CAN GLOBAL ELITES PAVE THE WAY FOR A NEW TRANSNATIONAL UNIT OF ACCOUNT?

A Reflection on the Numerical Nature of Money

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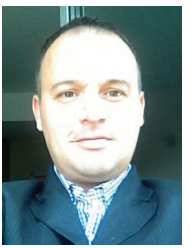

Abstract: In this article, we investigate the issue of the dollar-based international monetary system. We start by listing the reasons why money has essentially become a numerical form in the contemporary world economy. After reviewing the salient characteristics of the flawed international monetary and financial architecture of the world economy, we assess whether a transnational unit of account could constitute a viable political alternative to the current international payments system. The latter scenario is envisaged both with regard to the field of international relations and with the help of a revisited definition of the transnational capitalist class.

Keywords: numerical form; dollar-based system; world money; transnational capitalist class; digital revolution

1. Introduction

In this article, we investigate the issue of the dollar-based international monetary system. After reviewing the salient characteristics of the flawed international monetary and financial architecture of the world economy, we assess whether a transnational unit of account could constitute a viable political alternative to the current international payments system. Pilkington (2010, 257) argued that it is now "time for a wide-ranging consortium of States to espouse the patterns of the globalization of production by introducing a supranational numerical vehicle in order to monetise

the income-generating activities of transnational corporations." The scenario of a new transnational unit of account is envisaged both with regard to the field of international relations and with the help of a revisited definition of the transnational capitalist class (TCC). It is precisely this attempt at conceptualizing the ability of the TCC to transform the global monetary system, and not the diagnosis of the ills of the present world order, that constitutes the originality of the present article.

2. The Numerical Form of Output: An Issue at the Heart of the Political Economy

2.1. The Unit of Account Function of Money

2.1.1. Money as a Language

In the Treatise on Money, Keynes (1930, 3) argued that price and debt contracts are necessarily discharged and expressed in terms of the money of account in a monetary economy of production. Therefore, the primary concept of a theory of money should be the unit (money) of account. Drawing on de Saussure's (1916 [1983]) linguistic metaphor, Pilkington (2010, 252) states that commodities are signified objects while money is the ultimate signifier. Therefore, Keynes's primary concept of the money of account is the linguistics means whereby goods and services are expressed and given a numerical value. Likewise, Marx (1973, 145; italics added) has outlined the social dimension of money: "In the form of money, all properties of the commodity as exchange value appear as an object distinct from it, as a form of *social existence* separated from the natural existence of the commodity."

2.1.2. How Is Modern Money Created?

The process whereby money is created in credit-based economies is straightforward: "Each and every time a bank makes a loan, new bank credit is created—new deposits—brand new money" (Towers 1939, 18). This is tantamount to the post-Keynesian endogenous money approach epitomized by Moore (1988). Galbraith (1975, 29) acknowledged the disturbingly simple nature of the money-creation process. The same type of argument is put forward for the banking profession as a whole by Josiah Stamp, former Director of the Bank of England, emphasizing its moral nature:

> Banking was conceived in iniquity and was born in sin. The bankers own the earth. Take it away from them, but leave them the power to create money, and with the flick of the pen they will create enough deposits to buy it back again. (quoted in Rowbotham 1998, 35)

The simplicity of the money-creation process echoes the instantaneous nature of payments and the role of double-entry bookkeeping in modern monetary economies. When a bank issues money, it is simultaneously debited and credited with the same number of money units it issues (Rossi 2006, 24). This amounts to the idea that money is in fact an "asset-liability" (Schmitt 1975, 13).

2.1.3. The Social Nature of Money Can Be Extended to the Transnational Domain

Bryan (1992) explains that the international mobility of money and the integration of national capital markets have questioned the relevance of the nation-state as a valid geopolitical framework for conducting effective monetary policy. Bryan (1992) also points to the contradictions inherent in national monetary policy between the different sections of capital in international accumulation patterns at the transnational level, thereby constraining national monetary policy to the demands of transnational capital. As argued by Bauerkämper and Gumb (2010), the transnational society has been an emerging concept ever since the eighteenth century.

In a world-systems perspective, which is "a historically oriented analysis of cycles, trends and long-run structural features of the world economy" (Chase-Dunn 1999, 187), Martinelli (2005) has investigated the link between the world system and the idea of a world society. He therefore posits the existence of

> A global society as a world association of peoples, nation states, supranational unions, international organizations and transnational communities, who share a few core values of a cosmopolitan ethics and are integrated and regulated by a polyarchic form of democratic governance. (Martinelli 2005, 11)

Pilkington (2010) acknowledges this idea but argues that the reflection on the outward numerical expression of this transnational global community has been neglected to date. For him, the shift toward a powerful transnational network of corporations characterizes the prevailing world system, wherein States continue to play a key role, as shown by the gigantic bailout plans put in place in late 2008. By drawing on the theory of money emissions, Pilkington (2010) shows how the idea of a transnational unit of account is logically supported by the very nature of money, and empirically confirmed by the observation of the new world system. This is why he advocates a new reflection on a monetary Esperanto grounded in the transnational nature of production (248).

2.2. The End of the Golden Age of Capitalism, and Currencies as Mere Goods

The post-war period is known as the golden age of capitalism, a period marked by embedded liberalism, and state-led national development in the South. It came to

an end in the late 1970s amid stagflation fears (Harvey 2005). Harris (1987) has analyzed the subsequent emergence of a global manufacturing system under the impulse of transnational corporations (TNCs; Pilkington 2007), wherein the internationalization of production was achieved through geographically dispersed but functionally integrated global commodity chains (Gereffi and Korzeniewicz 1994). The late twentieth century saw neoliberal globalization come to the fore with the formidable expansion of transnational capital propelled by innovation, information and communication technologies, market liberalization and deregulation, with a subsequent transformation of the powers of the State (Strange 1996). The expansion was also facilitated by the global fragmentation of the labor force along with the cost minimization strategy of TNCs (Pilkington 2007) and conflicting class relations that presided over decisions to relocate production in low-wage countries (Silver 2003). In what may be termed as a hyper-babbagization of TNCs, the power of the global labor force was weakened from the 1970s onward by the spatial division of labor (Silver 2003) and by the fact that local units performed a specialized function that could only be understood by the top management of the TNC (Hymer 1972, 104).

Let us note, however, that some US companies are now indifferent between locating in America and China due to a decreasing wage differential, and other macroeconomic factors. However, emergent countries still have the wind in their sails, because of higher forecasted demand growth relative to developed countries. Infrastructure investments are hardly reversible; previously lost jobs cannot easily be brought back home (*The Economist* 2011). Furthermore, there exist tax and accounting incentives for US multinationals to hoard huge amounts of cash in their foreign (offshore) subsidiaries, to avoid taxation of foreign profits at home (Chapman and Chang 2016; Hungerford 2014), thereby amplifying income inequality, financialization trends and tax evasion (i.e., the hoarded cash is deposited in the offshore subsidiaries of US banks, whose account holders are likely to be TCC members). The consequence is a toxic combination of faltering tax revenues, welfare losses and persistent unemployment in developed countries: "[i]n 2000, 65% of working-age Americans were in work; since then the proportion has fallen, during good years as well as bad, to the current level of 59%" (*The Economist* 2014).

The Bretton Woods system was a labor-friendly international monetary system, characterized by fixed exchange rates, capital controls, state-led monetary policy, welfare institutions and pro-employment economic policies (Zolberg 1995). Hampton (2006, 153) argues that it was the first "attempt to incorporate the political economy of the mass worker into the techniques of global monetary organization." The decision by President Nixon to suspend the convertibility of gold "signaled the end of the long postwar-boom and ushered in a long downturn punctuated by repeated economic crises" (Lapavitsas 2009, 124). Contrariwise, since 1971, the

international monetary system has been characterized by floating exchange rates, which have given rise to substantial uncertainty surrounding international trade, notably due to increased exchange rate risk. As Cencini (2000) argues, leading experts in international monetary economics argue that erratic fluctuations inherent in floating exchanges rates owe more to international speculative capital movements than fundamentals. Although the gold standard did not start with the hegemony of the dollar, but rather of the pound in the late nineteenth century (De Cecco 1975), it displayed stable features between 1880 and 1971. British hegemony progressively declined between 1890 and 1914, due to Great Britain's "increasing dependence on the world market for imports of foodstuffs and its Empire as an outlet for its exports" (ix). After World War II, the hegemon changed, and the dollar gained prominence, but the overall configuration of the international monetary system remained the same until 1971, a system conducive to an absolute determination of exchange rates sustaining the stability of the whole system. In the latter, national currencies were anchored to a good, that is gold, and not to other currencies.

In the current international monetary architecture, all currencies derive their value from an American IOU, namely, a mere numerical form issued by the American banking system (Cencini 2000, 8). This observation is particularly insightful in the present context of the world sovereign debt crisis occurring in our fraying dollar-based reserve system. The reason why the US banking system is today in a position to issue a numerical form, subsequently accepted as an IOU by all other nations, thereby determining the (relative) value of their currencies vis-à-vis the US dollar, is its status of international reserve currency (Liu 2002), whose problematic nature and lack of suitability to a post-crisis world have been outlined recently by Zhou (2009). Rueff (1963, 324) explains that national currencies can only enter a foreign banking system as duplicates. The process whereby duplication is enabled so that the duplicate becomes autonomous with respect to the initial bank deposits has some drastic consequences on the structure of international payments, which allows the massive formation of a capital whose nature is speculative (Baranzini and Cencini 2001 [2003]). A reserve currency issued as a numerical form, subsequently accepted as an IOU by other nations (the post-1971 situation), is conducive to world monetary instability wherein currencies become objects of trade and speculation. This is what we name *the fallacy of relative exchange rates* (or currencies as mere goods).

As Schmitt rightly pointed out (1988, 173), the essence of bank money is to be a means of payment that is an object of *mediation*, and certainly not a final product (or good), as it is the case in the present disorderly international payments system. The function of unit of account is paramount in the definition of bank money. Yet it remains to be seen whether a new transnational unit of account could help overcome the inherently dysfunctional nature of the current system.

2.3. Reasons to Move Forward: Compelling Evidence Supporting the Numerical Nature of Money

In this section, we identify three reasons to break away with the present international payments system. These reasons are all based on some compelling evidence that supports the numerical nature of modern in modern banking systems.

What did Léon Walras (1874 [1954], 188) mean when he once stated that "the word franc [meaning the standard of value] is the name of a thing which does not exist"? He meant that money is simply a numéraire, a basic standard of value tantamount to the function of unit of account in macroeconomic textbooks. A "numéraire good" is one with a fixed price of 1 used to make all goods and services commensurate and to facilitate economic calculations. Unlike Pasinetti (1974, 10) and his two-commodity economy wherein the numeraire is defined as a specific amount of the commodity called gold, Walras denies any commodity-like nature to the numeraire. Far from being a mere good, it is in fact, and more fundamentally, an intangible form, understood with regard to its (numerical) essence, and not its manifold physical incarnations. This conceptual clarification is of utmost importance insofar as it will help us cast light on the workings of modern banking, presented hereafter.

Modern textbooks often provide a misleading description of the way money is created in contemporary economies. This erroneous description rests on the credit multiplier, or in other words, the exogenous supply of money. It is the idea that by controlling the money base, modern central banks can control the total quantity of money in circulation. However, "reality is closer to a 'balloon' of bank-created money wrapped around a core of base money" (Ryan-Collins et al. 2011, 21). As argued by the Bank of England, ". . . money is endogenous—the Bank [of England] supplies base money on demand at its prevailing interest rate, and broad money is created by the banking system" (King 1994, 264). A well-articulated critique of the multiplier view of credit creation is spelled out in Ryan-Collins et al. (2011). The authors convincingly show that "the vast majority of money [is] created by commercial banks" (16). What we call money are the liabilities, that is, "*numbers* in bank accounts" (18; italics added), created every time a bank grants a loan.

Commercial banks all operate within an electronic clearing system, which nets out multilateral payments at the end of each day, requiring them to hold only a small proportion of central bank reserves to meet their payment requirements. Therefore, it is wrong to claim that the control of the actual supply of central bank reserves is synonymous with the control of the total quantity of money in circulation in the economy. This is so because, along the lines described in post-Keynesian theory, money is endogenous to the economy (Moore 1988). This means that money creation is not conditioned by the existence of a money base determined by the central bank (i.e., the money multiplier is false). However, from a historical point of view,

it might not have been always so. As shown by Ryan-Collins et al. (2011), history is particularly useful, as it helps put our previous discussion of relative exchange rates into perspective: "during the long phase of 'commodity money,' the exchange rate would depend upon the amount of gold, silver or copper contained in the coins of each country" (45). The abandonment of the gold standard after 1971 paved the way for an unstable and disorderly international payments system that still prevails today. Yet this is not the only significant evolution that accounts for modern banking. One must also mention the pivotal role played by information and communication technology and the resulting emergence of e-money (46).

E-money is the digital equivalent of cash, which can be used for making payments without involving bank accounts in the transactions, and acts as a prepaid bearer instrument: digital cash is a system that allows a person to pay for goods or services by transmitting a *number* from one computer to another. The ability to circumvent the traditional bank system, and to inject assets in the economy with no corresponding liability in the books of economic agents, has been magnified by the recent spectacular rise of cryptocurrencies, particularly Bitcoin (Pilkington 2017). Like the serial numbers on real dollar bills, the *digital cash numbers are unique*. Each one is issued by a bank and represents a specified sum of real money (*Webopedia* 2017). With the advent of cryptocurrencies and the blockchain, digital cash numbers have become non-bank assets. The numerical nature of money is thus reinforced by the rise in digital cash transactions. For the European Central Bank (ECB), cashless payment instruments have become widespread today. This evolution has taken place at the expense of banknotes and can be explained by shrinking transaction costs in bank money (ECB 2000).

Let us put this shift toward e-money into a broader perspective. Interestingly enough, "information technology has created a context in which the global market, rather than separate national markets, is the relevant arena for economic competition" (Chase-Dunn 1999, 189). It would thus come as no surprise if a new kind of IT revolution, namely, the shift toward a digital cash society, propelled the generalization to the global arena of the monetary unit of account used in daily economic transactions. The same way the IT revolution might have helped bind the emerging global civil society together; the rise of digital money could well be a unique opportunity to lay the foundation for the invention of a new transnational unit of account (Chase-Dunn 1999, 192). Chase-Dunn (1999) further argues that new communications networks have the potential to "create new political groups and alignments" in the global arena. Therefore, it is reasonable to posit that the modern transnational communications networks, underpinning the technology-driven infrastructures behind the fast-growing flow of e-payments in the world economy, could be a prelude to the formation of a political consciousness favorable to the emergence of a transnational unit of account.

Seventy years after the Bretton Woods conference, the threat posed by global terrorism, and the slaughterous rise of The Islamic State, not to forget the recent sanctions decided against Russia (under the evident diplomatic impulse of the USA), reinforce the idea that the enduring strength of the US dollar rests on the military support behind the pricing of key energy commodities in dollars. It is simply not enough, for the purpose of our discussion, to posit that the numerical nature of money unambiguously bears testimony to the superiority of a new transnational unit of account (regardless of what the latter could possibly be). In fact, the rise of eurocurrency markets from the 1960s onward can be interpreted as an attempt to establish a supranational currency compatible with a dollar-based system. To make a case for a shift away from the latter, we must single out the flaws in the current international monetary and financial architecture, which is precisely the object of the next section.

3. The Flaws in the Current International Monetary and Financial Architecture

3.1. The Flawed New International Financial Architecture

We define the international financial architecture as the framework and set of measures that can help prevent crises and manage them better in the more integrated international financial environment. As Keynes noted, the prosperity of the world economy is contingent on the international financial architecture. The latter must provide opportunities for international investment flows and distinguish between speculative and productive investment (Keynes 1940, 53).

Crotty (2009) reminds us of the instability inherent in unregulated financial markets, with commercial banks shifting away from industrial and commercial capital to investment banking, and extracting profits out of workers' profits (Lapavitsas 2009, 115), conducive to recurring economic crises spurring social and political unrest (Crotty 2009, 563). The structural shift toward a globally integrated and deregulated financialized capitalism characterized by a hypertrophied financial sector (Lapavitsas 2009, 114) was enabled by a paradigmatic shift that originated in the late 1970s and early 1980s and paved the way for the global financial crisis (Crotty 2009, 564). Crotty (2009) shows that the resulting international financial architecture was flawed, as it rested on a weak theoretical apparatus inspired by neoclassical financial economics epitomized by the infamous efficient markets hypothesis. Yet hubris paved the way for the political and institutional legitimization of perverse incentives (notably modes of remuneration of traders and business executives) that exacerbated reckless risk-taking behavior by the major actors of the international financial system. This flawed architecture was aggravated by the complexity of new financial products (Lapavitsas 2009, 136)

beyond the comprehension of most financial operators (Crotty 2009, 567). Prior to the crisis, opaque financial structures and off-balance sheet vehicles had been occulted by the increasingly relied upon value-at-risk methodology (Lapavitsas 2009, 136) used to assess risk. These structured investment vehicles (SIV) were holding sizable quantities of toxic assets with few capital requirements to none (Lapavitsas 2009, 136, 568), thereby amplifying financial fragility (Minsky 1986) with disastrous consequences for the world economy. However, as argued by Norfield (2012, 104), "the rise of derivatives is not a sign of financial 'sophistication,' computer-power and globalised markets, but of a desperate move by capitalists to find another channel through which to promote profits."

3.2. The Flawed International Monetary Architecture

Besides a seriously flawed international financial architecture, the same can be said from the current monetary one. The international monetary architecture is the set of monetary arrangements that allow for the coexistence between regional, national and supranational currency areas; the international monetary architecture might be well structured and organized along a set of agreed rules between members of the international community as between 1945 and 1971, or chaotically as in the post 1971 world wherein "the main currencies float and crush against each other like continental plates" (Soros 1997, 48), and the role of the issuer of the reserve currency has shifted from the World Central Banker to the World Venture Capitalist by holding high return risky investments (Gourinchas and Rey 2007) akin to "toxic waste" (Caballero and Krishnamurthy 2008).

The international monetary architecture is not merely confined to the monetary sphere, as it also has deep implications on global imbalances (Pilkington 2010, 250). Keynes had devised a supranational unit of account called the bancor (Cheng and Wang 2011, 553). Regrettably enough, Keynes's international clearing union (ICU), had it been adopted in 1945, would have proved a useful institutional arrangement (Iwamoto 1997, 183) for mitigating today's disproportionate international macroeconomic imbalances. The ICU would have become the principal means for an expansionist world trade policy (Keynes 1980, 176) favoring high levels of effective demand throughout the world (270). Contrariwise, Lapavitsas (2009, 115-16) points out that the arrangement adopted in 1945 forced developing countries to hold

> vast international reserves that have resulted in net lending by the poor to the rich. Private capital has flown into developing countries earning high returns, but it has been more than matched by reverse flows aimed at accumulating reserves by developing countries, which earn little. These anarchic capital-flows have benefited primarily the USA as issuer of the international means of payment, though they have also contributed to the US bubble of 2001–7.

Stiglitz and Greenwald (2010) are critical of the current dollar-based reserve system, which suffers from three major weaknesses:

First, there is a high level of global macroeconomic volatility, which has highlighted the inadequacy of alternative mechanisms for risk mitigation. For instance, advanced economies must rely on China as a producer and exporter of cheap dollar-denominated goods, whose supply is deemed perfectly elastic to demand. A serious setback of the Chinese economy (say a reduction of several percent of the growth rate) would prove highly detrimental to the global economy. Buiter (2015) raised the fear that the world economy would plunge into a China-led recession. Although the US, as all other economies would undoubtedly suffer from a serious slowdown of the Chinese economy, this situation could paradoxically strengthen the centrality of the US dollar in the international monetary system, resulting in its appreciation. With struggling emergent economies tempted by competitive devaluations, "the US could end up as appreciator of last resort, with the effective exchange rate of the US dollar strengthening significantly" (Buiter 2015). Again, this situation is problematic in a post-crisis scenario as explained by Zhou (2009, 1; italics added) during the climax of the global crisis:

> Theoretically, an international reserve currency should first be anchored to a stable benchmark and issued according to a clear set of rules, therefore to ensure orderly supply; second, its supply should be flexible enough to allow timely adjustment according to the changing demand; third, such adjustments should be *disconnected from economic conditions and sovereign interests of any single country*.

Further research should address the issue of the extent to which an alternative to the current international monetary system would borrow to Keynes' ICU, and what would be the anchor of a Bancor-like monetary scheme in terms of existing commodity markets (Jaeger et al. 2013, 6). As explained by Cheng and Wang (2011, 554), a commodity-based international reserve currency is an ambitious solution, which has been advocated by some notorious economists to mitigate the sheer instability of the international monetary system.

Second, at the heart of global imbalances, there is the generalization of the export-led model of growth adopted by many countries after the Asian crisis in the late 1990s. The ideological tensions around the export-led growth model are exemplified by the contested economic leadership of Germany in the Euro area (Green 2014). The export-led growth model, wherein the burden of adjustment lies on the debtors and not the creditors, is unsustainable for the world taken as a whole. Furthermore, when the burden of adjustment implies austerity measures, the last few years have demonstrated how ineffective and socially destructive these policies were.

Third, there is a high level of natural resource volatility in the global economy. In recent years, the international balance of payments of some countries has deteriorated due to volatility of prices of primary products and raw materials in the world market. Let us mention the spectacular move of the USA toward being a world number one shale gas producer, and substantial fluctuations in oil prices since the summer of 2014. The fact that this volatility is occurring within a dollar-based system reinforces some of the global imbalances that were singled out in the run-up to the crisis. The concomitant economic weakening of oil-producing countries (Russia, UAE, Venezuela, etc.) is a potential source of geopolitical turmoil and economic imbalances, not to forget the war coalition against Islamic State of Iraq and al-Sham Islamic State (ISIS) in Iraq and Syria, marred with geopolitical uncertainty.

These flaws have been briefly surfaced out, as the post-crisis international political economy literature contains many contributions on the subject. However, any quality reflection on the international political economy, along with constructive proposals aimed at improving the state of international monetary affairs, must rest on a rigorous assessment of the feasibility of the alternative.

4. Global Elites and the TCC

4.1. The TCC

Months before the Lehman debacle, financier George Soros (2008) published a comment in the Financial Times titled "The Worst Market Crisis in 60 Years." Soros stated therein that the crisis that erupted in the summer 2007 "mark[ed] the end of an era of credit expansion based on the dollar as the international reserve currency," leading to "a radical realignment of the global economy, with a relative decline of the US and the rise of China and other countries in the developing world," threatening to "disrupt the global economy and plunge the world into recession or worse" (Soros 2008). The subsequent Great Recession proved Soros to be eminently endowed with foresight. In this article, we argue that, albeit less radical, the prediction of a paradigm shift in monetary affairs is also a sound one. Chase-Dunn (1998) distinguishes between two dimensions for assessing world monetary reform: the world-economy *à la* world-systems theory and decentralized polity. In a capitalist economy, the world economy is at first glance characterized by highly decentralized polity with its pro-market ideological bedrock. The hypothesis of a TCC nuances this analysis. In a wave-like fashion, a new locus of power is hovering around the side door of the global economy, that is a conceptual space wherein merchants, Smith (1776, 456) once argued, are no longer citizens of any particular country. This new locus of power embodied by the TCC might help us address some of the new concerns raised by the advent of the global financial

crisis (GFC), along with the possible reform of the international monetary system (Caliari 1994, 588). The Great Recession has strengthened a sense of urgency among policymakers (589). The current international monetary system was designed (or more accurately came about) some forty years ago at a time when the role of the global elites was drastically different. Although it proved resilient throughout the 1980s and the 1990s, or even at the dawn of the new century, this resilience has been challenged, and even disproved on the occasion of the GFC. For the Chartered Insurance Institute (2012, 4), the challenges faced by the global economy are manifold. First, there is the ongoing Greek crisis that culminated in 2015 (*Reuters* 2015) with a catastrophic outcome for the democratic powers of the nation-state in the face of more invisible supranational economic forces driven by an opaque leadership matrix that eventually forced Syriza, the quintessential anti-austerity political party in Europe to negate its own political values and raison d'être following the organization of a farcical referendum. The global economy is now suffering from a serious setback originating from emerging countries, whose contribution to global growth was close to two-thirds following the GFC. The world debt crisis has not been solved, and the growth versus austerity conundrum has been left unanswered. China is in the forefront of global players advocating a reform of the global monetary system (Zhou 2009).

Until the 1970s, US corporate elites played a stabilizing role, as they aimed to

> moderate political views and a political strategy that was pragmatic in its dealings with government, labor, economic policy, and social issues [and] to act collectively to advance its [the elite's] interests which went above and beyond those specific to the individual firms with which they were affiliated. (Mizruchi 2013, 13)

Mizruchi (2013) analyzes the political gridlock and the leadership crisis of the US business elite from the 1970s and 1980s onward. With the demise of post-war Keynesian policies, or embedded liberalism, the world witnessed the emergence of the neoliberal era (Pilkington 2015). This post-Bretton-Woods leadership crisis, so to speak, inherent in US corporate elites analyzed by Mizruchi (2013) has been equated to a broader and much deeper crisis that of neoliberalism itself (Pilkington 2015). This leadership crisis resulted in a broader governance crisis at the national level. Consequently, the global leadership of the USA, in the post-war period, has morphed into more diffuse stateless and transnational elites independent of nation-states (Robinson 2014). Following Robinson (2014), we argue that the TCC incarnates this new age of global capitalism. Stoker et al. (2011) have developed a reflection on the meaning of cosmopolitan citizenship, which they deem as old as the idea of citizenship itself. Kant ([1795] 1970) once imagined that citizens of individual countries could become citizens of a universal state of human beings.

Global citizenship in the twenty-first century might in fact echo this ancient idea, although the conceptual task today is much more strenuous (Furia 2005, 333).

Globalization is arguably shedding new light on this old idea of cosmopolitanism (Eðvarðsson 2013, 6). Chase-Dunn (1998) refutes the idea that the interests of the capitalist class might coincide with the interests of a particular state. For him, subgroups of the world capitalist class control particular states in a multicentric structure. The global corporation is the abstract transnational locus where members of the TCC can be found forming the new visage of the global business elite:

> I live the worldsourced life. As CEO of Lenovo, I am an American CEO based in Singapore. Our chairman, who is Chinese, works from North Carolina. Other top executives are based around the globe. A meeting of my company's senior managers looks like the United Nations General Assembly. My company is like some of the world's most popular consumer products. It may say "Made in China" on the outside, but the key components are designed and manufactured by innovative people and companies spread across six continents. (Amelio 2007)

TCC members are all "those people who see their interests . . . and/or the interests of their countries of citizenship, as best served by identification with the interests of the capitalist global system in particular the interests of the transnational corporations" (Sklair 1995, 8). They are the owners and controllers of TNCs and their local affiliates: globalizing bureaucrats and politicians, globalizing professionals, consumerist elites (Sklair 2000). TCC members are global elites who do not organize their professional lives within national functional divisions (R&D, marketing, product development, etc.). Instead, they evolve in corporations, organized in such a way that global teams deploy the strategy of the corporation across continents while linked through a savant blend of interactive screens, powerful computers and three-dimensional digital simulation. Sklair (2000) explains that the TCC is not united and that its elitist function is not uniform on all issues that affect the global economy. Nevertheless, the TCC is conceptually relevant and helps us understand the emerging pattern of global power structures. Thanks to global inter-linkages between its members, the TCC performs an ideological function through its pervasive influence on the media, business education or cultural codes. The TCC is also mirrored by the global rise in income inequality (Alvaredo et al. 2013).

Vitali et al. (2011, 1) have made substantial progress in conceptualizing the TCC:

> Transnational corporations form a giant bow-tie structure and that a large portion of control flows to a small tightly-knit core of financial institutions. This

> core can be seen as an economic "super-entity" that raises new important issues both for researchers and policy makers.

If the current dysfunctional global monetary system is equated to a global public good (Kaul et al. 1999), a new architecture could only arise out of a global coordinated effort (Stoker et al. 2011).

4.2. Social Movements and Collaborative Networks

Yet no superclass should be relied upon for the promotion of global public goods, because the interests of the TCC are intertwined with those of the capitalist global system as a whole (Sklair 1995). How do social movements come into the picture?

> Social movements are defined as networks of informal interactions between a plurality of individuals, groups and/or organizations, engaged in political or cultural conflicts, on the basis of shared collective identities. (Diani 1992, 13)

Social movements (Cohen and Rai 2000) bear a resemblance to the cooperative:

> an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically controlled enterprise . . . [further explaining that] cooperatives are based on the values of self-help, self-responsibility, democracy, equality, equity, and solidarity. (The International Cooperative Alliance 2016)

This requires the decentralization of economic processes through the establishment of collaborative networks akin to the Commons (Dew 2015). Hobson (2012, 1076) argues in favor of "bottom-up processes initiated by everyday actions [which can] transform or shape the local, national, regional and global realms." This is reminiscent of the distinction between top-down and bottom-up approaches to world governance (Cheng and Wang 2011; Brecher et al. 2000).

4.3. A Transnational Unit of Account Originating from a Bottom-Up Approach

4.3.1. Bitcoin, Blockchain Technology and Democracy 2.0

Bitcoin is the most famous cryptocurrency worldwide (Pilkington 2016). Secured by open-source cryptography, this groundbreaking monetary instrument aims to accompany the shift away from an international monetary system structured around nation-states toward a true transnational alternative. Far from the speculation-driven or drug dealer stereotype, ethnographic studies have shown that most

Bitcoiners are not wealthy individuals, share a sense of community, and are frustrated by the current capitalist system (Spotz 2014). Satoshi Nakamoto (2008; emphasis added) once affirmed on a cryptography mailing list that

> *You will not find a solution to political problems in cryptography.* Yes, but we can win a major battle in the arms race and gain a new territory of freedom for several years. Governments are good at cutting off the heads of a centrally controlled networks like Napster, but pure P2P networks . . . seem to be holding their own.

Hayase (2015) believes that cryptocurrencies represent a step in the right direction to move away from a civilizational model dominated by personal gain and competition, by making "permissionless transaction and innovation possible, as well as removing monopolistic control of the production and transfer of money." However, one should not discard top-down counter initiatives or even attacks launched by "significant adversaries . . . such as large multinational organizations or state-level actors" (Gehani 2016, 40).

More importantly, the underlying blockchain (Pilkington 2016) must be emphasized for its decentralized and bottom-up nature (Giancarlo 2016). Decentralized autonomous organizations (DAOs) propelled by blockchain technology are likely to reshape the very nature of the firm within the capitalist system (Tapscott and Tapscott 2016), and pave the way for a more democratic global society (Bollier 2015).

DAOs are essentially open-source and autonomous computer programs that used to incentivize and manage participation and resources across a decentralized Commons (Dew 2015). What is at stake with these innovations, such as crowdfunding and the Internet of Things (IoT), is nothing less than the democratization of capital, which has the power to transfer power from Wall Street to Main Street (Maney 2016).

4.3.2. The Pitfall of Platform Capitalism: A New Threat to Global Labor

Srnicek describes the rise of platform capitalism characterized by the expansion of Internet transnational giants, such as Facebook, Google, Apple, etc. These monopolistic hyper-capitalistic platforms deter any hope for a post-capitalist world society (Srnicek 2017) insofar as the Internet increasingly resembles a Monopoly board (Wu 2010). *The Economist* (2016) refers to "global digital emporiums that have come to dominate the technology industry." On top of targeting multiple classes of customers, these platforms exhibit strong network effects and are controlled by one company, a type of centralization that runs counter to the abovementioned blockchain-driven democratization of capital.

Sepulchre (2016) points out that the platform capitalism model is often dressed in sharing and collaborative clothes, whereas reality is far less glamorous. Behind this seemingly voluntary collaboration between independent workers and a

platform, one finds novel relations of subordination, and even exploitation, more pernicious than in wage labor relations: these pseudo independent workers constitute a precarious and low-cost workforce.

The rhetoric of the new economy at the dawn of the new millennium with its immaterial forms of labor made of analytical and symbolic tasks (Hardt and Negri 2000, 293) with value added generated through the information sector with the help of intangible services, such as design, marketing and branding (Kaplinsly 2005), concealed a type of value capture from the primary and secondary goods sector (Smith 2012), with the emergence of a new aggregate or collective worker (Marx 1990, 1040). Behind the appealing prospects of integrated networks of smart products driven by blockchain applications (Dew 2015), one should not overlook that

> the prosperity unleashed by the digital revolution has gone overwhelmingly to *the owners of capital and the highest-skilled workers*. Over the past three decades, *labour's share of output has shrunk globally from 64% to 59%.* Meanwhile, the share of income going to the *top 1%* in America has risen from around 9% in the 1970s to 22% today. (*The Economist* 2014; italics added)

Far from having abolished class struggle, the digital revolution may have indeed contributed to the hyper-dominance of the TCC.

> Innovation has brought great benefits to humanity. Nobody in their right mind would want to return to the world of handloom weavers. But the benefits of technological progress are unevenly distributed, especially in the early stages . . . In the 19th century it took the threat of revolution to bring about progressive reforms. Today's governments would do well to start making the changes needed before their people get angry. (*The Economist* 2014)

4.3.3. Promoting Initiatives from Developing Countries

A scheme for a stateless unit of account could be led by developing countries, thereby rebalancing the current forces at play in world governance arrangements (Cheng and Wang 2011). The transnational unit of account will be jointly issued by the New Development Bank (Pilkington 2016) and the Asian Investment Infrastructure Bank. Although the Chinese economy is on the verge of surpassing the American one (Barry 2016, 123), and "the yuan is already accepted as fiat currency in Mongolia, Pakistan, Thailand, and Vietnam" (124), we agree with Zhou (2009) that "such adjustments should be disconnected from economic conditions and sovereign interests of any single country." Development finance shall be made

available through a transnational fund denominated in this new currency and targeted at Asia and Africa.

The New Development Bank focuses on infrastructure projects with authorized lending of up to $34 billion annually. It will provide financial assistance to countries suffering from economic volatility induced by recent US monetary policy. The financing needs of Asia are enormous and have been estimated at $8 trillion in 2010–2020 by the Asian Development Bank (Steinbock 2015).

4.3.4. Beyond National Agreements and the Role of Highly Skilled Labor

Regional agreements should be preferred over national ones as cities and regions proved more resilient during the global crisis. Crescenzi et al. (2016; emphasis added) have shown that resilient regions are those that have benefited from a better educated and skilled labor force:

> human capital is the single most important regional factor associated with better resistance to economic shocks. . . . This capability does not necessarily derive from technology-driven processes supported by research and development investment, but is more likely to be *boosted by a skilled labour force*.

This is a learning lesson for all developing regions and countries endeavoring to overcome the adverse consequences of the global financial crisis. However, it must be noted that the human capital terminology does not go without difficulties (Selwyn 2015). Any comprehensive analysis of the post-crisis scenario should thus endorse the idea that the capital-labor relation underpins global systemic transformations (7).

5. Conclusion

In this article, we have investigated the role of global business elites in promoting a new transnational numerical form for world output. After listing the theoretical arguments in favor of the numerical nature of money, reinforced by the rise in digital money in the recent period, we have identified structural causes accounting for the flawed international monetary and financial architecture in the run-up to the GFC. The viability of world monetary reform was then assessed through the lenses of international relations and with the help of a revisited definition of the TCC. More research is needed to understand the successful determinants of the geopolitical, institutional, technological, economic and financial dynamics that could help us move away from the present "disproportionately dollar-dominated global monetary and financial system" (Eichengreen 2011) toward an alternative

system channeling the transnational forces at work in the world, and help establish a global public good of a new kind, for a more democratic and fairer world.

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