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Levy Economics Institute of Bard College

Public Policy Brief

No. 147, 2019

GLOBALIZATION, NATIONALISM, AND CLEARING SYSTEMS¹

JAN KREGEL

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Preface

The rise of nationalist political movements and governments has been partly abetted by a sense of conflict between the forces of globalization and mounting demands for national sovereignty in economic affairs. Increasing global market integration creates unstable dynamics that constrain national policy space, while calls for international cooperation or global governance structures to address these dynamics can themselves reinforce the impression of an erosion of national control, heightening domestic backlash. One of the central challenges facing continued international economic development, according to Senior Scholar Jan Kregel, is to reconcile global integration with divergent national policy objectives.

In this policy brief, Kregel contrasts two diametrically opposed approaches to managing the tensions between international financial coordination and national autonomy. The first, a road not taken, is John Maynard Keynes's proposal to reform the postwar international financial system. The second is the establishment of the European Economic and Monetary Union (EMU) and the development of its settlement and payment system. Analysis of Keynes's clearing union proposal and its underlying theoretical approach highlights the flaws of the current eurozone setup.

Kregel begins with Keynes's critique of the gold standard as a global coordination system. The central problems Keynes identified were that the gold standard constrained national policy space and diversity—"everyone must conform to the average behaviour of everyone else"—and the international adjustment mechanism operated in a manner that created imbalances that fell most heavily on those countries (debtor countries) least able to bear them.

Keynes's proposed reform—ultimately abandoned in favor of what would become the Bretton Woods system—was centered on the creation of an international "clearinghouse" in which members would use a common unit of account to register debits and credits for the purpose of settlement. Kregel explains how Keynes's development of an alternative theory of money in the *Treatise* was central to his criticism of the gold standard and his formulation of the clearing union proposal. Keynes's

challenge to the quantity theory of money, combined with the concept of offsetting debits and credits in a clearinghouse or on a common balance sheet (using "bank money"), yielded the theoretical foundation for the clearing union and its proposed unit of account, "bancor." Unlike the gold standard, in which surpluses could be hoarded by national central banks, bancor surpluses would, within certain limits, automatically be lent to deficit countries. The adjustment mechanism would incorporate national limits on aggregate debits and credits and penalties for exceeding those limits. The chief virtue of the clearing union scheme, Kregel argues, is that it would maximize national policy autonomy within an integrated global or regional system while restoring the stabilizing role of capital flows.

The EMU proceeded on the basis of a starkly different approach, Kregel explains. The eurozone has developed its own version of a clearinghouse-type system—the Trans-European Automated Real-time Gross Settlement Express Transfer (TARGET2) system—but there are consequential differences between TARGET2 and Keynes's proposed scheme. While the movement of capital would be closely regulated in the clearing union (limited to national net current account balances), free capital flows are promoted within the eurozone, despite, as Kregel notes, the absence of a unified capital market or common, eurozone-wide debt instrument. Moreover, measures that might be thought to place limits on TARGET2 financing not only fail to effectively limit TARGET2 balances but also exacerbate the flow of capital from deficit to surplus countries. These destabilizing flows constrain domestic policy space, creating a self-reinforcing loop that impairs growth and domestic financial conditions—ultimately worsening TARGET2 imbalances. Finally, in Keynes's clearing union each country would retain its national "unit of account," which would permit autonomous and divergent domestic economic policy—precisely what is lacking in the eurozone.

As always, I welcome your comments.

Dimitri B. Papadimitriou, *President*
March 2019

Globalization and Nationalism

In observing the reduction in the “distance” between London and Edinburgh² produced by the introduction of canal transport, Adam Smith clearly recognized the impact of transport costs and technical progress in manufacturing production on the size and integration of the market. The same phenomenon could be observed somewhat later as wire communications linked the London and regional stock exchanges.³

Twentieth-century reductions in transport costs and advances in communications technology have produced a global manufacturing production system and global financial markets that certainly would not have surprised Smith. What is characteristic of today’s globalization is not the division of labor, but the geographical division of specific stages of the production process in global supply chains, supported by the dominance of foreign direct corporate investment financed by cross-border financial integration of geographically distinct national financial markets.

Globalization has led to the idea that national boundaries, regulations, and political determinations have become less and less relevant and should be supplemented or even replaced by global governance structures, or at a minimum by increased regulatory cooperation across national boundaries. However, such proposals have amplified the impression that national governments and their citizens have declining control over their own economic destiny.⁴ The political response has been an attempt to restore national sovereignty and the emergence of nationalist governments. Against this background, proposals for global governance structures, or even global cooperation, seem increasingly unlikely. The rallying cry of most nationalist governments, from Brazil to the United States, from Russia to Italy, from Hungary to India, is to reclaim national sovereignty from “undemocratic”⁵ multinational institutions, even extending to the United Nations. The continued development of the global economy thus faces the problem of how to reconcile the inexorable technological forces leading to increasing global market integration with growing demands for national political sovereignty.

One perennial proposal for the extension of global governance is the reform of the international financial system via creation of a global institution issuing a global currency. There are proposals for the expansion of the role of Special Drawing Rights managed through the International Monetary Fund (IMF), and, more recently, China, Russia, and the European Union (EU) have considered institutional arrangements to replace the US dollar.

Globalization and the Global Governance of International Finance

One of the first solutions to the conflict between global and national decisions was provided by the nineteenth-century gold standard. The genius of the gold standard was that it did not require formal global cooperation to fix or guarantee parity between national currencies, although there was extensive collaboration between central bankers operating the system. All that was required was for national governments to fix and maintain the gold content of the domestic monetary unit. Arbitrage by private traders in global commodity markets would equalize the purchasing power of gold across countries and produce stable bilateral exchange rates as a byproduct. It was thus a national rule—the fixed commodity content of the national monetary unit—that provided the basis for global coordination. The success of this system was that global institutions and regulations were not necessary; free international trade and profit-seeking financial institutions were all that was required to provide the structure of the global financial system.

The Failure of the Gold Standard as a Global Coordination System

The young John Maynard Keynes recognized the divergence between the theory and operation of this system in his very first book—*Indian Currency and Finance*—where he noted the central role played by bank rate in the London money market in ensuring the successful operation of the system. Changes in bank rate induced private market institutions to generate short-term financial flows that stabilized the exchanges, rather than goods arbitrage creating purchasing power parity. He thus concluded that gold, as the basis for domestic currency, was fine for the money market center but probably not so much for India.⁶

By the time of his *Treatise on Money* in the 1930s, Keynes noted that the use of bank rate to stabilize the gold standard system was incompatible with acceptable domestic economic performance, since the stability of pound sterling exchange rates might require a rate of interest too high for acceptable levels of employment. Moreover, the international interest rate arbitrage mechanism would make it difficult to use the rate of interest for domestic policy purposes: “the main effect of [any international standard] is to secure *uniformity* of movement in different countries—everyone must conform to the average behaviour of everyone else. . . . The disadvantage is that it hampers each

central bank in tackling its own national problems” (Keynes 1971a, 255–56). Thus, Keynes identified the existence of a freely convertible international metallic standard as the constraint on national policy autonomy, and in the final chapters of volume II he recommended the move to more flexible exchange rates to create national policy space.

Keynes also noted that “it has been an inherent characteristic of the automatic international metallic currency . . . to force adjustments in the direction most disruptive of social order, and to throw the burden on the countries least able to support it, making the poor poorer” (Keynes 1980, 29). Indeed, the international arbitrage process reinforced this inequity because, as he wrote, “capital funds flowed from countries of which the balance of trade was adverse into countries where it was favourable. This became, in the end, the major cause of instability” (Keynes 1980, 31). His conclusion was that, since the stabilizing role of capital flows had become perverse, “nothing is more certain than that the movement of capital funds must be regulated.”

Reforming the Global System—A Theoretical Revolution

While Keynes’s criticisms deal with policy—appropriate in a volume on “Applied Theory of Money”—he might well have chosen a theoretical criticism based on his discussion of the “Pure Theory of Money,” which opens volume I. But he did not do so, instead concentrating on domestic policy to promote full employment in the *General Theory*. This alternative theoretical line of criticism was to wait for Keynes’s discussions of the postwar financial system and was eventually formulated in his proposal for an international clearing union. The clearing union was based on the extension of what he called the national “banking principle” to international finance. In line with his proposals in the *General Theory*, the clearing union was meant to liberate national economic policy from the constraints imposed upon it by the international financial system. The task was to find an international financial system that supported and permitted the widest range of domestic priorities and policies within an integrated global system.⁷

The New Approach to Money as the Basis for the New International Financial Architecture

In the opening sentence of volume I of the *Treatise on Money*, Keynes had already set out his departure from the traditional quantity theory—based on money defined by a quantity of gold—which had been the basis of the gold standard system: “Money of account, namely that in which debts and prices and general purchasing power are *expressed*, is the primary concept of a theory of money.” Keynes noted the genesis of the money of account in capitalist production: “A money of account comes into existence along with debts, which are contracts for deferred payment, and price lists, which are offers of contracts for sale or purchase. Such debts and price lists, whether they are recorded by word of mouth or by book entry on baked bricks or paper documents, can only be expressed in terms of a money of account” (Keynes 1971b, 3).

Keynes’s departure from the quantity theory of money in these passages is perhaps best understood by reference to Luigi Einaudi’s essay on “imaginary” money describing financial practices in seventeenth- and eighteenth-century Europe.⁸ As Einaudi wrote,

There was, then, a monetary unit used only as a standard of deferred payments (promises to pay) or for the purpose of keeping accounts. This was the function of a money of account, an imaginary or ideal money. The public made contracts, kept books, established mortgages, or stipulated rents in pounds, shillings, and pence. . . . Although it was possible to make contracts or to keep accounts in imaginary money—that is, in [lire, soldi e denari]—it was impossible to make actual payments in these monetary units. . . . Payment was made in real currency, that is, in gold coins, white money or silver coins, black money or low-grade silver, vellon or copper coins. (Einaudi 1953, 251–52)⁹

Einaudi went on to point out that it was the role of the local political sovereign to determine the rates of exchange between the unit of account and the various metallic coins in circulation, to fix the quantity of metallic “real” money that would be required to discharge a debt denominated in “imaginary” money.

It is thus impossible to determine a money of any specific metallic content or that any specific metallic coin served as “money.” Since prices were set in a unit of account, but payment

could not be made in a money of account, what was important was the relation between any of a number of existing coins and the unit of account—any one would do to discharge a debt denominated in the unit of account at the rate of exchange determined by the sovereign.¹⁰

It is this idea that Keynes was describing when he wrote:

Money itself, namely that by delivery of which debt contracts and price contracts are *discharged*, and in the shape of which a store of general purchasing power is *held*, derives its character from its relationship to the money of account, since the debts and prices must first have been expressed in terms of the latter. . . . Perhaps we may elucidate the distinction between *money* and *money of account* by saying that the money of account is the *description* or *title* and the money is the *thing* which answers to the description. (Keynes 1971b, 3)

With reference to governance, however, Keynes noted that

by the mention of contracts and offers, we have introduced law or custom, by which they are enforceable; that is to say, we have introduced the State or the community. Furthermore, it is a peculiar characteristic of money contracts that it is the State or community not only which enforces delivery, but also which decides what it is that must be delivered as a lawful or customary discharge of a contract which has been concluded in terms of the money of account. The State, therefore, comes in first of all as the authority of law which enforces the payment of the thing which corresponds to the name or description in the contract. But it comes in doubly when, in addition, it claims the right to determine and declare *what thing* corresponds to the name, and to vary its declaration from time to time—when, that is to say, it claims the right to re-edit the dictionary. This right is claimed by all modern States and has been so claimed for some four thousand years at least. (Keynes 1971b, 4)

In Einaudi's account, a multitude of different coins answer the description, after translation via the conversion table—the “dictionary” written by the sovereign. Thus, for Keynes the government decides what physical thing or coin answers to the

description of the money of account. When this occurs, Keynes defines the system as one of “state money” or chartalism, referring to the work of Georg Friedrich Knapp. Note that this can occur with the designation of a single type of coin of particular weight and characteristics or through designation of a fiat or paper currency (although Keynes notes “it is by no means essential to chartalism . . . that the State should mint the standard” [Keynes 1971b, 10]). In contrast with the banking/currency debates, it is not a question of the proportions of money commodities and paper currency that is at issue, it is the link between the unit of account and the money designated to discharge a debt designated in the unit of account.

Indeed, Keynes defines three different types of state money: commodity, fiat, and managed. He goes on to note that “acknowledgements of debt are themselves a serviceable substitute for money proper in the settlement of transactions” and when they “are used in this way, we may call them bank money. . . . Bank money is simply an acknowledgment of a private debt, expressed in the money of account. . . . We thus have side by side State money or money proper and bank money or acknowledgments of debt” (Keynes 1971b, 5).

The use of accounting units in exchange, and particularly in banking, had already been observed by David Ricardo in his “Proposals for an Economical and Secure Currency,” where he noted that instead of gold being used in exchange, “money is merely written off one account and added to another” (Ricardo 1952, 58) and payments “effected without the intervention of either bank notes or money” (75). This was also mentioned by William Stanley Jevons in his description of “The Cheque Bank” (Jevons 1896, chapter 22).¹¹ This is what Keynes would denominate “bank money.”

The same phenomenon was highlighted by Ludwig von Mises:

The modern organization of the payment system makes use of institutions for systematically arranging the settlement of claims by off-setting processes. In the clearing-house, the claims continuously arising between members are subtracted from one another and only the balances remain for settlement by the transfer of money or fiduciary media. The use of money is avoided because claims to money are transferred instead of actual money. This process is continued until claim and debt come together, until creditor and debtor are united in the same person. Then the

claim to money is extinguished, since nobody can be his own creditor or his own debtor. (Mises 1953, 286)

In his clearing union proposal, Keynes combined the money of account with the financial innovation of the clearing-house system of offsetting debt and credits to produce what he called the “banking principle,” defined as

the necessary equality of debits and credits, of assets and liabilities. If no credits can be removed outside the banking system but only transferred within it, the Bank itself can never be in difficulties. It can with safety make what advances it wishes to any of its customers with the assurance that the proceeds can only be transferred to the bank account of another customer. Its problem is solely to see to that its customers behave themselves and the advances made to each of them are prudent and advisable from the point of view of its customers as a whole. (Keynes 1980, 44–5)

He provided further elaboration in a public presentation of this proposal: “the purpose of this principle is to set off transactions against one another so far as you can clear and then to deal with the resulting credit and debit balance as still off-setting one another in the same way they do in internal banking” (Keynes 1980, 209–10).¹²

Thus, Keynes’s proposal for the clearing union is an elaboration of his views on money presented in the beginning of the *Treatise* and of the well-known banking innovation of offsetting debits and credits in a clearinghouse or on a common balance sheet using “bank money.” The theoretical innovation is to note that, to serve this purpose, there is no need for a common commodity such as gold as backing for money. It would seem possible, then, to interpret Keynes’s proposed unit of account—“bancor”—as the money of account, with the offsetting debits and credits of member countries serving as “clearinghouse” money or “bank money” for the international system, based on the banking principle. For Keynes, one of the major advantages of this system was that, unlike gold—which could be hoarded by a surplus country’s central bank, requiring restrictions on the part of the deficit country—bancor credit balances would be, within specified limits, automatically lent to the deficit country.

Note that there is in this proposal no equivalent of gold, or “money proper,” or “state” money because there was no

competent global state with authority to specify a “thing which answers the description” of bancor. As in the original gold standard, the onus is on each individual country to freely exchange domestic currency for bancor up to its credit balance in the clearinghouse at the mutually determined rate. As in the case of imaginary money, there must be a mutually agreed table of conversion or exchange rates. In such a scheme, the debtor/deficit country would never run out of money, since the creditor/surplus country would automatically provide the lending required. In this way, it would be possible for divergent individual country policy objectives to be achieved as long as all countries remained participants in the system—the system as a whole would always have a balance of debits and credits.

It would also enable a more balanced adjustment process, since the financial flows would not produce the same immediate impact on domestic financial conditions, and would allow more time for adjustment in real variables such as wages. For this, Keynes envisaged a combination of limits on the size of individual countries’ aggregate debits and credits with the union, and penalties for exceeding these limits. The scheme would also provide for funding of countries lagging behind.

It is important to note that such a scheme could provide stability of capital flows. Keynes was careful to point out that his proposal “does not mean that there would be direct barter of goods against goods,” since credit balances could be used to purchase foreign assets—foreign direct or portfolio investment—but the size of these purchases would be strictly limited by the size of the surplus country’s credit balance with the clearinghouse (Keynes 1980, 18). Once a limit on the size of multilateral debits and credits was agreed upon for each country—its “quota”—penalties, in the form of interest charges, exchange rate adjustment, forfeiture, or exclusion from clearing, would be applied and the outstanding balances would automatically be reduced. Thus, as had been foreseen in the *Treatise*, “international capital movements would be restricted so that they would only be allowed in the event of the country from which capital was moving having a favourable balance with the country to which they were being remitted” (Keynes 1980, 17). In this way, Keynes hoped to restore the stabilizing role of capital flows between surplus and deficit countries.

This clearing union proposal was discarded in the preparatory discussions for the Bretton Woods conference in favor of the US proposal of a currency stabilization fund of limited size, with contributions in national currency and gold quotas to be

used to support a country's defense of their parity against gold or the dollar. There was no imaginary unit of account or global currency, only a pledge to parity against gold—which was moot, since the US owned or controlled the majority of the world gold stocks. As noted, Keynes no longer believed in the need for a gold backing for money, so neither the dollar nor the gold backing of the dollar was considered necessary, and he argued forcefully against the use of either gold or the dollar at Bretton Woods.

In the Bretton Woods system as finally implemented, the dollar became the de facto unit of account and gold became the physical thing that answered to the description (but which was ultimately represented by the dollar given the distribution of gold stocks). The difference was that the US could create dollars, and thus the inherent equivalence between debits and credits would be disturbed by US monetary and fiscal policy. Absent the limits on capital flows, it was a characteristic of the Bretton Woods system that after 1960 the tendency for international capital to flow from debtor to creditor countries not only resumed but was reinforced, producing persistent exchange rate crises.

This was a common experience in recovering Europe in the late 1960s as funds flowed from deficit countries to surplus countries, speculating on European exchange rate adjustment. Similar flows emerged between the US and the rest of the world as foreigners borrowed funds in low interest rate US markets and external claims on the dollar as a unit of account soon exceeded US holdings of gold as the physical description. The result was the US decision to throw away the “dictionary” and adopt flexible exchange rates for the global system.¹³

However, there was one exception: the European Community decided instead to enshrine fixed bilateral exchange rates in the Exchange Rate Mechanism matrix in the European Monetary System (EMS) in 1979 in preparation for the Economic and Monetary Union (EMU) and a common “interregional standard”—the euro some twenty years later. This was a system that started with a purely notional unit of account—the European Currency Unit (ECU), redenominated as the euro—as a common unit of account and as its physical description. However, the ECU had no operational role, it was not defined in terms of any commodity, and there was no equivalent to “bank money,” as transactions remained in national currency—nor did it prevent exchange rate speculation, although it limited the size of adjustment.

The EMS Experiment in Regional Global Governance

Note the two diametrically opposed responses to the defects in the gold standard and its Bretton Woods surrogate. Europe attempted to introduce an island of exchange rate stability in a sea of global flexible rates, while the rest of the world jettisoned the gold backing of currency. The EU retained gold in the System of European Central Banks, but without specification of the gold content of the euro. Instead, it abolished national currencies and replaced them with euro notes and coin as the physical description of the euro representation as a unit of account.

However, the new single currency system did contain an ersatz “clearinghouse” mechanism in the form of the Trans-European Automated Real-time Gross Settlement Express Transfer (TARGET2) system, in which euro payment imbalances across member-states’ national central banks (NCBs) were automatically compensated. Thus, if Italian residents needed to make euro payments to German counterparts, their accounts with their bank would be debited, the bank’s account with the Bank of Italy would be debited, and the account of the Bank of Italy at the Bundesbank would be debited against a credit to the bank of the German counterpart, which would credit the account of the German counterparty via the creation of an Italian central bank debit matched by a credit at the Bundesbank. Thus, a surplus of Italian current account sales to Germany should result in a credit for the Bank of Italy and a debit in the Bundesbank account in the TARGET2 system, or vice versa for an Italian deficit.

This looks very much like Keynes’s clearing union proposal, since any Italian imports not balanced by exports would involve a TARGET2 entry to balance the difference. Indeed, Italy currently has an overall current account surplus and the Bank of Italy should see increasing credits to the TARGET2 system. However, this is not the case—Italy currently has a large debit position of around €489 billion.

How is this possible? The first difference between a clearing union and TARGET2 is that, since the EMU, Europe has promoted free capital flows despite the absence of a unified capital market or EU government debt. In Keynes’s proposal, recall that capital flows would have been strictly limited to national net current account balances and thus outstanding intra-clearing-union debt would have been limited to the accumulated balances subject to the limits on the size of permitted imbalances plus debt service. TARGET2 transactions include not only trade but also capital account transactions. Net capital outflows thus

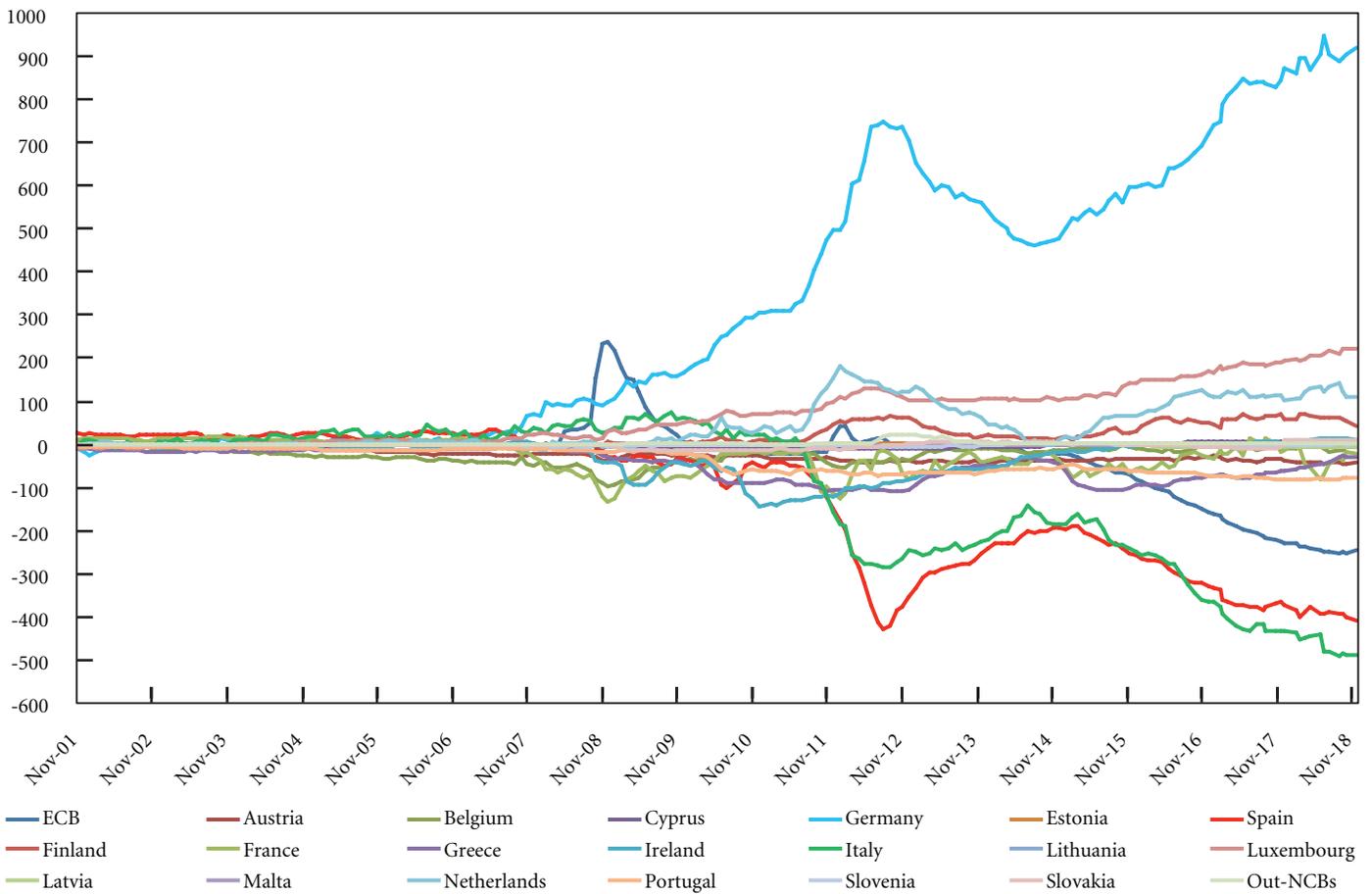
generate TARGET2 debits and explain part of the Italian debit balance in TARGET2. The net change in each country's position in the TARGET2 clearing is determined not only by the equivalent of its intra-eurozone current account position, but also to cross-border capital account transactions. The reported balance is also distorted because of the way euro notes are distributed and issued by NCBs.¹⁴ This is not the only anomaly in the system. Because of the way the European Central Bank's (ECB) Asset Purchase Program has been implemented, it has led to an increase in TARGET2 imbalances as NCBs have made purchases of assets from banks located in other countries (see Auer and Bogdanova 2017; Terzi, forthcoming).

As a result, it is always possible for a eurozone government to issue debt to domestic residents financed by a domestic bank that could then be sold in the open market to nonresidents. The result would be to extinguish the domestic loan, while the

Bank of Italy receives a TARGET2 compensation credit from the recipient country's central bank.¹⁵ In essence, this represents a TARGET2 financing of government debt, and many commentators have suggested that such action would be a de facto violation of either the no-bailout clause or the prohibition on direct ECB financing of national governments, or both.

Whether or not they were intended for this purpose, there are two additional regulations that address this difficulty.¹⁶ The first is the limit on government debt and deficits included in the Protocol to the Maastricht Treaty—obviously a limit on government borrowing limits the need for TARGET2 financing in the absence of market financing. The limit on government debt stocks might also be interpreted in this light. Unfortunately, these measures are equivalent to closing the barn after the horse has bolted, given the size of the external debt positions of most countries—and especially Italy—at the time of their entry into

Figure 1 TARGET2 Balances (€ billions)



Source: Euro Crisis Monitor, Institute of Empirical Economic Research (ECB data)

the eurozone. Technically, if there were willing eurozone buyers, there is nothing to stop the transfer of the entire outstanding Italian debt via a TARGET2 credit.

The second measure is the role of collateral requirements for ECB financing. There are no collateral requirements on TARGET2 balances. From this point of view they are equivalent to interbank lending in the US federal funds market—they are unsecured.¹⁷ The provision of liquidity by a euro system central bank to its national financial system is based on measures of the quality of collateral, such as limits on credit ratings, etc. However, as capital flight from peripheral countries increased after the Greek sovereign bond crisis and led to severe liquidity shortages in the periphery NCBs, the ECB's collateral standards were progressively relaxed and, in some cases, government guarantees of bank capital issues were permitted. For access to the Emergency Liquidity Assistance (ELA) facility, it is the NCB that sets the collateral requirements at its own risk, with the presumption that the ECB will eventually take up the assets subject to the limit on such financing set by the ECB. Collateral has thus been an ineffective form of limitation on TARGET2 financing.

But not only do these measures fail to provide an effective limit on TARGET2 balances, they exacerbate what Keynes identified as the major difficulty with such international standards: the destabilizing flow of capital from deficit to surplus countries. Note that the flexibility of TARGET2 is required to ensure the integration of trade and capital flows within the single market, and as such should allow unlimited imbalances across national borders and associated unlimited TARGET2 positions, but with the implicit assumptions that capital flows would be counterbalancing. Indeed, this was the case until the 2007 crisis, with surplus country banks providing funding of periphery governments' liabilities, and TARGET2 balances remaining modest (Figure 1).

But as Keynes admonished, when under pressure such systems tend to become destabilizing. And at precisely the time when governments require additional policy space, capital outflows make it necessary to offer higher interest rates on maturing debt due to the collapse of sovereign bond prices, which has a negative impact on fiscal balances, and then to cut expenditures to reduce fiscal deficits, which reduces domestic growth and fiscal yields. Expenditure cuts also lead to a deterioration in the balance sheets of domestic banks as the number of impaired private loans rises and the credit ratings on national government assets used to generate liquidity with the ECB or through

the ELA facility deteriorate, leading to a reduction in domestic lending. This produces the well-known doom loop for both private banks and the government, with increasing nonperforming loans and write-downs of both public and private asset positions, and increased capital flight, which then produces the ballooning of TARGET2 imbalances.

There are two ways out of this conundrum: to try to halt capital outflows, which requires higher interest rates on the rollover of maturing liabilities and new issues to reverse outflows and/or attract additional private inflows; or generate fiscal surpluses, which simply aggravates the problem. The systemic solution would be to create a source of official flows through an EU budget mechanism, such as the European Stability Mechanism (ESM)¹⁸ (which in its current form is not large enough to provide effective relief). The only effective solution would be limits on capital flows, which was practiced successfully on a national level in both Greece and Cyprus, but would be better placed generally on all capital flows from all countries on a permanent basis, following the sensible lead of both Keynes's clearing union proposal and Article 6 of the IMF.¹⁹

But there is one additional and more fundamental difference between TARGET2 and Keynes's clearing proposal: each country in Keynes's system retained its national unit of account as "money proper," which provided the policy space to allow governments to follow divergent national policy objectives. It was meant to allow Britain to follow a policy of full employment while other countries chose different objectives, such as price stability or growth. By imposing the euro as both the unit of account and the physical representation, this forces all countries to follow the same policies irrespective of national conditions—the fatal flaw in the "dictionary" of the euro system. It is ironic that if national political systems cannot support this degree of uniformity, it will be Germany that ends up financing the dissolution of the eurozone through its provision of TARGET2 credits.

Given that it is the role of capital flows within a system with a unified unit of account and means of settlement that is at the root of these problems, it is perhaps unnecessary to note the other problem created by the absence of a formal limit on the size of imbalances: the existence in Germany of an external surplus that is far in excess of the macroeconomic imbalance procedures limits.²⁰ This excessive external surplus confirms Keynes's point on the failure of markets to generate capital flows from surplus to deficit countries, as represented by the coexistence of Germany's current €16 billion surplus with its rising TARGET2 balances.²¹

Notes

1. Conferenza Istituzionale, presented to the Accademia Nazionale dei Lincei, Classe di Scienze Morali, Storiche e Filologiche, Roma, January 11, 2019.
2. “As by means of water-carriage a more extensive market is opened to every sort of industry than what land-carriage alone can afford” (Smith 1981, 32).
3. At the end of the nineteenth century, the arrival of telegraph communications meant the possibility of price arbitrage across geographically separated regional markets known as “shunting.” London jobbers and brokers who went to the expense of installing direct lines dominated the markets for the issues in which they dealt by becoming the de facto dealers in a national market. See Kregel (1996).
4. Just as an individual producer in the theory of perfect competition has no control over price and can only operate on costs, any attempt to depart from globally acceptable norms leads to exclusion from participation in the global production system. While the theory of perfect competition views the supply-side response as driving efficiency, on the global scale it has led to a race to the bottom in wages and deregulation.
5. The G-20 initiative launched after the recent global financial recession provides an example of an attempt at international cooperation. Designed on the basis of a purely random membership, the initiative has been questioned because of the absence of democratic foundations for its legitimacy.
6. “My purpose is, first, to show that the British system is peculiar and is not suited to other conditions; second, that the conventional idea of sound currency is chiefly derived from certain superficial aspects of the British system” (Keynes 1913, 15). He continued:

it is to be noticed that the position of a country which is preponderantly a creditor in the international short-loan market is quite different from that of a country which is preponderantly a debtor. In the former case, which is that of Great Britain, it is a question of reducing the amount lent; in the latter case, it is a question of increasing the amount borrowed. A machinery, which is adapted for action of the first kind, may be ill suited for action of the second. Partly as a

consequence of this, partly as a consequence of the peculiar organisation of the London Money Market, the “bank rate” policy for regulating the outflow of gold has been admirably successful in this country, and yet cannot stand elsewhere unaided by other devices. (18–19)

The analysis of the impact of interest rates on spot and forward exchange rates in the book led him to the formulation of the interest rate parity theorem in his *Tract on Monetary Reform* and the proposals for a “managed” currency based on purchasing power parity to replace the gold standard.

7. Keynes was clear that he believed his proposal could serve as a basis for a far wider range of global issues, such as European reconstruction, peace and security, commodity stabilization, and global investment, among others.
8. Quotations are from both the English translation (Einaudi 1953) and the original Italian (Einaudi 1936). I have substituted “lire, soldi e denari,” which appears in the original, for the “pounds, shillings, and pence” in the translation to avoid any mistaken correspondence with sterling.
9. He provided a table of these conversion rates. For example: “Il contraente di Malestroit pagava: l’auna di velluto contrattata in 10 lire immaginarie consegnando, al rapporto di L.2. 10s. per scudo, 4 scudi d’oro del sole” (Einaudi 1936, 7–8).
10. “Il sistema della moneta immaginaria era compatibile con un qualunque numero di monete effettive sia d’oro che d’argento, sia nazionali che estere” (Einaudi 1936, 21).
11. It is important to note that this recognition of what we would today call financial innovations in banking was interpreted as a process in which metallic money transactions were substituted by a more efficient mechanism of balance sheet netting by banks requiring the use of notional representations of the metallic money, rather than being independent of metal. Instead of preceding money proper, as in Keynes’s account, this view interprets “bank money” as representative “signs” that represent the “real” money metal, which continues to provide the value of money.
12. He went on to note that in banking practice “great stress was laid on the possession of capital but we have learned as time goes on that that is of insignificant importance. You need the capital if you are not in a closed system and have to meet liabilities for credit outside your system, but in a

closed system . . . the deposits on one side are necessarily exactly equal to the overdrafts of the other, so that as there is no liability to pay outside the system it involves no risk and therefore requires no capital” (Keynes 1980, 210).

13. Keynes had preferred fixed rates for the clearing union—and initially for the stabilization fund proposed by the US—but when it became clear that the resources available in the fund quotas would be negligible, Keynes shifted to support flexible exchange rates instead.
14. Each European System Central Bank is credited with an issue of euro notes and coins of 92 percent of the so-called “capital key”—each bank’s share of the ECB’s capital. If a country’s residents demand to hold more than this amount of notes and coins, the central bank must effectively borrow them from countries whose residents choose to hold less than their official allotment, creating an adjustment to TARGET2 balances. For Germany, this adjustment is roughly half of Germany’s reported TARGET2 position.
15. Even the IMF Articles of Agreement recognized the dangers of capital account convertibility and Article 6 thus excludes them from the commitment to currency convertibility
16. The measures meant to limit debt creation and thus the ability to create financing via TARGET2 include:
 - the prohibition of monetary financing (Article 123 of the Treaty on the Functioning of the European Union [TFEU]);
 - the prohibition of privileged access to financial institutions (Article 124 of the TFEU);
 - the no-bail-out clause (Article 125 of the TFEU);
 - the fiscal provisions to avoid excessive government deficits (Article 126 of the TFEU, including the excessive deficit procedure); and
 - the Stability and Growth Pact (secondary legislation based on Articles 121 and 126 of the TFEU).

Additionally, the fiscal compact (as part of the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union) foresees the implementation of a balanced budget rule at the national level and a further strengthening of the excessive deficit procedure within the Stability and Growth Pact.

17. Which is why they have raised such concern in the event of a country leaving the euro system, as there would be no

legal recourse for recovery of net balances beyond the participation of the NCB in the capital of the ECB.

18. The ESM was set up as an international financial institution by the euro area member states to help euro area countries in severe financial distress. It provides emergency loans, but in return, countries must undertake reform programs. Together with its predecessor, the European Financial Stability Facility (EFSF), it can lend a total of €700 billion. With a paid-in capital of more than €80 billion, the ESM is one of the largest international financial institutions in the world. The ESM is the only official institution of the euro area.
19. See also Amato et al. (2016).
20. The macroeconomic imbalance procedure (MIP) legal framework consists of two pieces of legislation that were introduced as part of the “six-pack” reform of economic governance in 2011. Regulation (EU) 1176/2011 on the prevention and correction of macroeconomic imbalances sets out the MIP and applies to all EU countries covered by the MIP. Regulation (EU) 1174/2011 on enforcement measures to correct excessive macroeconomic imbalances specifies a sanction mechanism to enforce MIP recommendations for euro area countries. The main treaty basis for MIP surveillance is Article 121 of the TFEU, which provides the set of reasons for multilateral surveillance in the EU. The legal basis for the mechanism enforcing Regulation 1174/2011 is Article 136 of the TFEU, in combination with Article 121, which provides the grounds for strengthened surveillance and coordination for euro area countries.
21. In this regard, it is interesting to note the official ECB position, put forward in Mario Draghi’s December 15, 2018 speech in Pisa: that the problems in the eurozone can best be met by additional structural and institutional measures and that exiting the euro would provide little benefit because the existence of integrated trading patterns in the form of global supply chains make any benefit from exchange rate flexibility nugatory. This fails to understand that the basic difficulties are precisely in the form of banking integration with free capital flows without capital market integration and the fact that the primary impact of exchange rate adjustments are to rebalance capital flows rather than flows of real goods and services. It is the distortions caused by internal capital flows and the existence of non-trade financial flows through TARGET2 that are the root of current problems.

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About the Author

JAN KREGEL is director of research at the Levy Economics Institute of Bard College and head of its Monetary Policy and Financial Structure program. He also holds the position of professor of development finance at Tallinn University of Technology. In 2009, Kregel served as Rapporteur of the President of the UN General Assembly's Commission on Reform of the International Financial System. He previously directed the Policy Analysis and Development Branch of the UN Financing for Development Office and was deputy secretary of the UN Committee of Experts on International Cooperation in Tax Matters. He is a former professor of political economy at the Università degli Studi di Bologna and a past professor of international economics at Johns Hopkins University's Paul Nitze School of Advanced International Studies, where he was also associate director of its Bologna Center from 1987 to 1990. Kregel has published extensively, contributing over 200 articles to edited volumes and scholarly journals, including the *Economic Journal*, *American Economic Review*, *Journal of Economic Literature*, *Journal of Post Keynesian Economics*, *Economie Appliquée*, and *Giornale degli Economisti*. His major works include a series of books on economic theory, among them, *Rate of Profit, Distribution and Growth: Two Views*, 1971; *The Theory of Economic Growth*, 1972; *Theory of Capital*, 1976; and *Origini e sviluppo dei mercati finanziari*, 1996. His most recent book is *Ragnar Nurkse: Trade and Development* (with R. Kattel and E. S. Reinert), 2009.

In 2011, Kregel was elected to the Accademia Nazionale dei Lincei, also known as the Lincean Academy, the oldest honorific scientific organization in the world. Founded in 1603, the academy counts Galileo Galilei among its original members. It has remained an elite organization of only 540 members, with only 180 of those from outside Italy. Although the academy covers all scientific and literary fields, Kregel is a member of the division for moral, historical, and philological sciences; specifically, the social and political sciences. Robert Solow, Amartya Sen, the late Paul Samuelson, and fellow Levy Senior Scholar James K. Galbraith are among the other American economists who have been elected foreign members of the academy.

Kregel studied under Joan Robinson and Nicholas Kaldor at the University of Cambridge, and received his Ph.D. from Rutgers University under the chairmanship of Paul Davidson. He is a life fellow of the Royal Economic Society (UK) and an elected member of the Società Italiana degli Economisti. In 2010, he was awarded the prestigious Veblen-Commons Award by the Association for Evolutionary Economics for his many contributions to the economics field.