

The US dollar and its payments system: architecture and political implications

Adrien Faudot

CREG, Université Grenoble Alpes, France

We aim here to study the frame within which the US dollar circulates, while questioning the role of the main operators which constitute the cross-border dollar payments architecture. The current dollar standard, however, allows the country which issues the currency and centralizes its payment system, through central-bank money emissions, to wield it as a political weapon and as a means to reach political standardization. Envisioning money as a payment system, this paper sheds light on the flaws inherent in the dollar payment system by emphasizing its asymmetrical nature and its reliance on a national payment system rather than on a truly international one.

Keywords: international monetary system, US dollar, payment systems, monetary power

JEL codes: E42, F33, N22

1 INTRODUCTION

The dollar invoicing and settlement of international trade by foreign users is fostered, among other factors, by the US financial markets' depth, the production network of transnational companies, diplomatic agreements, and collective beliefs.¹ However, its status of 'key currency' rests above all on a payment system connecting the US banking system to foreign agents, due to the nature of modern money, in which banking features prominently. Granted that money is essentially a convention and that traders need to resort to a currency universally accepted, the issue of the access and circulation of this currency is of paramount importance. The rules of the international payment system therefore constitute a topic that must weigh in our appraisal of the dollar standard.

'When a financial system is operating smoothly, it is almost invisible. Advances and transfers of money take place between individuals and firms with little regard to the underlying infrastructure, facilitating exchange and maximizing aggregate social welfare' (Broz 1999, p. 42). This paper seeks primarily to study the underlying infrastructures of the dollar. Such infrastructures are not only decisive in empowering a currency to be adopted by international actors taking part in international trade but are also crucial for the smooth running of the US dollar standard, although this issue is not frequently addressed by political economists. From there on, the paper shifts attention to the political consequences which the use of the dollar institutions for cross-border purposes entails. As centralizing institutions of money transfers, payment systems

1. See Fields and Vernengo (2013), Norrlof (2014), and Cohen (2015, pp. 178–181). For an overview of international monetary practices and the reality of the dollar's dominance over other currencies, see Cohen and Benney (2014) and also Faudot and Ponsot (2016).

represent a key political concern. The dollar payment system can be wielded as a fearsome weapon in support of US interests, embodied by the threat of disconnection from the international payment standard.

The paper continues as follows. Section 2 illustrates the fundamental role of banks in the international development of currencies. Section 3 reasserts the necessity of oversight from monetary authorities on payment systems as a prerequisite for achieving a monetary circuit. Section 4 describes the international architecture of payments arrangements by showing how the US dollar circulates through its payment system under the oversight of the Federal Reserve. Section 5 examines the political implications of such architecture on international monetary relations. Finally, Section 6 provides a conclusion and outlook.

2 THE ROLE OF BANKS IN THE DOLLAR SYSTEM

The role of commercial banking is fundamental in the monetary economy of production. Indeed, 'consumers cannot buy goods until they get paid, and firms cannot pay their employees unless they get advances from banks' (Lavoie 2013, p. 6). Credit operations are first and foremost necessary for production, after which the means to buy the national product are credited on the accounts of wage earners. To what extent does the international trade circuit differ from that of a national monetary economy? In the absence of an international settlement institution capable of issuing a supranational currency, domestic banks have no choice but to enter agreements with offshore entities to settle monetary transfers to and from non-residents. Sven Grassman, known for his works on currency choices for international trade, wrote that 'the predominance of the US dollar and the pound in international payments is probably in part due to the fact that banks in the USA and London have a longstanding key position in the financing of international trade' (Grassman 1972, p. 79).

The adoption of a currency by international traders entails their integration into its payment system. Indeed, 'currency competition,' a fashionable phrase in international economics, is firstly determined by the ability of banks from the same country to expand their financial activities globally, and integrate their operations into an efficient payments infrastructure. This is why the currency competition for the settlement and the denomination of global exchanges is limited to a handful of currencies issued by developed countries, at the top of which we find the dollar.

As noted by Broz (1999), the internationalization of the dollar results from New York bankers' expectations of substantial gains. This started with the Federal Reserve Act in 1913, buttressed by the Edge Act in 1919 (Dahl 1967, p. 102; Mayer 1973). The international operations of US banks shrank from the 1930s to the end of the Second World War. Nevertheless, the second half of the twentieth century saw a dramatic global expansion of US banks (Tamagna 1959; Dahl 1967). It is therefore of particular interest to look into the implications of cross-border operations conducted by international banks.

Looking ahead, as the banking sector continues to expand as well as to consolidate across borders, direct participation of foreign banks in a country's payment and settlement systems could become more important, particularly in those groups of countries – such as Latin America and East Asia – where financial liberalization has been carried out very rapidly and without any structurally integrated approach (as well as control) by the general government sector. (Rossi 2007, p. 89)

Through foreign branches, US banks participate in the payment systems of other countries. They also establish connections to supply foreign entities with US dollars, especially to finance international trade. However, any dollar remains invariably bound to the US banking system, given the nature of bank money, as confirmed by Schmitt, who once wrote that ‘the origin of every US dollar held in the rest of the world in private or public accounts is the US banking system’ (Schmitt 1975, p. 105).² Vernengo (2006, p. 252) notes that ‘the growth of the Euromarket is also directly connected to the expansion of the U.S. multinational firms, and the consequent expansion of U.S. banking abroad,’ which contributes to the challenging of national monetary sovereignty, particularly in developing countries.

The dollar internationalization involves the non-residents’ dependence on the US banking system, and on the dollar payment system. Even if the global financial crisis of 2008 reminded us that the banks are not regulated in the appropriate manner (Rossi 2010), their nature as commercial banks implies that they require the presence of a payment system regulator, to wit, the Federal Reserve, which still supervises international payments arrangements.

3 OVERSIGHT FROM A MONETARY AUTHORITY

All payment systems are stratified organizations (Aglietta 1994). With regard to the transactions between its own clients, a commercial bank is a payment system: it transfers its own debt (money) between its customers’ accounts. In the case of transactions involving customers from different banks, banks need to conduct transfers between themselves and require an interbank means of payment, which is issued by a central bank.

Although private clearing houses manage to perform a number of decentralized payments, their members need central-bank money as soon as they have to deal with agents outside the circle of the clearing house. Thus, the development of a payment system involves ultimately the centralization of all payments – through the need of central-bank money. Moreover, payments from different bank accounts are not necessarily carried out simultaneously: in the accounts of each individual bank, daily dollar outflows rarely equal inflows. The banks thus have to be momentarily financed via intraday credit in order to clear their debts without putting the creditor at risk.³ US banks and international banks operating in US dollars need an infrastructure within which they will benefit from the service of a payment system which includes the supply of intraday credit of central-bank money. The oversight of payment system by a central bank is therefore inherent in the development of every monetary economy (Aglietta 1994). It is noteworthy that even the most deregulated banks are still reliant on Federal Reserve backstops (see Mehrling et al. 2015). As a matter of fact, rather than resting on the idea that the free market reaches equilibrium through the

2. The original text in French reads as follows: ‘L’origine de tout dollar des Etats-Unis détenus dans le reste du monde au sein des encaisses privées ou publiques est le système bancaire américain’ (Schmitt 1975, p. 105).

3. Since capitalism is led by expected gains, not by inherited wealth, it is necessary to develop opportunities by credit rather than by ‘cash in advance’ constraints (Aglietta 1994). Credit is vital to the dynamics of capitalism. The intraday credit policy of the Fed is devised to avoid the full ‘cash in advance’ constraints. For further explanations on daily central-bank operations, see Fullwiler (2008).

intervention of a virtual ‘auctioneer,’ market economies are driven by the payment system providing coordination of decentralized and atomized agents, which behave, one might say, in an anarchical fashion.⁴

A clearing institution becomes necessary to deal with the sequential nature of payments. Consequently, the internationalization of a currency relies on bank internationalization, but cannot be contemplated without a payment infrastructure which supports the circuit of the money through different periods. It provides flexible and unique means of settlement between private banks, a.k.a. *high-powered money* (Monvoisin 2013, p. 201). Such centralization is also necessary to organize the oversight of the system, to exchange information about participants in the payment system and to actuate some clearing and netting operations between banking actors operating in a vast, worldwide, and decentralized space.

The oversight of payment systems is defined by the Bank for International Settlements (BIS 2003, p. 37) as ‘a central bank task, principally intended to promote the smooth functioning of payment systems and to protect the financial system from possible “domino effects” which may occur when one or more participants in the payment system incur credit or liquidity problems.’

At a minimum, this role involves the provision of accounts and risk-free central bank money balances to eligible financial institutions, and also typically involves the provision of key interbank payment and settlement services. These deceptively simple arrangements are at the heart of the monetary infrastructure of modern economies. (Kelley 1994, p. 3)

Regarding the circulation of international means of payment, the oversight of US dollar transactions is mainly assumed by a small number of infrastructures. At the very least, those infrastructures are not subject to many studies either in international political economy or in monetary economics. The current infrastructure for international payments is, however, severely criticized, as it is usually viewed as ‘cacophonous’ or as a ‘non-system’ (Rossi 2007, p. 95), notably by circuitist and post-Keynesian economists, due to the fact that exporters from different monetary spaces are credited by national – rather than truly international – settlement institutions.

Be that as it may, the current international monetary architecture cannot be dismissed as being devoid of any rationality. The building of the national monetary space, involving monetary unification of private bank monies, appears not only to be compatible with a particularly asymmetric international system but even complementary with it.⁵ Thus it is not surprising that a consistent national monetary and payments infrastructure could coexist with the international monetary ‘non-system.’ As a matter of fact, this ‘non-system’ has proven to be robust over time.

4. See Cartelier (2013, pp. 168–169) for the analysis of money as a payment system. Payment system is an element of coordination of economic agents defined by (i) a *nominal unit of account*, (ii) a *minting process*, which is the set of rules ‘determining the amount of means of payment made available to agents in order to make their actions effective in the market,’ and (iii) the *settlement of balances*, given that ‘the means of payment used to buy are not those obtained through sales’ and ‘in general, individual agents experience nonzero balances, either monetary deficits or surpluses.’

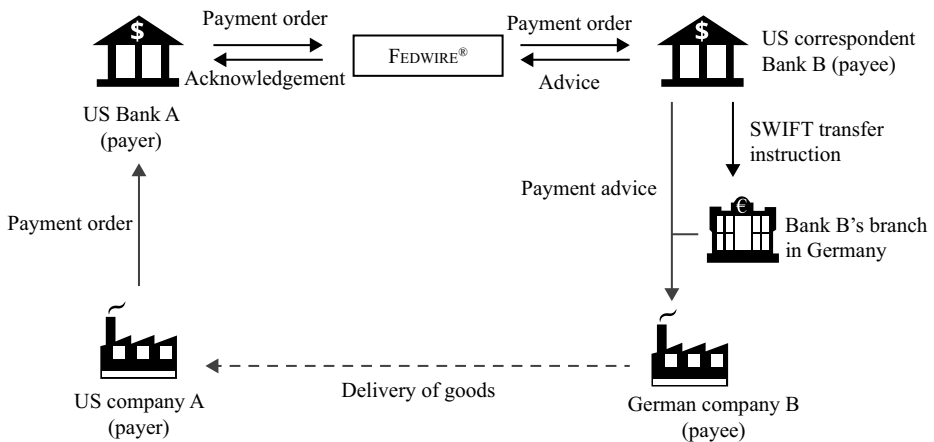
5. According to Broz (1999), the New York bankers unified and organized the US national monetary system – in accordance with the hierarchical principles of monetary economies – at the beginning of the twentieth century, due to their expectations of large benefits from dollar internationalization.

4 CROSS-BORDER TRANSACTIONS IN THE CURRENT INTERNATIONAL SYSTEM

While the institutions that make the dollar accessible to agents outside the US are commercial banks, what institutions are tasked with organizing interbank dollar transfers? The US dollars in the United States circulate essentially through Fedwire, the system developed by the Federal Reserve. It is the network through which the 12 Federal Reserve Banks of the United States are connected to one another (see Mengle 1992). Payments are achieved in real time since Fedwire is a Real-Time Gross Settlement (RTGS) system. American banks use Fedwire to carry out their payments, especially at the domestic level. However, Fedwire is able to carry out international payments through its own network.⁶ Figure 1 shows how the dollar circulates in a specific case, involving a German exporter and an American importer. In this case, the German bank which must receive the payment has a US correspondent in New York connected to the Fedwire network.

Once the transfer is achieved between the US banks (via Fedwire), the US correspondent has to credit the German bank using a financial message provided by the Society for Worldwide Interbank Financial Telecommunication (SWIFT). Should a German bank own a US office directly connected to Fedwire, the transfer would become simpler: the US office would send the fund through an internal operation and only eventually convert the dollars into euros in order to credit the German company's account.

Nevertheless, the bulk of US dollar international payments are conveyed through the Clearing House Interbank Payments System (CHIPS). CHIPS is a private cooperatively owned arrangement through which 95 percent of dollar cross-border transactions travel (Ma et al. 2012, p. 46), including eurodollar transactions. CHIPS clears more



Source: Drawn by the author, based on documents available on the website of Fedwire.

Figure 1 International trade transaction in US dollars using correspondent banks and the Fedwire network

6. Such operations are detailed on the Federal Reserve Services' website.

than \$1.4 trillion each day.⁷ Because it uses ‘a sophisticated algorithm to match and net payments between participants which settle on a near real time basis’ (J.P. Morgan 2012), CHIPS is a uniquely qualified operator to optimize liquidity.⁸ The 49 banks participating directly in CHIPS are in charge of its funding. The institution prefunding requirements are comparatively low: \$2.8 billion each day.⁹

Each CHIPS payment message is settled by deducting the amount of the payment message from the sending participant’s current primary position, current supplemental position, or both and adding an identical amount of the payment message to the receiving participant’s corresponding current position. The total amount of all the participants’ current primary and supplemental positions is backed, dollar-for-dollar, by a balance in an account on the books of FRBNY [Federal Reserve Bank of New York]. This arrangement means that CHIPS settlement entails little or no credit or liquidity risk. (CHIPS 2016, p. 35)

CHIPS has long been a multilateral netting system¹⁰ (whose functioning is explained by Mengle 1992), but since 2001 has been a hybrid system as a result of recommendations by reports aimed at regulating systemic payment systems such as the famous Lamfalussy Report (BIS 1990).¹¹ CHIPS is working on a real-time basis during operating hours, using funds of the opening position requirement of each participant to carry out payments. At the end of the term, the closing position indicates the need of dollar transfers – sent through Fedwire – from participants to achieve the settling of payment orders left in the queue, which are then settled on a net multilateral basis. The CHIPS account at the Federal Reserve is reduced to zero at the end of the day (BIS 2012). Thanks to the functioning of the hybrid system, which is liquidity-saving, only a fraction of CHIPS transactions pass through the Fedwire system. Because of its efficiency, CHIPS is viewed as a reference among payment systems.

7. See the CHIPS website.

8. ‘An optimisation algorithm searches the centralised queue for payment orders to settle, subject to restrictions contained in the CHIPS rules. When an opportunity for settlement involving one, two or more payment order(s) is found, the optimisation algorithm releases the relevant payment orders from the central queue and simultaneously marks the CHIPS records to reflect the associated debits and credits to the relevant participants’ positions’ (BIS 2012, p. 489).

9. This means that each US dollar of prefunding allows \$500’s worth of transfers within CHIPS. The liquidity efficiency of CHIPS is therefore known to be 5–6 times that of Fedwire (Ma et al. 2012, p. 6).

10. Moving to multilateral netting ‘can mean substantial reductions in the number of actual exchanges between participants’ (Mengle 1992, p. 5). The multilateral netting system reduces significantly the funding needs, and consequently the intervention of the central bank, since each position of participating banks vis-à-vis the clearing house is calculated at the end of a period according to their transactions during the entire period. Such a system is liquidity-saving, given that only the balances are settled. It is its main advantage, since it involves transactions not being carried out in real time – as is the case in the RTGS system – but at the end of a pre-defined period. However, some participants could be affected by the fact that they are put on hold.

11. Because multilateral netting systems have been judged as presenting a systemic risk for the stability of payment systems (BIS 1990), a particular oversight has to take place on multilateral netting systems, and evolution towards real-time settlement system is encouraged. Since 2001, CHIPS is considered as a hybrid system, or sometimes called a real-time final settlement (RTFS) system, given that the bulk of the transactions are settled in real time. See Kahn and Roberds (2012) for a clear presentation of the institution.

Because CHIPS provides a practical way for participants to make payments and because it is used by global U.S. and foreign banks to send a substantial portion of their U.S.-dollar payments, CHIPS provides substantial benefits to the U.S. and world economies. In addition to these benefits, the economy benefits enormously from having a private-sector alternative to the central bank's funds-transfer system. (CHIPS 2016, p. 53)

While CHIPS and Fedwire only handle dollars, a market is necessary to exchange dollars and foreign currencies. International payments involve a foreign exchange market where the traders can be supplied with the contract currency. According to their needs and financial situations, banks will trade currencies on an interbank foreign exchange market. The exchanges of currencies occur in many locations, as several foreign exchange markets compete in the world's major financial centers. Within this decentralized frame, Continuous Linked Settlement (CLS) appears as an outstanding institution, a multi-currency system which provides settlement services for currency exchanges, and settles about 60 percent of the global forex trades. The rest is taken care of by banks themselves, or bilateral markets. In view of its high standing, CLS is considered as one of the *Systemically Important Payment Systems* according to the Bank for International Settlements.

CLS was launched in 2002 by the private banks of eight countries (Bronner 2002). It was founded on the principles laid down by the central banks of ten countries which unanimously called for more cooperation and for the improvements of international settlements methods. In December 2015, 18 currencies were settled through the CLS system. The Federal Reserve Bank of New York holds a CLS account in its books to oversee its dealings. Besides, 'CLS must receive written approval from the Federal Reserve to settle any new currency' (Board of Governors of the Federal Reserve System 2008, p. 4). In June 2014, 64 private settlement members were direct participants in CLS Bank. Other banks or financial institutions can benefit from CLS Bank services through services provided by CLS settlement members. Each member has an account in the books of CLS, which is connected to the central bank of each participating currency. As CLS functions in accordance with the principles of a multi-lateral netting system, it calculates one net position per currency for each participating bank. It makes possible a decrease of the volume of settlement transactions, and consequently improves the liquidity of banks. However, the CLS Bank 'does not issue the means of final payment (across borders) – as does a settlement institution – but merely manages the CLS-based settlement process; that is to say, it monitors the exchange of payment orders and determines all settlement positions' (Rossi 2007, p. 96).

Currently, the US dollar is obviously the dominant currency of foreign exchange markets: its share amounts to 87 percent of total exchanges (BIS 2013), notably ahead of the euro (33.4 percent) and the yen (23 percent).¹² As the global forex market turnover amounts to more than \$5.3 trillion per day, the daily sum of dollars involved is stupendous. Dollars are consequently much more frequently traded on the money market than are other competing currencies. Therefore, foreign exchange markets need operators with ties to the Federal Reserve System, such as CLS and its direct participants. National convertible currencies, such as the dollar and the euro, are transferred through this private infrastructure which has direct links to numerous national payment systems and is overseen by the Federal Reserve.

12. Because each transaction involves two currencies, the sum of the percentage shares of individual currencies totals 200 percent.

It appears therefore a matter of considerable interest to study the impressive efficiency of the US dollar payment system and to understand why it is currently a global standard. The international US banks could not have been so successful without the attractiveness and the performance of their clearing and payments institutions. The International Monetary Fund (IMF) itself acknowledges the prominence of these institutions: 'The three payment systems operating in the U.S. [Fedwire, CHIPS and CLS Bank] have in place state of the art and highly resilient arrangements to mitigate operational risk' (IMF 2010, p. 19). Nevertheless, among the international monetary arrangements in existence, none is multilateral since none issues its own money. They merely convey national currencies transnationally, and along with them, the prying eyes of their issuing authorities.

5 A POLITICAL ISSUE: THE THREAT OF DISCONNECTION

Due to its status of key international currency, the dollar is sometimes described as 'unloved' by Americans on the grounds that a key currency should not be manipulated by the issuing country (McKinnon 2013). Indeed, any manipulation could generate anxiety and credibility losses which in turn would generate a run for other steadier currencies. This idea has been widely accepted by researchers in economics, for example by Cheung (2015, p. 211), who wrote that 'fund flows associated with offshore transactions ultimately have to be cleared in the onshore banking system. Governments can directly or indirectly affect the attractiveness of offshore markets by managing and enforcing rules and regulations on clearing balances of foreign financial institutions being held with onshore banks.'

The US dollar is, however, a forbidden fruit for some 'blacklisted' countries. The oversight of the dollar payment system gives official authorities the opportunity to admonish rival countries. The financial institutions which strayed from US rules were severely punished, as was BNP Paribas in 2014, or Standard Chartered in 2012 and 2014. At the core of the trial involving BNP Paribas lies the accusation of US dollar transactions with 'rogue nations,' which by definition were consequently illegally connected to the US dollar payment system, as Assistant Attorney General Caldwell stated:

By providing dollar clearing services to individuals and entities associated with Sudan, Iran, and Cuba – in clear violation of U.S. law – BNPP helped them gain illegal access to the U.S. financial system. In doing so, BNPP deliberately disregarded U.S. law of which it was well aware, and placed its financial network at the services of rogue nations, all to improve its bottom line.¹³

Such sanctions are possible because even in a decentralized frame, US authorities have not surrendered their capacity to keep track of the dollars recorded in book-keeping. We described above how a centralizing institution emerges naturally from the monetary economy. Its capacity to threaten disconnection is a mandate established by the financial community itself. Because money involves pooling and sharing, all participating institutions care about the other participating institutions. Thus, CHIPS endorses a central-banking role in asking its participant banks to provide regular financial reports. The reporting

13. Remarks from the Assistant Attorney General after the trial are available on the Department of Justice website at the following address: <http://www.justice.gov/criminal/pr/speeches/2014/crm-speech-140630.html>.

has been a condition that made the clearing house system acceptable to each participant bank. Money is a set of rules expressing social totality, embodied by an overseeing institution.

It is precisely because money numbers among its properties the power to afford political standardization that the US government can make extensive use of the dollar. Inasmuch as it is a payment system, money makes it possible for the US authorities to discipline and punish its users. The oversight of the dollar payment system is a major attribute of US monetary might and a prerequisite for the 'dollar unilateralism':

The dominance of U.S. currency gives the U.S. government 'the power to persuade and coerce.' At any moment, the government can choose to cut off a foreign bank's access to U.S. financial markets and thus push it to the periphery of global trade and finance. The government does so either by suspending a foreign bank's license to operate in the United States or by directing U.S. banks to shut down their correspondent and payable-through accounts for the foreign bank. This is, in effect, a death penalty for foreign banks. (Katzenstein 2015, p. 314)

The US banks and US branches of foreign banks, as well as dollar payment systems such as Fedwire and CHIPS, are committed to complying with the Office of Foreign Assets Control (OFAC) regulations and feeding information to the US authorities (The Clearing House 2016). Each time dollar transfers pass through these institutions, the *lex monetae* tied to OFAC regulations may apply. They characteristically include 'a prohibition on any transfers of credit or payments between financial institutions to the extent that the transfers or payments are both subject to U.S. jurisdiction and involved any interest of the sanctioned person' (Carter and Farha 2013, p. 913).

Nevertheless, the power of disconnection is not specific to the dollar and the Federal Reserve. Any monetary economy rests on ethical guidelines with the coercive tool at its disposal. It was exemplified in a different way by the euro crisis of June 2015, when the European Central Bank (ECB) threatened to crash the Greek banking system by ending the ELA arrangement,¹⁴ which would have been tantamount to a *de facto* exclusion of Greece from the eurozone. The Syriza government – resigned to stay in the eurozone whatever the political cost – was therefore unarmed vis-à-vis the neoliberal European institutions in what had been improperly called 'negotiations.' It is worth noting that a supranational monetary institution like the ECB remains, as in any monetary system, a vehicle of a political project. The ECB inherited the German Bundesbank's political values and, predictably, used its mandate to bring down the anti-austerity leaning of the Tsipras government. The issue of the access to dollar payment system is similarly a means of achieving political standardization through the power to disconnect irreverent countries' banks from the payment system and overdraft facilities.

As an attempt to understand the issue of power in the monetary economy, the analysis developed here with institutionalist analytical tools comes to the same

14. The *Emergency Liquidity Assistance* mechanism 'means the provision by a Eurosystem national central bank (NCB) of central bank money, and/or any other assistance that may lead to an increase in central bank money to a solvent financial institution, or group of solvent financial institutions, that is facing temporary liquidity problems, without such operation being part of the single monetary policy' (Bindseil et al. 2017, p. 17). See the ECB website for further explanations: <https://www.ecb.europa.eu/mopo/ela/html/index.en.html>.

The Greek banking system has been threatened with disconnection; it took the form of a haircut on collateral – that is, government-backed asset – accepted by the Bank of Greece for ELA. Again, see the ECB website for further explanations: <https://www.ecb.europa.eu/press/pr/date/2015/html/pr150706.en.html>.

conclusions as a number of analyses of International Political Economy (IPE) scholars: money is a source of international power (see Kirshner 1995; Andrews 2006; or more recently Helleiner and Kirshner 2014). The functioning of the dollar standard reveals a monetary power, which derives from the centralization of the US dollar payments. A few IPE academic studies identified this political leverage. For instance, Paul Langley (2002, p. 68) made clear that ‘even with the emergence from the late 1950s of Euro-market credit practices centralised in London, the dollar-denomination of this credit ensured that these transactions had eventually to be cleared through New York.’ According to Benjamin Cohen (2015, p. 86), ‘as a corollary of greater network dependence, access to the currency itself can be manipulated to advantage.’

The US did this to various degrees against several countries during past decades, among them Cuba, Iran, Libya, Nicaragua, Panama, and once more against Iran in 2012. The US unilateral sanctions strengthen the wish of a few countries to build an alternative payment system network.¹⁵ Yet the dollar still appears as the unloved standard that is so difficult to replace. As once stated by a former research director at the People’s Bank of China (appointed in 2015 as IMF executive director for China):

Theoretically, members of the dollar zone can freely choose their reserve currency. But, in reality, the construction of an independent international payment and messaging system, other than the one supplied or dominated by the U.S., is too costly for ordinary countries. Therefore, for most countries in the world, there is no choice other than the U.S. dollar. (Zhongxia 2013, p. 6)

Finally, those observations reinforce the need for a genuine ‘alienation’ of the international money issuer, in order to shelter the international monetary operations from the troubles of international politics. A true international – that is, multilateral rather than transnational – settlement institution is therefore the only desirable objective.

6 CONCLUSION AND OUTLOOK

The US dollar is the dominant currency of cross-border transactions. In this paper, we have highlighted the political weapon that lurks behind the monetary arrangements on which dollar circulation depends. These economic and political issues will persist because of the dominant use in international monetary relations of a payment system predicated on a national currency. The proposal of a supranational currency devoted to international transactions and issued by the ‘Central Bank of the Central Banks,’ that is to say, an international settlement institution in charge of the emissions of the international money, appears as an appropriate response.

First, the bank to set up must act as a settlement institution, that is to say, must imitate any central banks in their capacity of finally paying all interbank debts within the national payment system. Secondly, it must be an international bank, that is to say, the settlement institution for national central banks themselves. (Rossi 2007, p. 104)

Such a proposal is a topical academic insight relying on the analogy between the national payments architectures (as they are) and the international architecture (as it

15. See Johnson (2013) and Chin (2014) for studies of Russia and China respectively as rising political powers.

should be).¹⁶ In such a system, the question of the currency denomination of trade would not arise. A supranational currency would be devoted to international transactions and to such transactions only while national currencies would be confined to domestic operations (Schmitt 1975; see also Rossi 2015, pp. 220–222). Hence it would be respectful of national sovereignties in terms of economic policies. It is unfortunate that, as of 2016, this proposal is politically highly unlikely. Mehrling (2016) considers it outdated and leans towards a proper adjustment which would provide a global dollar-centered economy with liquidity. The underlying idea of a supranational currency is nonetheless to neutralize the currency of trade, its scope becoming limited to that of a mere vehicle within the circuit. In such a configuration, the payment system issuing and managing the universal means of payment would not be the concern or weapon of one particular nation.

The power that an internationalized national currency provides to issuing authorities would soon re-emerge if another national currency were to eventually supplant the US dollar. China is currently the subject of numerous academic works on renminbi internationalization. It is worth noting that the Chinese claim for ‘a new Bretton Woods’ highlights the need of new *reserve* currencies (Amato and Fantacci 2014), which the rise of competing currencies – for example, the renminbi – in official reserves and in the Special Drawing Rights (SDRs) basket could make possible. It would not be a desirable solution, however, since those reserve currencies would eventually replicate asymmetries rather than give birth to a true international settlement institution.

ACKNOWLEDGEMENTS

The author would like to thank Jonathan Massonnet and Sergio Rossi for their comments on an earlier version of the text, as well as the two anonymous referees, without implicating any of them. He is also grateful to Michel Richoz and Lucas Vincent for their assistance.

REFERENCES

- Aglietta, M. (1994), ‘Ordre monétaire et banque centrale,’ in A. Orléan (ed.), *Analyse Economique des Conventions*, Paris: Presses Universitaires de France, pp. 189–218.
- Amato, M. and L. Fantacci (2014), ‘Back to which Bretton Woods? Liquidity and clearing as alternative principles for reforming international money,’ *Cambridge Journal of Economics*, 38(6), 1431–1452.
- Andrews, D. (ed.) (2006), *International Monetary Power*, Ithaca, NY: Cornell University Press.
- Bindseil, U., M. Corsi, B. Sahel, and A. Visser (2017), ‘The Eurosystem collateral framework explained,’ European Central Bank Occasional Paper, no 189, May.
- BIS (Bank for International Settlements) (1990), ‘Report of the Committee on Interbank Netting Schemes of the Central Banks of the Group of Ten Countries,’ Basle: Bank for International Settlements.

16. From an economic point of view, such a proposal would be a definite improvement. Indeed, the current international payments system seems unsatisfying since ‘the ability of each nation’s central banker to accommodate its clients’ international liquidity needs is often less than even that of regional bankers in a modern national banking system to meet clients’ domestic liquidity demands’ (Davidson 2006, p. 269).

- BIS (Bank for International Settlements) (2003), 'A glossary of terms used in payments and settlement systems,' Committee on Payment and Settlement Systems, March, Basle: Bank for International Settlements.
- BIS (Bank for International Settlements) (2012), 'Payment clearing, and settlement systems in the United States,' *Clearing and Settlement Systems in the CPSS Countries, Volume 2*, Committee on Payment and Settlement Systems, Red Book, November, Basle: Bank for International Settlements, pp. 471–508.
- BIS (Bank for International Settlements) (2013), 'Foreign exchange turnover in April 2013: preliminary global results,' *Triennial Central Bank Survey*, Monetary and Economic Department, Basle: Bank for International Settlements.
- Board of Governors of the Federal Reserve System (2008), 'Protocol for the cooperative oversight arrangement of CLS,' 25 November, available at: http://www.federalreserve.gov/paymentsystems/cls_protocol.htm.
- Bronner, M. (2002), 'The CLSTM system: reducing settlement risk in foreign exchange transactions,' *Financial Stability Review*, November, 131–142.
- Broz, J. (1999), 'Origins of the Federal Reserve System: international incentives and the domestic free-rider problem,' *International Organization*, 53(1), 39–70.
- Cartelier, J. (2013), 'Beyond modern academic theory of money: from "fiat money" to "payment system",' in F. Ulgen, M. Meaulle, R. Tortajada, and R. Stellan (eds), *New Contributions to Monetary Analysis*, New York: Routledge, pp. 155–171.
- Carter, B. and R. Farha (2013), 'Overview and operation of U.S. financial sanctions, including the example of Iran,' *Georgetown Journal of International Law*, 44(3), 903–913.
- Cheung, Y.-W. (2015), 'The role of offshore renminbi centers in the process of renminbi internationalization,' in B. Eichengreen and M. Kawai (eds), *Renminbi Internationalization: Achievements, Prospects, and Challenges*, Washington, DC: Brookings Institution Press and Tokyo: Asian Development Bank Institute, pp. 207–235.
- Chin, G. (2014), 'China's rising monetary power,' in E. Helleiner and J. Kirshner (eds), *The Great Wall of Money: Power and Politics in China's International Monetary Relations*, Ithaca, NY: Cornell University Press, pp. 184–212.
- CHIPS (2016), 'Self-assessment of compliance with standards for systemically important payment systems,' available at: <https://www.theclearinghouse.org/-/media/files/payco%20files/standards%20self%20assessment%202016.pdf?la=en>.
- Clearing House, The (2016), *Guiding Principles for Anti-Money Laundering Policies and Procedures in Correspondent Banking*, February, available at: <https://www.theclearinghouse.org/%7E/media/Action%20Line/Documents/Volume%20VII/20160216%20TCH%20AML%20Correspondent%20Banking%20Guiding%20Principles.pdf>.
- Cohen, B. (2015), *Currency Power: Understanding Monetary Rivalry*, Princeton, NJ: Princeton University Press.
- Cohen, B. and T. Benney (2014), 'What does the international currency system really look like?,' *Review of International Political Economy*, 21(5), 1017–1041.
- Dahl, F. (1967), 'International operations of U.S. banks: growth and public policy implications,' *Law and Contemporary Problems*, 32(1), 100–130.
- Davidson, P. (2006), 'A framework for analysing dollarization,' in M. Vernengo (ed.), *Monetary Integration and Dollarization: No Panacea*, Cheltenham, UK and Northampton, MA: Edward Elgar, pp. 259–275.
- Faudot, A. and J.-F. Ponsot (2016), 'The dollar dominance: recent episode of trade invoicing and debt issuance,' *Journal of Economic Integration*, 31(1), 41–64.
- Fields, D. and M. Vernengo (2013), 'Hegemonic currencies during the crisis: the dollar versus the euro in a cartalist perspective,' *Review of International Political Economy*, 20(4), 740–759.
- Fullwiler, S. (2008), 'Modern central bank operations: the general principles,' 1 June, available at: <http://dx.doi.org/10.2139/ssrn.1658232>.
- Grassman, S. (1972), 'Exchange reserves and the financial structure of foreign trade: a study in commercial capital movements,' Seminar Papers no 21, Institute for International Economic Studies, Stockholm, November, 233 pp.

- Helleiner, E. and J. Kirshner (eds) (2014), *The Great Wall of Money: Power and Politics in China's International Monetary Relations*, Ithaca, NY: Cornell University Press.
- IMF (International Monetary Fund) (2010), 'United States: publication of financial sector assessment program documentation: technical note on selected issues on liquidity risk management in Fedwire funds and private sector payment,' IMF Country Report, no 10/122, May.
- Johnson, J. (2013), 'Russia: international monetary reform and currency internationalization,' Paper no 4, Centre for International Governance Innovation (CIGI), Asian Development Bank, and Hong Kong Institute for Monetary Research, June.
- J.P. Morgan (2012), *Global RMB Handbook for Financial Institutions*, JPMorgan Chase Bank, available at: http://china.gunleik.com/wp-content/uploads/2015/01/Handbook_Global_RMB_Handbook_for_Financial_Institutions.pdf.
- Kahn, C. and W. Roberds (2012), 'Clearing house interbank payments system,' in G. Ritzer (ed.), *The Wiley-Blackwell Encyclopedia of Globalization*, Oxford: John Wiley, p. 309.
- Katzenstein, S. (2015), 'Dollar unilateralism: the new frontline of national security,' *Indiana Law Journal*, 90(1), 293–351.
- Kelley, E. (1994), 'Developments in the dollar payments system,' International Symposium on Banking and Payment Services, 10 March, Washington, DC.
- Kirshner, J. (1995), *Currency and Coercion: The Political Economy of International Monetary Power*, Princeton, NJ: Princeton University Press.
- Langley, P. (2002), *World Financial Orders: An Historical International Political Economy*, New York and London: Routledge.
- Lavoie, M. (2013), 'The monetary and fiscal nexus of neo-chartalism: a friendly critique,' *Journal of Economic Issues*, 47(1), 1–31.
- Ma, J., L. Liu, and H. Miao (2012), 'Roadmap for RMB Internationalization,' Deutsche Bank Asia Economics Special, 25 June.
- Mayer, R. (1973), 'The origins of the American banking empire in Latin America: Frank A. Vanderlip and the National City Bank,' *Journal of Interamerican Studies and World Affairs*, 15(1), 60–76.
- McKinnon, R. (2013), *The Unloved Dollar Standard: From Bretton Woods to the Rise of China*, Oxford: Oxford University Press.
- Mehrling, P. (2016), 'Beyond Bancor,' *Challenge*, 59(1), 22–34.
- Mehrling, P., Z. Pozsar, J. Sweeney, and D. Neilson (2015), 'Bagehot was a shadow banker: shadow banking, central banking, and the future of global finance,' in S. Claessens, D. Evanoff, G. Kaufman, and L. Laeven (eds), *Shadow Banking Within and Across National Borders*, Hackensack, NJ: World Scientific, pp. 81–97.
- Mengle, D. (1992), 'Behind the money market: clearing and settling money market instruments,' *Economic Review*, September–October, 3–11.
- Monvoisin, V. (2013), 'What's the use of banks, especially after the crisis?,' *Review of Keynesian Economics*, 1(2), 195–209.
- Norrlof, C. (2014), 'Dollar hegemony: a power analysis,' *Review of International Political Economy*, 21(5), 1042–1070.
- Rossi, S. (2007), *Money and Payments in Theory and Practice*, London and New York: Routledge.
- Rossi, S. (2010), 'The 2007–9 financial crisis: an endogenous-money view,' *Studi e Note di Economia*, 15(3), 413–430.
- Rossi, S. (2015), 'Structural reforms in payment systems to avoid another systemic crisis,' *Review of Keynesian Economics*, 3(2), 213–225.
- Schmitt, B. (1975), *Théorie Unitaire de la Monnaie: Nationale et Internationale*, Albeuve: Castella.
- Tamagna, F. (1959), 'New York as an international money market,' *PSL Quarterly Review*, 12(49), 201–234.
- Vernengo, M. (2006), 'From capital controls to dollarization: American hegemony and the US dollar,' in M. Vernengo (ed.), *Monetary Integration and Dollarization: No Panacea*, Cheltenham, UK and Northampton, MA: Edward Elgar, pp. 245–258.
- Zhongxia, J. (2013), 'Why the dollar will remain dominant: renminbi rises in 1+4 currency system,' *OMFIF Bulletin*, February, 6–7.