The political economy of failure: The euro as an international currency

Randall Germain\textsuperscript{a} & Herman Schwartz\textsuperscript{b}

\textsuperscript{a} Department of Political Science, Carleton University, Ottawa, Canada
\textsuperscript{b} Politics Department, University of Virginia, Charlottesville, USA

Published online: 19 Mar 2014.

To cite this article: Randall Germain & Herman Schwartz (2014): The political economy of failure: The euro as an international currency, Review of International Political Economy, DOI: 10.1080/09692290.2014.891242

To link to this article: http://dx.doi.org/10.1080/09692290.2014.891242

PLEASE SCROLL DOWN FOR ARTICLE

Taylor & Francis makes every effort to ensure the accuracy of all the information (the “Content”) contained in the publications on our platform. However, Taylor & Francis, our agents, and our licensors make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of information. Taylor and Francis shall not be liable for any losses, actions, claims, proceedings, demands, costs, expenses, damages, and other liabilities whatsoever or howsoever caused arising directly or indirectly in connection with, in relation to or arising out of the use of the Content.
The political economy of failure: The euro as an international currency

Randall Germain¹ and Herman Schwartz²

¹Department of Political Science, Carleton University, Ottawa, Canada; ²Politics Department, University of Virginia, Charlottesville, USA

ABSTRACT

How do international currencies get established and consolidated? What domestic and international political foundations support an international currency? And what kinds of macro-economic flows enable an international currency? In this essay we consider these perennial questions of modern IPE scholarship in reverse order to ask whether the euro could ever have become, or seek to become, a true international currency rivalling the US dollar, used not only for passive foreign exchange reserves but also as a major commercial currency outside the EU. We argue that the EU lacks the will, the ideas and the capacity to promote the euro into the status of an international currency. In this article, we concentrate on this final issue of capacity, as the will and ideas issues have already been well explored. Capacity is an issue coeval with, if not prior to, the first two issues. The EU’s current institutional arrangements and its economic geography create macro-economic consequences that diminish the euro’s capacity to operate as a top currency. These conflicts go beyond the well-recognized issue that the euro-zone is not an optimum currency area. Examining the euro’s debilities sheds light not only on the euro’s (in) capacity to rival the dollar as an international currency, but also on the future of both the euro and the dollar in the aftermath of the euro-zone crisis.

KEYWORDS

euro; euro-zone crisis; international currency; international monetary and financial system; global political economy.

How do top international currencies get established and consolidated? What domestic and international political foundations support a top international currency? And what kinds of macro-economic flows enable a top international currency? In this essay we consider these
perennial questions of modern IPE scholarship in reverse order to ask whether the euro could ever have become, or sought to become, a true top international currency rivaling the US dollar, used not only for passive foreign exchange reserves but also as a major commercial currency outside the EU. We argue that three major debilities debar the euro from this role. First, as Benjamin Cohen (2011) argues, the euro lacks the domestic institutional support to take on the role of an international commercial currency. Second, as Kathleen McNamara (2008) argues, the euro also lacks an ideational or ideological foundation, a shared sense of social purpose around money, that would allow it to take on this role. Finally, the macro-economic consequences of this role are incompatible with the EU’s current institutional arrangements and economic geography in ways that go beyond the well-recognized issue that the eurozone is not an optimum currency area. The EU lacks a macro-economic infrastructure to deal with the consequences of the trade and current account flows that underpin a top currency. Thus, put simply, the EU lacks the will, the ideas and the capacity to promote the euro into the status of a top international currency. In this article, we concentrate on this final issue of capacity, as the will and ideas issues have already been well explored. Capacity is an issue coeval with, if not prior to, the first two issues. Examining the euro’s debilities sheds light not only on the euro’s capacity to rival the dollar as a top international currency, but also on the future of both the euro and the dollar in the aftermath of the euro-zone crisis.

Part one defines a top international currency, and briefly rehearses the first two arguments. Part two lays out the macro-economic dilemmas generic to a top currency, using schematic histories of the pound sterling and the US dollar. Part three shows how those dilemmas create weaknesses that hinder the euro, and discusses the euro crisis as an extreme manifestation of those weaknesses, rather than as an idiosyncratic outcome of the 2008 global financial crisis originating in the United States. Part four reflects on the wider implications of the failure of the euro as an international currency for the organization and operation of the world’s monetary and financial system. The EU’s failure to deal with the internal imbalances created by its common currency also suggests that it lacks the institutional capacity to deal with the imbalances created by a genuinely internationalized euro. The euro’s weaknesses thus imply that the world’s monetary and financial system will continue to rely on the American dollar as the world’s pre-eminent international currency and international reserve currency in the immediate future. In Susan Strange’s terms, the dollar is the world’s top currency, and the rest not only play merely supporting roles, but indeed have those roles defined in relation to the dollar under rules set largely by the United States.
INTERNATIONAL CURRENCIES

Susan Strange (1971a: ch.1; 1971b: 217–18) defined a top currency as one whose status depended primarily on the economic and commercial attractiveness of its use, even when such use also supported the external political aspirations of the issuing country. By contrast a negotiated currency needed explicit political buttressing to supplement its economic attractiveness. In either case, top or negotiated currency status did not simply flow from technical considerations. Rather, Strange was clear that external power relations provided an essential skeleton on which greater or lesser muscular ‘technical strength’ must hang. Below we will argue that domestic political considerations are coeval with these external political considerations.

From a purely technical point of view, the euro has the capacity to be an international reserve currency. The euro functions perfectly adequately as a unit of account, store of value, and medium of exchange that could function as national money (Cohen, 2011). Moreover, the euro circulates across several semi-sovereign nations inside the EU as well as a range of sovereign and semi-sovereign states on its periphery. The euro thus functions as an international reserve currency, as extra-EU countries hold some euros as an element of their official reserves (Helleiner, 2008). Yet the euro does not function as a top international currency, because it lacks a significant private function linked to but not entirely defined by its official, public role. Top currencies necessarily have a dominant share of both reserve and commercial functions, reflecting and supporting a dominant global political role for the issuing country. At the beginning of the 2010s, the euro accounted for roughly 24 percent of disclosed reserve holdings, versus the dollar’s 60–65 percent share. About 35 percent of foreign exchange transactions out of a notional 200 percent are in euro, versus about 85 percent for the US dollar. But for us the most telling statistic is the continuing low rate of non-resident issuance of euro-denominated debt, which remains stuck at no more than 14 percent of all euro-denominated debt (ECB, 2011; BIS, 2010). Similarly, roughly 50 percent of physical US currency by value circulated outside the United States in 2010, versus only 13 percent of euro (ECB, 2011; Judson, 2012). These data suggest the euro functions only as a regional, negotiated currency.

Why has the euro fallen short of its architects’ global ambitions? Benjamin Cohen and Kathleen McNamara have identified important internal institutional and ideational limits. For Cohen, as for others (e.g. Eichengreen, 1997; Wyploz, 1999), the mismatch between the domain of the euro and the jurisdiction of its member-states sets institutional limits to the international role of the euro: fundamentally, it is a currency without a country standing behind it (Cohen, 2011: 99). Conversely, the political purposes for which the euro is designed are largely domestic,
reinforcing this mismatch. Similarly, McNamara argues that officials (from either the European Central Bank or key member states) rarely count the international role of the euro as among its chief benefits to EU member states. Even where a clear international role may be divined, as for example regarding euro-US dollar relations, member states disagree about how to frame this relationship, preventing the emergence of a consensus (McNamara, 2008: 451–2). Next, we augment these analyses by exploring how the EU also lacks the macro-economic capacity to generate a top currency.

The macro-economic basis for international currencies

Macro-economic tensions and Triffin’s political dilemma

Two fundamental macro-economic realities constrain the euro from a top currency role. First, as Robert Triffin (1960; 1964) argued, international reserve currencies face a dilemma between confidence and liquidity, or as we will put it, between global deflation and global inflation. Brief considerations of the British and American periods of monetary dominance show that this tension can only be managed via domestic and international political compromise. Second, the country issuing a reserve currency must be able to generate a trade deficit in order to expand the global money supply, and thus avoid global deflation. These constraints are the political and financial sides of the same coin. As Keynes (1933) argued, and Triffin, Kindleberger (1981) and Strange (1971b) affirmed, choices about currencies are political choices because monetary policy affects the balance of power among debtors and creditors and therefore the distribution of the costs and benefits of growth.

Triffin (1960) operationalized Keynes’ observations about foreign trade in his Gold and the Dollar Crisis, where he noted that the world’s economies relied on increases in their holdings of American dollar-denominated reserves for the expansion of their money supplies (i.e., for liquidity). Simultaneously, Triffin noted that the volume of American dollars held as official reserves would eventually exceed its gold reserve, creating an inevitable crisis of confidence in the future value of the US dollar. This situation created a tension between confidence and liquidity. Increased global liquidity required more dollars. Yet the fixed exchange rate between dollars and gold meant that the size of America’s gold stock set an upper limit on the foreign acquisition of official reserves, unless public authorities were confident enough about American economic output to accumulate dollars backed only by that output.

Domestic political tensions mirrored this international dilemma. Monetary officials in advanced industrialized countries relying on American dollars for liquidity were vulnerable to the uncontrolled creation of
American fiat money, because inflation imported from America threatened domestic financial systems largely built around bank loans at fixed interest rates (Shonfield, 1965; Loriaux, 1991). Conversely, the American state had to accept limits on its ability to monetize its public debts and to use monetary policy to boost its own, slower growing economy. Keynes, Triffin, and Kindleberger all suggested solutions for this political dilemma, yet none were taken up. Keynes proposed that a new International Clearing Union issue a global fiat currency, the bancor. Triffin influenced the launch of the slightly more successful Special Drawing Rights (SDRs) from the International Monetary Fund (IMF) (Odell, 1982). Kindleberger (1981: 107–10) proposed internationalizing American monetary policy, either by giving the major industrialized countries a say in the operation of the Federal Open Market Committee, or by supporting the development of a genuinely international capital market, which he identified at that time with the Euro-dollar markets. This would have created a private counterpart to the IMF’s SDRs.

A macro-economic cycle common to international currencies drives these political tensions. Only a country with a very large and highly competitive economy can emit a top international currency, because these establish the pre-conditions for Triffin’s confidence. An economy that is too small in relation to the international economy will not be able to generate enough currency or assets to serve as a monetary base for the international economy; vide Switzerland. For a large economy, few will want to hold its currency or assets if it is uncompetitive. Only a relatively large and competitive economy can generate demand for its own currency, as other countries buy its exports in large volumes, purchase its financial assets or make investments in that economy to profit from its growth prospects.

Hyper-competitiveness creates export surpluses, and thus international confidence in and demand for the top currency. But these surpluses are inherently deflationary because they drain liquidity from other economies. Theoretically, relatively cheap imports from a competitive economy can free up income that importing countries can then channel into new domestic demand along the lines of comparative advantage. But the income preserving or enhancing effects of comparative advantage only work when there is full factor utilization. If increased trade causes non-transient job losses in net importers – as they always will in a Ricardo-Viner world where human and physical assets cannot be easily redeployed to a second best use – then the international economy will deflate in the medium run. The only way it will not deflate in the medium run is through an unsustainable shift of labour and capital from traded to non-traded goods in the import-surplus country (which is implied in the fact of an import-surplus, where imports are displacing local traded goods production).
The international currency emitter could offset this deflation by recycling its surpluses as either increased imports (as Keynes preferred) or increased external lending. But external lending merely delays the need for increased imports. Indebted net importers eventually must become net exporters to repay interest and principal, lest they accumulate unsustainable debts. The international currency emitter thus eventually has to generate enough import demand in its own economy to allow its former surpluses to return as interest payments. Yet the surplus country’s overall competitiveness – the basis of its export strength – suggests few channels for imports, each of which necessarily will harm marginalized and/or vulnerable workers, sectors or regions. Since international currency emitters also live in a Ricardo-Viner world, this means they need a domestic political bargain or compromise to generate acquiescence from those harmed by imports.

In principle the issuer of an international currency could also put money into the world economy by intermediating short-term capital inflows from non-reserve economies into long-term capital outflows back to those non-reserve economies. But this arbitrage does not avoid the problem also outlined above. By definition, this creates no net addition to liquidity, and short-term inflows would attract lower returns than the corresponding long-term outflows (Edelstein, 1982). The international currency emitter’s cannot validate its long-term external assets unless that country runs trade deficits, allowing the periphery to service its long-term external debts to the emitting country. When Britain and the United States engaged in this form of global intermediation or arbitrage they ineluctably ended up running trade deficits to validate their foreign investments (de Cecco, 1974: 1–20; Schwartz, 2009).

When international currency emitters finally begin running trade deficits, they restore liquidity to the global economy, but at the cost of confidence in the future value of their currency. Trade deficits imply slower growth in the emitting country and faster growth elsewhere, decreasing the emitter’s relative economic advantage. As a result, countries which use the international currency must absorb a rising volume of financial assets from the emitting country – this is the counterpart to that country’s trade deficits. But why accept those assets? Countries which absorb and ‘use’ the currency need to strike additional political compromises among their populations because purchasing these assets has domestic distributional consequences. Top currency emitters must thus navigate Triffin’s liquidity-confidence dilemma through interlocking domestic and external political compromises around adjustment costs involved in sustaining growth in the currency emitting country.

The idea that trade deficits are a key part of the basis for an international reserve currency may seem counter-intuitive. Surely trade deficits mitigate against the common sense belief that actors would only hold...
currencies or assets denominated in a foreign currency if they believed that this currency would retain its value over time? As a simple technical matter, all a genuine international currency has to do is facilitate multilateral trade and provide countries with the means to cover their imports in the event of a temporary decline in exports. But as the Triffin dilemma suggests, when a single country’s currency is used to fund the majority of international transactions, very large gross flows result. Precisely synchronizing growth in these gross flows with the parallel growth in the volume of international trade in goods and services will be hard to achieve for two reasons. First, the global economy is not (yet) an optimum currency area. Second, as noted above, a single hypercompetitive economy inevitably produces deflation. Over a long time horizon, therefore, emitters of international currencies go from being trade surplus economies to trade deficit economies in order to overcome this deflation.

We therefore argue that the Triffin dilemma should be understood as a choice between system destabilizing deflation, and an inflationary gamble on growth. The state emitting a top currency needs to achieve a domestic political compromise that allows it to run recurrent trade deficits while simultaneously valorizing the foreign liabilities which those deficits create. At the same time, countries using the international currency must be willing to create their own domestic political compromises permitting the accumulation of assets from the emitting country. In the next section we illustrate these dual political bargains in Triffin’s economic dilemma using Britain’s deflationary regime in the nineteenth century, and America’s inflationary regime in the second half of the twentieth century.

The historical record: sterling, the dollar and their lessons

During the nineteenth century, the simultaneous consolidation of the world’s largest empire and the pre-eminence of British exports of goods, services, and capital made the pound sterling the world’s primary international currency (Imlah, 1958/1969; Hobsbawm, 1975; Eichengreen, 1985; Gilpin, 1987; Germain, 1997; Schwartz, 1989; Langley, 2002). The relative superiority of British goods on price and quality terms became the basis for global demand for sterling, which in turn reinforced the central position of London-based financial institutions and markets in the organization and operation of the world’s financial and monetary system. British hyper-competitiveness, manifested as falling prices for British manufactured goods, drove a near century of continual deflation, interrupted occasionally by wartime inflation.

How did a hypercompetitive Britain maintain a stable global monetary order? Mechanically, it did so by recycling its early trade surpluses as debt-financed exports of capital goods to countries capable of supplying
its raw material needs. Increases in global liquidity during the nineteenth century relied on the international issuance of foreign public and private sterling securities in London rather than on growth of the global gold stocks notionally backing many currencies (de Cecco, 1974; Schwartz, 2010). For example, the United States and Argentina ran sizeable trade deficits by selling ‘assets’ – i.e. claims on the very railroad systems Britain exported to them – back to the British. The exports those rail systems enabled created the cash flow sustaining asset values. The necessary counterparts to the export of British capital at time A were thus a large and enduring goods, but not invisibles, trade deficit for Britain that allowed valorization of those assets at time B, and alternating spurts of domestic and international growth (Lewis 1978; Thomas 1967; Germain 1997).

Food imports were both the physical manifestation of asset validation and the hinge linking the domestic and international political compromises sustaining sterling. During the nineteenth century, British elites faced social unrest as economic expansion created an ever larger and better organized working class (Carr 1946; Cox 1987; Eichengreen 2008). Food imports simultaneously doubled British real wages while also allowing agricultural producers in Britain’s periphery to meet their debt obligations to the City. This huge increase in real wages offset losses in the British agricultural sector, where land prices fell (Offer, 1991). The nascent labour movement did not contest free trade – and thus, implicitly, supported capital exports and sterling’s position – because free trade provided the ‘cheap loaf’. Losers from rising food imports – the gradually enfeebled landed aristocracy – exported themselves to the colonies as an administrative elite and shifted their capital into increasingly valuable urban real estate. Finally the rising and powerful class of industrial magnates benefited from stable nominal wages and access to foreign markets.

Outside Britain, rising volumes of raw materials exports generated capital gains for politically influential landholders able to tap into global flows of voluntary and indentured migrants. Those landholders and their bankers in turn parked their earnings in short term deposits in London, making them short-term creditors on Britain. And British emigration to its agricultural periphery ameliorated Britain’s labour surplus. In a way, this emigration helped to make the global economy operate more like an optimum currency area until immigration shut down in the 1920s. These interlocking domestic and international compromises were a critical political counterpart to the macro-economic flows that sustained the international role of sterling during the nineteenth century.

The nineteenth century monetary order had a low degree of institutionalization outside its formal empires. The operative international networks were for the most part restricted to European financiers and central banks (e.g. Flandreau, 1997; van der Pijl, 1998). This lack of
institutionalization later hampered US recycling of its trade surpluses in the 1920s. Hyper-competitive America ran trade surpluses that it loaned back to Germany, Japan and, to a lesser extent, Britain (Germain, 1997). This lending funded consumption rather than investment and was thus doubly unsustainable over the long run as compared to Britain’s recycling (McNeil, 1986). Moreover, foreign production did not improve US real wages and thus consumption levels the same way imported food did in nineteenth century Britain, inhibiting labour’s participation in a free trade coalition. Even though the dollar was not yet formally an international reserve currency, the large US trade surplus exerted strong deflationary pressure. This deflationary pressure began in the mid-1920s in the agricultural sector and spread into the financial and manufacturing sectors via the Great Crash and the ensuing Depression (Kindleberger, 1973).

The post-World War II international monetary system that the United States and Britain devised was (relatively) less deflationary than the gold standard era (Block, 1977; Helleiner 1994; Andrews 2006; Seabrooke 2006; Eichengreen 2008). Keynes’s influence manifested itself in partially successful efforts to make trade balance through trade flows rather than lending. The United States institutionalized its external political compromises in two formal international organizations, and an orrery of official networks dominated by the American state. The networks running through the Organization for Economic Cooperation and Development (OECD) the Bank for International Settlements (BIS) and the various ‘G’s allowed the American state to assemble a range of contingent political coalitions to manage global economic problems. The greater institutionalization of the twentieth century’s monetary order is intimately and organically connected to the actions and interests of the American state around recurrent global financial crises; these crises in turn drove the US trade deficit.

Greater international political institutionalization paralleled greater American state capacity for domestic economic intervention. The American state undertook domestic operations in support of the dollar’s global role on a scale that far outstripped the nineteenth century British state (Cox, 1987). In two great efforts (the New Deal and Great Society programs of the Roosevelt and Johnson Administrations), the American government both responded to and reinforced significant shifts in electoral political coalitions to extend first welfare benefits and then also civil rights to marginalized and disenfranchised citizens. These US versions of the cheap loaf institutionalized the various political trade-offs required for the American state to pursue its international economic policies. These trade-offs included agricultural subsidies, a military version of Keynesian spending to maintain domestic demand, social programs protecting middle class voters, and structuring the financial system to
strongly support homeowners. Persistent government deficits funded all these efforts.

Like the British system, the American system eventually came to rely on trade deficits to provide global liquidity. Unlike the British system, the US system was inflationary even during its ‘gold standard’ phase. The gold-dollar exchange rate system sanctioned at Bretton Woods obliged signatory governments to use the dollar as the most important international reserve currency, cementing the dollar’s role in both current and capital account transactions. With rare exceptions over the post-war period, this forced a significant balance of payments deficit on the US (e.g. Cohen, 1977; Block, 1977; Helleiner, 1994). Housing played the same role in this arrangement that food did in the British system. Global inflation up to the 1980s devalorized housing debt in the US. Global disinflation after the 1980s flowed through the US housing finance system as debt refinancing (Seabrooke, 2006; Schwartz, 2009). Both processes freed up purchasing power for the middle class. Part of this purchasing power inevitably flowed into more US imports which meant more growth for US trading partners at the price of a continued central role for the dollar, given that the United States exported dollar denominated assets to pay for its trade deficit. This has been particularly beneficial to China, which accelerated its industrialization over the past two decades by exporting into the American market. A 1 percent increase in US GDP reliably produced a 1 percent increase in Chinese GDP after 2000 (Ahya, 2007; Rosgen, Chu and Leong, 2007). In this sense, American trade deficits, although often identified as a key feature of current global ‘imbalances’, have been a crucial source of liquidity to the global economy over the past several decades.

After the 1970s, profits in the US financial sector were closely tied to and affected by US exports of capital to the world, motivating that sector to exert considerable political pressure to validate their overseas holdings at the cost of increased trade deficits. In just over five decades the United States moved through the macro-economic cycle underpinning an international currency, going from a position of trade surpluses supporting capital outflows in the 1950s and 1960s to a position of trade deficits supporting capital inflows which in turn validate the production of dollar-denominated financial assets in the twenty-first century.

These brief historical excursions yield two main lessons for understanding the enabling conditions for an international currency. First, to avoid global deflation, a highly competitive country issuing an international currency must eventually run a trade or balance of payments deficit sufficiently large to expand global liquidity. This deficit necessarily creates a tension between the two roles that an international currency plays. At one level, an international currency is valued to the extent that its availability provides a meaningful source of demand and liquidity.

10
But at another level, if meeting that demand requires continual deficits, the confidence of others in the value of that currency will inevitably erode. Externally held assets link these two roles. Deficits most often take the form of asset sales – but who will want to buy assets if there is a high probability of capital losses? While the source of Triffin’s dilemma between liquidity and confidence looks like an economic problem, its solution requires political negotiation among winners and losers around managing global imbalances.

Second, these macro-economic flows require a supporting political infrastructure so that political actors can negotiate distributional conflicts. At the domestic level, balance of payments deficits will generate distributional conflicts among economic sectors and actors that the state will have to mediate through side payments. And at the international level, the state issuing an international currency will need to bear a disproportionate cost in the form of growth lost to net imports, or it may need to find some way to re-allocate those costs among other states (Zimmermann, 2002). The institutional infrastructure of the global political economy, in other words, will need to be robust enough to bear the weight of these domestic and international costs.

In short, we identify two specific infrastructural foundations for creating and consolidating an international currency. First, outward looking state institutions that can negotiate international acceptance of the top currency’s role by recycling purchasing power back into the global economy. Second, inward looking state institutions that can ameliorate losses from the trade deficits emerging from use of the top currency and from that recycling of purchasing power.3 We now examine how the euro lacks the first two critical infrastructural components and how the euro-crisis magnifies these weaknesses.

From the euro to the euro-zone crisis: dimensions of failure

(i) the failure of political infrastructure

Three key sites of institutional ‘authority’ constitute the political infrastructure supporting the origins and operation of an international role for the euro. We consider these sites to be governmental, regulatory and operational in nature. They are the state-led political coalition controlling access to financial resources in the euro-zone; the regulatory agencies responsible for the major EU and euro-zone banking systems (through which financial resources are mobilized); and the European Central Bank (ECB), which is responsible for managing the euro’s day-to-day activities in financial markets. Of course, each of these institutional sites draws on wider political networks and sets of ideas defining what is ‘feasible’ to
support their authority and actions. They are also anchored in and limited by specific macro-economic conditions. Each of these sites of institutional authority has failed in important and inter-connected ways.

First, European monetary union has faced significant hurdles from its inception: it is not an optimum currency area; the EU lacks the ability to support large-scale fiscal transfers; and the ECB, its principal guardian, does not have the backing of an integrated state (cf. Eichengreen, 1997; Cohen, 2011; Schelkle, 2012). Despite these problems, a strong political coalition of states around a Franco-German core emerged to establish the euro and consolidate its sphere of operation (Strange, 1998; Abdelal, 2007). This coalition purchased a broad elite consensus in the EU’s peripheral states that favoured the euro, transferring just enough resources to allow those same peripheral elites to cultivate popular support for the euro. The pattern of lending among EU states shows this clearly. In 2011, France was disproportionately a net creditor to the southern tier, with roughly 18.5 percent of its overseas investment located there, versus only 15 percent for Germany, 9.5 percent for the Netherlands, and 5.3 percent for Britain.4

Since the crisis, however, this coalition has fragmented. Although no member of the euro-zone has publicly disavowed its commitment to the euro, the societal consensus underpinning an unlimited commitment to it (and indeed to all EU institutions) has suffered, both in the crisis countries, and in previous bastions of support, such as Finland and the Netherlands.5 In effect, the political deal to support the euro replicated and expanded the original Franco-German deal, with northern countries’ resources buying southern adhesion to a greater and hopefully stable union. But this north to south financial flow has ebbed with the onset of the euro-zone crisis. And with the sudden possibility of seemingly unlimited calls on northern resources to maintain southern adhesion, the possibility of defection from the euro-zone is no longer unthinkable.

The central weakness of the political coalition anchoring the euro-zone is thus the absence of any robust domestic political commitment to effect the kinds of resource transfers that have historically supported an international currency (Issing, 2010; Schelkle, 2012: 45). This can be seen both within Europe and between the EU and the rest of the global economy. Unlike Britain with respect to its agriculture in the nineteenth century, or the United States via the New Deal, euro-zone surplus countries have had little appetite for the kinds of fiscal transfers required to support the euro-zone countries facing exorbitant adjustment costs. Beyond German recalcitrance, other northern European countries such as the Netherlands and Finland remain very reluctant to adequately capitalize new crisis response agencies, to transfer resources adequate to the task of putting crisis countries’ financial houses in order, or to run trade deficits so that the south can run surpluses. Instead, surplus countries have constructed
an elaborate process to minimize their contributions towards resolving the current crisis.

One way of highlighting this problem is to note that before the crisis the private sector filled this gap precisely because there were so few public resources transferred from north to south within the euro-zone beyond the side-payments noted above. Euro-zone peripheral countries’ debt expanded via private borrowing, not sovereign borrowing. Between 2002 and 2007, as the debt load of peripheral Euro-zone countries more than doubled from €3 trillion euros to almost €7 trillion euros, private debt grew from just under one third to over half of the accumulated debt load, indicating a faster rate of growth. This debt effectively allowed southern elites to provide private goods to their clients and to their voting bases through expanded private sector lending (for, inter alia, mortgages and car loans). Mortgage debt doubled relative to GDP in countries such as Spain between 2000 to 2007 (European Mortgage Foundation, 2005 and 2012). The central point here is that in the absence of a politically-negotiated transfer of resources from north to south, private debt expanded until it became unsustainable. Sovereign debt levels only became part of the crisis when peripheral euro-zone governments bailed out private lenders.

An external counterpart matches the political failure to negotiate the euro-zone’s internal tensions. No coalition supports the historic importer of last resort role that issuers of international currencies must undertake. As noted above, both Britain and the US ran balance of payments deficits that placed sterling and dollars in the hands of foreigners, validating earlier British and US trade surpluses. The dominant political coalition in the euro-zone, however, sees current account deficits as a southern problem rather than as a precondition for the internationalization of the euro, and they see an EU-wide global trade surplus as a necessary and desirable outcome.

This political failure has been reinforced to a degree by the reluctance of the EU to develop a universal (i.e. EU-wide) banking system subject to a single regulatory authority that can mobilize adequate resources in a crisis. To date, no single institutional authority oversees the way in which capital circulates throughout the EU, with the end result that banks across the euro-zone are subject to variable sets of rules and backstops. Current proposals regarding an EU Banking Union and its Single Supervisory Mechanism have yet to overcome this variability problem (Tröger, 2012; Haworth and Quaglia, 2013). In any case, a banking union is no substitute for robust fiscal transfers.

This leaves the ECB as the only EU institution supporting the international role of the euro during the crisis. It has stepped up liquidity provision as the crisis unfolded, and it has shown flexibility with respect to the kinds of collateral it has accepted for such liquidity. Its Securities Markets
Program (SMP) and Long Term Refinancing Operations (LTRO) provide a mild version of quantitative easing to euro-zone economies, exchanging high-quality ECB paper for lower-quality government bonds (Schelkle, 2012: 47–8). This ECB paper provides euro-area banks with the collateral they need to meet the new capitalization requirements demanded by banking authorities throughout Europe. The ECB has also calmed the financial markets by clearly committing to do whatever it takes to support the euro. The ECB’s activities reach to the edge of its official mandate, stopping just short of overtly monetizing the debt of crisis countries.

Recent moves toward a banking union as a solution to the euro crisis may increase the ECB’s power, but they also show how weak the pre-crisis institutional basis for the euro was. One purpose of a banking union is to maintain a free flow of capital across different EU regions. This is surely a prerequisite for a reserve currency — if capital cannot flow freely internally, it is unlikely to flow freely externally. The crisis motivated steps towards a banking union, but it is not yet clear precisely how the troika of banking, security markets and insurance and pensions regulators will actually implement their agendas, except to say that they will have EU-wide agendas (Tröger, 2012; Howarth and Quaglia, 2013). European banking systems are central players in the operation of the eurozone, by buying government debt, transmitting risk, and channelling ECB-supplied liquidity to entire economies (Jones, 2012). But at a technical level, the euro crisis has led to a de facto renationalization and fragmentation of credit markets in Europe (Howarth and Quaglia, 2013: 104–6). This makes it even harder to use the euro as a global reserve currency.

We thus find clear signs of failure at each site of institutional authority connected to the euro-zone’s political infrastructure. The political coalition at the heart of the euro-zone has been unable to find a sustainable set of trade-offs to direct adequate amounts of public resources from richer northern members to poorer southern ones. Instead, the private sector mediated this trade-off before the crisis, with disastrous results. Post-crisis, support for the euro as a currency suitable for all EU members has eroded. Equally important, this political coalition has also been unable to support the circulation of euros beyond the euro-zone in a manner that upholds or extends its international profile. Non-residents seemingly do not have the confidence to use the euro in large numbers. And finally, the ECB, as the only effective institution behind the international role of the euro, has had little success in guiding the euro towards an extra-European circulation. Unlike America’s Federal Reserve Board (or Fed), for example, the ECB does not have a long list of client central banks clamouring to set up swap lines so they can obtain access to the euro for use as a monetary asset. Indeed, during the peak of the 2008/09 crisis, the ECB was in some respects just one more spoke in the Fed’s elaborate swap network (McDowell, 2012). Simply put, the political infrastructure
necessary to support an international currency does not seem to be in place for the euro.

ii) the failure of macro-economic infrastructure

Significant macro-economic obstacles also inhibit the euro from becoming a global reserve currency despite its success as a regional reserve currency. Fundamentally, the pre-crisis euro-zone could not politically tolerate either of the two pathways to an international currency: current account surpluses and capital outflows, or current account deficits and capital inflows. (Accounting identities link trade surpluses to capital outflows.) The on-going crisis exacerbates this political dilemma. Here we re-consider in a more euro-centric way the three reasons why the ability to run a trade deficit matters for the international role of a currency: (1) why internationalization requires trade deficits; (2) the sources of trade surpluses and deficits among the euro-zone countries; and (3) the specific way that Triffin’s dilemma applies to the euro-zone.

Recall the logic driving Triffin’s dilemma. For a currency to become a reserve currency, other countries not only have to want to hold that currency, but also have to be able to hold that currency. Of the two ways to put currency into other people’s hands, one is unsustainable and, historically, is usually replaced by the second. Internationalization in our only two historical examples started with the reserve currency emitter recycling substantial trade surpluses as external lending. Those emitter country claims on the periphery could only be validated if the currency emitting country accepted a trade deficit. But this shift from surplus to deficit was not automatic. Rather, political struggles between those who benefited from surpluses – largely manufacturers – and those who benefited from validation of external assets – largely the financial sector – determined the speed and shape of the shift (see, e.g. Henning, 1994). In the euro-zone, this political struggle manifests itself as a tension between validating northern banks’ holdings of southern debt via austerity policies, which implies a steep drop in north to south exports, or validating them via inflation, which requires a steep increase in northern imports of southern goods.

The current euro-crisis replicates the deflationary problems of the British period. Under both the nineteenth century and interwar gold standard, countries that could not generate salable assets in fact saw deflationary outflows of gold (Eichengreen, 1992). In the interwar period the majority of countries faced this situation because of the extremely competitive position of the United States, and the extreme undervaluation of the franc. Today’s euro-zone southern tier confronts the same problem in relation to hyper-productive Germany, whose trade surplus enforces deflation on the southern tier.
For the euro to become an international currency, then, Europe must put euros into the world’s hands by running trade (or current account) deficits. But euro-zone trade deficits imply even worse unemployment for the euro-zone in general and for its peripheral members in particular, as imports substitute for local production of tradeables. Even before 2009, core euro-zone Europe (France and Germany) had high unemployment and slow growth. Germany ‘solved’ this problem by shifting it to the south, thus creating the conditions for the current crisis. So both before and after the crisis, efforts to internationalize the euro would have encountered substantial political resistance as unemployment rose. Current austerity policies suggest a political distaste for expansionary policies that might generate trade deficits and thus also militate against internationalization.

Instead, the euro-zone comprises a deflationary system that combines the worst features of the nineteenth century gold standard and the interwar recycling of surpluses as debt. Growth in this deflationary system relies on external demand, because the inherently deflationary German economy anchors it (Bellofiore et al. 2011). Germany’s economic structure – its high level of productivity and its refusal to generate equally high levels of demand to absorb that productivity – translate into continual trade surpluses, averaging 5 percent of GDP after 2005. Already in the late 1970s, this possibility was identified by Carl Lankowski (1982: 93), who recognized how Germany’s policy stance and trade surpluses generated deflationary pressures through the conflict between a fixed exchange rate with other European countries and a consistently lower domestic inflation rate in West Germany.

Like the interwar United States, Germany recycles its surpluses, investing more abroad than at home, but this exacerbates the shortfall in domestic demand (Sinn, 2006: 6). Europeans in the aggregate, but Germany in particular, purchased private US assets – particularly the mortgage backed securities (MBSs) at the heart of the current crisis (Schularick and Wachtel, 2012). By purchasing these MBSs the Germans helped finance the US trade deficit and the central role of the US dollar. Or to put it differently, the US trade deficit with Germany (and China) created the global liquidity that not only made it possible for Germany to dispose of its surplus production but also for southern Europe to finance its deficits (Schwartz, 2009). So long as the US created global liquidity, everything worked. But the 2008 financial crisis threw the entire machine into reverse. The US suddenly ran surpluses rather than deficits with Europe ex-Germany. Europe ex-Germany thus could no longer use surpluses with the United States to fund its deficit with Germany.

Four figures help to illustrate the current crisis. They present the intra-European balance of trade, a disaggregated view of the extra-European balance of trade, the US current account balance with selected regions,
and the same US data but broken out for the euro-zone ex-France and Germany.\textsuperscript{7}

Figure 1 presents the most important of Europe’s (EU-27) internal trade balances from 1999 to 2012. Note that Germany and the Netherlands run large and growing surpluses with the rest of Europe through 2008. For the Netherlands, these large surpluses offset its deficit with the rest of the world. The rest of Europe borrows from Germany to make things balance, though Italy and France were close to internal EU balance until the crisis.

Figure 2 disaggregates Europe’s external trade balances. Only Germany was simultaneously in surplus with both the intra- and extra-EU world. The Netherlands’ intra-EU surpluses more or less offset its external deficits. Everyone else was mostly in double deficit. But a double deficit is not necessarily a problem if it is small relative to GDP or if it can be financed. Neither condition was true from the mid-2000s forward. One reason was the shift in trade balances with the United States from surpluses pre-2007 to deficits after the Lehman crisis.

Figures 3 and 4 chart the US current account balance with the euro-zone-17 \textit{in toto} and with the euro-zone ex-France and Germany. The euro-zone relied on surpluses with both the United States and Britain to balance its accounts with the rest of the world; Figure 3 shows this for the United States. The euro-zone’s global trade surplus was larger than its surplus with either the United States or Britain in only two years from 2002 to 2012. Figure 4 illustrates how US surpluses with Europe

\textbf{Figure 1} Intra-European trade balances, € billions, 1999–2012 (select countries).
ex-France and Germany emerged at the start of the crisis and grew rapidly. Put simply, the debts that southern Europe was accumulating with northern Europe were bearable when southern Europe was running a (small) trade surplus with the United State and Britain, thereby funding part of the cost of their northern debts. But the abrupt slowing of the US

**Figure 2** Extra-European Trade Balances, € billions, 1999–2012 (select countries).

**Figure 3** US trade and current account balances with the euro-zone 17, US$ billions, 1999–2012.
economy after 2007 and the United States’ remarkable swing back into surplus with Europe as a whole, and particularly Europe ex-Germany and France, meant that southern Europe had deficits all around, and thus no hope of funding its debt service obligations in the absence of financial or fiscal flows from northern Europe.

These figures illustrate the political tensions preventing the euro from becoming an international currency. Given that the southern economies must now run trade surpluses in order to service their internal debts to the north, it is hard to see how the euro-zone as a whole can find a politically acceptable path to the kind of trade deficits needed to expand the euro from a regional currency to a global one. The northern Europeans and especially the Germans were not willing to tolerate those kinds of deficits before 2008; Germany currently insists that the south find trade surpluses outside Europe. As of the end of 2013, manufacturing output in France, Spain and Italy was below the level in 2003. These three economies constitute 36 percent of EU27 GDP, so it is hard to see them accepting any huge influx of imports. Neither the political nor macro-economic infrastructure exists to enable the euro to become a genuine international currency; put simply, the south cannot and Germany will not.

**THE WORLD’S MONETARY AND FINANCIAL SYSTEM AFTER THE EURO**

The euro lacks both the political and macro-economic infrastructure to support a genuinely international role, and the current euro-zone crisis
reveals the fragile state of the euro. What then does the future hold for this currency? In our view, three vectors shape its future trajectory. These are: (1) the sustainability of current global and regional macro-economic imbalances; (2) the nature of EU/ECB participation in existing global institutions; and (3) the euro’s own entanglement in the global monetary hierarchy, which now includes the presence of the renminbi (RMB) as potential rival to both the US dollar and the euro.

First, we believe the euro is ill-positioned to take advantage of the unwinding of the two huge macro-economic imbalances that characterized the 2000s. In the 2000s, the US produced relatively too little, borrowed too much, but nonetheless drove growth in the world economy because the US grew faster than its European creditors and so validated the assets America sold to finance its trade deficits. Inside the EU, Germany produced too much, consumed too little and loaned too much to other people. Germany’s balance of payments surpluses worked in part because American deficits off-set those surpluses, as Figures 3 and 4 suggest, but the reverse is not true. Germany cannot generate endless surpluses with the world in the absence of American growth, while America can grow in the absence of German surpluses.

The US trade deficit appears to be unwinding gradually, and we believe that this will strengthen the US economy and the dollar’s position as the global reserve currency. Why? A declining US trade deficit implies stronger US domestic growth, particularly as the Fed remains committed to low interest rates. We do not assert an immaculate transfer of resources from the non-traded to traded sector, although US manufacturing output is now growing rapidly. Rather, we base this claim on a shift of resources that is already visible, driven by shifting relative prices for labour and energy. On the energy front, the rising production of shale gas in the United States is reducing the costs of production relative to its competitors. Shale gas matters directly for production costs in the petro-chemical industry (which has pervasive connections to all manufacturing). And it matters indirectly through its effects on electricity prices, as the marginal kilowatt produced in the US is powered by gas. In 2012, natural gas was selling in Japan for $17 per million BTUs (British Thermal Units, the standard unit of measurement for natural gas), versus $9 in Europe and $3.25 in the United States – an overwhelming US advantage. Whether or not unit labour costs fall in the United States, industrial and other production costs will receive a significant competitive boost over the medium term, thereby displacing imports.

Abundant natural gas in the United States has also sparked a divergence in the price of energy for production and energy (primarily liquid fuels) for transportation. This divergence motivates a re-shoring of manufacturing to the US from China (and, plausibly, from Europe as well). In 2006, producing in China and shipping to the US incurred a
‘penalty’ in the form of additional transportation costs that equalled 3 percent of final cost. But labour costs in China relative to US labour costs created a bonus equal to about 7.5 percent of final cost, and thus a 4–5 percent incentive to relocate production to China. Today that equation is reversed: additional transport amounts to 8 percent of final cost, but the difference in labour costs creates only a 6 percent bonus (PWC, 2012). We doubt that Chinese wages and oil prices will both fall over the next decade. The re-shoring of US manufacturing will cause the US economy to grow faster than Europe’s, validating old and new claims on the US. All of this will sustain the dollar’s international role.

By contrast, the only plausible path to unwinding euro-zone imbalances will create inflation in Europe and thus provide a further dis-incentive to hold euros. The strongest economies within the euro-zone are export-led, which retards their growth prospects given the weak global economic outlook. As the EU also comprises 25 percent of the global economy, it is too big to draft behind other economies, especially when the US trade deficit is already shrinking. A deflationary strategy in Europe therefore has limited merit – by exacerbating the austerity-driven crises currently experienced by southern economies it endangers the euro’s future. This leaves only an inflationary path, via the printing of money and/or fiscal stimulus, for the euro-zone. Unfortunately, such a path will put downward pressure on the value of the euro, which is unlikely to reinforce its international role.

Second, the EU and ECB are entangled in global institutional networks that freeze the euro in its current position. To the extent that the EU and ECB work within existing global institutions such as the G7 or G20, they necessarily accept a US veto on anything that threatens the role of the dollar. The ECB in particular has a limited ability to carve out an autonomous role within this framework (Dyson, 2009: 30). Moreover, in an expanded G20, as in the IMF, the EU confronts rising powers with legitimate claims to enhanced representation. Aligning those powers with the EU and against the US will be difficult. These rising powers have large US dollar denominated asset hoards and thus are partly hostage to US economic growth. By contrast, the EU and its euro-zone cannot easily open markets to the most important of those rising powers. China directly competes with southern Europe in manufacturing; Brazil somewhat less so in manufactures but it increasingly pressures France and the Common Agricultural Policy via grain and oilseed exports. In short, geo-politically, the EU can concede little to rising powers without also eroding its own position. The prospects for the euro in global institutional terms is therefore one of continued weakness.

The historical record, such as it is, reinforces this conclusion. The pound and dollar both emerged as global currencies after world wars cleared away existing arrangements. Both currencies then flourished in
the context of new institutions constructed around imperial projects. Britain’s nineteenth century empire expanded considerably in terms of acre-age as existing colonies turned nominal sovereignty into substantive control over the land they claimed. America eschewed formal empire, but similarly established a network of bases, acculturated elites, legal codes, and consumption patterns in a long list of client states. Neither of these options is currently open to the EU.

Finally, the euro confronts serious rivals in the form of the RMB and yen, and less serious rivals in a plethora of minor currencies. Of these, the RMB is the most pressing rival. Arvind Subramanian and Martin Kessler (2012) recently argued that

\[
\text{In East Asia, there is already a renminbi bloc, because the ren-
minbi has become the dominant reference currency, eclipsing the
dollar, which is a historic development. In this region, 7 currencies}
\text{ out of 10 co-move more closely with the renminbi than with the
dollar, with the average value of the [co-movement] relative to the}
\text{renminbi being 40 percent greater than that for the dollar.}
\]

There may be reasons to doubt their conclusion about the RMB replacing the dollar, but what is notable is the euro’s utter absence as a reference currency in Asia. For everyone outside Europe, the core question will not be ‘euro versus dollar’ but rather ‘our regional currency or local currency versus the dollar’. Cohen (2011) and Otero-Iglesias and Steinberg (2013) have argued that this suggests a diffusion of monetary power. For us, however, monetary power is not in fact becoming diffuse, but rather remains asymmetrically balanced in favour of the United States. **Divide et impera**: from the US perspective a plethora of regional challengers is more desirable than a single challenger. Moreover, there is some evidence that increases in the US trade deficit indirectly boosted the euro’s share of global reserves as surplus countries tried to diversify their holdings away from the dollar. The euro’s role as a reserve currency, ironically, might decline in tandem with the US trade deficit.

The real threat to the dollar is internal – US political dysfunctionality as manifested by Tea Party budget intransigence and an ever worsening income distribution. These trends undermine the political will and capacity to cut the domestic distributional deals needed to maintain the dollar’s international pre-eminence, and could induce a self-protective shift among other countries towards regional monetary blocs. A more rational politics (from an American perspective) would continue the traditional US policy of dividing region from region and dividing regions internally. In the EU this means encouraging Britain and the smaller northern states to abjure the euro and European centralization. In Asia this means providing diplomatic support for India and the Asian littoral
against China. In either case, the euro will struggle to sustain its role as an international reserve currency outside of its own region. Short of massive institutional and political changes inside the EU, the euro will be unable to expand its role, and indeed it may well lose ground altogether.

**CONCLUSION**

Our analysis makes three principal claims. First, technical fixes to restore confidence in the euro do not address the yawning macro-economic gulf that we believe is at the heart of the euro’s failure as an international currency. Until the euro-zone can run a trade and/or current account deficit with the global economy, it is impossible for the euro to challenge the dollar in this regard. Second, we believe it is politically impossible for the EU to reverse its macro-economic position. The political coalition to sustain such a reversal is nowhere in sight. To put it bluntly, the euro-zone is not politically capable of running the kind of deficits required to underpin an international currency. Third, for better or worse, the global political economy will be stuck with the American currency for the foreseeable future. This means, among other things, that domestic American politics and political institutions will continue to have outsized global repercussions on the political economy of international money.

Is China a potential challenge to our third claim? An international currency needs both political and macro-economic foundations. Politically, the Chinese state lacks a robust set of political institutions capable of negotiating the income distribution and employment issues associated with running an international currency. Most analyses of China’s RMB internationalization focus on technical issues of capital account liberalization and currency convertibility. Yet even if these efforts are successful, it tells us little about how other economies will actually acquire sufficient volumes of RMB. Historically, for obvious reasons, developing countries have been unable to run either continuous trade or current account deficits, or to export capital to such an extent that it makes a significant contribution to the growth of global liquidity. China has now done this for some time, at costs that are becoming apparent (Pettis, 2013). If China exports its vast horde of dollar-denominated assets as a way of growing global liquidity, it will simply reinforce the dollar’s position. If China continues to run surpluses, it will accumulate more dollar denominated assets. It appears that, for a very long time to come, therefore, we will be stuck with the US dollar as the world’s only genuine and viable international currency.

One final comment. Our review of recent literature on the political economy of an international currency suggests that there is much to be gained from returning to the kind of analysis pioneered by Triffin, Kindleberger and Strange during the declining years of Bretton Woods. In
different ways, each of these political economists refused to draw tight analytical lines around domestic and international politics, and saw clearly how international economic considerations spilled over into the political realm. While scholars such as Cohen, Helleiner and others have updated and refined their work in important ways, too little attention has been paid to the dual role of the state in negotiating both external and internal political compromises as part of the infrastructure of an international currency. Technical considerations like liquidity or transaction costs matter, but political considerations at the domestic and international level matter more. We have tried to correct this oversight, but more work needs to be done. In particular, we believe scholars need to scrutinize more closely the political effects of macro-economic flows, and especially the economic consequences of domestic political negotiations. Doing so, in our view, will open up an important avenue of enquiry for understanding the operation and organization of the contemporary global political economy.

ACKNOWLEDGEMENTS

Earlier versions of this paper were presented at the University of Erfurt and the University of California, Santa Barbara. The authors wish to thank participants at those venues, as well as Benjamin Cohen, Oliver Kessler, Bent Sofus Tranøy, Vera Wilde and the anonymous reviewers, for comment and criticism. Errors and omissions remain ours.

NOTES

2 We thank Benjamin Cohen for this point (personal communication April 2013).
3 Space constraints prevent consideration of McNamara’s (2008) argument for an ideational element in the political economy of an international currency.
5 Recent Eurobarometer polls indicate that trust in EU institutions (including the euro) fell from a highpoint of 57 percent in 2007 to only 33 percent in 2012 (Eurobarometer 2012).
The difficulties faced by the EU acting as a unified voice within existing multilateral economic fora are detailed by Hodson (2011). Interestingly, even on a bilateral basis – such as after 2007 when the EU negotiated directly with China over the euro-RMB exchange rate – positive outcomes (from a European perspective) were not forthcoming (Hodson, 2011: 122–9).

NOTES ON CONTRIBUTORS

Randall Germain is Professor of Political Science at Carleton University, Canada. His teaching and research focus on the political economy of global finance, issues and themes associated with economic and financial governance, and theoretical debates within the field of international political economy. His most recent book is Global Politics and Financial Governance (Palgrave, 2010).

Herman Schwartz is Professor of Politics at the University of Virginia and International Scholar at the College of International Studies of Kyung Hee University, Seoul. He is author of In the Dominions of Debt (Ithaca, NY: Cornell University Press, 1989), States vs. Markets (Basingstoke: Palgrave, 2009) and most recently of Subprime Nation: American Power, Global Capital, and the Housing Bubble (Ithaca, NY: Cornell University Press, 2010), plus four edited books and over 50 articles and chapters. Website: http://www.people.virginia.edu/~hms2f.

REFERENCES


