The economic and political pillars of dollar dominance are brought into sharp relief by considering the growing economic clout of China. For instance, is China's economic rise eroding US dominance? Is it possible for China to gain the financial clout and subsume the global security role of the United States that is required to underpin the renminbi as the new global reserve currency? Is this even in China's interests?

Dollar hegemony matters because the fate of the dollar as the world's first reserve currency is vital for determining continued US economic hegemony. Whether dollar dominance is necessary for global economic leadership or only to the benefit of the United States is not our focus. Instead, our aim is to explore and explain dollar dominance as a matter of fact: What exactly determines whether the dollar will reign supreme and continue to command attention in the coming decades of the twenty-first century? What is the relative role of these various determinants of international currency issuance? In particular, how important are conventional economic determinants as compared to security determinants? We hope this symposium begins to offer guidance for thinking about these critical questions.

The Money Shapes the Order

Aashna Khanna and W. Kindred Winecoff

Indiana University, Bloomington

American monetary prominence shows no sign of weakening. In fact, by some measures it has strengthened since the global financial crisis (Cohen and Benney 2014). This is due to the unique characteristics of networked international money systems in combination with a strong commitment by American monetary policy-makers to maintain a key position within this structure even during times of crisis. Absent such a commitment, the monetary order might have changed during the global financial crisis, which could have presaged a structural reordering of world politics more generally (Helleiner 2014). But dynamic processes that are endogenous to hierarchical network structures are very powerful forces, capable of keeping core nodes at the center of networks for long periods of time. A qualitative change to the prevailing international order is unlikely without a substantial revision of the international monetary system—a rewiring of the monetary network—yet the conditions under which that could occur appear to be quite far away. Because the monetary system is the bedrock of the international order, we believe that a qualitative order shift is unlikely for the foreseeable future, although we discuss the conditions under which one could occur in the conclusion of this essay.

Such an order shift took place in the first half of the twentieth century, following two world wars and a Great Depression that fragmented the ex ante network of economic (and political) relations. This network fragmentation made possible the postwar reconstruction of global networks—economic, military, political, and cultural—around a new core. The United States was best suited to occupy that position due to its attributes, in particular its wealth and size (including its large domestic market). The transfer of financial predominance from London to New York and displacement of the pound by the dollar as the benchmark currency—codified in the Bretton Woods agreement—thus signified the beginnings of American hegemony and played a significant role in underwriting other aspects of the US order-building project. The fundamental structure of the world order has not changed since, although the network has "thickened" as broad-based economic development has integrated more of the world into this system, particularly in the post–Cold War era, and institutionalization (regionally and globally) has progressed. This persistence is despite a number of crises in world politics and the global economy in the years since 1945. Thus, there is reason to think that international orders in the era of global capitalism cannot fundamentally change (representing as, e.g., a shift to multipolarity, apolarity, or Chinese hegemony) unless the organizational structure of the global monetary system changes first.

Monetary prominence has allowed the United States to extend its order far past its post–World War II moment of global dominance and even beyond the "unipolar moment" at the end of the Cold War, because the benefits of dollar centrality are not strictly economic. As Kirshner (2003) put it, "Money Is Politics," and international money is international politics. States have long used currency power as an instrument for coercion in pursuit of security goals (Kirshner 1995). Without controlling the world's most-used currency, the United States would have greater difficulty debt-financing its security projects and expansive military budget (Oatley 2015; Poast 2015; Shea and Poast 2018). It also insulates the United States from any pressure debt-holding foreign major powers might wish to impose (Drezner 2009). The global importance of the dollar, and the unique relationship between American financial institutions and the Federal Reserve, gives US firms easy access to finance, which it uses to capture greater global market share, generate excess profit, employ American workers, and fund the state (Starrs 2013; Schwartz 2019). Monetary policy-makers respond to these developments, then private actors respond again, in a recursive loop. Thus, the monetary and financial systems are inextricably linked as coevolving systems, and both constitute an enormous basis of American public and private power, which it uses to extend and protect the prevailing global order.[3]

We argue that previous conceptions of hegemonic orders suffer from excess focus on the characteristics of the leading state (or states) and too little on the organizational structure of the rest of the system. Hegemonic powers gain influence through their structural prominence, and this is a function not only of their attributes but also of their connections to the rest of the system. The distribution of structural prominence at time *t* is a partial function of the prior distribution at time *t–1*; the network contains positive feedback, so even a redistribution of national attributes may not generate a major redistribution of network prominence. Hegemonic powers are those at the core of a system of interdependence, and the order that emerges from network integration is characterized by the actions and interests of the core nodes, as those diffuse through network connections into the rest of the system, in combination with the reactions and adaptations of others in the system. Hegemonic change thus involves a shift from one highly prominent country in the system to another, which occurs through a process of reassignment of global linkages; it is a fundamental reorganization of the architecture of global networks. An order shift therefore requires a substantive change to global networks, beginning with the monetary system, and this tends not to occur gradually but through system collapse during crisis periods. Even the financial shock of 2008–2009 did not generate a power transition because policy-makers were willing (and able) to intervene to prevent such a rewiring (Drezner 2014; Helleiner 2014). Thus, it is likely a necessary condition for reordering that policy-makers in the core are unwilling to preserve the structural integrity of the system.

Money and Order

We conceive of international orders as overlapping, multidimensional sets of durable arrangements that can be theorized about, and measured, as a multilayer network.[4] That is, order is characterized by interdependence among state and non-state actors, whose behavior cannot be understood without knowledge of the structural context within which they operate, but which is nevertheless structurally sound (Keohane 2009; Keohane and Victor 2011; Winecoff 2017; Oatley 2019). Orders

[3] An author later in this forum discusses China's rise in the global financial system in detail.

[4] A multilayer network is a network with more than one "layer" (i.e., a "network of networks").

emerge when this structure is stable over the medium run or longer, so that the network not only persists indefinitely but retains its basic structure, which is reinforced as connections between actors grow over time.[5] Orders change when the network reorganizes, usually (at least historically) in the context of calamity: major power wars (Ikenberry 2001), severe economic disruption (and the decline in the provision of global public goods as emphasized by Kindleberger [1973]), and/or the bankruptcy of the ideational—and/or relational—basis of the *status quo ante* (Nexon 2009). We view orders as networks in part because such an analytical lens allows us to consider the extent and durability of international relations, that is, the extremity of anarchy in the international system; denser networks denote stronger relations, which could constitute the basis of an international society even under the anarchical condition (Bull 1977).[6]

This observation has led many to claim that order is generally a function of hegemonic influence (Gilpin 1981). Indeed, durable orders have historically contained a small number of entities at their core. Since 1945, the international system has developed around the United States across the subsystems of trade, security, finance, and knowledge-generation (Strange 1987; Winecoff 2019). This has remained the case despite profound and often rapid subsystem changes. Those changes include the end of European colonialism and the reconstruction (and rehabilitation) of the combatants in World War II; the heightening of the Cold War and then its cessation; numerous wars involving leading states and the second and third waves of democratization; the creation and strengthening of the European Union and other regional organizations; substantial alterations to the institutional architecture of world politics and the global economy; and the growth and integration of significant portions of the developing world (including a potential hegemonic challenger in China).

Thus, it is no surprise that speculation regarding a potential power transition occurred following the financial crisis that began on Wall Street in 2007 (Helleiner and Kirshner 2009; Helleiner 2010); it was a moment when *status quo* economic linkages were fracturing rapidly, with no guarantee that they would be reformed around the previous core entities. This was even more plausible given the rapid economic growth of emerging markets such as China in preceding decades, whose growth remained high even as advanced economies struggled with the Great Recession fallout from the financial crisis (Cohen and DeLong 2010; Subramanian 2011a, 2011b). Some even predicted an imminent shift from the US dollar to Chinese renminbi as the preeminent global currency (Subramanian 2011c). If there was to be a major reorganization of the system then the critical components seemed to be in place: a rising power, a major crisis in the central *status quo* power, and a perceived delegitimation of the *ex ante* order.

Instead, the US dollar appreciated sharply during the crisis, as foreign capital poured into the United States in a “flight to safety,” despite the US government’s flirtation with a sovereign default—due to partisan gridlock rather than economic incapacity—and serious weakness in the private sector. Instead of the normal crisis interaction between pressures on the banking system, currency values, and sovereign debt, the US government could borrow at negative interest rates that allowed it to intervene without cost to preserve the structure of the global financial network. Needless to say, this is not the normal experience of countries experiencing serious financial crisis and political dysfunction, but as a result no global monetary transition took place. And because no monetary transition took place, no general collapse of the relations ordering the international system took place, so no order shift took place.

[5]We use the term “indefinitely” in its strictly literal sense: lasting for an unknown length of time.

[6]The current state-of-the-art scholarship on hegemony and orders is found in a recent *Security Studies* special issue, introduced by Ikenberry and Nexon (2019).

The current international system remains quite hierarchical across domains and has been for some time (Strange 1987; Winecoff 2019). Such networks, the ideal type of which is "scale free," often contain positive-feedback mechanisms such as "preferential attachment."[7] Preferential attachment occurs when the future distribution of links in a network is a function of the prior distribution. For example, if the probability that international trade is cleared in American dollars today is related to the dollar's use in international trade yesterday, then that may be evidence of preferential attachment. Why is this important? Because preferential attachment is a purely endogenous structural process. It does not depend on the soundness of the dollar, the solvency of the American financial sector, the ideology of particular governments in the system, or any other factor. If it is present, then it may be sufficiently powerful for keeping the dollar at the core of the international monetary system for the foreseeable future. While more research on the specific question is needed, there is at least some evidence (discussed below) that preferential attachment does exist. And if preferential attachment is guiding the growth of the international monetary system, then that may provide the necessary infrastructure for the persistence of the American-led order more generally.

The Monetary Basis of the US-Centered System

Not only did American monetary prominence persist post–Bretton Woods, contrary to expectations (Triffin 1960, 1978), it broadened and deepened as the world system developed toward the "unipolar moment," and remains present today (Strange 1987; Norrlof 2010, 2014). Thus, continuing dollar dominance in the monetary system does not appear to depend on the persistence of any specific international institutional arrangement, such as Bretton Woods, but is closely related to the American hegemonic project more broadly. This was also true of previous hegemonic projects (Kirshner 1995; Sobel 2012; Winecoff 2014).

That the international monetary system is dollar-centric is not in dispute. More than 80 percent of foreign exchange transactions involve the dollar, a level that has been consistent across decades (Cohen and Benney 2014). More than 60 percent of reported currency reserves are also in dollars, and this is almost surely an understatement of the true percentage since non- (and partial-) reporting countries (especially emerging markets) are known to disproportionately hold dollars.[8] Using a highly conservative measure, Gopinath (2016) finds that more than 40 percent of international trade—when including intra-eurozone trade in the denominator—is indexed in dollars, nearly five times the US share of global exports and imports; counting intra-euro trade as domestic transactions would increase that number sharply, as would including a broader set of economies.[9] Moreover, the dollar is the basis of the global exchange rate system to a remarkable extent: around 60 percent of countries pursue policies to anchor their currencies to the greenback, and the percentage of global GDP that is anchored to the dollar has never been higher (Ilzetzki, Reinhart, and Rogoff 2019).[10] As a result, when the dollar's value changes, the volume of global trade is affected, even among non-US-trading partners, to an almost shocking degree: a 1 percent appreciation of the dollar is associated with a 0.6–0.8 percent decline in total global trade (Boz, Gopinath, and Plagborg-Moller 2018).

[7] The mathematical definition of this mechanism is found in Bianconi and Barabási (2001), while Oatley et al. (2013) introduce it to the international political economy of finance literature.

[8] See the International Monetary Fund's Currency Composition of Official Foreign Exchange Reserves (COFER) database: http://data.imf.org/?sk=E6A5F467-C14B-4AA8–9F6D-5A09EC4E62A4. Accessed February 18, 2019.

[9] Notably, China and most oil exporters are not in her data, but conduct the majority of their trade in dollars. This is a general bias in the data, as Gopinath (2016, 10–11) notes.

[10] Ilzetzki, Reinhart, and Rogoff (2019) also note that two-thirds of developing country debt is denominated in US dollars.

All of these empirics have been remarkably durable over time, according to the best data available, and they are so powerful that only one conclusion is possible: we still live under a "dollar standard." Unlike under the Bretton Woods arrangement, which institutionalized the dollar at the center of a pegged exchange rate regime, the post-1973 monetary "nonsystem" is emergent and unplanned, but nevertheless still sufficiently resembles the market structure of Bretton Woods to be dubbed "Bretton Woods II" (Dooley, Folkerts-Landau, and Garber 2004, 2009).[11] *Plus ça change.*

The leading theoretical framework understands dollar preeminence as a function of particular internal aspects of the United States that supposedly generate confidence in the American market, at least relative to its potential rivals. Those aspects are the large, open, and stable American domestic economy; its deep and liquid financial system; its transparent and predictable political system; and its willingness to provide security guarantees within its sphere of influence. According to this view, a lack of deficiencies in these attributes gave the United States greater policy-making credibility—and economic capability—than the European Union (or the separate European countries prior to 1999), Japan, China, or any others.

According to this view, American provision of global liquidity, stability of the value of the dollar, safety of the dollar itself as a financial asset, the relative openness of the US market to foreign trade and investment, and the global acceptance of dollars as an exchange device have all contributed to the maintenance of a dollar-centric monetary system. While such perceptions of American superiority may be less convincing in the era after the global financial crisis began on Wall Street and the election of Donald Trump as President on an anti-"globalist" platform (a point we return to below), the demerits of others have not necessarily diminished (Cohen 2012). This is the case despite precrisis expectations and postcrisis predictions that they might (Chinn and Frankel 2008; Cohen and DeLong 2010; Kirshner 2014).

An alternative perspective argues that the monetary system is governed by positive feedback mechanisms (such as preferential attachment) that is endogenous to network structure, which has helped keep the dollar in a core global position despite the erosion of US advantages in monadic attributes such as share of global GDP (Winecoff 2018). The legacy of Bretton Woods was surely an important driver of the initiation of the hierarchical monetary network, but in the half century since Bretton Woods was abandoned, preferential attachment has been powerful enough for the dollar to persist at the core of the monetary network. Regardless of the specific mechanism, American monetary superiority appears to be a persistent condition, at least for now.

How valuable is it to occupy a central position in the monetary system? Some economists argue that the economic benefits are relatively small, amounting to (perhaps) $20 billion in seigniorage each year (Bernanke 2015, 40). But this overlooks the substantial political economy benefits that accrue to the United States from its international influence in both the monetary and financial systems. This has both domestic and international components. Domestically, dollar primacy insulates the American political economy from many external pressures, particularly with respect to fiscal management and the theorized constraints of the macroeconomic "Trilemma" (Winecoff 2014). The Trilemma, according to the open economy framework, is that governments of open economies must choose only two of three policies that might all be desirable: stable exchange rates, domestic monetary policy-making autonomy, and an open capital market (Mundell 1960, 1963; Fleming 1962). This choice is a matter of high salience that mobilizes partisan politics, even if the economic constraints are not so severe as commonly imagined (Oatley 1999;

[11] See Corden (1983, 59) and Ocampo (2017).

Broz and Frieden 2001; Bearce 2007).[12] Moreover, Rodrik (2011) has noted that the economic Trilemma generates a macropolitical corollary: societies may choose two but not all three of deep economic integration into the world market, democratic responsiveness, and national sovereignty.

Dollar primacy allows the United States to avoid these tradeoffs, and realize all of these options, in a manner enjoyed by no other countries. How? If other countries manage their currencies relative to the dollar, as many dozens do either formally or informally, or accept the dollar as payment in international transactions, then the United States can enjoy currency price stability without sacrificing either of the other two macroeconomic goals of financial openness and monetary flexibility. This allows the United States to embed itself into the global economy without sacrificing national sovereignty or its ability to respond to internal political demands from the citizenry. The United States will not face the hard, political choices that most other economies face so long as it controls the world's most-used currency. The budget constraints, debt discipline, exchange rate volatility, and austerian macroeconomic policies pursued by others to stabilize their economies are alien to the American political economy. This is an extraordinary privilege indeed, and one that no other economy shares.

Internationally, monetary prominence gives the United States broad and deep influence over the global economy and the financial means to project both hard and soft power across domains. It is the bedrock of US hegemonic initiatives and a key principle of the contemporary order. Thus, the substantial US influence in the international money system is a form of structural power that emerges less from domestic attributes than from global positioning. In international political economy, the concept of structural power was most fully developed by Strange (1988), who contrasted it with power-as-compellence conceptualizations in the Dahlian tradition (e.g., the ability of A to influence B to do something she otherwise would not do). This form of power is about influencing systems and controlling opportunities in a broad sense: "Structural prominence, in short, confers the power to decide how things shall be done, the power to shape frameworks within which states relate to each other, relate to people, or relate to corporate enterprises" (Strange 1988, 24–25; see also May 1986; Strange 1987, 1989).

Scholars have noted a wide range of areas in which the United States has used its structural prominence in money and finance to achieve its preferred outcomes. For example, it has used its dollar contributions to, and thus veto power within, the International Monetary Fund in order to reward those who integrate into its order while punishing those who resist (particularly during the Cold War) (Oatley and Yackee 2004; Pop-Eleches 2008; Stone 2008).[13] The United States has used its control of the dollar-centric financial market to push its preferred regulatory policies onto foreign economies (Oatley and Nabors 1998; Oatley and Winecoff 2012). It has used its control over transnational financial payments to "weaponize interdependence" by targeting illicit actors and tax evaders (Emmenegger 2015; Farrell and Newman 2019). The United States uses control of the financial market to facilitate the US-centric alliance network (Gilpin 2001), provide the mechanism to compensate other nations for allowing the generation of an expansive military basing network (Cooley and Nexon 2013), and provide indefinite external subsidies to (literally) purchase peace for its allies (Arena and Pechenkina 2016). And, US control of the dollar-centric financial market is used for accumulating substantial profit through control of corporate structures, expansive financial markets, and intellectual property rights (Starrs 2013; Winecoff 2015; Fichtner 2017; Maxfield, Winecoff,

[12] Rey (2015) argues that the dollar's dominance renders the theoretical macroeconomic "Trilemma" moot in practice.

[13] Copelovitch (2010) offers a more nuanced view, but even in his account the United States (and several other major powers) wield much influence in the International Monetary Fund.

and Young 2017; Schwartz 2019). While other countries may be able to engage in partial forms of these actions, no others are able to pursue them all simultaneously to the same extent. This is the stuff of the US-centric order—the return to structural power—and it follows first and foremost from monetary superiority.

So monetary prominence is not only part of the American order, it is the basis of it (Oatley 2015). This order is characterized by ever-deepening interdependence, yet this is organized around the United States. When innovations occur at the core of an interdependent system, the result can be the generation of system stability or instability that spreads through the network connections. Having one key actor at the core of the global economy can provide the capacity for engaging in Kindlebergian hegemonic provision of global public goods at sufficient scale (Kindleberger 1973). But, it also creates opportunities for disorder in two ways: first, it incentivizes occasional belligerence from the central node, in this case the United States, because it is highly insulated from the effects of its actions (Monteiro 2011). Second, even when American leaders do not intend to leverage US position to threaten others, the asymmetric interdependence that exists in this system can spread instability from the United States to others when the US experiences domestic weakness. Oatley et al. (2013) thus refer to hierarchical interdependence via network connectivity as “robust but fragile”: it is robust to shocks in the periphery, but fragile to shocks in the core. This instability-inducing shock could result by accident, negligence, or intention, but if it occurs at the core of the network it does not remain localized.

Inertia and Dollar Centrality

The foreign policy and international relations communities have resumed their regular preoccupation with the question of order transformation in world politics. The discussion above suggests that the potential for an order transition depends critically on whether there is qualitative change to the global monetary system. Previous challenges to US dollar dominance—by Japan and the European Union—were unsuccessful. But China’s rise represents another challenge, perhaps the greatest yet. The argument above suggests that, at minimum, a shift from dollar primacy to a new monetary system organized around the renminbi is a prerequisite for this to occur. Such a shift is not on the immediate horizon[14] and, if it occurs, will likely be chaotic. There are some political and economic reasons why some states may wish to shift (at least in part) from the dollar to the renminbi (Liao and McDowell 2015, 2016), and Chinese policy-makers have begun building some monetary infrastructure that could presage a future challenge (Green and Gruin 2018). Nevertheless, so far China’s rise has not caused much reordering in the monetary system, particularly by comparison with the significant recent changes to the institutions and practices of global trade.

The question of what conditions are required for a monetary transformation is as important as it is difficult to answer. It is important because our expectations about the monetary future should condition our expectations about everything else: trade, security, wealth accumulation, and the distribution of power in world politics. It is difficult to answer because we have experienced only one change in monetary hegemony during the era of globalized industrial capitalism, and it involved extreme calamity due, in part, to malign neglect.[15] Hopefully we are not doomed to a future that is similar to that past; thankfully, there are reasons to think that we are not.

[14] As others in this volume persuasively argue.

[15] Even then, the United Kingdom may have preserved sterling supremacy for some time longer had it not taken the disastrous decision to reimplement the gold standard during the interwar years.