under 3%. In currency markets the drop has been from 27% to 19%, and in central bank reserves, from near 8% to less than 4%. No one today speaks of Japan's currency as a future number one (or even number two). What happened? In this instance, five factors may be cited.

First, once again, was the force of inertia. By the time the yen became prominent in the 1980s, there were already two well established rivals—the dollar globally and the DM in Europe. The incumbency advantages of these two currencies were hard to overcome. Outside East Asia, the yen offered no significant gains relative to either one.

Second was the crash of the Japanese market after the bursting of its so-called “bubble economy” in 1989. In ensuing years, the country was plagued by stagnation, frequent recessions, and persistent price deflation, even as the neighboring PRC charged ahead with double-digit growth rates. Over time the gravitational pull of the Japanese economy simply became less and less forceful.

Third was the unique pattern of invoicing in Japanese trade, which discouraged foreign adoption of the yen as a medium of exchange. Unlike most other advanced economies, Japan did relatively little of its overseas business in its own currency. Whereas in the United States virtually all exports were denominated in dollars and in Germany 80% in its own currency, in Japan the corresponding figure at the time was only some 30–35%. Most exports were denominated in dollars, reflecting the central importance of the US market as a destination for Japanese goods. The practice represented a rational “pricing to market” strategy to maintain market share in the United States. Only sales to developing countries tended to be denominated in yen. Over time, there was some increase in yen invoicing, mainly due to the growing salience of East Asia as an export market (Sato 1999). But as noted, even at its peak the currency's share in global trade remained remarkably small.

Fourth was the role of public policy in Japan, which for years was notably unhelpful. Like the Germans, the authorities in Tokyo were long resistant to internationalization of their currency, which they too feared might in time impose an undue constraint on domestic monetary management. Some in the government did take a more positive tone. Most notable was the Council on Foreign Exchange and Other Transactions, an advisory body to the Ministry of Finance, which in 1985 called for further financial liberalization to enhance the yen's international appeal. For the most part, however, the regulatory reforms of the 1980s were adopted reluctantly, partly to stimulate domestic growth, as indicated, but also as a grudging concession to the United States. Through the Yen/Dollar Committee, Washington pressured Tokyo to liberalize its financial structure in hopes of raising demand for the yen. The idea was to engineer an

appreciation of the yen that would improve the competitiveness of US goods vis-à-vis Japan. Yen internationalization was seen by most Japanese not as a goal to be sought, but rather as a price to be paid to retain the good will of the Americans.

In fact, appreciation did occur, particularly after the well-publicized Plaza Accord of 1985, but with consequences that were not anticipated at the time. In order to soften the adverse effects of the appreciation, Japan's central bank pushed interest rates to historically low levels. The result was a marked increase in speculation in the equities and real estate markets, which fed the bubble that finally burst in 1989. Many in Japan have blamed the United States, at least in part, for the prolonged deflation that followed, harking back to the pressures Washington exerted through the Yen/Dollar Agreement and Plaza Accord (e.g., Okina et al. 2001; Hamada and Okada 2009).

Interestingly, as Tokyo struggled to come to grips with the country's post-bubble downturn, opinion on internationalization shifted. Over the course of the 1990s, strengthening the international role of the yen became a declared policy objective in the hopes that it would help promote economic recovery at home (Grimes 2003). Most dramatic was a multi-year financial liberalization program announced in 1996, dubbed the "Big Bang" in imitation of the swift deregulation of the United Kingdom's capital markets a decade earlier. Under the Big Bang all remaining capital controls were to be eliminated and a variety of other ambitious measures were scheduled, including tax reductions and increases in the range of available financial products. Especially after the Asian financial crisis of 1997–1998, a concerted effort was made to promote broader use of the yen for a variety of purposes, guided by the recommendations of a newly established Study Group on the Promotion of Yen Internationalization. But by that time it was too late. As economic stagnation dragged on, the government's campaign failed to reverse the declining interest in the yen. Defeat was admitted in 2003 when the strategy was officially abandoned. In the words of one Japanese observer, "it was clear that any further attempt to internationalize the yen... would be futile" (Takagi 2012: 83).

Finally, there was also a security dimension. Like Germany, post-World War II Japan was considered to be a stable democracy with full respect for property rights and effective policy management. Investors were probably attracted for those reasons, but as powerful as it was in economic terms, Japan lacked the political means to influence the currency preferences of foreign governments. It was in no position to offer leadership on security issues. Limited by its occupation constitution to a modest self-defense force, Tokyo was incapable of projecting military power beyond the country's home islands. Indeed, Japan was obliged to seek protection under the security umbrella of the United States. Also, there were no nations in the region prepared to follow Japan's lead. Memories were still fresh of Tokyo's wartime atrocities and pre-war attempts to build an imperial Greater East-Asia Co-Prosperty Sphere. Here too, as in the case of the DM, it appeared that if others were to be attracted to use the yen, it would have to be for economic, not political reasons.

5. THE EURO

The last antecedent to be considered is the euro, Europe's joint currency. In 1999 the European Union (EU) began its grand experiment—the new Economic and Monetary Union (EMU), with the euro as its centerpiece. Although still a story in progress, the contours of the tale are by now clear, bearing a strong resemblance to the experience of the yen (albeit on a more compressed time scale). After a fast start following the

currency's birth, euro internationalization appears to have quickly reached a limit. In more recent years, it may even have gone into reverse.

5.1 History

A fast early start was not unexpected, given the euro's credentials. From the moment of its birth, Europe's new currency clearly enjoyed many of the qualities necessary for competitive success on the world stage. These included a large economic base in the membership of the eurozone, which initially numbered eleven countries—including some of the world's richest economies—and has now increased to eighteen. They also included deep and resilient financial markets, unquestioned political stability, and an enviably low rate of inflation, all backed by a joint monetary authority, the European Central Bank (ECB), which was fully committed to preserving confidence in the currency's future value. For many observers, the global future of the euro seemed secure; for some, it seemed that Europe's currency might even overtake the dollar as the world's pre-eminent currency (Chinn and Frankel 2008; Papaioannou and Portes 2008). Hence it was no surprise that in the euro's early days, international use seemed to expand exponentially.

Soon, however, momentum slowed. The currency's fast start appears to have peaked sometime around 2003–2004; thereafter, use for cross-border purposes leveled off at rates well below those enjoyed by the dollar. In effect, the euro did little more than hold its own compared to the past aggregate market shares of the EMU's "legacy" currencies. Given the fact that Germany's old DM had already attained a number-two ranking in global monetary relations, second to the dollar, anything less would have been a real shock. However beyond that, a limit does appear to have exerted itself. Straight-line extrapolation of the euro's early acceleration far into the future does not seem to have been warranted.

Limits were evident in terms of both scope and domain. On the one side, growth of euro usage was broad but, like the DM before it, sharply uneven across functional categories. The early expansion of international use was especially dramatic in the issuance of debt securities, reflecting the promised integration of Europe's financial markets. There was also 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, there was little penetration. The ECB's (2008: 7) polite way of putting this was that use of the euro turned out to be "heterogeneous across market segments."

On the other side, the euro's domain turned out to be starkly bifurcated, just as it had been for the DM. For the most part, internationalization of the euro has been confined to economies with close geographical and/or institutional links to the EU and euro zone. These include the EU's newest members, all destined eventually to join the monetary union, as well other candidate states (for example, Croatia or Montenegro) and non-member neighbors like Norway and Switzerland. They also include several nations around the Mediterranean littoral as well as a number in sub-Saharan Africa. Where trade and financial ties are deep, the euro obviously enjoys a special advantage. However elsewhere, in stark contrast, scale of use drops off abruptly. The evidence, concludes the ECB (2010: 7), clearly confirms "the strong regional character of the euro's international role."

Worse, in more recent years, some of the euro's achievements have even been reversed as global crisis has lingered and Europe's debt and banking problems have multiplied. Given the adverse circumstances, the ECB (2012: 7, 9) says the currency has remained notably "resilient." That is at best a backhanded compliment, referring mainly to the relative stability of the euro's exchange rate. In terms of actual use, key

indicators have started to trend downward. The global share of debt securities issued in euros, for example, which had peaked at one-third in 2004, began to slide in 2009, and by the end of 2011 was down to less than one-quarter (ECB 2012: 58). Similarly, the euro's share of international reserves, which had exceeded 27% as recently as 2009, fell to below 24% by the end of 2012. Most of the decline, according to the IMF, was accounted for by developing countries, where central banks sold off €45 billion in 2012, cutting their holdings by 8%. "Resilience," plainly, is in the eye of the beholder. The best we can say, truthfully, is that it could have been worse.

5.2 Limits

The reasons for the euro's early rise are clear. Despite the skepticism of some, including myself (Cohen 2003), the currency's credentials appeared obvious. Yet it failed to live up to its potential. Why? Here four factors seem paramount.

First is the familiar force of inertia, which in this instance acted as a double-edged sword. Within the European region itself, where the DM already predominated, adoption of the euro as the DM's successor was only to be expected. In the eyes of many, the euro was simply the DM writ large. Inevitably, the new currency would inherit the natural hinterland of the old. But beyond the immediate neighborhood, the force of inertia worked the other way, to favor the US dollar with all its incumbency advantages. In this respect, the euro was able to make no more headway than the DM or the yen before it.

Second has been the absence of any pro-active policy by European authorities to promote a major role for the euro. Like the German and Japanese governments before it, the EMU has been at best ambivalent about internationalization. From the beginning, policy has remained studiously neutral, in principle neither discouraging nor encouraging wider use by foreigners. According to an authoritative early statement by the ECB (1999: 31), repeated many times since, development of the euro as an international currency—if it were to happen at all—would be a market-driven process, and simply one of many possible byproducts of monetary union. Policy makers would take no action to directly enhance the currency's appeal.

Third, once again, is the security dimension. How could EMU—a gaggle of states with limited military capabilities and divergent foreign-policy interests—possibly substitute for the global influence of the United States? How could others look to Europe for protection? As economist Adam Posen (2008: 80) comments: "The European Union, let alone the euro area itself, is unable or unwilling to offer these systemic or security benefits beyond a very limited area." Bessma Momani (2008: 309), a political scientist, echoes: "While there are viable currency alternatives to the US dollar, there are no alternatives to the US military security umbrella." Few governments had any political interest in switching their currency allegiance to a weaker patron.

Finally—and perhaps most importantly of all—is the issue of the euro's internal governance. For all their other limitations, this was never a question for the DM or yen. No one doubted that Germany and Japan were capable of effective policy management. The euro, as the joint currency of a club of sovereign states, is obviously different; a currency, in effect, without a country. A fundamental mismatch exists between the domain of the EMU and the jurisdictions of its member governments, which makes decision making problematic at best. The euro is the product of an interstate treaty rather than the expression of a single sovereign power. For outsiders, therefore, the currency can be considered only as good as the political agreement underlying it; and as recent experience in Europe has vividly demonstrated, the

requisite agreement is often tenuous at best. Foreigners cannot be blamed for not wishing to put too many eggs into that fragile basket.

6. LESSONS

What lessons are suggested by these three cases for the future prospects of the yuan? Although the sample is admittedly small, much can be learned from the prior examples of the DM, yen, and euro. Given the PRC's apparent determination to promote internationalization of the yuan, the lessons may be framed as a series of "dos and don'ts" for Beijing—ten commandments for the Long March toward world status.

1. **Don't underestimate the power of inertia.** International currency use is obviously path dependent. It is not a level playing field; market actors and governments are already locked into certain patterns of behavior, institutionally and linguistically. Newcomers, therefore, start at a distinct competitive disadvantage that may be difficult to overcome. Inducing agents to switch is not impossible; the yuan's three antecedents all showed that barriers to entry can be overcome to some extent, but the challenge, clearly, is daunting. The yuan must not just be as good as the dollar or other international currencies. It must, somehow, promise to be better than existing incumbents to surmount the powerful force of inertia.

Much depends, of course, on what happens to the existing incumbents. The pre-eminence of the dollar has long been threatened by the US's persistent payments deficits and accumulating foreign debt, which many believe must sooner or later erode its global competitive advantage. In the words of Barry Eichengreen (2011: 5–6), "as a result of the financial mismanagement... the dollar's singular status is in doubt." Switching away from the dollar could become increasingly attractive, paving the way for greater use of the yuan. Yet even then, the yuan would face formidable obstacles owing to the lingering presence of other potential rivals. The yuan would not be the default choice. In the European neighborhood, as indicated, the euro still enjoys a special advantage. Likewise, the dollar is apt to retain its appeal in the Western Hemisphere and perhaps also in the Middle East. Even the yen, for all its troubles, remains a popular option in financial markets. The most likely outcome would not be a new monetary order dominated by the yuan, but rather something closer to a multi-currency universe—what I have elsewhere called a "leaderless currency system" (Cohen 2011), with several "peer" competitors in contention and no single currency at the top.

2. **Don't be passive.** Following from the first lesson, it would seem vital to actively support the internationalization process through public policy. That none of the yuan's antecedents managed to achieve its full promise cannot be blamed entirely on the ambivalence or resistance of their issuing authorities; as indicated, many other factors were also involved. But the lack of official backing surely did not help. Affirmative government action may not be *sufficient* to bring the yuan to the top of the currency pyramid, but arguably, it may be *necessary*. Judging from the many actions that have already been taken by Beijing to promote international use of the yuan (Cohen 2013), the PRC's leaders would appear to need no convincing on that point.

3. **Don't be too ambitious.** A global domain for the yuan, rivaling the worldwide reach of the dollar, may be a worthy goal, but it is unlikely to be immediately attainable. Both logic and experience suggest that internationalization tends to start close to home, building on close geographical and institutional linkages, and only then may go on to true world status. It stands to reason that, initially at least, a currency will be most appealing to neighbors with extensive trade or financial ties. That is the way the

process worked with all three antecedents discussed in this paper, each of which started in a specific region. Going further back in history, one could argue that the same was true for the early rise of both the pound sterling and the dollar as well. A realistic pro-active strategy for the yuan would aim to consolidate a firm base in East Asia before reaching out to other parts of the globe.

4. Do sustain price stability. To be competitive, a currency must inspire confidence. In this regard, the three antecedents confirm the importance of a record of relatively low inflation, especially for a currency's use as a store of value. The yuan is unlikely to hold much appeal to investors or central banks if its future value is not reasonably assured. To date, the PRC's central bank, the People's Bank of China (PBOC), has been notably successful in keeping a lid on the rate of price increases despite decades of rapid economic expansion. However, few would deny that the task has been made easier by a wide panoply of government controls over interest rates, the quantity and allocation of credit, cross-border capital flows, and the yuan exchange rate. Many of these controls are slated for relaxation or removal as the country moves—in the words of the ruling party's central committee after its most recent meeting in November 2013—to make market forces play a “decisive” role in the economy. The question is whether the PBOC will be able to sustain its record of success in a more liberalized financial environment. Doubts are only to be expected so long as the PBOC falls short of the degree of political independence enjoyed by the Federal Reserve and all other major central banks.

5. Do maintain a reputation for effective policy management. All three antecedents confirm the importance of stable and effective economic governance as a source of confidence. The early rise of each of the three currencies was associated with rapid economic growth, a trade surplus, and high employment. In the cases of the DM and the yen, it helped that Germany and Japan emerged as major creditor nations. Non-residents had no reason to fear for the solvency of either currency. Conversely, the subsequent setbacks for the yen and euro were clearly attributable, at least in part, to stunning policy reversals—in one case, the bursting of Japan's bubble economy; in the other, a wave of sovereign debt and banking problems.

For many, of course, it is tempting to blame those policy reversals on others. As indicated, many Japanese have held the United States at least partly responsible for the bubble economy of the 1980s that subsequently brought them so much pain. Likewise, many Europeans attribute their tribulations today to the global crisis that started with the excesses of the US housing market before 2007. The issue is not how troubles start but how well a government deals with them once the storm breaks. For three decades, the PRC's record of overall economic success was unmatched. More recently, however, blemishes have begun to appear, including slower growth, rising labor costs, increasing levels of debt, glaring income inequalities, and severe environmental problems. Does the PRC face its own policy reversal? Trust in the yuan will be damaged, possibly irreversibly, if Beijing is unable to keep the ship of state on an even keel.

6. Do cultivate extensive trade relations. For all three antecedents, a broad transactional network was critical to their early internationalization. Where a high proportion of the issuer's exports were denominated in the home currency, as was the case for both the DM and the euro, extensive trade relations encouraged broader use for purposes of invoicing and settlement. In all three instances, the gravitational pull of strong trade ties led to closer exchange rate relationships and greater use for intervention and reserve purposes as well. As the world export leader, the PRC would seem to be in an excellent position to boost use of the yuan as a medium of exchange.

Trade volume alone, however, will not be enough. The structure of trade relations will also make a difference. The PRC today, despite its great weight as a trading nation, is similar to Japan in that it has only a small percentage of its exports denominated in its own currency. To a large extent, that is due to the distinctive character of the PRC's foreign trade structure, which to date has been highly networked. With its low labor costs, the PRC has made itself into the "world's workshop" by encouraging imports of high valued-added inputs and components that could then be processed or assembled into lower value-added final products for export. In such a network structure it makes sense to "price to market," denominating all the links of the production chain in one widely accepted international currency such as the dollar. That is not likely to change substantially unless the PRC can succeed with plans to move up the technological scale to more home-grown, high value-added industrial goods, as it has already done in areas like solar panels and wind turbines. Across the industrial world, as indicated, exports of differentiated manufactured goods typically tend to be invoiced and settled in the seller's own currency. The more the PRC is able to move its production structure in that direction, the easier it will be to expand the yuan's role in international trade.

7. Do broaden convertibility. At a minimum, convertibility for current account transactions would seem to be an absolute requirement to get the process of internationalization going. But what about the capital account? As the stories of the DM and the yen both demonstrate, widespread adoption of a currency for cross border use is possible even in the presence of a substantial array of capital controls. Serious financial liberalization did not begin in either Germany or Japan until well after their currencies had already gained broad acceptance. This would seem to suggest that full convertibility of the yuan is by no means necessary. But it is also clear that the achievements of the DM and yen might have been even greater had full convertibility been introduced earlier. A degree of currency internationalization was sacrificed for the sake of maintaining a grip on domestic financial conditions.

Today, the PRC faces the same trade-off. Some broadening of capital account convertibility seems necessary to promote interest in the yuan as an investment medium or reserve asset. How much convertibility, however, is a matter of choice. At a minimum, market actors and central banks would need to be given full freedom to establish yuan bank accounts and to buy and sell selected classes of PRC bonds and stocks. Few foreigners are likely to see yuan denominated claims as attractive if they cannot be acquired or sold at will. Equally important would be the right to issue new yuan debt or equities in the PRC in order to facilitate portfolio balancing. Internationalization on the asset side must be complemented by internationalization on the liability side. However, at the same time, trading in certain classes of liquid claims—especially in more speculative sectors such as options, futures, or other exotic derivatives—might well remain prohibited or tightly regulated to reduce the risk of destabilizing capital flows. The idea would be to encourage greater use of the yuan as a store of value while minimizing resulting vulnerabilities.

Complicating the trade-off is the fact that today many more currencies are convertible than was the case in the 1970s and 1980s, offering market actors and central banks a wider range of opportunities. In principle, this would seem to increase the pressure on Beijing to liberalize fully. Given the PRC's great economic importance, even a partial opening of the capital account could be expected to attract wider use of the yuan. Though the availability of more accessible alternatives might slow down the yuan's Long March to an elevated status, it would be unlikely to stop the currency's ascent. In practice, some range of restrictions on more speculative market sectors could be preserved to sustain financial control at home.

8. **Do promote financial market development.** Convertibility alone, however, is not enough. Access is just part of the story. The cases of the DM and yen also demonstrate how important it is to promote the development of deep and resilient financial markets capable of meeting the needs of international investors and central banks. Opening the capital account is just the beginning. Equally important is assurance of an adequate degree of exchange convenience and capital certainty. Sectors that are to be opened to foreign investors must offer both low transaction costs and a level of turnover high enough to ensure that large new orders will not generate major price shifts. Achieving these goals takes time, and it is no secret that the PRC still has a long way to go on these matters.

9. **Don't ignore domestic political institutions.** Among the qualities that made the DM and yen attractive were domestic political stability and unquestioned respect for the rule of law. Both Germany and Japan were reborn after World War II as functioning pluralistic democracies, where agents could reasonably assume that contractual obligations would be fairly and effectively enforced. Gone was the arbitrariness and unpredictability of authoritarian government. Had circumstances been otherwise, it is hard to imagine either country's currency gaining much traction in international markets. Recall that non-nationals cannot be compelled to make use of a currency; they must be persuaded. But why would actors deliberately and unnecessarily expose themselves to serious political risk?

In the PRC's case this would seem to suggest that some degree of domestic political reform, to assure adequate respect for property rights, will be essential to heighten the appeal of the yuan. Trust in the country's institutions must be laboriously cultivated. In this regard, too, the PRC still has a long way to go. In the words of one astute observer (Lo 2013: 162): "China faces a credibility problem... Without political reform supporting deeper structural reforms, the internationalization process would either stall or go astray."

10. **Don't ignore geopolitics.** Foremost among factors that limited adoption of the yuan's three antecedents was the security dimension—the inability of any of their issuers to match the military prowess of the United States. None could offer the same kind of security guarantees that Washington routinely extends to foreign governments that use its currency. The PRC, by contrast, is rapidly developing an ability to project power beyond its borders, which could in time encourage some states to switch their monetary allegiance. Much depends, however, on how others perceive Beijing's foreign policy intentions. Will the PRC use its power defensively, to help promote peace in East Asia or elsewhere; or aggressively, to pursue controversial national goals (such as territorial claims in the East and South China Seas)? The outcome is yet to be seen.

7. CONCLUDING REMARKS

This essay began with the question: Will history repeat itself? Or will the yuan prove to be an exception, as the currency that finally managed to keep ascending where others faltered? The answer, not surprisingly, is uncertain. A look at the past cannot provide an infallible guide to the future. However, a review of three recent antecedents—the DM, the yen, and the euro—does help to identify the factors, both economic and political, that seem most likely to determine the yuan's prospects. I have summarized the principal lessons to be drawn from these earlier experiences in a decalogue of ten commandments.

The main message of my analysis is that the challenge of yuan internationalization is formidable, involving very demanding conditions. The principal conditions may be

summarized in six questions: Can Beijing sustain its record of price stability and effective policy management (commandments 4 and 5)? Can the country succeed in shifting its industrial and trade structure toward exports of more advanced differentiated products (commandment 6)? Can the yuan's convertibility be broadened (commandment 7)? Can domestic financial markets be adequately developed (commandment 8)? Can the country's political institutions be trusted (commandment 9)? Can geopolitical tensions be avoided (commandment 10)? Contrary to predictions of the yuan's rise, success in all these respects is by no means guaranteed. Yet without them, the Long March may never reach its destination.

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