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### Capitalized money, austerity and the math of capitalism

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## Capitalized money, austerity and the math of capitalism

### Abstract

The Author(s) 2020. This article seeks to contribute to the existing critical debates on money and debt by advancing three main arguments. First, largely due to such debates' tendency for description, the article argues that in the heterodox literature on money and debt there is no convincing critical theory of money creation. For this reason the authors introduce the theory of capital as power and how it can help us theorize the consequences of present money creation. Second, the authors demonstrate how the capitalization of money creation by a minority of investors not only leads to the political chase for unsustainable economic growth, but also how there is a differential distribution of interest upwards that helps generate greater economic inequality in the United States. Third, they argue that in an era of declining growth, dominant owners of capital seek to recapture their expected return on investments by extracting a greater share of the national income from the vast majority of citizens through a fiscal politics of austerity.

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# Capitalized Money, Austerity and the Math of Capitalism

Tim Di Muzio and Richard H. Robbins, published in *Current Sociology*

## Abstract

This article seeks to contribute to the existing critical debates on money and debt by advancing three main arguments. First, largely due to such debates' tendency for description, the article argues that in the heterodox literature on money and debt there is no convincing critical theory of money creation. For this reason the authors introduce the theory of capital as power and how it can help us theorize the consequences of present money creation. Second, the authors demonstrate how the capitalization of money creation by a minority of investors not only leads to the political chase for unsustainable economic growth, but also how there is a differential distribution of interest upwards that helps generate greater economic inequality in the United States. Third, they argue that in an era of declining growth, dominant owners of capital seek to recapture their expected return on investments by extracting a greater share of the national income from the vast majority of citizens through a fiscal politics of austerity.

## Keywords

Banking, capitalism, capitalization, finance, financialization, inequality, money, neoliberalism

Since the capitalist world is awash in debt it is incredibly important that we understand how money is produced in capitalist economies and the consequences this production has for our societies and the policy options available to political leaders. It is now clear that in most advanced capitalist economies, the vast majority of new money is produced by commercial banks when they make loans to willing borrowers (McLeay et. al. 2014; Ryan-Collins et. al. 2014). Most of this money exists in the digital universe of computers with a small amount (varying by country) of notes and coins making up the remainder of the money supply. Notes and coins remain the purview of government agencies, but they do not make up the majority of currency in circulation in advanced economies. Challenging the orthodox money multiplier view, heterodox economists have long argued this is the case labelling it 'endogenous money' (Moore 1979). While this literature has been an advance on our understanding of money creation, most of the heterodox literature on money is concerned with system description rather than system critique (Huber 2014).

To be clear, what we mean by ‘system description’ is that this literature has not only been concerned to describe how we arrived at the present fiscal-monetary order in modern states but also how new money enters the economy (Bell 2000; 2001a; 2001b; Graziani 2009; Kim 2011; Lau and Smithin 2002; Semenova 2011; Sgambati 2016; Smithin 2000; Werner 2014a; 2014b; Wray 1998; 2002; 2004; 2015). In our view, this literature is extremely valuable but limited in that it does not examine the consequences of present money creation but merely sets out to describe how the monetary system may (or may not) function. Notable exceptions that attempt both a description and a critique in the sociological and political economy literature include Ingham’s (1999; 2000; 2004) sociology of money production and the generation of inequality, Rowbotham’s (1998) Douglasian inspired critique of mounting debt and the need for constant economic growth, Huber’s (2016) call for an alternative sovereign money system, Creutz (2010) and Kennedy’s (1995) work on interest redistribution and the potential for interest and inflation free money, Pettifor’s (2017) critique of mainstream Economics and money creation, Mellor’s (2010) work on the undemocratic nature of money creation and possible alternatives, Di Muzio and Robbins’ (2016) work on debt as a technology of power and the rise of neoliberalism, and finally, Di Muzio and Noble’s (2017) synthesis of existing critiques with new empirical research that reinforces some of the key claims made by the more critical literature on money.

In this article we seek to contribute to the existing critical debates on money and debt by advancing three main arguments. However, before we consider these arguments we must introduce the caveat that there is a vast literature on ‘finance’ across the social sciences. Our concern in this article, however, is only with commercial banks who can create money by issuing loans to borrowers. Thus, our focus is not on ‘finance’ (or the literature on the financial industry) which includes many other actors who do not create new money. With this in mind we can now turn to our main arguments. First, largely due to their tendency for description, we argue that in the heterodox literature on money and debt there is no convincing critical theory of money creation. This does not mean there has been an absence of critiques of money creation as per some of the exceptions highlighted above but that there has been no explicit *critical political economy theorization* of money and debt in this literature. For this reason we introduce the theory of capital as power and how it can help us theorize the consequences of present money creation. **This introduction is what largely sets us apart from existing literature on money creation.** Second, we want to demonstrate how the capitalization of money creation by a minority of investors not only

leads to the political chase for unsustainable economic growth, but also show how there is a differential distribution of interest upwards that helps generate greater economic inequality in the United States. Third, we argue that in an era of declining growth, dominant owners of capital seek to recapture their expected return on investments through a fiscal politics of austerity (Blyth 2015).

To shed light on these arguments, we have organized this article in the following way. First, we introduce the capital as power perspective and how it can help us understand the capitalization of money creation and how this benefits a minority of dominant owners. Dominant owners are the tiny but global group of individuals and families who own most of the world's income generating assets and/or a greater proportion of them relative to the rest of the population. There are an estimated 12 million dominant owners defined by having more than one million dollars in investable assets (Di Muzio 2015). Second, we consider how the ownership of commercial banks allows for the upward distribution of interest and how this helps generate greater inequality on a global and local scale. In the third section we examine the link between declining growth and the politics of austerity. We conclude this article by examining the social and political impacts of the prioritization of capital and the dictate that "creditors always come first."

## **The Capitalization of Money as Debt**

As stated in the introduction, the heterodox literature on money creation has no explicit critical political economy theorization by which to understand the production of commercial bank money and mounting debt in the capitalist world. For this reason, we advance the capital as power theory of critical political economy to understand the capitalization of money creation. To investors, capitalization means at least two things: 1) the total market value of a firm, calculated by multiplying the price of one share by the number of shares outstanding (also known as market capitalization), and 2) the act of discounting a future income stream to a present value and adjusting future expectations by some factor of risk. In the capital as power framework, the act of capitalizing an income stream is the primary act made by capitalists or investors and one of the major features of this ritual is that income generating assets (e.g. shares in corporations or the ownership of government bonds) are differentially owned.

According to Krier's (2009) research, the capitalization ritual was known in the early twentieth century if not before but it did not become the all-pervasive way to value firms and other

income generating assets until the 1990s. According to *statista*, the market capitalization of the global banking industry currently sits at US\$ 6.9 trillion by Q4 2018 making it *the* leading sector of the global economy.<sup>1</sup> This is hardly surprising given that individuals, non-financial corporations and governments need access to the credit commercial banks can provide. The question from the point of view of capital as power is what dominant owners are capitalizing when they own shares in the banking industry. The most obvious answer is that the leading shareholders of banks anticipate that the sector will generate greater earnings relative to its rivals in other sectors of the global economy. However, as Nitzan and Bichler (2009) argue, earnings are a matter of exercising power across a broad social spectrum, not a narrow offshoot of the production of goods as Marx's labor theory of value suggests. As it turns out, we now know that the dominant owners of banks are capitalizing a very special power unique among the corporate universe: the power to create new *official* money as credit/debt bearing interest as well as issue fines and fees.<sup>2</sup>

A future research agenda in the capital as power tradition would examine how bankers specifically use their power to generate earnings (e.g. lobbying to change laws, the introduction of new fees etc.) but in this article we are merely concerned with their overall power to create new money as debt.<sup>3</sup> Given the centuries long confusion over the creation of new money, it is worthwhile to address current research on the expansion of the money supply.

According to Werner's research (2014a), the most common theory of the banking industry is that they are intermediaries between savers and borrowers. In this conceptualization, a bank merely takes in deposits and loans a portion of these deposits to willing, and one would presume, creditworthy borrowers. We can immediately dispense with this theory since it cannot, by logic, explain the expansion of the money supply, only money's greater circulation. The second dominant theory, and the one advanced in most first year Economics courses is fractional reserve theory. This theory states that a central bank injects money into an economy at some point in time. Then, as money circulates and people make deposits, banks as an integrated industry have the ability to expand the money supply since by law they only have to keep a fraction of deposits in reserve. However, as mathematically and logically demonstrated in Di Muzio and Noble (2017), the theory is sleight of hand to those unwilling to crunch the numbers. If close attention is paid to the math of the fractional reserve theory it, like financial intermediation theory, can only ever explain the re-circulation of money, not the creation of new money. What is more, many countries have no legal reserve requirement (e.g. the UK, Canada, and Sweden).

Since we have empirical evidence that the money supply of virtually all nations has expanded over time, as Werner (2014a) points out, there must be an empirically correct theory of how new money is created in our societies. As it turns out, the empirically valid theory is credit creation theory. The idea that individual banks can create money as credit/debt by issuing deposits to customers has a long pedigree stretching back to the late nineteenth and early twentieth century. However, as Werner (2014a) suggests, this theory was largely discredited by the emerging ‘science’ of Economics, perhaps most particularly because the leading economist of the early 20<sup>th</sup> century, John Maynard Keynes, ridiculed colleagues who held to the theory. Stated simply, credit creation theory holds that new money is created when banks make loans to customers. The loan is held as an asset on the balance sheet of the bank, while the corresponding new money extended as credit is held as a liability on the bank’s balance sheet. In other words, loans create deposits rather than the previously held (fractional reserve) theory that deposits create loans. The empirical proof – which has been reviewed elsewhere (Di Muzio and Robbins 2017) can be found in the seminal work of (Werner 2014a; 2014b) and a recent statement by the Bank of England:

In the modern economy, most money takes the form of bank deposits. But how those bank deposits are created is often misunderstood: the principal way is through commercial banks making loans. Whenever a bank makes a loan, it simultaneously creates a matching deposit in the borrower’s bank account, thereby creating new money (McLeay et al. 2014: 1).

The power of banks to create new money as loans to their customers, as well as charge fees and fines, is a tremendous structural, redistributive and allocative power. It is this power of money creation at interest, along with the power of the banks to shape the terrain of social reproduction that dominant owners capitalize when they purchase shares in the banking sector. We should make no mistake that this is an extraordinary and exclusionary power – if other institutions had the right to create new official money – then the power of the banks would likely dwindle. Moreover, if the public force or democratic governments took control of creating new money, there would be little role for banks to play and profitability and their capitalization would plummet as their monopoly position vanished. But as it stands, only banks are permitted to create new official money as debt bearing interest. The reasons for this exclusion, anchored in private ownership, are historical rather than inevitable or natural. There is no technical reason why money has to be created in such a fashion; it is a historical legacy of power relations whereby international and

national creditors managed to subjugate state/sovereign authorities to their monetary power from the 17<sup>th</sup> century on (Desan 2014; Di Muzio and Robbins 2017). We now turn to examining some of the implications of allowing banks to create money as interest bearing debt.

## **The Explosion of Debt and Interest Redistribution**

As of 2017 there is almost \$240 trillion in global debt, money owed by households, corporations, financial institutions and governments (see Table 1). It represents more than a 170% increase since 2000. While sovereign debt gets most of the attention, it is the total debt load that tells the more dramatic story and raises the central question of differential ownership of debt instruments and the differential accumulation of interest. Differential accumulation, a term coined by Nitzan and Bichler (2009), means that capitalists aim to accumulate more money registered primarily in capitalized assets faster than their rivals attempting to do the same. In other words, capitalists do not all have the same rate of return. For example, if one dominant owner of debt instruments is making a yearly return of 20 percent based on a stream of interest received on capitalization and another is making a yearly return of 5 percent, the ratio of differential accumulation is 1:4. Put simply, every time the second dominant owner (Mr. 5 percent) makes one dollar, the first dominant owner makes four.

<b>Table 1: Global Debt in Trillions of Dollars by Type, 2000, 2007, 2014, 2017</b>						
Year	Types of Debt in Trillions					
	Household	Corporate	Government	Financial	Total	Debt as a % of GDP
2000	19	26	22	20	87	246
2007	33	38	33	37	142	269
2014	40	56	58	45	199	286
2017	47	70	60	60	237	-----
Data source: Dobbs et al 2015: 1; Tanzi 2018						

The fact that banks create money as interest-bearing debt prompts two questions: first, how much interest does the issuance of money as debt generate, and, second, who largely benefits from

that interest? We use figures from the United State since it remains the largest capitalist economy by GDP and, as Streeck (2014: 5), points out represents a system common among all western developed nations. Figures 1 and 2 show respectively the net amount of interest paid in the U.S. from 1969 to 2015 and the interest paid as a percentage of GDP.

<FIGURES 1 & 2 ABOUT HERE.

In 1969, interest as a portion of GDP in the U.S. amounted to some \$126 billion or a little less than 9 percent of the national income. By 1982, interest payments amounted to over \$1 trillion, or some 30 percent of the national income. The rapid rise in interest as a share of U.S. national income was likely due to the removal of the cap on interest rates due to the rise of inflation in the late 1970s and early 80s. Those caps, however, were never replaced, even when inflation rates declined to historically low levels. Since the early 1980s the share of national wealth represented by interest has fluctuated between 15 and 31 percent, but since 1980 has averaged a little over 25 percent of GDP. Essentially, this represents a tax on the production of money and is the dominant income stream of commercial banks and the basis for their capitalization.<sup>4</sup>

To illustrate the extent of this transfer of wealth consider that the amount of interest paid each year in the U.S. has, since 1978, exceeded the amount paid in Federal taxes (Figure 3).

<FIGURE 3 HERE>

As it is presently constituted, every economic transaction - whether the purchase of a commodity, a rent or mortgage payment, a meal at a restaurant, or payment for some service - must contain interest on outstanding debts. Even a portion of income and indirect tax payments will go to service the interest on the public debt held by bondholders. In other words, a portion of the price of virtually everything purchased and every tax paid is interest on a loan through which money was injected into the economy (see Brown 2013; Creutz 2010). The question is who primarily benefits from the accumulation and the rising capitalization of commercial banks? It is difficult to know with any precision but one way to approximate the differential benefits is to consider the distribution of owned assets. Table 2 illustrates the distribution of wealth generating assets by wealth percentile documented by Edward N. Wolff (2012). As one would expect, the top 1%<sup>5</sup> has a significantly higher percentage of interest-bearing assets, and a significantly lower amount of debt.

<b>Table 2: Total Income Generating Assets by Percentile of Wealth: 2010</b>			
<b>Asset Type</b>	<b>Top 1%</b>	<b>Next 9%</b>	<b>Bottom 90%</b>
Stocks and Mutual Funds	48.8	42.5	8.6
Financial Securities	64.4	29.5	6.1
Trusts	38.0	43.0	19.0
Business Equity	61.4	30.5	8.1
Non-Home Real Estate	35.5	43.6	20.9
<b>Total Assets for Group</b>	<b>50.4</b>	<b>37.5</b>	<b>12.0</b>
<b>Total Debt for Group</b>	<b>5.9</b>	<b>21.6</b>	<b>75.5</b>
Source: Wolff 2012: 57			

In sum, by issuing money as debt, first to governments as a form of ‘public’ debt and then to private individuals, the owners of commercial banks and their corporate managers have created a financial system that provides a steady stream of capitalized income to banks and private investors that guarantees them a source of power and influence with which to protect their varied interests. This stems from the ability of commercial banks to issue mortgages, personal loans, car loans, credit cards, home equity loans and business loans.. But the automatic redistribution of interest and fees upwards from debtors to creditors is not the only ghost in the capitalist debt machine. Additional concerns are the structural deficiencies in the ‘math of capitalism’ and whether any rate of economic growth can potentially ever repay outstanding debts. We turn to a discussion of these two concerns in the following section.

## The Math of Capitalism and the Growth Rate

While there has been plenty of debate on the crises of capitalism, very few have stopped to consider the structural deficiencies in the math of capitalism. The first deficiency is that when banks create loans, they do not create the interest that will be owed on the loan. For example, if a bank creates a loan of \$500,000 for a house at 5% interest over 25 years, it does not create the \$625,000 needed to repay the interest since the borrower now owes \$1,125,000 (if annual simple interest is applied). Therefore, there is always more debt outstanding in the economy than there is the ability to repay. The only way this structural gap can temporarily be overcome is through additional individuals and institutions taking on more debt with a later maturation date than loans made to earlier parties. This structural feature of global capitalism and the specific way new money is introduced in most economies encourages competition for greater differential returns so debt can be repaid (others will go bankrupt) and the greater monetization of society and nature, or what is the same, economic growth.

Second, as C.H. Douglas (1931) pointed out long ago, the math of capitalism creates an unbridgeable abyss between the total price value of goods and services outstanding on the market and the available purchasing power in the economy. As Douglas suggested, this structural feature of capitalism necessitates the extension of credit if the entire capitalist system is not to fall into interminable crisis. Quite obviously, this puts commercial banks and their ability to create new money as loans in an enviable position since governments, businesses and individuals have been largely unable to survive without credit – particularly in the capitalist core. Here, it is absolutely senseless, as some suggest, that businesses and individuals ‘live within their means’. If governments, businesses and individuals only spent what they earned, mass economic depression would ensue due to a lack of purchasing power.

A third dimension of the math of capitalism is the rate of growth in the global economy necessary to repay outstanding debts. A recent report by the global consulting agency McKinsey (2015 see Table 3) calculates the necessary growth rates for selected countries to *begin* to pay down their sovereign debt, although *not other categories of debt* (e.g. consumer, corporate, municipal, financial, etc.).

<b>Table 3: Real GDP Growth Rate to Begin Reducing Public-Sector Debt: 2014</b>				
Country	Growth Rate Projection 2014-2019*	Additional Growth Rate Necessary to Begin to Reduce Public Debt	Total Growth Rate Required to Begin to Reduce Public Debt	Government Debt-to-GDP Ratio
Spain	1.7	3.8	5.5	132
United Kingdom	2.5	2.2	4.7	92
France	1.5	2.5	4.0	104
Portugal	1.4	2.5	3.9	148
Finland	1.6	2.1	3.6	65
United States	2.8	0.3	3.1	89
Netherlands	1.6	1.3	3.0	83
Japan	1.1	1.8	2.9	234
Italy	0.9	1.4	2.3	139
Belgium	1.6	0.6	2.2	135
Germany	1.6	0	1.6	80
* Based on average GDP growth forecasts of IMF, IHS, EIU, Oxford Economics, OECD and McKinsey Global Growth Model				
Data Source: (Dobbs et al 2015: 32)				

Thus Spain, growing at 1.7 percent a year would need to grow an additional 3.8 percent just to begin to pay down its sovereign debt, or, in effect, to be running without a budget deficit. Countries such as Greece and Ireland require little additional growth, but those countries are

already on IMF and European Central Bank imposed austerity programs. Since government debt constitutes less than one-third of all global debt, it is not unreasonable to suppose that to service all outstanding debts would require growth rates approaching 15 percent a year! Yet virtually all estimates of national and global growth predict a *slowing* of the rates of growth at the same time as global debt is increasing (Piketty 2014: 206 see also Figure 4).<sup>6</sup>

<FIGURE 4 HERE.

Looking to economic growth to repay debt faces an additional obstacle that is equally, if not more, sobering: as economies generate more debt and material goods, that is as they grow wealthier, it becomes more and more difficult for them to sustain growth. Economists inexplicably call this the “convergence factor,” reasoning that developing countries, which are able to maintain higher growth rates, will eventually “converge” to the growth rate of advanced economies (Jones 2002: 63ff; Barro and Xavier Sala-i-Martin 2004: 462–463). They attribute this to diminishing returns to capital but the reason for the gap has more to do with the mathematics of exponential growth.

First, growth is exponential not arithmetic. Take for example the lumber industry (and the destruction of forests). From 1990 to 1995 there was about a 3.6 percent increase in trees consumed in the United States (Howard 2007). In actual trees that amounted to an increase of about 1.5 million trees over the period. If the same 3.6 percent was maintained from 2005 to 2010 the number would be 2,550,000 trees. The same percent but an actual increase of over 1,000,000 trees consumed. Undoubtedly, such a rate of growth cannot go on indefinitely even though trees can be renewed. The same problem applies to automobiles. While global automobile production varies from year-to-year, overall production in the 18 years between 1999 to 2017 went from some 56 million cars to over 97 million cars, an increase of *41 million cars* and an average yearly growth rate of 2.8 percent. If the industry maintained the same 2.8 percent growth rate over the next 18 years, it would need to produce *58 million more cars* over the same period (see OICA 2017).

Second, maintaining a compound rate of growth, as David Harvey (2010: 216) notes, requires institutional investors and banks to find more and more profitable investment opportunities, some 80 percent of which are debt instruments (see Figure 5). Currently there is approximately \$293 trillion in global assets (Ro 2015), with \$100 trillion alone controlled by institutional investors in pensions and insurance, an amount that has more than doubled since 2000

(OECD 2014: 7, 9). Clearly finding places to invest this money and retain the long-term average of return on capital of from 4 to 6 percent must become riskier and more difficult (see Piketty 2014: 206).

<FIGURE 5 ABOUT HERE.

A third problem of maintaining growth is that the more debt we have, the more future income must be channeled to pay both principal and interest, thus reducing the money people have to spend on goods and services. This too slows economic growth (Butler 2014).

Finally, as more money seeks a place to grow, competition for viable investments increases their cost, thereby reducing the expected rate of return (Irwin 2014). For wealth managers seeking potential opportunities for clients to realize a decent rate of return relative to risk, the task becomes more difficult. As one investor put it, “If you ask me to give you the one big bargain out there, I’m not sure there is one.” Investment advisors are increasingly telling their clients to “lower their expectations” (cited in Dobbs et al 2016).

The difficulty (or impossibility) of maintaining exponential economic growth poses a problem with major economic, social and political implications. How is it possible for dominant owners of income-generating assets (the majority interest-bearing) to realize their historic returns at an average of 4 to 6 percent? We suggest that the policies imposed by nation-states and subsumed under the term “neoliberalism” are designed to counter the negative impact of slower growth on the expected rate of return to the 1%.

### **Neoliberal Austerity**

This is not the place to examine the literature on neoliberalism (see e.g. Harvey 2005; Mirowski and Plehwe 2009; Davies 2014). As is well recognized, neoliberalism emerged as an approach to economic policy largely as a result of the so-called “stagflation” of the 1970s characterized by high inflation and a lower economic growth rate. Or, as Davies (2014: xiv) notes, it is “the disenchantment of politics by economics,” that is making non-market institutions more “business-like, but with major social and political consequences.” Thus one result, as Streeck (2014: 79-90) notes, is the state prioritizing the interests of what he calls the “Marktvolk” (the people of the market) at the expense of the “Staatsvolk” (general citizenry).

The IMF, for example, acting largely as a global debt-collector, imposed structural adjustment on poorer countries that included currency devaluations, privatization of state assets, a reduction of state spending for social causes, and so on, largely to enable lenders to collect on their investments. The consequences of the IMF prioritizing debt-repayment in emerging economies, above all else, were and are disastrous. For example, economists James K. Boyce and Léonce Ndikumana (2011), calculate that each dollar in external debt service is associated with a decrease of about \$0.29 in public health spending. Consequently, each million dollars in debt payment to banks and investors results in a \$290,000 reduction in health spending and translates into a total of 77,000 infant deaths per year in Africa.

The counterpart to structural adjustment in emerging economies is austerity measures in wealthy countries, but with largely the same purpose—to assure that investments realize a traditional rate of return in the face of inadequate growth in GDP. This requires, as it does in poorer countries, the expropriation by the wealthy of a greater and greater share of GDP. Thus the percentage of U.S. national income distributed to wage-earners from 1974 to 2016 has consistently declined relative to GDP (see Figure 6).

<FIGURE 6 ABOUT HERE>

This increasingly disproportional distribution of the national income in the United States has been accomplished through various state actions. Generally these actions run counter to policy actions favored by the vast majority, but that, given their power and wealth, are favored by the wealthiest (Gilens and Page 2014, see also Braun 2018).

First, taxes on the wealthy were reduced (See Figure 7). Before 1980, the top tax bracket in the United States was 70 percent, where it had been since the 1930s and down from 90 percent in the early 1970s. It has since been reduced in 2017 to 22 percent. Furthermore, the profits on money earned through investments are taxed at about half the rate of income earned through wages. This greatly increased economic inequality as well as reduced financial support for the collective good (e.g., education, maintenance of infrastructure, environmental cleanup, and so on).

<FIGURE 7 ABOUT HERE>

Second, labor's share of increased capital has been vastly reduced, largely by the systematic destruction of workers' unions and keeping the inflation-adjusted minimum wage at

1980 levels (see Gordon 2016). Union membership in the United States has declined from 21 million persons, or 31 percent of the workforce, to 15 million, or 12 percent of the workforce, 7 percent if you exclude government employees (Noah 2012:128).

<FIGURE 8 HERE>

Third, government regulations or enforcement of environmental laws, labor laws, advertising, illegal immigration, and capital flows were eliminated or relaxed. So-called free trade, for example, by changing the regulations on how goods, services, and capital can flow across national boundaries, allowed more capital to be drawn from less economically sophisticated economies. Laws aimed at protecting the environment were either gutted or went unenforced (see Speth 2008), while restrictions on banks, such as the Glass-Steagall Act that limited speculative investing by commercial banks, were removed, increasing investment opportunities, but exposing the economy to greater risk.

Fourth, governments weakened monopoly laws, thus decreasing competition among corporations and keeping prices (and profit) relatively high. The so-called “merger-frenzy” of the 1990s is illustrative of the weakening of monopoly laws in the United States. One result was to give corporations and financial institutions greater political power and make them “too big to fail.”

Fifth, the profitability of investments were assured by keeping inflation low. Inflation reduces the value of currency over time by reducing what you can buy with it. It also cuts into the profits of investors by reducing the value of money received compared to the money that was lent or invested. On the other hand, inflation can be desirable for debtors because it can make it easier to repay debt. Keeping inflation low results in more money flowing from the less rich to the richer. One way to keep inflation low, of course, is by limiting the amount of money available. But doing this, of course, limits job growth.

Sixth, tax dollars were used to stimulate economic activity or to protect investment institutions, such as commercial and investment banks. In addition, military spending served as a politically safe economic stimulus by funneling money through the armaments and security industry. This, of course, means that there is a reduction in our collective efforts to fund education, physical infrastructure, environmental cleanup, and so on, as well as promoting the militarization of society.

Finally, the growth of return on capital was maintained by keeping base interest rates low (while bank and investment fees increased), thereby easing credit. Thus, people could borrow more in order to spend and consume in the face of stagnating wages, although to do so required them to go into greater debt. This not only allows banks and investors to profit, it also increases economic inequality. Increased borrowing also increases the risk of a financial crisis that impacts more heavily on the less rich and weakens the ability of governments to help those in need. Furthermore, the higher debt load increases the required rate of growth in order for lenders and investors to get their money back with greater value.

### **Austerity and Its Discontents**

The results of this partnership between finance and the state justified by “austerity” and the notion that states are “living beyond their means”, are every bit as disastrous in wealthy countries as they have been in poor countries. We do not have space to examine all of the evidence for the links between, money created as debt, the power of investors, the search for economic growth and austerity politics in this article. However, austerity measures have been fairly ubiquitous across many richer nations as an emergent literature on ‘global austerity’ has sought to highlight (Borooah 2014; Canterbury 2015; Cantillone et al. 2017; Clark 2015; Farnsworth and Irving 2015; Giannacopoulos 2015; Oreziak 2017; Roche et al. 2017; and see the symposium on austerity in the *Indiana Journal of Global Legal Studies*, Volume 22, Issue 2, 2015). In this sense, the following examples we draw upon are suggestive of a general trend. We leave a more comprehensive and comparative study for a larger work.

Greece is but one poster child of austerity. Following the country’s financial crash, Greece cut its hospital budget by 25 per cent and slashed funding for mental health problems by 55 per cent. An analysis of health statistics shows that as a result, suicides increased 45 per cent between 2007 and 2011 and, over roughly the same period, cases of depression more than doubled and infant mortality rose by 43 per cent. Needle-exchange schemes and free condoms for injecting drug users were also cut. By 2012, new HIV cases in this group were 32 times what they had been in 2009. The country has also had its first cases of locally spread malaria for 40 years (Blyth, 2015: 257; Coghlan 2014).

Puerto Rico is another case in point. As of 2017, and before the destructive force of hurricane Maria in September 2017, Puerto Rico was essentially bankrupt and owed creditors some \$70 billion with an additional \$50 billion in pension obligations that it could not pay. Since Puerto Rico is a United States territory, a ten-person board created by Congress introduced a 10-year plan to restore the country's finances, a plan approved by the island's governor. The plan instituted austerity measures including reduction in health care and public transportation services, firing of 30,000 public-sector workers, reduction of pension benefits, closure of almost 200 schools, an increase in the sales taxes by more than 50 percent, among other measures. "Puerto Rico is about to capsize," said one board member. "The island is overwhelmed by debt. Puerto Rico is in real danger of running out of money for even the most basic essential services" (Coto 2017).

The real problem, however, is that the diversion of a country's resources to repay debt is not limited to poor counties or a few developed economies such as Greece or territories such as Puerto Rico. Given the rapid rise of global debt and given the slowdown of economic growth, even cities, municipalities, states or providences, that must borrow money from private banks or citizens to function, face the same problem. In the United States the cities of Detroit, Michigan and Stockton, California, were two of 51 forced into bankruptcy in 2010, (Governing N.d.) and almost half of all U.S. states faced significant budget shortfalls in 2015 (Cassidy 2015). The consequences appear everywhere in rising education costs and debt, opioid epidemics, the decline in social mobility, rising death rates among middle and lower income white males, youth unemployment, among other things, including the rise of authoritarian politicians promising to reverse these trends.

Austerity and structural adjustment, of course, are only some the measures that the nation-state can take to protect the debt-based financial streams of the dominant owners of capital. The question is, as economic growth continues to slow as debt streams increase, what other policies will be enacted to protect their interests? If our analysis is correct, this seems an incredibly important question for future activism and research.

## **Conclusion**

This article began by noting that there is no explicit critical theory of money creation in the existing heterodox literature and how the capital as power approach can help us theorize the most

capitalized sector of the global economy. As we have discussed modern capitalism is a debt-based world economy in which levels of debt are increasing while the economic growth necessary for the repayment of debt is decreasing. In order to counter possible losses to their income, the 1% have prompted governments to institute policies to protect their income and power from the privatization of assets to the reduction of taxes on businesses and high-net-worth-individuals. This article suggests that the root of our current global dilemma of environmental despoliation and inequality is largely the result of a capitalized monetary system that benefits the few and indebts the majority.

If creditors fear that they will not receive their payments, that externalities such as children's health, adequate food, or environmental protections may intervene, they may refuse to lend resulting in an "investment strike"<sup>7</sup> in which case the entire economy will freeze up (see Streeck 2014: 23). There is truth to the statement that money can be more important than the well-being of people. With the vast portion of global wealth created and held in private hands, and most of that managed by professional wealth managers whose success requires maximizing the rate of return for clients, it is hardly surprising that positive social outcomes might be trumped by the need for financial gains.

If we cannot come to terms with the fact that the current monetary and fiscal system is a historical construct that primarily benefits the powerful and that there are alternatives such as a more liberalized or sovereign money system and new incentive structures geared towards individual, family and community well-being, then we would suggest, as the Chinese proverb goes, we will be living in 'interesting times' for decades to come.

## References

- Barro, Robert J. and Xavier Sala-i-Martin (2004) *Economic Growth* (Second Edition) (Cambridge: The MIT Press).
- Bell, Stephanie (2000) 'Do Taxes and Bonds Finance Government Spending?' *Journal of Economic Issues* Vol. 34, No. 3: 603-620.
- Bell, Stephanie (2001a) 'The Role of the State in the Hierarchy of Money' *Cambridge Journal of Economics* Vol. 25: 149-63.
- Bell, Stephanie and John F. Henry (2001b) 'Hospitality versus Exchange: the Limits of Monetary Economies' *Review of Social Economy*, Vol. LIX, No 1: 203-226.
- Blyth, Mark (2015) *Austerity: The History of a Dangerous Idea*. (Oxford University Press).
- Borooah, V. K. (2014) *Europe in an Age of Austerity*. (Basingstoke: Palgrave Macmillan).
- Boyce, James and Leonce Ndikumana (2011) *Africa's Odious Debt*. (London: Zed Books).
- Braun, Benjamin (2018) 'Central banking and the infrastructural power of finance: The case of ECB support for repo and securitization markets. *Socio-Economic Review*. DOI: 10.1093/ser/mwy008
- Brown, Ellen (2013) *The Public Bank Solution: From Austerity to Prosperity*. (Baton Rouge: Third Millennium Press).
- Butler, James (2014) What The Total U.S. Debt Really Looks Like and What It All Means <http://ivn.us/2014/06/11/what-is-the-real-us-total-debt/>
- Canterbery, E. R. (2015) *The Rise and Fall of Global Austerity*. (Florida State University, USA). World Scientific Pub. Co. Pte. Ltd
- Cantillon, Bea, Yekaterina Chzhen, Sudhanshu Handa, Brian Nolan, Aya Abe, Sara Ayllón, Thomas Bahle (eds) (2017). *Children of Austerity : Impact of the Great Recession on Child Poverty in Rich Countries*. (New York: United Nations Children's Fund).
- Cassidy, Christina A., (2015) 'Almost Half Of US States Are Officially Broke'

about:reader?url=http%3A%2F%2Fwww.zerohedge.com%2Fnews%2F2015-05-11%2Falmost-half-us-states-are-officially-broke, accessed May 28, 2016.

Clark, David (2015) *The Global Financial Crisis and Austerity*. (Bristol: Bristol University Press).

Coghlan, Andy (2014) 'Greek Austerity Tragedy Shows Where Not to Make Cuts,' *New Scientist*, <https://www.newscientist.com/article/dn25125-greek-austerity-tragedy-shows-where-not-to-make-cuts/>

Coto, Danica, (2017) Board to Puerto Rico: Cut Pension System, Impose Furloughs US News & World Report. <https://www.usnews.com/news/business/articles/2017-03-13/board-to-puerto-rico-cut-pension-system-impose-furloughs>, accessed July 10, 2017.

Creutz, Helmut (2010) *The Money Syndrome: Towards a Market Economy Free from Crises*. (London: Robert Middelstaed).

Davies, William (2014) *The Limits of Neoliberalism*. (Los Angeles: SAGE Publications Ltd.)

Desan, Christine (2014) *Making Money: Coin, Currency and the Coming of Capitalism*. (Oxford: Oxford University Press).

Di Muzio, Tim (2015) *The 1% and the Rest of Us: A Political Economy of Dominant Ownership*. (London: Zed Books).

DiMuzio, Tim and Richard H. Robbins (2016) *Debt as Power*. (Manchester: Manchester University Press).

DiMuzio, Tim and Richard H. Robbins (2017) *An Anthropology of Money: A Critical Appraisal*. (New York: Routledge).

Di Muzio, Tim, and Leoni Noble (2017) 'The Coming Revolution in Political Economy: Money Creation, Mankiw and Misguided Macroeconomics,' *Real-World Economics Review* 80: 85–108.

- Dobbs, Richard, Tim Koller, Susan Lund, et al (2016) Why Investors May Need to Lower Their Sights | McKinsey & Company. <http://www.mckinsey.com/industries/private-equity-and-principal-investors/our-insights/why-investors-may-need-to-lower-their-sights>, accessed April 10, 2017.
- Dobbs, Richard, Susan Lund, Jonathan Woetzal and Mina Mutafchieva (2015) Debt and (not much) Deleveraging (McKinsey Global Institute). [http://www.mckinsey.com/insights/economic\\_studies/debt\\_and\\_not\\_much\\_deleveraging](http://www.mckinsey.com/insights/economic_studies/debt_and_not_much_deleveraging) (accessed April 17, 2015).
- Douglas, C.H. (1931) *The Monopoly of Credit*. (London: Chapman and Hall).
- FDIC (N.D.). Noninterest Income and Noninterest Expense, FDIC-Insured Commercial Banks US and Other Areas. <https://www5.fdic.gov/hsob/HSOBRpt.asp>
- Farnsworth, Kevin and Zoë Irving (2015) *Social Policy in Times of Austerity*. (Bristol: Bristol University Press).
- Giannacopoulos, M. (2015) 'Sovereign Debts: Global Colonialism, Austerity and Neo-Liberal Assimilation', *Law Text Culture*, 166-193.
- Gilens, Martin and Benjamin I. Page (2014) 'Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens'. *Perspective on Politics* 12: 564-581
- Governing (N.D.) Bankrupt Cities, Municipalities List and Map. <http://www.governing.com/gov-data/municipal-cities-counties-bankruptcies-and-defaults.html>
- Gordon, Colin (2016) Growing Apart: A Political History of American Inequality. <http://scalar.usc.edu/works/growing-apart-a-political-history-of-american-inequality/wall-street-and-main-street-the-rise-of-finance>, accessed April 10, 2016.
- Graziani, A. (2009) *The Monetary Theory of Production* (Cambridge, U.K., Cambridge University Press).
- Harvey, David (2010) *The Enigma of Capital: The Crises of Capitalism* (Oxford: Oxford University Press).
- Harvey, David (2005) *A Brief History of Neoliberalism*. (Oxford: Oxford University Press).

- Howard, James L. (2007) 'U.S. Timber Production, Trade, Consumption and Price Statistics 1965 to 2005'. Research Paper FPL-RP-637. United States Department of Agriculture. <http://postcom.org/eco/sls.docs/USFSUS%20Timber%20Prod,%20Trade,%20Consumption.pdf>
- Huber, Joseph (2014) 'Modern Money Theory and New Currency Theory: A Comparative Discussion, Including an Assessment of Their Relevance to Monetary Reform' *Real-World Economics Review*, No. 66: 38-57.
- Huber, Joseph (2016) *Sovereign Money: Beyond Reserve Banking*. (Basingstoke: Palgrave Macmillan)
- Ingham, Geoffrey (1999) 'Capitalism, Money and Banking: A Critique of Recent Historical Sociology', *British Journal of Sociology*, Vol. 50, no. 1: 76-98.
- Ingham, Geoffrey (2000) 'Class Inequality and the Social Production of Money' *The Sociological Review*, Vol. 48, I.1: 66-86.
- Ingham, Geoffrey (2004) *The Nature of Money*. (Cambridge UK: Polity Press).
- Irwin, Neil (2014) Welcome to the Everything Boom, or Maybe the Everything Bubble. *The New York Times* <https://www.nytimes.com/2014/07/08/upshot/welcome-to-the-everything-boom-or-maybe-the-everything-bubble.html>, accessed April 22, 2017.
- Jones, Charles I. (2002) *Introduction to Economic Growth*. (New York: W. W. Norton & Company).
- Kennedy, Margrit I., and Declan Kennedy (1995) *Interest and Inflation Free Money: Creating an Exchange Medium that Works for Everybody and Protects the Earth*. (Philadelphia, PA: New Society Publishers).
- Kim, Jongchul (2011) 'How Modern Banking Originated: The London Goldsmith-Bankers' Institutionalization of Trust', *Business History*, 53:6, 939-959.
- Knafo, S., Hughes, M., and Wyn-Jones, S., (2014) 'Differential accumulation and the political economy of power. In: Tim Di Muzio (ed). *The Capitalist Mode of Power: Critical Engagements with the Power Theory of Value*. (London: Routledge), pp. 134–151.

- Krier, Dan (2009) 'Speculative Profit Fetishism in the Age of Financial Capital' *Critical Sociology*, Vol. 35, No. 5: 657-675.
- Lau, Jeffrey Y.F and John Smithin (2002) 'The Role of Money in Capitalism' *International Journal of Political Economy*, Vol. 32, No. 3: 5-22.
- McLeay, Michael and Amar Radia and Ryland Thomas (2014) 'Money Creation in the Modern Economy', *Quarterly Bulletin Q1* Bank of England.
- Mellor, Mary (2010) *The Future of Money: From Financial Crisis to Public Resource*. (London: Pluto Press).
- Mirowski, P. and Plehwe, D. (2009) *The Road from Mont Pèlerin: The Making of the Neoliberal Thought Collective*. (Cambridge, MA: Harvard University Press).
- Moore, Basil J. (1979) 'The Endogenous Money Stock', *Journal of Post Keynesian Economics*, Vol. 10, No. 3: 372-385.
- Nitzan, Jonathan and Shimshon Bichler (2009) *Capital as Power: A Study of Order and Creorder*, (London: Routledge).
- Noah, Timothy (2012) *The Great Divergence: America's Growing Inequality Crisis and What We Can Do About It*. (London: Bloomsbury Press)
- OECD (2014) Pension Markets in Focus. <http://www.oecd.org/daf/fin/private-pensions/Pension-Markets-in-Focus-2014.pdf>
- OICA (2017) International Organization of Motor Vehicle Manufacturers: Production Statistics. <http://www.oica.net/category/production-statistics/2017-statistics/>, accessed October 31, 2018.
- Oreziak, L. (2017) 'Global Capitalism in Disarray: Inequality, Debt, and Austerity', *ILR Review: The Journal of Work and Policy*, (Issue 5), p. 1289-1291.
- Pettifor, Ann (2017) *The Production of Money: How to Break the Power of the Bankers*. (London: Verso).
- Piketty, Thomas (2014) *Capital in the Twenty-First Century* (Cambridge, MA: Belknap Press).

- Ro, Sam (2015) Here's What the \$294 Trillion Market of Global Financial Assets Looks like. *Business Insider*. <http://www.businessinsider.com/global-financial-assets-2015-2>, accessed January 5, 2016.
- Roche, W. K., O'Connell, P. J. and Prothero, A. (2017) *Austerity and Recovery in Ireland: Europe's Poster Child and the Great Recession*. (Oxford UK: Oxford University Press).
- Rowbotham, Michael (1998) *The Grip of Death: A Study of Modern Money, Debt Slavery and Destructive Economics*. (Charlbury: Jon Carpenter Publishing).
- Ryan-Collins, Josh, Tony Greenham, Richard Werner and Andrew Jackson (2014) *Where Does Money Come From? A Guide to the UK Monetary and Banking System*. (New Economics Foundation).
- Semenova, Alla (2011) 'Would you Barter with God? Why Holy Debts and Not Profane Markets Created Money' *American Journal of Economics and Sociology*, Vol. 70, No. 2: 376-400.
- Sgambati, Stefano (2016) Rethinking Banking. Debt Discounting and the Making of Modern Money as Liquidity, *New Political Economy*, 21:3, 274-290
- Smithin, John (ed.) (2000) *What is Money?* (London: Routledge).
- Speth, James Gustave (2012) *America the Possible: Manifesto for a New Economy*. (New Haven: Yale University Press)
- Streeck, Wolfgang (2014) *Buying Time: The Delayed Crisis of Democratic Socialism*. (Translated by Patrick Camiller) (London: Verso).
- Tanzi, Alexandre (2018) "Global Debt at Record Level," *Bloomberg.Com* <https://www.bloomberg.com/news/articles/2018-04-10/global-debt-at-record-level>.
- Wennerlind, Carl (2011) *The Casualties of Credit: The English Financial Revolution, 1620-1720*. (Cambridge, MA: Harvard University Press).
- Werner, Richard A. (2014a) 'Can Banks Individually Create Money out of Nothing? – The Theories and the Empirical Evidence' *International Review of Financial Analysis*, Vol 36: 1-19.

- Werner, Richard A. (2014b) 'How do Banks Create Money, and Why Can Other Firms Not Do the Same? An Explanation for the Coexistence of Lending and Deposit-Taking' *International Review of Financial Analysis*, Vol 36: 71-77.
- Wolff, E. N. (2012) *The Asset Price Meltdown and the Wealth of the Middle Class*. <https://www.nber.org/papers/w18559> (accessed 31/10/2018)
- Wray, L. Randall (1998) *Understanding Money: The Key to Full Employment and Price Stability*. (Cheltenham: Edward Elgar)
- Wray, L. Randall (2002) 'State Money' *International Journal of Political Economy*, Vol. 32, No. 3: 23-40.
- Wray, L. Randall (ed) (2004) *Credit and State Theories of Money*. (Cheltenham: Edward Elgar)
- Wray, L. Randall (2015) *Modern Money Theory, 2nd Edition*. (Basingstoke: Palgrave Macmillan)

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<sup>1</sup> <https://www.statista.com/statistics/265135/market-capitalization-of-the-banking-sector-worldwide-since-2004/> (accessed 04/23/2019)

<sup>2</sup> We use the word 'official' here since anyone can theoretically create money. The big problem, as Minsky noted, is getting it accepted by a significant portion of the population. For instance cryptocurrencies have increasingly proliferated with blockchain technology but make up a very small portion of the money supply in advanced economies.

<sup>3</sup> Knafo et. al (2014) have argued that the capital as power approach can often undertheorize the operation of power relations but there is nothing in the capital as power approach itself that necessarily precludes a closer inspection of power relations.

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<sup>4</sup> Interest rates and payments as a percentage of GDP in the U.S. declined after 1990 and again after the economic collapse of 2007 as the United State Federal Reserve reduced the Federal Fund rate. Banks compensated, however, by increasing fees from 54 billion in 1990 to 236 billion in 2017 (FDIC N.D.).

<sup>5</sup> We are using the 1% notation and figure to signify the wealthiest among us, largely because it has gained significance since the Occupy movement. That group can also be represented as the top 10 percent or the top 20. Regardless, it is clear that the distribution of income and wealth has become disproportionately concentrated at the top (Piketty 2014; Di Muzio 2015).

<sup>6</sup> The Trump administration has pulled out all stops to raise GDP growth by slashing environmental regulations, reducing taxes, along with other measures. It remains to be seen what the long-term consequences of these policies will be.

<sup>7</sup> The counterpart to an investment strike is a debt strike, discussed at length elsewhere (DiMuzio and Robbins 2016).