The debt-based money system: a case for contemporary money's contributions to inequality.

Contemporary money is not a 'neutral veil' in the economy like the quantity theory of money and the monetarists of the 1970s and 80s would have us believe – it is so much more. While its beginnings, evolution, and contemporary understandings are all heavily disputed, even between the central banks of the US and UK, aspects of modern theories of money and money creation have aligned along tangible concepts. These understandings of how money operates today implies its potential to contribute to unsustainable levels of growth in wealth inequality. This essay will (I) outline the debt-based nature of money and present the case that the majority of money being created today, i.e. credit-money, is introduced by commercial banks. Then, this essay will demonstrate that (II) these two factors have resulted in creditworthiness as the criterion employed to determine who gets access to credit-money. And finally, this essay will present the argument that (III) in a debt-based money system where commercial banks with commercial interests are the guardians of money creation, money itself can potentially contribute to unsustainable levels of growing wealth inequality.

I. Money is debt and is created largely by commercial banks.

i. Money is debt.

Many theories of money have sought to identify what money is, where it comes from, and how its value is determined. These vary greatly and often also contradict one another, such as the 'commodity' and 'claim' theories of money (Schumpeter, cited in Ellis, 1934, p. 3). Today, this exercise has become even more complex given floating exchange rates and high levels of securitisation and financialization. From the application of monetarist economic thought to Western monetary policy in the late 1970s and early 80s, the complexities in measuring modern monies, which were classified into a hierarchical stratification ranging from M0 (high-powered) to M10<[1] (broad and other), became evident (Ingham, 2004, p. 8). More importantly, what also became evident is that no one knew exactly *what* was being measured (Ibid). In fact, 'the answer is simple: *debt*' (Graeber, 2011, p. 46, emphasis added).

Money today is a unit of account that measures magnitudes of debt (including credit) as opposed to a store of value or medium of exchange[2]. From the chartalist (or state money) and credit-money theories – dominant conceptualisations of modern money – can be derived principal similarities for a contemporary understanding of what money is (for a detailed overview see Keynes, 1971, pp. 1-5;

[1] This stratification arranges, *inter alia*, central bank notes, deposits, and easily convertible financial assets into a hierarchy of monies.
[2] Key parts of this analysis drawn from the work of Naito (2022).

Naito, 2022). Through a credit money lens, money is the means through which debt is discharged (Hawtrey, 1919, p.15). Through a state-money or chartalist lens, the state chooses the medium by which taxes to the state must be paid (Wray, 1998, p.4). Thus, money is a means of paying debt forward and paying taxes to the government. Considering that tax is a form of debt (Ibid, p. 12; McCaffrey, 2009, p. 81), substantively the definitions presented are similar (Naito, 2022). Money as a unit of account of debt implies that money to some extent may be interpreted as a social relationship between debtor and creditor (Graeber, 2011; Ingham, 2004). This is because most modern money exists to service some type of debt (Sgambati, 2016).

ii. Commercial banks' credit-money creation.

Both government and corporate debts are soaring (OECD, 2024). Average OECD household debt as a percent of net disposable income has grown by over 50 percentage points since 1995, surpassing 100% in 2004[3]. In 2022, inflation far surpassed 5% in economies across the globe[4]. Where is all this money, and more specifically *debt*, coming from? Money creation today is extremely complex and heavily contested, but there is general agreement that money is created either endogenously or exogenously[5] (Hook, 2022). Most likely, it is not binary, but rather a combination of both (Sieroń, 2019). The endogenous money creation theory, which exists under post-Keynesian economic thought, refers to the fact that banks do not lend out money they receive from deposits (Di Muzio and Noble, 2017; Moore, 1989; Wray, 1990, pp. 99–130) – this relationship operates inversely. Banks 'create' loans, which in turn, creates deposits[6]. This is where the majority of money comes from today (Hook, 2022; McLeay, *et al.*, 2014).

Commercial banks' lending capacity, i.e. commercial bank credit-money creation, is constrained largely by their *raison d'être*: to pursue profit (Werner, 2014a; 2014b). Banks are in the banking business to make *profit* as the dealers of others' debts (Sgambati, 2019). The prevailing corporate governance status quo in Western economies legally binds companies' (including publicly listed banks) actions to the concept of shareholder primacy and by extension the pursuit of profit maximisation (UK Companies Act 2006, s172, p325). Thus, lending decisions are constrained by the pursuit of profitability in a competitive banking sector and are based on a variety of considerations including the central bank's policy rate and the credit risk of borrowers. The current financial status quo may therefore be understood as follows: money is debt for which access to is largely guarded by commercial banks with commercial interests.

[3] Author's calculations, OECD data.
[4] OECD data.
[5] Central banks create reserves and cash and can inject new money into the economy through monetary policy initiatives such as quantitative easing (Fawley and Neeley, 2013).
[6] For a review of balance sheet credit creation see McLeay, *et al.*, 2014.

II. Who gets money and why?

i. Money access if you're on the guest list.

Commercial banks as the guardians of debt-access[7] base their lending decisions largely on a borrower's creditworthiness. A commercial bank with commercial interests needs to have criteria for lending money. These criteria serve as the foundation upon which a commerical bank's business model is built. Once the relevant monetary policy and financial market considerations have been taken into account, a bank's focus transitions to the potential debtor. Commercial banks generate profits from charging interest on loans. Thus, the question commercial banks must answer when assessing a potential loan agreement may be simplified to a two-pronged approach, (1) can we lend to this debtor at all and (2) if yes, at what rate should they be lent to. Creditworthiness is the answer to these questions. An individual's or market agent's creditworthiness is defined by their historical success or failure in servicing debts (e.g. credit scores in the US), but also by the quantity of their income and assets which signify an ability to service debt (e.g. applying for loans in Germany), or which may act to collateralise the loan (García, *et al.*, 2013). Thus, access to credit is inherently unequal in that it is to some extent proportional to what one already owns. Credit worthiness determines what money costs. If a debtor is trusted with a loan, an interest rate is charged relative to that debtor's creditworthiness. If a debtor is deemed to have low creditworthiness, they will be subjected to higher interest rates. The inverse applies to those deemed highly creditworthy. Interest rates are risk based, the higher the credit risk, the higher the interest on the loan.

ii. So much for the American dream!

Consider what this means in practice. If a debtor is considered highly creditworthy, it is in commercial banks' interest to lend to them. Borrowing an example from Di Muzio (2023), consider a hedge fund's potential to expand its own and its investors' wealth. Hedge funds pool capital from the extremely wealthy to pursue risky investment strategies with atypically high rates of return. They enter the commercial borrowing market with significant amount of capital on their balance sheet and are thus eligible to borrow significantly more to drive even higher returns for themselves and their clients in financial markets. Having excess wealth to commit to investments in vehicles such as hedge funds (high risk, high reward) allows for returns that are multiples above what benchmark indices such as the SPDR S&P 500 ETF return (an index tracking the S&P 500)[8]. Examples abound.

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[7] Or, more specifically, credit-access, but effectively *money*.
[8] E.g. Citadel returned 38% in 2022 (CNBC, 2023).

The poorest people on earth have virtually no access to credit and the working class or working poor in richer countries may have limited access to credit but their cost of borrowing is higher (Bowles, 2006; Di Muzio, 2023; for an example see Meyer, 2018). Generally, those who have less will concentrate their spending on essentials such as a car or house financed by a loan (Montgomerie, 2019). Lenders will likley charge higher rates on these loans based on these debtor's relatively lower creditworthiness. Greater fractions of debtors' incomes may then be committed to servicing the debt and can lead either to perpetual debt servicing[9] or an eventual default, reducing the debtor's credit score further (Di Muzio, 2023; also explored in Montgomerie, 2019).

III. The nature of modern money contributes to wealth inequality in Western capitalist economies.

Money today is a unit of account of debt. Commercial banks are the largest players in the creation of credit-money, which by volume is currently the largest contributor to new money (Hook, 2022; McLeay, *et al.*, 2014). In Western capitalist economies, where these realities converge, money is potentially a contributing factor to wealth inequality[10]. Commercial banks have a vested interest in profiting from the debt they sell, i.e. loans. This is their business model. Access to greater levels of debt is granted following a socially constructed screening of who is eligible to redeem it. This is creditworthiness. Thus, money's function as a unit of account of debt and the method by which it is distributed inherently favour those who already possess wealth. This, if it has not already, can give roots to a plethora of unfavourable economic conditions such as hampering the 'have not's' access to affordable housing (Hawtrey, 2009) and access to education (Lochner and Monge-Naranjo, 2011). Bot of which are vehicles for upward social mobility and the accumulation of greater wealth (Braga, *et al.,* 2017; Ramakrishnan, *et al.*, 2021). Access to credit (or money), and more specifically, affordable credit facilitates social mobility, but the nature of money today does not facilitate equitable access to credit, when in fact, this should be a right guaranteed by the state (Meyer, 2018).

'Differential accumulation' is inherent to capitalism and this paper does not seek to discredit it. However, the nature of contemporary money has the potential to rot positive economic growth from inside (due to money's intrinsic nature to the economy) by contributing to unsustainable growth in the wealth divide, and it is in states' interests to mitigate this effect. Over the past five decades income groups[11] in capitalist economies like the USA have polarised. From 1970 to 2022, the middle class in

[9] The inability of third world countries to escape their debt to the IMF is a strong example (Graeber, 2011, pp. 1-4). More specifically, Zimbabwe as a debtor has faced 'dreadful public debt servicing challenges' over the past few decades (Saungweme and Odhiambo, 2018).
[10] To the dismay of central bankers such as Andrew Haldane, the Bank of England's chief economist
[11] Income is not necessarily reflective of wealth but is still relevant for this point.

the US shrank, and both the lower and upper classes grew (Pew Research Centre, 2022; see Fabiani, 2023 for Europe). Macro shocks to the economy, including the financial crises over the past two decades and the Covid-19 pandemic contributed to this through what is known as the Cantillon effect (Cantillon, 2010). The Cantillon effect stipulates that an increase in the money supply benefits those who are involved in its creation at the cost of those who are not. Following the 2008 financial crisis[12], most banks were still standing, with some bankers walking away with huge bonuses (The Guardian, 2009). The real economy, and the people that subsisted within it, felt the real effects (Tooze, 2018). The nature of money allowed banks to inflate asset prices through credit creation[13] (Turner, 2012). The wealthy own these assets through personal wealth enhanced and expanded by credit and can make phenomenal gains while the less wealthy are limited (see *Annex A. Figure 4.* 'Portfolio composition by wealth group in France'). When significant price bubbles burst, such as the housing market in 2008, banks were bailed out by the government and by extension the taxpayer due to their systemic importance to the global economy. With the losses carries by the government and by extension the people, the wealthy were free to reinvest at discounted prices in the financial markets and ride the 'green wave' back up (Petras and Veltmeyer, 2012).

The current money system is contributing to the development of a 'wealth unequal economy[14]'. In the system where money is debt created by commercial banks, access to credit is skewed disproportionately in favour of the wealthy. This is a vicious cycle in the sense that wealthy have a different set of rules to play by and can perpetually grow their wealth while the poor cannot get their foot in the door. As outlined in the wealth unequal economy, low wages, high asset prices, and economic concentration in specific industries and geographic areas have become the status quo, creating barriers to upward mobility for the wealthless. Furthermore, government austerity measures resulting from an inability to tax the rich (Sayer, 2014, p. 8) erode public services and infrastructure, further entrenching inequality. This unequal distribution of wealth not only stifles economic growth but also undermines societal well-being, highlighting the unsustainable nature of the current money system.

[12] This analysis draws from Zeddies (2018).
[13] This also happens exogenously in the form of central bank open market transactions where assets are purchased. Currently, there is an asset price bubble due to Covid-related quantitative easing (Hudepohl et al., 2021), the question economists and financiers are asking is, will it burst?
[14] The 'wealth unequal economy' is described by Gary Stevenson (2024).

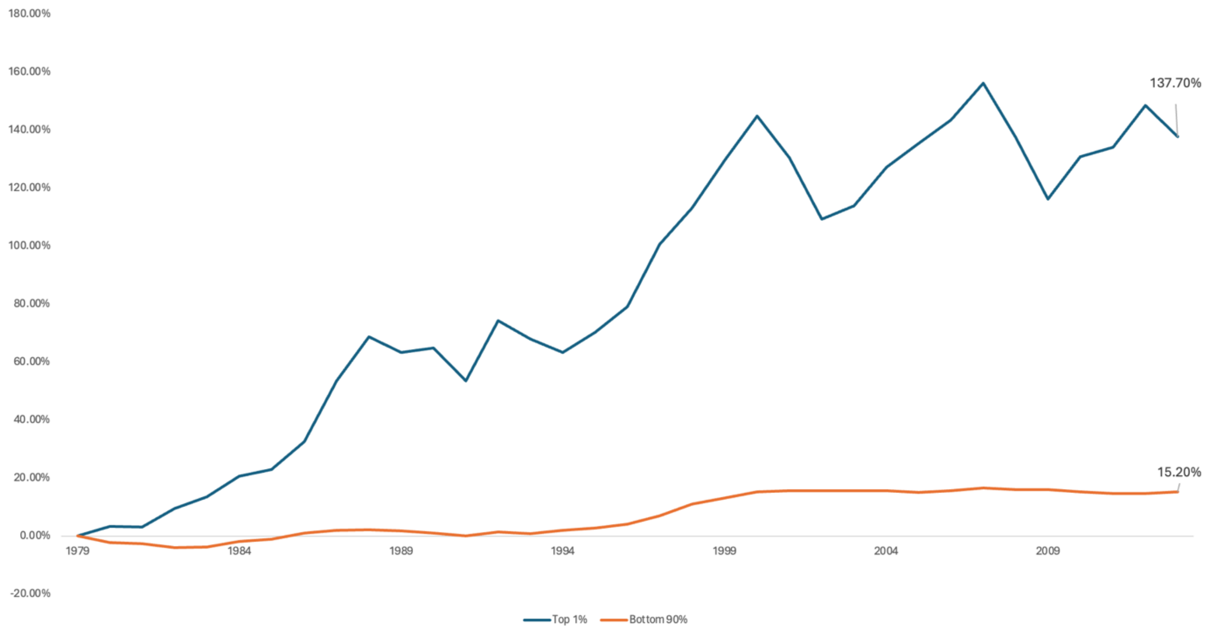
IV. Concluding remarks.

This essay has sought to examine how the nature of contemporary money and its method of distribution is constructed is such a way that allows it to contribute to growth in the wealth divide.

While drawing a direct conclusion between the nature of contemporary money and unsustainable growth in the wealth divide would be the result of nothing less than a magnum opus, this essay seeks to hint at the potential of its truth. 'Unsustainable levels of public and private debt, increased price and fiscal instability, speculative behaviour in relation to environmental resources, greater inequality in incomes and in wealth, and a loss of sovereign control [over] the money system' are indeed cause for concern (Jackson and Victor, p. 49). Inequality *is* growing. The cost of living *is* rising. And more and more debt tokens are being redeemed to pay off the old. In a debt-driven global economy, the right questions must concern themselves with who has access to credit? Why? Where is this credit being invested (more and more simply in financial securities (Shaxson, 2023))? And what does this mean for the people?

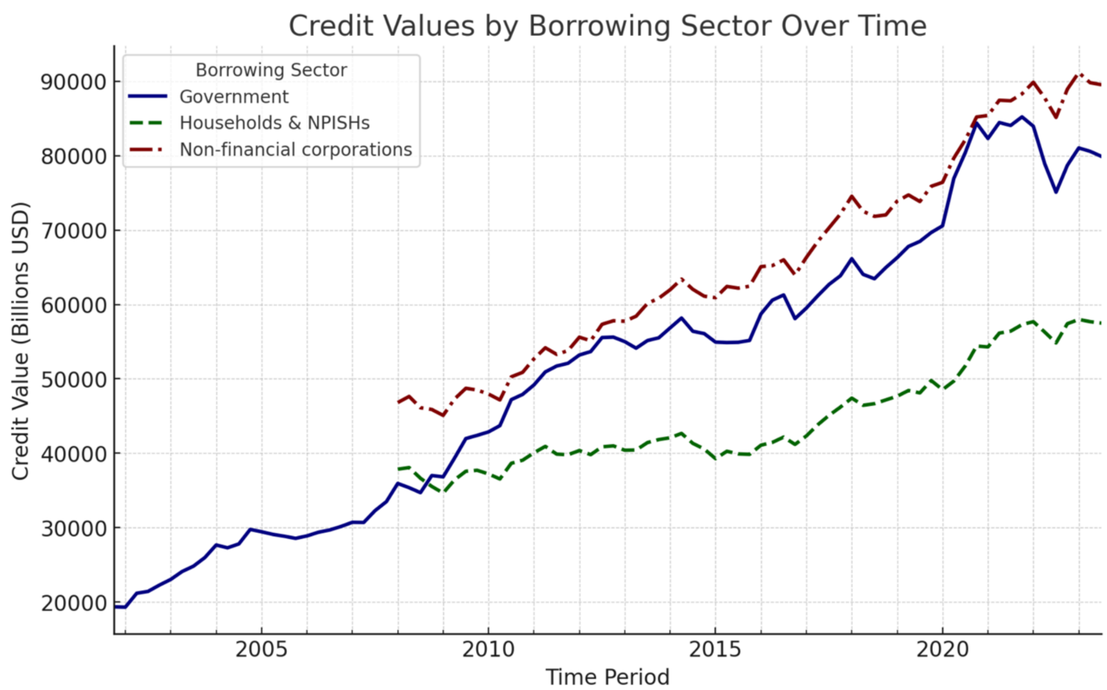
Annex A. *Some visuals*[15]

Figure 1. Annual pay increases in % for the top 1% and bottom 90%, 1979 – 2013



Source: Economic Policy Institute (EPI) and Kopczuk, Saez, and Song (2010)

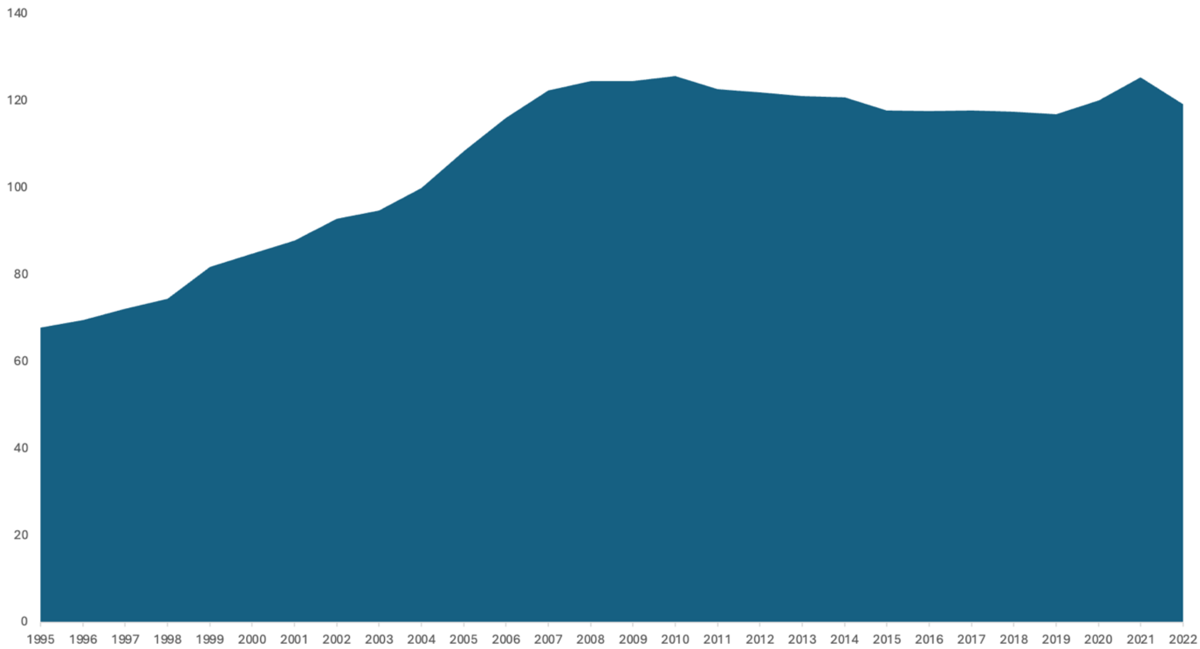
Figure 2. Global volume of credit creation, USD billions



Source: Bank for International Settlements,

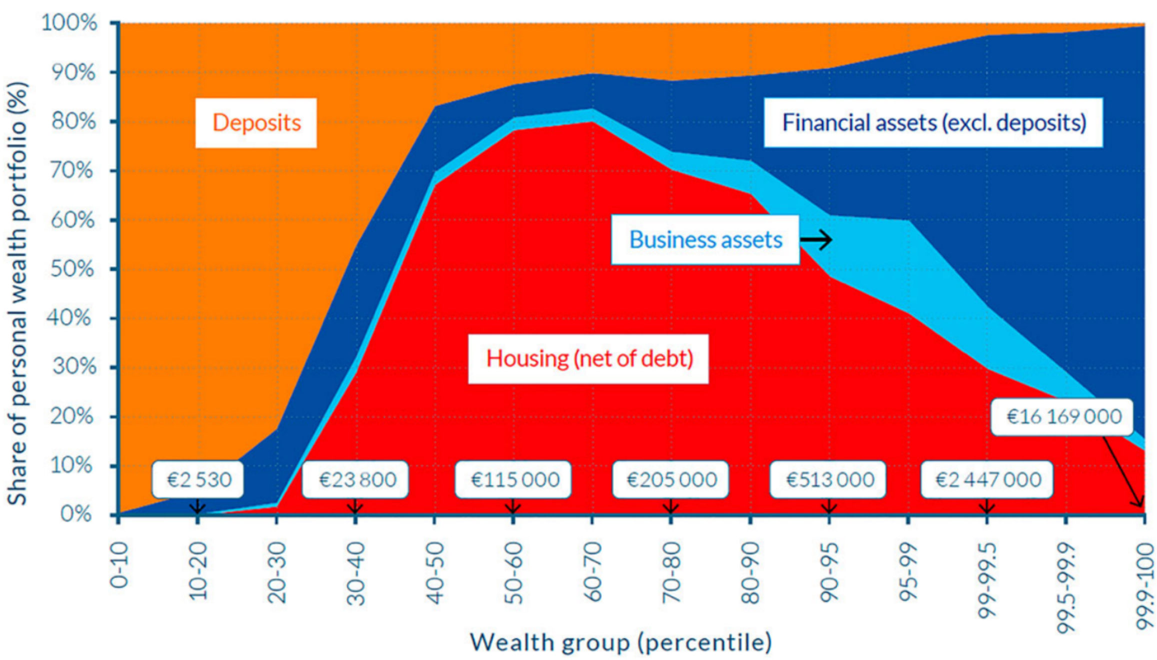
[15] Figure 1 was recreated; Figures 2 and 3 are the author's own; and Figure 4 was taken from Alvaredo, Facundo*, et al. (2018)*.

Figure 3. Household debt, OECD average, % of net disposable income, 1995-2022.



Source: OECD household debt

Figure 4. Portfolio composition by wealth group in France, 2012.



Source: Alvaredo, et al. (2018) World inequality report 2018. Cambridge, MA

Bibliography.

Alvaredo, F., Chancel, L., Piketty, T., Saez, E. and Zucman, G. (2018) The Elephant Curve of Global Inequality and Growth. *American Economic Association Papers and Proceedings*, 108: 103-08.

Braga, B., McKernan, S.M., Ratcliffe, C. and Baum, S. (2017) *Wealth inequality is a barrier to education and social mobility*. Washington, DC: Urban Institute.

Cantillon, R. (2010) *An Essay on Economic Theory*. Reprint, Ludwig von Mises Institute.

CNBC. (2023) Citadel and Its Peers Are Piling Into the Same Trades. Regulators Are Taking Notice. *Bloomberg.com.*

Di Muzio, T. and Noble, L. (2017) The coming revolution in political economy: Money creation, Mankiw and misguided macroeconomics. *Real-World Economics Review*, pp.85-108.

Di Muzio, T. (2023) 'Capitalism, Money and Inequality in the World', in Bieri, S. & Bader, C. (eds.) *Transitioning to Reduced Inequalities*. Basel, Switzerland: MDPI - Multidisciplinary Digital Publishing Institute.

Ellis, H. (1934) *German Monetary Theory 1905-1933*. Cambridge, MA: Harvard University Press.

Fabiani, M. (2023) Unraveling the Roots of Income Polarization in Europe: A Divided Continent. *Economies*, 11(8), p.217.

Fawley, B. W. & Neely, C. J. (2013) Four stories of quantitative easing. *Review - Federal Reserve Bank of St. Louis*. [Online] 95 (1), 51–88.

García, F., Giménez, V. and Guijarro, F. (2013) Credit risk management: A multicriteria approach to assess creditworthiness. *Mathematical and computer modelling*, 57(7-8), pp.2009-2015.

Graeber, D. (2011). *Debt: The First 5,000 Years*. New York: Melville House.

Hawtrey, R.G. (1928) *Currency and credit*. Longmans, Green.

Hawtrey, K. (2009) *Affordable housing finance*. Reprint, Springer.

Hudepohl, T., van Lamoen, R. and de Vette, N. (2021) Quantitative easing and exuberance in stock markets: Evidence from the euro area. *Journal of International Money and Finance*, 118, pp.102471.

Ingham, G. (2004) *The Nature of Money*. Cambridge: Polity.

Jackson, T., and P. A. Victor. (2015) Does credit create a "growth imperative"? A quasi-stationary economy with interest-bearing debt. *Ecological Economics* 120 (2015): 32–48. doi: 10.1016/j.ecolecon.2015.09.009.

Keynes, J. M. (1971). *The Collected Writings of John Maynard Keynes Vol.5 A Treatise on Money: Vol.1 The Pure Theory of Money*. London: Macmillan

Lochner, Lance. & Monge-Naranjo, A. (2011) *Credit Constraints in Education*. Cambridge, Mass: National Bureau of Economic Research.

McCaffery, E. (2009) *The Oxford Introductions to US Law: Income Tax Law*. Oxford University Press.

McLeay, M., Radia, A. and Thomas, R. (2014) Money creation in the modern economy. *Bank of England quarterly bulletin*, p.Q1.

Meyer, M. (2018) The Right to Credit. *The journal of political philosophy*. 26 (3), 304–326.

Memmel, C. et al. (2015) The common drivers of default risk. *Journal of financial stability*. pp. 16232–247.

Moore, B.J. (1989) *Horizontalists and Vertacilists: The Macroeconomics of Credit Money*. Cambridge and New York: Cambridge University Press.

Montgomerie, J. (2019) *Should we abolish household debts?* Hoboken, NJ: John Wiley & Sons.

Naito, A. (2020) Nominality of Money: Theory of Credit Money and Chartalism. *The Review of Keynesian Studies*, 2, pp.122-147.

OECD (2024), *Global Debt Report 2024: Bond Markets in a High-Debt Environment*, OECD Publishing, Paris, https://doi.org/10.1787/91844ea2-en.

Petras, J., Veltmeyer, H. (2012) The Global Capitalist Crisis: Whose Crisis, Who Profits? *Int. Rev. Mod. Sociol*. 38, 199–219.

Ramakrishnan, K., Champion, E., Gallagher, M. and Fudge, K. (2021) *Why Housing Matters for Upward Mobility: Evidence and Indicators for Practitioners and Policymakers*. Washington, DC: Urban Institute.

Saungweme, T. and Odhiambo, N.M. (2018) A critical review of the dynamics of government debt servicing in Zimbabwe. *Studia Universitatis „Vasile Goldis" Arad–Economics Series*, 28(3), pp.20-36.

Sayer, A., 2014. *Why we can't afford the rich*. Policy Press.

Sgambati, S. (2016) Rethinking banking. Debt discounting and the making of modern money as liquidity. *New Polit. Econ*. 21, 274–290. https://doi.org/10.1080/13563467.2016.1113946

Sgambati, S. (2019). The art of leverage. A study of bank power, money-making and debt finance. *Review of International Political Economy*, 26(2), pp. 287-312. doi: 10.1080/09692290.2018.1512514

Shaxson, N. (2018) *The finance curse: How global finance is making us all poorer*. New York: Random House.

Sieroń, A. (2019) Endogenous versus exogenous money: Does the debate really matter? *Res. Econ*. 73, 329–338. https://doi.org/10.1016/j.rie.2019.10.003

Stevenson, G. (2024) *The Wealth Unequal Economy*. Blog post. Accessed at: https://www.wealtheconomics.org/introduction-2/

The Guardian. (2009) Bailed-out US banks gave employees billions in bonuses in 2008, report says. *The Guardian.*

Turner, A. (2012) Credit creation and social optimality. *Int. Rev. Financ. Anal., Banking and the Economy* 25, 142–153. https://doi.org/10.1016/j.irfa.2012.09.004

UK Companies Act 2006, s 172. Accessed at: https://www.legislation.gov.uk/ukpga/2006/46/notes/division/6/2#:~:text=Section%20172%3A%20D uty%20to%20promote%20the%20success%20of%20the%20company&text=The%20duty%20requires%20a%20director,regard%20to%20the%20factors%20listed.

Werner, R.A. (2014) Can banks individually create money out of nothing?—The theories and the empirical evidence. *International Review of Financial Analysis*, 36, pp.1-19.

Werner, R.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*, 36, pp.71-77.

Wray, L. R. (1998). *Understanding Modern Money: The Key to Full Employment and Price Stability*. Cheltenham: Edward Elgar

Wray, L.R. (1990) *Money and credit in capitalist economies*. Aldershot: Edward Elgar, UK.

Data sources.

Bank for International Settlements (2024), *Credit to the non-financial sector, general government, and households & NPISHs*, BIS WS_TC 2.0 (data set), https://data.bis.org/topics/TOTAL_CREDIT/BIS,WS_TC,2.0/Q.5A.H.A.M.USD.A (Accessed on 03 April).

OECD (2024), *Average Annual Wage Growth* (indicator). doi: https://stats.oecd.org/Index.aspx?DataSetCode=AN_AV_WAGEGROWTH (Accessed on 03 April 2024).

OECD (2024), *Inflation* (CPI) (indicator). doi: 10.1787/eee82e6e-en (Accessed on 03 April 2024).

OECD (2024), *Household debt* (indicator). doi: 10.1787/f03b6469-en (Accessed on 05 April 2024)