

# Financial Crises and Inequality: Exploring the Relationship between Delinquency and Greater Polarization

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**Abstract.** High inflation, rising concerns around cost of living, the topic of finance and its related crises has seemingly been on the rise in the last few decades. Through understanding how financial/banking crises can be linked to inequality, it can be perceived as to whether inequality is simply inevitable and whether there are steps that can be taken in order to reduce its relevant extent. This essay will focus on leading up to, and following the Great Recession of 2007/2008 and find whether rising economic inequality has resulted in greater polarization overall. There is evidence to suggest that financial crises can cause and can result in an aftermath of great inequality however these effects may have varying levels of impact as well. Not only is understanding the relationship important, but the past can also provide answers for the future, especially relating to how inequality has been reduced and what methods have been drawn up at present to mitigate some of these issues.

Keywords: Financial Crises, Inequality, Inflation.

#### 1 Introduction

High inflation, rising concerns around cost of living, the topic of finance and its related crises has seemingly been on the rise in the last few decades. This is a notion shared by many around the world, according to a World Bank survey, between 1970-2007 there were more than 137 banking crises that occurred: numbering around 3.7 per-year <sup>[3]-[5]</sup>. In the present day, according to recent events, this seems no different with banking failures ranging from European Banks being out due to insolvency, to the situation with Silicon Valley Bank, to the failure of several large U.S regional banks <sup>[6]</sup>. As banking and financial-related crises seem to especially be on the rise, the risks of delinquency not just for banking organizations but for individuals has appeared to be on the rise. This essay will focus on identifying the relationship between financial crises, inequality, wage stagnation and how this is exemplified in OECD nations (and the United States of America <sup>[4]</sup>. Understanding the relationship between rising inequality and recent banking crises has increasingly become a subject of dis-

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cussion. The relationship can shed light into the root causes of economic inequality; a discussion that has only risen in popularity in recent years. Through understanding how financial/banking crises can be linked to inequality, it can be perceived as to whether inequality is simply inevitable and whether there are steps that can be taken in order to reduce its relevant extent.

This essay will focus on leading up to, and following the Great Recession of 2007/2008 and find whether rising economic inequality has resulted in greater polarization overall. There is evidence to suggest that financial crises can cause and can result in an aftermath of great inequality however these effects may have varying levels of impact as well. Not only is understanding the relationship important, but the past can also provide answers for the future, especially relating to how inequality has been reduced and what methods have been drawn up at present to mitigate some of these issues. The crisis that will be of focus being the 2007-2008 financial crisis will also work to provide insights into how banking is inherently linked to people, and how this may evidence the interlinking between financial inequality and banking <sup>[1]</sup>.

#### 2 Credit Expansion, Indebtedness, Crisis

It is general knowledge that the 2007-2008 financial crisis was primarily triggered by an overly heated housing market; the housing collapse in 2007 generated a chain of events which resulted in sweeping liquidity-related problems and massive stock market declines. Leading up to the financial crisis predatory lending practices to unqualified mortgage buyers was a big component in the toxicity of the subprime mortgage market, many borrowers were duped into paying interest loans that fluctuated <sup>[20]</sup>. These practices were combined with other issues such as consumer-indebtedness; when comparing levels of consumer debt between the 1990s to the period of the GFC; consumer income to debt ratios had risen by almost 77% compared to the 1990s [18]. The prices for commodities at the same time had also increased, as commodity prices rose by a high percentage and then decreased rapidly. This proceeded to continually destabilize the markets. The bulk of the instability, however, can be tied to off-balance lending and overly leveraged assets traded in risky manners between financial institutions. Many of the poorly securitized and poorly protected mortgages were generally bundled into other mortgages with AAA-ratings. These unsafe investments were then sold off by major financial institutions and rendered on the balance sheets of other financial institutions (AIG, J.P Morgan) and others. The aggregation of these toxic mortgages resulted in many institutions having many financial instruments that were worthless by the economic downturn. The decline of the downturn was rapid, and the domino effect wiped many out of their savings, investments, and their homes, also resulting in a low level of consumer confidence. This impact had long-standing implications for a few years, and for some have even lingered to this day [2].

The Great Financial Crisis serves as an important point of reference, as leading up to the state of events, global economic inequality was on the rise for (between the years of 1970-2007) across most OECD nations particularly in that of the US <sup>[19]</sup>. To

understand the initial correlations between higher indebtedness, crisis, and inequality, one can look at the basic psychology of what increases indebtedness. Empirical research conducted on capitalist economies showcase that it is generally periods of economic optimism, collective euphoria and hopefulness for the future that generates a period of rising asset prices <sup>[17]</sup>. In a prosperous period, borrowers can comfortably make sizeable investments and ensure that large sums can be repaid, because future projections showcase higher returns than those of the bank. Substantial evidence of this basic motivation has emerged in recent years, explaining the notion of 'herd behavior' not only from that of the public and investors but from that of banks as well. As a business cycle continues to advance and rapid expansion is required, monetary policy can be loosened to ensure the flow of liquidity to drive faster flows of liquidity to those who need it. However, an important point of consideration is not everybody is looking for liquidity and loans from the bank to accelerate their investment returns. Many people simply turn to the bank to finance their purchases, such as procuring their first home. In an economic environment where investors are trying to rapidly get to market, and financial institutions are trying to capitalize on the demand, the aforementioned 'herd-behavior' creates a 'frenzy' in which asset prices rapidly rise and market activity continues to accelerate.

Till van Treeck examines this notion through identifying this phenomenon in Raghuram Rajan's book, 'Fault Lines', identifying how the above-mentioned market forces can trigger greater inequality which generates the root cause for financial crises. Rajan, according to van Treeck, argued that increased household debt which started primarily in the United States, resulted in many lower to middle-income consumers gradually reducing their savings rates and beginning to accumulate greater debt by the early 1980s [7]. This, in turn, resulted in the fueling of the asset bubble (caused by the change in commodity and asset-prices) overheating and then a bubble-bursting in the 2007-2008 financial crisis. Literature has also begun to identify this notion, especially with relation to highly developed economies becoming more unequal because of open-market dynamics. These open-market dynamics generally tend to impact the ability for lower to middle-income families to save and invest successfully; instead, when many of the low-income/middle-income earners begin to turn to borrowing to fuel their expenses this results in an expansion in credit-based markets and underlying problems. An analysis conducted by the OECD across 18-nations (between 1968-2008) generally supported this hypothesis as well. Other economic analysis of advanced economies (measuring between 1920-2008) also identify how financial crises are generally preceded by credit expansionary periods.

An observation of macroeconomic trends across the United States, leading up to the GFC, identified how private consumption as a share of GDP, rose in the 1980s and that correlative aspects between the explosion of high-income roles (within the 1%, 0.5% and 0.1% of households) began to create a greater disparity between households in the US. The rise with income dispersion is one of the first signs, inequality became more pronounced especially when observing the disparity in hourly wages between income levels. Rajan derived a relative income hypothesis, believing that a recent decline in U.S private savings rates was not a good sign, and that rising household demand for credit expansion was not necessarily due to higher-income mobility and greater consumptive abilities; but due to rising costs and a need to cover for diminishing savings rates <sup>[8]</sup>. Rajan essentially drew one of the first links between income inequality, household debt and how household consumption ties into the equation. He justified this correlation by identifying how a better means of measuring low and middle-incomes having higher indebtedness was due to them 'living beyond their means' and how the State played an important role in facilitating credit as opposed to encouraging savings <sup>[15]</sup>. In sum, despite the period leading up to the GFC being identified as a period of 'optimism' and a time in which investors could believe household demand was at a high – this was simply a result of households not having enough disposable income and savings. This phenomenon is not just unique to that of the US, but identifiable across many other developed economies in the last 3-decades <sup>[9]</sup>. Aggregate savings rates being on a decline, while being replaced with access to cheap credit.

However, simply identifying a correlation between heightened expenditure and higher levels of household spending having a linkage to higher prices does not answer the question of inequality <sup>[16]</sup>. There are a host of other factors that led up to the GFC, there are also consequences relating to inequality that could be pertinent following the GFC. There is a need to explore then the structural causes which can more clearly showcase links between growth, inequality, monetary policy that resulted in the GFC.

### 3 Financial Crisis and Inequality: The Relationship

During the period of the great recession of the 1930s, there was a period where inequality rose at an alarming rate <sup>[14]</sup>. In 1929, it was noted that the top 5% of households in the US received approximately 1/3 of all personal income in the country; similarities can be observed then and, in the time, leading up to the GFC. According to available findings of the Gini coefficient in the US leading up to the 1930s Great Depression and the GFC in 2006 identified statistics of 0.47 and 0.45 respectively on the Gini measure <sup>[10]</sup>. Macroeconomic factors that created the foundation of the 2007-2008 GFC can also be linked to a period of economic prosperity, especially following that of the post-war period. During this time, the US economy gained a lot of momentum, growing by multitudes whereas the total debt of the US increased rapidly. These rapid increases in GDP and debt accumulation also trickled down to households as households regularly began to record higher and higher levels of debt. Between 1970 and 2006, the rising level of the Gini coefficient identified how the top 2.7% of households earned roughly 20% of total income <sup>[11]</sup>. This meant that wealth was unevenly distributed, a distribution that only worsened after the introduction of more liberalized economic policies that were introduced under the Bush Administration <sup>[13]</sup>. Another problem that occurred at the same time was despite the increase in GDP production and the rise in household indebtedness, real wages were not rising at the same time. This divergence was even noted by Alan Greenspan, in his recent memoir, which unveiled his worries that if wages did not keep up with rising production that the capabilities of the free market may come under doubt.

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Thus, the basic explanation for the relationship between inequality and financial crisis can be summarized as: growing levels of productivity became divergent from real wages. Simultaneously, the appetite for growth became increasingly insatiable as income growth soars at the highest income levels. Concurrently, in the pursuit of endless growth, the economy became overvalued and expensive causing households to exceed their regular debt burdens and to diminish their savings. A theory that has emerged in literature recently to explain this relationship is the theory of capital as power (CasP) prediction which was introduced by Bichler and Nizan (2016). The CasP model predicts an inverse relationship between growing power and increased 'Capitalist-Class' and a decline in stock market performances returns by that of the into the future. In Baines and Hager's study of the CasP model and implementation on various developed economies (from Germany, France, UK, and Japan) all of which vielded results reflecting the applicability of the model. The CasP model is unique in its definition of the stock market overall. The CasP model, when applied to the history of recorded S&P 500 recorded years showcased an inverse correlation between the two series: increased power and purchasing ability by that of the capitalist classes (inequality) and the higher likelihood of a massive economic correction <sup>[12]</sup>. An important factor to consider is how the model: which identified power and capital as its central points were tightly and inversely correlated to forward annual returns for stock markets (not just in the US) but also across Germany, France, the UK, and Japan.

An important point to revisit is as capitalists continue to gain purchasing power and asset prices rose, lower and middle-income families generally must resort to easier access to credit as opposed to higher returns. When implemented on a larger scale, this resulted in an inherently risky banking and financial requirement. The build-up of debt, at a large scale and rapid place, despite easing restriction around credit expansions generally reaches points of no return. As investors, during periods of credit expansion, can often seek to meet the rapid demand for more credit access in the form of selling more financial instruments (subprime mortgages, CDOs, bundled mortgages) and other investments to foreigners. This creates an unstable and dangerous economic environment which thus increases the likelihood of a financial crisis. An important measure to take, when identifying the true state of an economy, is to utilize a less-known relative income hypothesis. The relative-income hypothesis can be used to identify a household's current consumption expenditure, with relation to its past expenditure. It is a simple tool of measurement which can be used as a measurement to understand the true state of households. Without the support of rising income levels and rising respective savings rates, the rise of household indebtedness should not be identified by investors, banks, or capitalists as any form of real growth. In fact, rapid demand for more credit should be identified as a form of financial risk.

#### 4 Conclusion

Empirical findings and existing literature research identify more than a simplified relationship between inequality and the risk of financial crises. The applicability of models such as the CasP model as an identifier for future declining market returns

signify the problems with the current nature of the free market. The free market does not allow for equitable access for all, real wages also do not reflect greater productivity. Periods of crisis are also caused by insatiable desires to introduce more financial instrumentation, intermediaries to accelerate returns for top asset owners. However, during periods of systemic risk, financial crises cause the highest degree of harm for lower to middle-income families, who can suffer from the long-term repercussions of a market correction (income impact, health impacts) and otherwise. The long-term implications of a financial crisis are identifiable, even more than 10-years after the GFC, many industries have yet to recover from their pre-crisis levels. Small to medium sized businesses continue to suffer, lower to middle class incomes still have not recovered their pre-GFC savings rates, and normal consumers also face greater difficulty in accessing social mobility assets (ranging from education to proper shelter). By ignoring these elements, it can result in the permanence of inequality within an economy, permanent barriers to social mobility and an inability for a nation to create a strong workforce with strong savings and true consumption abilities. Instead, this hypothetical economy (which very well can be a developed economy based on research) could constantly be based on the toxic risk appetites of the capitalist class and the banking sector. Constantly seeking to maximize returns without considering the difference between indebtedness masquerading as 'income' and 'wealth'.

## References

- Acharya, V. V., & Richardson, M. (2009). Causes of the financial crisis. Critical review, 21(2-3), 195-210.
- 2. Albanesi, S., DeGiorgi, G., & Nosal, J. (2022). Credit growth and the financial crisis: A new narrative. Journal of Monetary Economics, 132, 118-139.
- 3. Atkinson, A. B. (2015). Can we reduce income inequality in OECD countries? Empirica, 42(2), 211-223.
- Baines, & Hager, S. B. (2020). Financial Crisis, Inequality, and Capitalist Diversity: A Critique of the Capital as Power Model of the Stock Market. New Political Economy, 25(1), 122–139. https://doi.org/10.1080/13563467.2018.1562434
- Gil, R., Kim, M., & Zanarone, G. (2022). Relationships under stress: Relational outsourcing in the US airline industry after the 2008 financial crisis. Management Science, 68(2), 1256-1277.
- Greenwood, R., Hanson, S. G., Shleifer, A., & Sørensen, J. A. (2022). Predictable financial crises. The Journal of Finance, 77(2), 863-921.
- 7. Hausman, A., & Johnston, W. J. (2014). Timeline of a financial crisis: Introduction to the special issue. Journal of Business Research, 67(1), 2667-2670.
- 8. Hoynes, H. W., Page, M. E., & Stevens, A. H. (2006). Poverty in America: Trends and explanations. Journal of Economic Perspectives, 20(1), 47-68.
- 9. Le Moglie, M., & Sorrenti, G. (2022). Revealing "mafia inc."? Financial crisis, organized crime, and the birth of new enterprises. Review of Economics and Statistics, 104(1), 142-156.
- Mah-Hui, & Ee, K. H. (2011). From Marx to Morgan Stanley: Inequality and Financial Crisis. Development and Change, 42(1), 209 – 227. https: // doi.org /10. 1111 /j. 1467 – 7660. 2011.01693.x

- Moudud-Ul-Huq, S., Zheng, C., Gupta, A. D., Hossain, S. A., & Biswas, T. (2023). Risk and performance in emerging economies: do bank diversification and financial crisis matter? Global Business Review, 24(4), 663-689.
- Nelson, & Tøge, A. G. (2017). Health trends in the wake of the financial crisis—increasing inequalities? Scandinavian Journal of Public Health, 45(18\_suppl), 22–29. https: // doi. Org /10.1177/1403494817707088
- Nguyen, T. C., Castro, V., & Wood, J. (2022). A new comprehensive database of financial crises: Identification, frequency, and duration. Economic Modelling, 108, 105770.
- 14. Nguyen, T. C., Castro, V., & Wood, J. (2022). Political environment and financial crises. International Journal of Finance & Economics, 27(1), 417-438.
- 15. Nguyen. (2022). The effects of financial crisis on income inequality. Development Policy Review, 40(6). https://doi.org/10.1111/dpr.12600
- Perugini, Hölscher, J., & Collie, S. (2016). Inequality, credit and financial crises. Cambridge Journal of Economics, 40(1), 227–257. https://doi.org/10.1093/cje/beu075
- 17. Straubhaar, T. (2017). On the economics of a universal basic income. Intereconomics, 52(2), 74-80.
- Sufi, A., & Taylor, A. M. (2022). Financial crises: A survey. Handbook of International Economics, 6, 291-340.
- van Treeck. (2014). DID INEQUALITY CAUSE THE U.S. FINANCIAL CRISIS? Journal of Economic Surveys, 28(3), 421–448. https://doi.org/10.1111/joes.12028
- Venkateswarlu, Y., Baskar, K., Wongchai, A., Gauri Shankar, V., Paolo Martel Carranza, C., Gonzáles, J. L. A., & Murali Dharan, A. R. (2022). An efficient outlier detection with deep learning-based financial crisis prediction model in big data environment. Computational Intelligence and Neuroscience, 2022.

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