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RESEARCH ARTICLE

The Benefits and Costs of an International Currency: Getting the Calculus Right

Benjamin J. Cohen

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Abstract Does it pay to issue an international money? Should a government promote internationalization of its currency? And if so, how might policy makers shape cross-border use to maximize net gains? The aim of this essay is to address these old questions anew, in hopes of providing clearer insight into the strategic calculus involved. Scholars have debated the net benefits or costs of currency internationalization for decades. Yet despite much sound and fury little analytical consensus exists. The conventional literature is marred by at least three critical defects, which might be called the three M's—Misconceptions, Misplaced Concreteness, and outright Mistakes. A proper appreciation of the three M's, I endeavor to show, can take us a long way toward getting the calculus right.

Keywords Currency pyramid · Misconceptions · Misplaced concreteness · Mistakes

JEL Classification E42 · F33

1 Introduction

A flourishing world economy requires some kind of internationally acceptable money. Otherwise, nations would be reduced to crude barter, severely limiting gains from cross-border trade or investment. What form should an international money take? From a strictly economic point of view, a single supranational currency would seem to be most appealing, since transactions costs would be minimized. As Nobel laureate Robert Mundell has quipped, emphasizing efficiency considerations, the

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optimum number of currencies is like the optimum number of gods—"an odd number, preferably less than three.[1]" But does anyone seriously believe that in a fragmented world of nearly two hundred sovereign states, credible agreement can be reached on terms for the creation and management of a genuine global money? From a political point of view the option seems unattainable, even risible. Much more realistic is the prospect that the world will continue in the future, as it has in the past, to rely mainly on a limited selection of national currencies to play vital international roles.

Historically, a pronounced hierarchy has always existed among the world's diverse moneys in what I have previously characterized as the Currency Pyramid (Cohen 1998, 2004). From the days of the earliest coins in ancient Asia Minor, competition among currencies has thrown up one or a few market favorites that, for shorter or longer periods of time, predominate in cross-border use and set a standard for all other moneys. Not insignificant is the fact that in every case the dominant currency's issuer—at least at the start—was also a major, if not dominant, economic and political power. The gains for the world economy are clear; an international currency supplies the lubricant needed to keep the wheels of global commerce turning. But what of the issuer? For the providers of international money, the balance of benefits and costs is rather less obvious. Does it pay to issue an international money? We just don't know.

Such uncertainty is—to say the least—regrettable. The mix of international currencies today clearly is in flux, posing critical dilemmas for the future of the monetary system. The twentieth century's dominant currency, the U.S. dollar, seems destined for a diminished role in the new millennium; doubts linger about the greenback's principal rivals, the euro and yen; and new challengers may well be waiting in the wings, including most prominently from the five BRICS countries—Brazil, Russia, India, South Africa, and above all China. It is not at all evident how the governments responsible for these diverse currencies should respond. Is it in their interest to defend or promote internationalization of their moneys? And if so, how might they shape cross-border use to maximize net gains? Much rides on the answers.

The aim of this essay is to address these old questions anew, in hopes of providing clearer insight into the strategic calculus involved. Scholars have debated the net benefits or costs of currency internationalization for decades. Yet despite much sound and fury little analytical consensus exists. Economists, who dominate the discussion, not surprisingly differ among themselves for all kinds of reasons. (Recall the old jibe: If all the economists in the world were laid end-to-end, they still wouldn't reach agreement.) Worse, economists tend to ignore completely contributions from the few political scientists who have dared to address the issue. The result is a body of literature that is marred by at least three critical defects, which might be called the three M's—Misconceptions, Misplaced Concreteness, and outright Mistakes. A proper appreciation of the three M's, I will endeavor to show, can take us a long way toward getting the calculus right.

[1] As quoted in *IMF Survey*, 22 January 2001: 27.

I begin in the next section with a review of the key elements of the calculus, to set the stage for analysis. Subsequent sections will then address the problems posed by the three M's. A concluding section briefly outlines implications for the interests and strategies of governments contemplating internationalization of their currencies.

2 Benefits and Costs

What are the benefits and costs for the issuer of an international currency? Unavoidably, a comprehensive analysis must be an exercise in political economy, taking account of both economic and political dimensions.

In a diverse literature stretching back decades, drawing from political science as well as economics, we should not be surprised to find a wide variety of taxonomies, each with its own contents and emphases. From these we can distill a consolidated catalog that may be regarded as reasonably inclusive. The list includes a total of some five broad classes of gain and three major risks, as summarized in Table 1. Benefits stressed by economists include a cluster of favorable impacts at the microeconomic level, subsumed under the rubric of **transactions costs**, as well as, at a more aggregate level, the familiar gains of **international seigniorage** and **macroeconomic flexibility**. Political scientists add two effects that are more overtly political in nature: **leverage** and **reputation**. Risks of internationalization include the possibility of undue **currency appreciation,** an unwelcome **external constraint** on domestic monetary autonomy, and a burden of **policy responsibility** that could go with the privilege of currency leadership.

2.1 Transactions Costs

At the microeconomic level, several benefits accrue to residents of a country that provides an international currency. Perhaps most prominent is the boost to profits in the banking sector, long ago characterized by Alexander Swoboda (1968) as "denomination rents." Since home banks enjoy privileged access to the resources of the issuing country's central bank, enabling them to more easily create monetary liabilities denominated in the national currency, a distinct competitive advantage is gained relative to banks elsewhere. Business can be expanded abroad at lower cost, generating greater earnings than would otherwise have been possible. In Swoboda's words, "the average level of profits of the banking system of an issuing country will tend, other things equal, to be higher [due to the extension of the market] than that of

Table 1 Benefits and risks of an international currency

Benefits	Risks
Reduced transactions costs	Currency appreciation
International seigniorage	External constraint
Macroeconomic flexibility	Policy responsibility
Political leverage (hard power)	
Reputation (soft power)	

the banking systems of other countries" (1968: 14). Included in these extra earnings may be commissions charged for an increased volume of foreign-exchange transactions as well fees for loans, investment services, or other ancillary activities.

Non-financial enterprises in the issuing country also benefit from their enhanced ability to do business abroad in home currency, thus lowering exchange risk. Though, as Hans Genberg (2010) cautions, the gain for firms may be less substantial than typically assumed, it can nonetheless be significant, particularly in the case of trade contracts where payment are due long after goods are initially ordered. And ordinary citizens certainly benefit to the extent that they are able to use their own money when traveling abroad—a notable convenience.

Not all residents gain, of course. Most of an international currency's benefits at the microeconomic level accrue to the more externally oriented sectors of the economy, implying potentially significant distributional consequences. But while some are favored by lower transactions costs, few if any residents experience any direct increase of costs. The gains of "winners" come mainly at the expense of actors abroad rather than at home. For the issuing country as a whole, relative to the outside world, the net impact is positive.

2.2 Seigniorage

Technically defined as the excess of the nominal value of a currency over its cost of production, seigniorage at the international level is generated whenever foreigners acquire some amount of domestic money in exchange for traded goods and services. Cross-border accumulations represent an implicit economic transfer that constitutes a real-resource gain for the economy as a whole.

Two components are involved. One results from foreign accumulations of actual cash—bank notes and coins. Since no interest is paid on the cash liabilities of a central bank, holdings of its notes and coins abroad represent the equivalent of an interest-free loan to the issuing country. In the case of the United States, as much as 60% of the outstanding stock of Federal Reserve notes is officially estimated to be in circulation outside the country, amounting in 2005 to roughly $450 billion (U.S. Treasury 2006). At a borrowing cost of 4%, that translates into an interest saving for the U.S. Government of some $18 billion a year—in absolute terms a not negligible sum, though little more than a modest one-tenth of one percent of America's gross domestic product (GDP).

The second component, rather more substantial, derives from foreign accumulations of financial claims denominated in the home money, an increase of effective demand for assets. Typically motivated by liquidity considerations, the added demand has the effect of driving the cost of borrowing below what it might be otherwise. The resulting "liquidity premium"—effectively an interest-rate subsidy—has been estimated for the United States to amount to as much as 80 basis points (Warnock and Warnock 2009), producing an annual saving of perhaps $150 billion for the Federal government and other domestic borrowers. Alternatively, the value of the benefit can be estimated by calculating the difference between the (higher) returns on foreign assets of an issuing country and the (lower) cost of foreign liabilities. For the United States as a whole, studies put the excess return on net foreign claims at 300 or more basis points per year (Gourinchas and Rey 2005;

European Central Bank 2010: 45–55). At anywhere from one percent to three percent of GDP, these figures are anything but negligible.

2.3 Macroeconomic Flexibility

Cross-border use of a currency can also loosen the constraint of the balance of payments on domestic monetary and fiscal policy. The greater the ability to finance payments deficits with a country's own money, the easier it is for policy makers to pursue public spending objectives. In effect, external market discipline is relaxed. For a resentful Valéry Giscard d'Estaing, French finance minister back in the 1960s, this was an "exorbitant privilege" that set the United States, with its dominant dollar, apart from other nations.

Here too, as at the microeconomic level, there are potentially significant distributional consequences. Not all domestic residents may benefit from the exorbitant privilege. As political scientist Jeffry Frieden (1991) long ago reminded us, some sectors of an economy—particularly those sensitive to the risk of inflation—might actually prefer more rather than less discipline on potentially spendthrift politicians. But from the point of view of the state as a whole, engaged as a sovereign actor in relation to other states, there seems little doubt that the greater degree of freedom for monetary and fiscal policy may be regarded as a net plus.

Typically, the exorbitant privilege is thought of mainly in terms of economic advantage: the issuer of an international currency has more latitude to pursue macroeconomic policy objectives at home. But there is also an obvious political aspect insofar as a heightened degree of flexibility enhances the issuer's power abroad as well.

The full meaning of international monetary power has only recently begun to be appreciated by scholars (Kirshner 1995; Andrews 2006). Traditionally, political scientists long equated the notion of power in international relations with *influence*: an ability to alter the behavior of others. Power was understood as a capacity to control the outcome of events—"letting others have your way," as diplomacy has jokingly been defined. A government, in this sense, was powerful to the extent that it could effectively pressure others.

But influence, we have now come to realize, is not the only relevant dimension of power in this context. There is also a vital second meaning, corresponding to the generic dictionary definition of power as a capacity for action (going back to the Latin root for power, *potere*—"to be able.") A government is also powerful to the extent that it is able to exercise policy independence—to act freely, insulated from outside pressures, and to deflect the influence of others. In this sense, power does not mean influencing others; rather, it means not allowing others to influence *you*—others letting *you* have your way. A useful synonym for this meaning of power is *autonomy*.

In monetary relations, the autonomy that derives from macroeconomic flexibility is important because, as I have argued elsewhere (Cohen 2006), it is an essential prerequisite for influence. Though the two dimensions of power are unavoidably interrelated, they are not of equal importance. Logically, power begins with autonomy, the internal dimension. Influence is best thought of as functionally derivative—inconceivable in practical terms without first attaining and sustaining a

relatively high degree of policy independence at home. As the saying goes in American football, the best offense starts with a good defense. It is possible to think of autonomy without influence; it is impossible to think of influence without at least some degree of autonomy.

This does not mean that autonomy must be enjoyed in *all* aspects of foreign affairs or geographic relationships in order to be able to exercise influence in *any* aspect or relationship. States can successfully apply pressure in selected issue areas or relationships even while themselves being subject to pressure in others. But it does mean that in a given issue area or geographic relationship, power begins at home. First and foremost, policy makers must be free (or at least relatively free) to pursue national objectives in the specific issue area or relationship without outside constraint, to avoid compromises or sacrifices to accommodate the interests of others. Only then will a government be in a position, in addition, to have its way elsewhere. Autonomy may not be *sufficient* to ensure a degree of foreign influence. But it is manifestly *necessary*.

The necessity for at least some degree of autonomy is especially evident in monetary relations, where national economies are inescapably linked through the balance of payments, with its inevitable surpluses and deficits. As a practical matter, the ever-present risk of unsustainable disequilibrium poses a persistent threat to policy independence. For most states, therefore, the foundation of monetary power is the capacity to avoid the burden of adjustment required by payments imbalance—an ability to delay adjustment or deflect its costs onto others. Only once autonomy is established might a government then be able to turn its thoughts to the possibility of influencing others as well. The exorbitant privilege may be considered another way of expressing the autonomy dimension of monetary power.

2.4 Leverage

Influence (once autonomy is established) is a fourth possible benefit of an international currency. Key is the element of dependence that is created as foreigners come to rely on a national money for a variety of international roles. The dependence of others puts the issuer in a position to exercise leverage through its control of access to vital financial resources. The more others depend on a currency, the greater is the issuer's potential capacity for pressure or control.

Leverage can be exercised either directly or indirectly, through what political scientists call the two "faces" of power. The first face of power involves direct political action in specific circumstances, deployed through the calculated use of available policy instruments, including side payments (bribery) or sanctions (coercion). In an oft-quoted study of international monetary power, Jonathan Kirshner (1995) labeled such policies *enforcement*—deliberate influence attempts. Friendly countries may be granted loans or privileged access to its currency in the midst of a monetary or financial crisis; conversely, adversaries may be deprived of access to essential clearing networks when political tensions are running high. The second face, by contrast, operates more indirectly through systemic infrastructure to favorably alter material incentive structures—what Kirshner called *entrapment*. Because of an established

currency's importance, foreign users develop a stake in its continued success and hence may more or less willingly adapt to the issuing country's preferences and requirements without even being asked. Certainly entrapment seems a good description of the condition that a country like China, with its massive stockpile of dollar reserves, finds itself in today. The capacity for leverage generated by currency internationalization need not be exploited purposively to be effective.

2.5 Reputation

Finally, at the symbolic level, widespread international use of a currency can promote the issuer's overall reputation in world affairs. Broad circulation may become a source of status and prestige, a visible sign of elevated rank in the community of nations—a form of what political scientists today call "soft" power. Soft power is contrasted with "hard" power, which derives from the material capabilities of an actor and is manifest in both the first and second faces of power. Soft power involves more intangible forms of influence derived from an actor's culture and values, working through co-option and attraction to shape the preferences of others. "Great powers have great currencies," Mundell once wrote (1993: 10), acknowledging the role that a money can play as a potent symbol of international primacy. Economists may scoff at the notion of soft power, which is certainly difficult to pin down empirically. But its importance in monetary affairs has by now been well established by historical and contemporary research (Cohen 1998; Helleiner 2003).

2.6 Appreciation

On the cost side, one frequently mentioned risk of internationalization is the undue exchange-rate appreciation that could result from increased foreign demand for a currency. The more a money gains in popularity, the greater is the likelihood that some degree of overvaluation will result. For consumers appreciation actually represents a benefit, since purchasing power is increased. But for producers the effect is distinctly negative, since the competitiveness of exports and import-competing output will be damaged. In the case of the United States, one source estimates a net financial cost that rises by as much as $30 billion a year for each five percent movement upward of the dollar's exchange rate (Dobbs et al. 2009: 10)—again, by no means a negligible amount .

2.7 External Constraint

Even more serious is the possible constraint that could be imposed on domestic monetary autonomy by an excessive accumulation of liquid foreign liabilities. Macroeconomic flexibility could be compromised by a growing "overhang" of easily movable debt, whether in cash or in the form of claims denominated in the home money. Two dangers are posed for the issuer's central bank. One is the risk of volatile movements into or out of the currency, which could make the demand for money less stable in aggregate terms. Policy makers, at any

given time, may find it more difficult to target interest rates or an appropriate growth rate for money supply. The other is the risk that over time domestic policy may become increasingly hostage to external factors, especially if doubts begin to mount regarding the currency's future value or usefulness. Ultimately, to persuade investors abroad to hold onto their accumulated balances, priorities at home may have to be compromised or sacrificed. Though neither danger is easy to quantify, both must be regarded as real and could be potentially significant.

2.8 Policy Responsibility

Even more difficult to quantify is one last risk of internationalization—the possibility that in return for the benefits it receives, an issuing country will find itself obliged to assume greater responsibility for management of broader regional or global monetary structures. Quite apart from market-driven pressures on its central bank, the issuer may find itself called upon to accommodate systemic needs or fragilities should conditions warrant. Monetary policy may have to be modified to contain a crisis, or subsidized loans may have to be provided to rescue some country in distress. A complete catalog of the benefits and costs of an international currency cannot ignore the contingent political claim that goes with monetary leadership—kind of the flip-side of internationalization's exorbitant privilege. To paraphrase Mundell: Great powers may not only have great currencies, they may also have great burdens.

3 Misconceptions

Given this litany of benefits and costs, it is hardly surprising that there might be an absence of analytical consensus about where the balance lies. The range of an international currency's effects is considerable, and no one can be sure what their respective magnitudes or relative importance might be. This is surely a question on which sincere people may sincerely disagree. But matters are made worse by the three M's—three critical defects in the literature that tend to add to confusions over the strategic calculus involved.

I begin with the first M—Misconception. In two important ways, the calculus has been fundamentally misconceived. First, currency status tends to be defined in essentially binary fashion: a money is either internationalized in some common fashion, or it is not. In reality, international moneys are anything but uniform. Currency internationalization involves multiple roles; different moneys embody diverse mixtures of roles; and the balance of benefits and costs of individual roles may vary considerably. And second, analysis tends to be defined in essentially static terms: typically, a simple cross-sectional view of effects is offered for a single point in time. In reality, the mix of benefits and costs is apt to be quite dynamic, subject to substantial change over time. To get the calculus right, both misconceptions need to be corrected.

3.1 Diversity

That currency internationalization involves a multiplicity of roles is of course widely recognized by specialists. There is, in fact, a standard taxonomy for characterizing

the roles of international money, which separates out the three familiar functions of money—medium of exchange, unit of account, store of value—at two levels of analysis: the private market and official policy, adding up to six roles in all.[2] 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 money's roles as an exchange-rate anchor (unit of account), intervention currency (medium of exchange), or reserve currency (store of value). Though to some extent interdependent, each of the six roles is distinct in practical as well as analytical terms. The taxonomy is summarized in Table 2.

However, when it comes to assessing the benefits and costs of currency internationalization, this multiplicity of roles generally tends to be suppressed. More often than not, sources simply assume that a money is or may become "international" in some broad sense, and then proceed. Alternatively, one single role—usually, the reserve-currency role—is selected for comparative analysis and treated as representative of all the diverse functions that an international money may perform. Apart from a few casual comments here or there, the possibility that a money's separate roles might have differential impacts on its issuer has never been formally addressed. This is unfortunate for two reasons—first, because not all international currencies are alike; and second, because the effects of different roles may vary considerably. Differentiation of both currencies and roles would make for a more realistic calculus.

Differentiation of Currencies That a hierarchy has always tended to exist among the world's moneys, forming what I call a Currency Pyramid, has long been understood by students of monetary history (Cipolla 1967; Groseclose 1976) and, for more recent periods, has been well documented by economic historians. The dominance of Britain's pound sterling in the period before World War I, followed at some distance by the French franc and German mark, was well established decades ago in a well known pioneering study by Peter Lindert (1969). Further detail on the geography of the late nineteenth-century monetary system has lately been provided by the exhaustive research of Marc Flandreau and Clemens Jobst (2005, 2009).

At the top of the hierarchy, at any given moment, only a small handful of currencies at most is ever likely to be of significance for all six international roles. These are what, with a nod to the British scholar Susan Strange (1971a, 1971b), I have called Top Currencies—a class of moneys whose scope (range of functions) and domain (geographic scale) are more or less universal (Cohen 1998, 2004). Top Currencies are full-bodied money, generally accepted for all purposes. Today, as it happens, there is really only one Top Currency, the U.S. dollar, which for all its tribulations still dominates for most cross-border uses and in most regions (Cohen 2009). Not even the gale-force winds of the recent global financial crisis could topple America's greenback from its perch at the peak of the Currency Pyramid, though debate about its future continues (Helleiner and Kirshner 2009; Cohen 2011b; Eichengreen 2011).

[2] A bit immodestly, I can take pride in originating the standard taxonomy in an early book of mine on the pound sterling (Cohen 1971a).

Table 2 The roles of international money

	Functions		
Levels of analysis	Medium of exchange	Unit of account	Store of value
Private	Foreign exchange trading, trade settlement	Trade invoicing	Investment
Official	Intervention	Anchor	Reserve

Just below are what, with just a bit of tongue in cheek, I call Patrician currencies—moneys whose use for various cross-border purposes, while substantial, is something less than dominant and whose popularity, while widespread, is something less than global. Most prominent among these is of course the euro, the joint money of the European Union (EU), which is already second to the greenback in most categories of use. Though many observers have predicted that the euro is destined soon to achieve parity with or even surpass the greenback as international money (Chinn and Frankel 2008), the evidence suggests otherwise (Cohen 2011b). In reality, after a fast start, cross-border use of the euro appears to have leveled off and —especially after Europe's sovereign-debt problems that began in the spring of 2010—has come to be largely confined to the EU's immediate hinterland around the European periphery and in parts of the Mediterranean litoral and Africa. The only other Patrician Currency of note today, despite some recent loss of popularity, is the Japanese yen. Many expect the euro and yen to be joined eventually, though not any time soon, by China's yuan, otherwise known as the renminbi ("people's currency"), and possibly by others as well.

And below the Patrician Currencies come what may be called Elite Currencies—moneys of sufficient attractiveness to qualify for some degree of cross-border use but with only limited scope or domain. These are the minor international currencies, a list that today would include inter alia the pound sterling (sadly, no longer a Top Currency), Swiss franc, Canadian and Australian dollars, and a small handful of others. Patrician Currencies typically are used mostly in financial markets or for trade invoicing, but for little else (though, it may be noted, sterling has made something of a comeback lately in official reserves).

The challenge is to calculate the benefits and costs unique to each of these three classes of international money. That in turn depends on how we evaluate the effects of each of the six roles in Table 2.

Differentiation of Roles Even a moment's reflection should make it clear that the effects of the separate roles might actually differ quite substantially. Though space constraints here prevent a fully detailed analysis, a few remarks can illustrate just how important a proper differentiation of roles may be.[3]

Consider, for example, a critical difference between the several medium-of-exchange and unit-of-account roles, on the one hand, and the two store-of-value roles on the other. Use of a currency in foreign-exchange trading, trade invoicing, or

[3] For a fuller discussion, see Cohen (2011a).

for official intervention purposes will almost certainly generate some measure of benefits at the microeconomic level—denomination rents or reduced transactions costs of various kinds. But only the store-of-value roles, which by definition imply some level of foreign accumulations, will generate any amount of seigniorage or macroeconomic flexibility for the issuing country—gains that could be quite substantial in magnitude. Neither seigniorage nor greater policy flexibility is possible unless non-residents are willing to acquire and hold significant amounts of the country's currency, or assets denominated in the currency, as a store of value. This suggests that the benefits of an Elite Currency are unlikely to loom large if external use is limited alone to trade invoicing or the exchange market, which require minimal working balances at most. A considerable role in financial markets and/or reserves will be needed to make internationalization really pay in terms of seigniorage or policy flexibility.

Or consider an important difference between the two store-of-value roles. Both roles enhance the autonomy dimension of monetary power, by relaxing external constraints on domestic macroeconomic policy. Through the enhanced ability to delay or deflect adjustment costs, a capacity for leverage is created. But can that potential be *actualized*? For two reasons, it seems evident that in this respect, the financial-market role of a currency is distinctly inferior to the reserve-currency role.

First, as compared with the reserve-currency role, the financial-market role offers fewer direct routes for the exercise of leverage. Use of a currency as an investment medium results from decentralized investment decisions in the open marketplace rather than from centralized government choices. The impact of any influence attempt, therefore, is bound to be more dispersed and diffuse, making it harder to target specific actors with self-conscious intent. When a money is held just by private investors, pressures can be brought to bear on others only indirectly. When the same money is held by central banks as part of their reserves, pressures on foreign governments can be applied directly, to much better effect.

Leverage through the financial-market role is not impossible, of course. Consider the case of Panama, which back in 1988 found itself in a grim political dispute with the United States. Determined to force General Manuel Noriega, the country's leader at the time, from power, Washington froze Panamanian assets in U.S. banks and prohibited all payments or other dollar transfers to Panama. The impact was devastating. Most local banks were compelled to close and the economy was squeezed by a severe liquidity shortage, significantly weakening Panamanian resistance to American pressure. Coercion via private financial markets worked (Cohen 1998: 44–46). Clearly, however, the circumstances were unusual, since Panama has always relied on America's greenback as legal tender for most domestic monetary purposes. Washington's influence attempt worked because Panama is formally dollarized. Where a national currency still predominates in a country's monetary system—the more typical case—efforts to exercise leverage through financial markets are bound to be correspondingly less effective.

Second, the financial-market role also offers a lower degree of control over supply, again as compared with the reserve-currency role. That is evident from the differing degrees of diversification that prevail in private markets and in official reserves. At the private level, as many as eight or ten currencies figure prominently in global finance. Given the high level of competition, few issuing states are in a

position even to try to exercise deliberate leverage through manipulating the supply of their currency for investment purposes. Elite Currencies like the pound sterling or Swiss franc are actively employed in global markets, but no one would claim that this translates into any kind of influence for their issuing governments. At the official level, by contrast, where at most three or four currencies dominate—the dollar, euro, and, to a much lesser extent, sterling and the yen—more room is offered for actualizing influence. Top Currencies or even Patrician Currencies are bound to enjoy more political leverage than Elite Currencies.

3.2 Dynamics

That the circumstances of an international money might change over time is also widely recognized by specialists. Yet here as well the point generally tends to be suppressed when the benefits and costs of internationalization are assessed. That too is unfortunate, since it flies in the face of historical evidence, which clearly demonstrates that international currencies are subject to something approximating a distinct life cycle. Were that not so, we might all still be using the Athenian drachma or Byzantine solidus for cross-border purposes. Not so long ago we saw the decline of sterling after decades of pre-eminence as a Top Currency. Today we may be witness to the beginning of the end of the dollar's dominance as well.

Taking time into account, it seems evident that the benefits of internationalization are most likely to accrue at the earliest stages of cross-border use, when a money is most popular. Seigniorage gains and macroeconomic flexibility will be at their height, and both hard and soft power will be enhanced. Later on, however, gains may well be eroded by a growing overhang of liquid liabilities that could intensify external constraints on domestic policy autonomy. To persuade foreigners to hold onto their accumulated holdings, interest rates may have to be raised, reducing or possibly even wholly eliminating net seigniorage gains (Cohen 1971b). Eventually both leverage and reputation could also be adversely affected. In a very real sense, therefore, an international currency can be regarded as a two-edged sword, potentially beneficial in its early days but, in time, possibly also dangerous to its issuer.

Time in this context, however, is likely to be quite lengthy, measured not in years but decades, given the well known inertias in international currency choice. Consider how long it took the greenback, despite its many attractions, to displace Britain's pound at the top of the Currency Pyramid in the last century. According to recent research by Barry Eichengreen and Marc Flandreau (2009, 2011), the dollar first surpassed sterling in trade transactions and official reserves as early as the 1920s. But that was already decades after the emergence of the United States as the world's greatest industrial and trading nation; and as Eichengreen and Flandreau show, the dollar did not fully consolidate its dominance until after World War II. As Paul Krugman (1992: 173) has commented: "The impressive fact here is surely the inertia; sterling remained the first-ranked currency for half a century after Britain had ceased to be the first-ranked economic power." As a practical matter, the costs of internationalization are likely to assert themselves only in the very long term. In the

shorter term, policy makers understandably may be inclined to discount the potential risks involved, focusing on the benefits instead.

4 Misplaced Concreteness

Beyond these misconceptions, much of the literature has also suffered from what the philosopher Alfred North Whitehead called the Fallacy of Misplaced Concreteness—essentially, the error of mistaking the abstract for the concrete. The problem has long plagued mainstream economics. More than a half century ago, the noted international economist Fritz Machlup highlighted the issue, berating his colleagues for "the general fallacy involved in jumping the distance between a useful fiction and particular data of observation" (1958: 12). Regrettably, though, his warnings have long been forgotten. Analyses of currency internationalization all too often overlook the degree of abstraction in their models and draw unwarranted conclusions about concrete reality.

Typical is a recent study by McKinsey Global Institute (Dobbs et al. 2009), which poses the question: What are the benefits and costs of being an international currency? The study purports to offer a firm empirical calculus for the U.S. dollar, concluding bluntly that "Today, it is not clear that the United States enjoys much of a privilege at all.... [At best] the United States derives a relatively modest net financial benefit" (Dobbs et al. 2009: 9, 19). But is that dismissive conclusion warranted? McKinsey's calculus includes quantitative estimates for just two of the several effects of currency internationalization—specifically, seigniorage benefits and the cost of exchange-rate appreciation. A few other considerations are mentioned, but only in passing. The distance between the narrow empirical content of the study and the broad inferences drawn by its authors is clearly too great to be persuasive. Concrete reality is distorted by an undue reliance on a limited range of data.

Nor is the McKinsey study atypical. Economist Hans Genberg (2010), to cite another example, bases a "calculus of international currency use" on just two specific considerations—seigniorage gains and impacts on transactions costs. C. Fred Bergsten (2009: 23) concludes that the United States "would benefit from a reduction of the international role of the dollar" after focusing on just two costs—an increased external constraint on domestic policy and the risk of currency appreciation. Elias Papaioannou and Richard Portes (2008), assessing prospective benefits and costs for the euro, quite explicitly downplay political aspects in order to concentrate on empirical specifications of economic effects. Similarly, two Chinese economists, Wen Hai and Hongxin Yao (2010), evaluating the pros and cons of internationalization of the yuan, rely on estimates of just three possible factors—seigniorage, reduced transactions costs, and impacts on domestic monetary policy. And in a recent effort to construct a possible summary indicator of currency internationalization, the European Central Bank (2010: 55–58) uses just five indicators "for which high quality data are available," including information on reserve holdings and four measures of financial market use. In all these cases, the concreteness attributed to reality seems seriously misplaced.

Why, then, does the fallacy persist? It could be because of the value that has long been attached to parsimony in mainstream economic research. Typically, a

reductionist style is favored that seeks to pare messy reality down to its bare essentials—aiming "to predict something large from something small," as Harry Johnson (1971: 9) once put it. In the social sciences we are always faced with a basic trade-off between parsimony and detail—between the refined abstractions required for theoretical generalization and the elaborate descriptions required to assure external validity. The most prized work on currency internationalization today clearly follows contemporary fashion, tilting toward simplicity rather than complexity.

But it is also tempting to see more: an unfortunate inclination to permit analysis to be driven by data availability, even at the risk of distorting reality. Clearly, some of the effects of internationalization defy easy quantification—particularly the more political of the benefits and risks involved. How do we put a number on leverage or reputation? What metric do we use for autonomy or influence? It is so much more convenient simply to concentrate on factors that can putatively be estimated, however crudely, and just wave a hand at the rest. One is reminded of the old joke about the man seen late one night under a lamp post, down on his knees searching for a set of keys. Is that where you lost them?, he is asked. No, they were lost down the street, but the light is better here. Too much of the literature just goes where the light is.

5 Mistakes

Finally, and quite remarkably, there are also some outright Mistakes. Two errors in particular stand out—one an error of commission, the other an error of omission. Both seriously compromise what we can learn from existing discussions.

5.1 An Error of Commission

Must a country run a current-account deficit if it aspires to some perch near the peak of the Currency Pyramid? For a surprisingly large number of observers, the answer is a resounding Yes. It is all a matter, we are told, of elementary balance-of-payments accounting. If there is to be any substantial accumulation of claims denominated in the home money—a net capital inflow—a current-account deficit is needed to provide the requisite supply. In the words of one recent commentary, a "reserve currency nation must be a net debtor, running a current account deficit, and other countries must run current account surpluses so that they can invest in these securities" (Kelly 2009: vi). The assertion comes up especially often in commentaries on prospects for internationalization of the euro or yuan. Regarding Europe's joint money, one source writes, "an increase in the demand for euros would… require that the eurozone run a substantial external deficit in order to satisfy the external demand for euros" (Tilford 2007). Regarding China's renminbi, another source insists that "China needs to be a large net importer of goods… in order to allow its partner nations to accumulate renminbi assets in significant size" (Lo 2010: 32).

In truth, however, the conventional answer is wrong. There is actually no necessary connection at all between a country's current-account position and enhanced use of its money. As a practical matter, internationalization can occur even

when the current account is in balance or surplus, through a process of intermediation on capital account—in effect, by borrowing short and lending long. Liquidity can be provided to foreigners in the form of short-term or easily marketable liabilities; working their way through the domestic financial system, the proceeds can then be used to lend or invest abroad at longer term. That was how sterling became Top Currency in the late nineteenth century. Likewise, that was how the dollar came to replace the pound at the peak of the Currency Pyramid by the middle of the twentieth century. In both cases, internationalization occurred alongside surpluses, not deficits, in the current account.

Of course, in both cases it is also true that eventually those surpluses turned into deficits. Net creditors became net debtors. But there is nothing in either the British or U.S. experience to suggest that such an outcome is somehow inevitable. Britain's current balance did not turn negative until the exigencies of World War I. America's current deficits did not emerge until the oil shocks of the 1970s. As a matter of logic, the issuer of an international currency could sustain the position of its money indefinitely through intermediation on capital account alone. The idea was articulated decades ago in a celebrated monograph by Despres et al. (1966), and has since been reiterated *inter alia* by Barry Eichengreen (2007: 136–137). Yet many commentators continue to ignore it, seeming to be blissfully unaware of the error they are committing.

5.2 An Error of Omission

For political scientists who dare to enter a discussion until now largely dominated by economists, it is hard not to notice at least one glaring omission—geopolitics. Like it or not, we all live in a world of sovereign states, political units that have little choice but to engage, in one way or another, in the great game of power politics. The security of the nation—its territorial integrity and political independence—is an ever-present concern for governments. Yet in the literature on currency internationalization, geopolitics rarely enters. The eight-hundred pound gorilla is sitting there, but hardly anyone, it seems, wants to talk about it.

Recently, a few breaches have appeared in the code of silence, emphasizing the direct relevance of security considerations. Most, however, focus on the role that geopolitics may play as a causal variable, driving the choice of what currency to use, rather than as part of the calculus of internationalization's effects. Some sources stress the "safe haven" that a militarily powerful nation can provide nervous investors (James 2009, ch. 5). A strong defense ensures a more secure investment climate. Others emphasize how the currency preferences of foreign governments may be influenced by alliance relationships or security guarantees. Adam Posen (2008), for instance, highlights the advantage that America's geopolitical capabilities give the dollar in its rivalry with the euro. Washington's ability to back its friends diplomatically or, if need be, militarily is bound to make them more inclined to favor the greenback for reserve or other purposes (and, indeed, may even be premised on continued allegiance to the dollar). The euro zone, by contrast, is no more than a club—a gaggle of states with limited military capabilities and with foreign policy interests that only partly overlap or coincide. In practical terms, it is virtually impossible for Europe to substitute for the protection that can be offered by the

United States. As Posen (2008: 80) puts it: "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." Echoes political scientist Bessma Momani (2008: 309): "While there are viable currency alternatives to the US dollar, there are no alternatives to the US military security umbrella."

Less attention has been paid to the reverse possibility—that among the benefits of currency internationalization might be a positive security effect. On occasion, the point is acknowledged—mostly, however, as little more than a commonplace extension of already familiar arguments about flexibility and leverage. In the McKinsey study, for example, one finds the comment that the United States, because of the still pre-eminent status of the dollar, "enjoys significant privileges related to the geopolitical and strategic benefits [owing to] the policy autonomy that status confers" (Dobbs et al. 2009: 27). The logic is hard to deny. We know that an international money can add to the issuer's hard and soft power. There is no reason to assume that those enhanced capabilities need be limited to the pursuit of economic goals alone. Monetary autonomy can also make it easier to defend against political or military pressures from the outside. Likewise, the increased monetary dependence of others can widen the range of policy instruments available to gain influence elsewhere. Security interests can be served as well.

Beyond such bromides, however, the literature is largely mute, despite the importance of the subject. Can more be said? In a notable study, political scientist Carla Norloff (2010) suggests that the international status of the dollar pays geopolitical dividends for the United States through its impact on incentive structures in other countries (a variation on Kirshner's notion of entrapment). Governments that benefit from U.S. military primacy clearly have reason to help sustain America's economic and financial vitality. Hence not only are client states likely to show a preference for the greenback as an international currency, as suggested by Posen and Momani. They are apt to go even further, to actively support the dollar—in essence, to pay a kind of "security tax" to the United States—in order to ensure the endurance of Washington's security umbrella. In short, Norloff contends, America's geopolitical capabilities are enhanced by foreign allegiance to the dollar.

This is a tantalizing argument. Plainly, more can indeed be said. One need not be fully persuaded by Norloff's logic to acknowledge how vital the security impacts of currency internationalization may be. It is surely a mistake to omit such critical considerations from the calculus of an international currency's benefits and costs.

6 Lessons

So does it pay to issue an international money? No definitive answer is possible, of course. But from a discussion even as brief as this one, a few lessons emerge that could help governments get the calculus right.

First, for any government contemplating internationalization of its currency, it is critical to keep the entire range of potential benefits and costs (including geopolitical considerations) in mind. Policy makers should not be misled by data-driven analyses that distort concrete reality. Not all of the effects of internationalization can be easily quantified, but that does not mean that they can be ignored.

Second, it is also critical to keep all the possible roles of an international currency in mind, each with its own mix of gains and losses. Policy makers should not feel that it is a matter of all or nothing. Strategy can be selective, focusing on just those roles that appear to be most consistent with the issuer's interests and preferences.

For example, if the issuer's objective is strictly economic gain, it is not really necessary to aspire to what I call Patrician Currency or Top Currency status. On balance, the biggest economic benefits are associated with just a limited range of roles—most importantly, the roles in trade invoicing and financial markets. For a country with limited ambitions, Elite Currency status may be enough. On the other hand, for the country that wants more—a money that will pay political and perhaps even security dividends—strategy must be correspondingly more ambitious. Measures to promote use of the currency at the official level will be called for as well.

Third, it is not necessary to give up current-account surpluses in order to promote an international currency. Both history and logic suggest that internationalization can be attained via intermediation on capital account alone. There is no requirement that the country must pile up more and more net debt over time.

Finally, the factor of time must be taken into account—the possibility that initial gains might, in time, be offset by losses. Even if debt does not pile up on a net basis, growing accumulations of liquid liabilities could eventually suffice to intensify external constraints on domestic policy. The challenge for policy makers is to frame strategy from the start to put off that day of reckoning for as long as possible.

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