

**CAPITAL OWNERSHIP IN CONTEMPORARY FINANCIALIZATION:
THEORIZING THE NEW REGIME OF PROPERTY RELATIONS**

by

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Abstract

The past four decades have seen a significant re-organization in the underlying structure of capitalism, characterized in part by the ascendance of finance. This thesis examines financialization ontologically and epistemologically and suggests that one of the most noteworthy yet understudied outcomes of financialization in the United States has been the establishment of a class of financiers as the new owners of capital. In the introduction, I demonstrate that the share of US corporations directly owned by American finance has grown from 3 percent in 1945 to at least 62 percent in 2018 and propose that US-based financialization should be understood as a new regime of property relations, where financiers increasingly own the means of production rather than extend credit to industrial capitalists. As finance has become immensely powerful, Chapter 2 examines how the discipline of human geography has approached financial questions since the 1980s. Through the analysis of Web of Science bibliometric data and oral histories conducted with 23 key actors in the field, Chapter 2 illustrates the enduring dominance of the UK as a center of knowledge creation and dissemination for the subfield. It also describes how financial geography underwent five distinct intellectual turns, evolving into a polycentric and pluralist sub-discipline. Finally, this chapter emphasizes the lasting influence that the 2008 financial crisis had on the subfield by popularizing financial topics in geography and amplifying geographical scholarship on financialization within the broader social sciences. Chapter 3 shifts the mode of inquiry to examine how the US financial sector was transformed in the past four decades to attain its immense profitability. To do so, the chapter systematically examines the changing sources of income and the composition of assets held by US financial firms. Through the analysis of US macro-economic data, this chapter documents that American finance has grown immensely profitable because it

abandoned lending as its primary activity in favour of asset management and ownership. The conclusion discusses how the shift of US finance from a lender to an owner of capital deprives the real economy of interest-bearing capital, which consequently undermines the future basis of profit in finance.

Lay Summary

Since the 1980s finance has become immensely powerful in many countries around the world. This phenomenon—the increased influence exerted by financial actors, institutions, and markets, as well as financial logics and practices—has been described as financialization. This thesis explores two main questions. First, it examines how the discipline of geography has studied the questions of money and finance in this age of growing financial influence. In doing so, it explores how financial geography came to exist as a coherent intellectual project by studying the people and places that birthed it, the intellectual histories that shaped it, and the historical conditions that shaped its wider reception. Secondly, the thesis explores how the US financial sector was able to attain such immense profitability in the past forty years, suggesting that the primary reason for its increased profitability has been the shift from lending to management and ownership of capital.

Preface

This thesis is the original, unpublished work of Albina Gibadullina. The interviews carried out for this thesis were approved by the full University of British Columbia Behavioral Research Ethics Board or by an authorized delegated reviewer, UBC BREB number H19-01360.

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List of Abbreviations

AUM	Assets under Management
BEA	Bureau of Economic Analysis
ERISA	Employment Retirement Income Security Act
ETF	Exchange-Traded Fund
FDIC	Federal Deposit Insurance Corporation
GDP	Gross Domestic Product
IPO	Initial Public Offering
IRS	Internal Revenue Service
OTC	Over-the-Counter
NAICS	North American Industry Classification System
NIPA	National Income and Product Accounts
SIC	Standard Industrial Classification
SOI	Statistics of Income
TBTF	Too-Big-To-Fail

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For Nick and my parents

Chapter 1: Introduction

On the eve of the Russian revolution in 1916, Lenin wrote how “the twentieth century marks the turning-point from the old capitalism to the new, from the domination of capital in general to the domination of finance capital” (1917, p.32). Now, more than a century later, finance once again wields an unprecedented amount of power over the global economy – a phenomenon often described as financialization. As Arrighi (1994) suggests, periods of financialization seem to occur cyclically, emerging out of moments of crisis when the productive sphere has experienced significant declines in profits and capital flees production to seek higher returns in speculative and financial investments. The most recent period of financial ascent has its roots in the global recession of the 1970s, which marked the end of the Fordist regime of accumulation in the West. Faced with a surge in unemployment and high rates of inflation, US policymakers moved to extricate themselves from the responsibility of attaining the called-for economic outcomes by asserting market rule, unable as they were to resolve the distributional conflicts through conventional policy approaches (Krippner, 2011). This necessitated a series of de-regulatory and re-regulatory changes, which lead to the liberalization and globalization of financial markets and consequently fueled the growth of global finance, shifting the balance of power from real to fictitious capital.

In the past twenty years financialization has been used to describe a wide range of socio-economic phenomena, from micro-economic changes in individual behaviors to macro-economic transformations in the dynamics of international finance. Alongside the processes of neoliberalization and globalization, financialization has established itself as one of the three

primary characteristics of post-1970s capitalism. Although there are many distinct approaches to understanding financialization, the literature on this topic could be broadly categorized into three main schools of thought: (1) scholarship in the tradition of French regulation theory that sees financialization as a new regime of accumulation which succeeded the Fordist regime of mass production and consumption, (2) the critical social accountancy school which emphasizes the growing importance of financial markets and the primacy of shareholder value in governing the behaviour of corporations, and (3) the socio-cultural approach which focuses on the financialization of everyday life and interrogates the production of financialized subjectivities (French et al., 2011; Van der Zwan, 2014). As will be discussed in Chapter 2, there is not a pre-given (or even dominant) approach to studying financialization: conceptual frameworks and theories, methodological approaches, scales of analysis and research sites, and even proposed definitions of financialization tend to vary significantly from one project to another. The literature on financialization thus represents a post-disciplinary, pluralist, and polycentric assemblage of scholarship broadly concerned with the growing power and influence of finance.

One of the first and perhaps most frequently used definition of financialization was proposed by Gerald Epstein, who described it as “the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies” (2005, p.3). More recently Manuel Aalbers has provided a definition of financialization which geographers particularly have found more attractive, being “the increasing dominance of financial actors, markets, practices, measurements, and narratives, at various scales, resulting in a structural transformation of economies, firms (including financial institutions), states, and households” (2019, p.4). This thesis starts with a narrower conceptualization of the term

developed by Greta Krippner, who characterized it as “a pattern of accumulation in which profits accrue primarily through financial channels rather than through trade and commodity production” (2005, p.174). Krippner (2005) has famously shown that the US financial sector has managed to increase its share of corporate profits at much higher rates than its share of GDP or employment, arguing that financialization should be interpreted as change in the patterns of accumulation rather than in economic activities. According to the Bureau of Economic Analysis (BEA), the finance and insurance share of corporate profits has grown from 7 to 26 percent since 1947, while its share of value added and its share of full-time equivalent (FTE) employment have only increased from 2.4 to 7.6 percent and from 2.6 to 4.5 percent, respectively (see Figure 1.1).

While Krippner’s formulization of financialization provided a starting point for my analysis, I depart from it based on the empirical findings of Chapter 3, which document the changing function of American finance from a lender to an owner of capital. In this introductory chapter, I show that since the end of World War II, the share of US capital directly owned by the US financial sector has grown from 3 percent to at least 62 percent. I argue that this growing concentration of capital ownership by US financial firms is one of the most noteworthy structural transformations in the American economy of the past four decades. Based on these findings, I propose that financialization in the United States should be primarily (but not exclusively) understood as a new regime of property relations, in which the class of financiers have established themselves as the direct owners of the means of production, having at their discretion ultimate control over the US economy by way of collectively holding the most shares by far in American corporations.

Given the hegemonic influence exerted by the United States in the global economy in the post-Bretton Woods era, it is not particularly surprising that much of our understanding of modern finance in general, as well as global finance specifically, has been shaped by the scholarship emanating from the United States. As this latest period of financialization appears to signal the “autumn” of the American empire (Arrighi, 1994), this thesis is also largely concerned with the systemic changes occurring in the United States, aiming to explore how the rise of finance represents a contradictory transformation in the development of American capitalism. It is argued that the turn to finance-oriented economic growth was a “fix” pursued by the political and economic elites to address the persisting crisis in capital accumulation and the (at the time) deteriorating power of the capitalist class. While during this most recent period of financialization, the power of the US capitalist class has been temporarily restored, finance-oriented economic restructuring did not bring back the rates of economic growth experienced in the post-War era, as much of the new wealth accrued by the US economic elite since the 1980s emanated from the extraction of wealth from the bottom 90 percent of Americans rather than from the newly created surplus value: since 1989, the share of total wealth held by the 1 percent of Americans has increased from 24 to 33 percent, while the share of wealth owned by the bottom half decreased from 4 to 1 percent (see Figure 1.2). Finance thus became a powerful and highly effective mechanism of wealth extraction for the very rich in the conditions of slowing economic growth and falling rates of profit.

This introductory chapter is structured as follows. The first section examines the period of finance’s ascent dating back to the beginning of the twentieth century, introducing the concept of “finance capital” and providing a brief overview of some of the first Marxist analyses and critiques

of financialization. It then provides a short history of the decline of finance capitalism in the US following the Great Depression. The second section describes how the crisis of the 1970s led US policymakers to undo much of the financial regulation previously imposed as part of the New Deal in 1933, creating the conditions for the most recent financialization turn. The following section examines the age of “new finance capitalism”, emphasizing the rise of a new class of financial intermediaries, providing investment advisory and asset management services. This section also develops a comparative analysis of the finance capitalism of the twentieth century and the “new finance capitalism” of the twenty first century. The concluding section provides a road map to the rest of the thesis and a brief summary of Chapters 2 and 3.

1.1 The rise and fall of finance capitalism (1880s to 1920s)

When Lenin wrote of the growing power of finance capital at the dawn of the twentieth century, industrial production in many European countries was beginning to be monopolized by a few large conglomerates. For Lenin, a combination of production, attained through a grouping of different branches of industry under a single entity, was emblematic of capitalism having reached its highest stage of development – that of imperialism (1917, p.11). As the monopolization of production was occurring concurrently with the consolidation of the banking sector, financial institutions were no longer just ‘modest middlemen’ meeting the financing needs of industrial capitalists. Lenin suggested that banks transformed themselves “into powerful monopolies having at their command almost the whole of the money capital of all the capitalists and small businessmen and also the larger part of the means of production and sources of raw materials in any one country and in a number of countries” (1917, p.20). The monopolization of the financial system enabled banks to

“subordinate to their will all the operations, both commercial and industrial, of the whole of capitalist society,” as they were able “to ascertain exactly the financial position of the various capitalists, then to control them, to influence them by restricting or enlarging, facilitating or hindering credits, and finally to entirely determine their fate, determine their income, deprive them of capital, or permit them to increase their capital rapidly and to enormous dimensions” (Lenin, 1917, p.28).

The term ‘finance capital’ had been coined a few years earlier by Rudolf Hilferding, an Austrian-born Marxist economist, in order to explain how, given the conditions of centralized production, banks begin to allocate increasing amounts of their funding to the expansion of industrial production, which leads to the metamorphosis of money capital into finance capital (1910). Hilferding suggested that in order to lessen imbalances in power among the newly developed industrial cartels, banks amalgamate and expand their operations. Being consolidated financial entities, they begin to provide financing simultaneously to multiple sectors of the economy. The “cartelization” of production brings about the monopolization of banking, which in turn contributes to the intertwining of industry and finance. As capitalism matures, banks receive increasing amounts of capital from Hilferding’s “non-productive” classes – the proletariat - in the form of bank deposits. As banks begin to exert control over a growing share of the overall savings in society, industrial capitalists become increasingly reliant on banks (rather than individuals) to finance production. And with fewer available investment opportunities in trade, speculation, and non-productive lending, banks turn to industrial capitalists as their primary borrower. Thus, “the greater part of the capital invested with the banks is transformed into industrial, productive capital” and “[a]n ever-increasing proportion of the capital used in industry is finance capital, capital at the

disposition of the banks which is used by the industrialists” (Hilferding, 1910, p.225). Hilferding further remarked that with the expansion of credit, banks “become founders and eventually rulers of industry, whose profits they seize for themselves as finance capital, just as formerly the old usurer seized, in the form of 'interest', the produce of the peasants and the ground rent of the lord of the manor” (1910, p.226).

When Lenin and Hilferding were describing the ascendance of finance capital, they were primarily referring to how the Western European (particularly German) banks were expanding in scope and scale and were becoming increasingly involved in financing the expansion of industrial production. On the other side of the Atlantic, Louis Brandeis was recognizing similar patterns of financial ascent and consolidation of the banking industry in the United States (1914). However Brandeis’s assessment of finance’s grip over the productive economy differed from both Lenin’s and Hilferding’s analyses as Brandeis emphasized the central role played by investment bankers (like J. P. Morgan) on boards of non-financial corporations, while Lenin and Hilferding have primarily focused on changes in the lending patterns of commercial banks. For Brandeis, serving on multiple interlocking corporate boards enabled investment banks to exert direct control over the activities of US non-financial corporations and consequently profit from the decisions pursued by the board of directors, on which they were often the dominant voice:

“An urgent or extensive need of new money was considered a sufficient reason for the banker's entering a board of directors... When once a banker has entered the Board--whatever may have been the occasion--his grip proves tenacious and his influence usually supreme; for he controls the supply of new money... The investment banker, through his controlling influence on the Board of Directors, decides that the corporation shall issue and sell the securities, decides the price at which it shall sell them, and decides that it shall sell the securities to himself.”

The interlocking nature of board directorates meant that bankers would often serve on boards of corporations that were in direct competition with one another and, thus, board meetings would become spaces for the consolidation of corporate interests and various forms of collusion. The ability to serve on the boards of corporations in the same line of work largely contributed to the monopolization of US finance, as it enabled banks to coordinate their activities. In 1912, for instance, the twenty largest US commercial banks shared a total of 124 board interlocks amongst themselves (Mizruchi, 1982). Interlocking directorates also enabled a few exceptionally large financial conglomerates to effectively exert control over entire industries. A report commissioned by the US House of Representatives in 1913 found that J.P. Morgan & Co alone held 341 directorships in 112 corporations and controlled over \$22 billion in capitalization through board memberships (Pujo Committee Report, 1913). Concerns about the growing consolidation of American industries and the role of Wall Street financiers as the main culprits in these collusive activities contributed to the passing of the Clayton Antitrust Act of 1914, which outlawed the sharing of directorates among competing corporations and made it more difficult for banks to both coordinate their activities and control entire sectors of the economy.

This era of financial exuberance came to a further halt following the Wall Street Crash of 1929 and the subsequent Great Depression, as the financial crisis and its aftermath forced the US Senate to pass legislation that curtailed the powers of financial conglomerates. The Glass-Steagall Act of 1933 aimed to prevent future bank runs and speculative bubbles in financial markets by mandating a legal separation between commercial and investment banks. The new legislation meant that the

investment banks could no longer rely on deposits as a source of funding, and the commercial banks could no longer participate in securities offerings and trading (Kotz, 1978). By prohibiting investment banks from engaging in commercial banking activities and vice versa, the act constricted the monopoly-like status of financial empires such as J.P. Morgan & Co which had to split its House of Morgan into an investment bank, Morgan Stanley, and a commercial bank, Morgan Guaranty (Chernow, 1990). Krippner writes that “the effect of New Deal legislation was to fragment the financial sector into diverse industry groups that found it difficult to cohere around a unified political agenda” (2011, p.61).

While this legislation has notably weakened the power of financiers by producing a highly compartmentalized financial system, in *The Fracturing of the American Corporate Elite* Mark Mizruchi (2013) suggests that an even more crucial factor behind the decline of US banking in the 1930s was the rise of managerial capitalism. The separation of corporate ownership and control brought about by the dispersion of stock ownership among ordinary Americans meant that the managers of corporations no longer had to act in the best interests of the stockholders and could retain a significant portion of a company’s earnings rather than distribute them in dividends (Berle and Means, 1932). The greater availability of retained earnings up until the mid-1960s (Stearns, 1986) meant that companies were able to internally finance new projects instead of relying on financial institutions for lines of credit (Chandler, 1977). As non-financial corporations were able to reduce their dependence on financial firms, there was less of a need to have financial representatives on their corporate boards. Mizruchi (1982) estimated that in the post-war period, the share of financial interlocks involving financial representatives on boards of non-financial corporations has decreased by more than twenty percent, even though financial institutions overall

remained quite central on corporate boards up until the mid-1970s, with bank boards emerging as meeting spaces for the most influential corporate executives. Mizruchi attributes these transformations in the structure of corporate boards to the changing role of US banks in the American economy from being “the centers of power” in the early twentieth century to becoming a “mediating mechanism” in the post-World War II era, i.e. institutions that “serve as a meeting place for leading members of an organizational field and provide a forum for the discussion of issues and resolution of conflicts” (2013, p.131).

History often appears to have the peculiar tendency of repeating itself, and finance capitalism made a comeback in the early 1980s after fifty years of financial decline. As will be discussed below, the age of ‘new finance capitalism’ has not simply been a return to an earlier phase of financial dominance: the roles and functions of the modern financial system of the post-Bretton Woods era are fundamentally different than those of the previous era . This thesis nonetheless begins with the history of the rise and fall of finance capitalism dating back to over a century ago and does so for three primary reasons. First, as we further examine present forms of financialization, it is important to remember that the current financial takeover of the global economy is not historically exceptional, and we must recognize that, in similarity with the prior periods of financial exuberance, the current era of financialization is also largely a product of the political choices made and upheld through a particular legal infrastructure, i.e. the rise of finance is not a natural outcome of economic processes – financialization had to be produced. Secondly, by recognizing how monopoly capitalism and finance capitalism represented two sides of the same system, Lenin, Hilferding, and Brandeis were at the forefront of conceptualizing how and why the class of financiers could exert influence and control over industrial production and the economy at large,

drawing our attention to the immense (and often hidden) power accumulated by the financial elites. It is then important to acknowledge that these earlier studies, in one way or another, have informed more recent work on how modern finance dominates the non-financial spheres of life, as the links to this earlier scholarship have not always been made explicit in the financialization literature. Finally, it is valuable for us to understand that the characteristics of ‘finance capitalism’ are malleable. Examining the ways by which the financial institutions of the early twentieth century exerted their influence serves as a contrast against which we can better view the functions of the “new” finance capitalism, its relationship with the real economy, and its forms of domination and control.

1.2 The prelude to the financialization turn in the US (1970s to 1980s)

The cracks in the post-War system of ‘embedded liberalism’ (Ruggie, 1982) first appeared in the 1960s, as unemployment and inflation began to surge among many nations in the Global North. This sustained period of stagflation contributed to the fiscal crisis of the state as governments struggled to collect the needed tax revenue amidst soaring social expenditures (Block, 1981). Following an unsustainable growth in international speculative capital flows, the fixed exchange rates and the convertibility of the US dollar into gold were abandoned in 1971, bringing an end to the Bretton Woods system of monetary management and opening the US economy to the volatility present in global financial markets (Helleiner, 1994). The OPEC oil embargo of 1973 was another shock to the already fragile and deteriorating system, deepening the existing contradictions and further slowing down economic growth (Issawi, 1978). With the rate of profit falling in the United States by more than fifty percent between the 1960s and the early 1980s and affecting almost all

industries and sectors (Dumenil and Levy, 2002), by the mid-1970s, “[t]he embedded liberalism that had delivered high rates of growth to at least the advanced capitalist countries after 1945 was clearly exhausted and was no longer working” (Harvey, 2005, p.12).

Given these conditions of slowing economic growth and a persisting crisis of capital accumulation, Greta Krippner argues that the return to an era of finance-dominated capitalism was the unintended outcome of US policymakers trying to find new sources of funding in a world of scarce capital and soaring inflation: “the creation of a macro-economic environment conducive to financialization was not a deliberate outcome sought by policymakers; rather, it was an unplanned result of policymakers’ attempts to respond to a unique constellation of difficulties that confronted the state beginning in the late 1960s and 1970s” (2011, p.58). Krippner explains that “as inflation accelerated, policymakers found themselves standing at the center of an increasingly bitter distributional struggle that pitted large corporations against urban residents, suburban homeowners, and proprietors of small business” (2011, p.64). After hundreds of unsuccessful proposals aimed to tame the inflation, and a subsequent loss of public confidence, they were faced with the dilemma of how to engage in economic reform while absolving themselves from being held responsible for the present outcomes. Krippner suggests that the answer to this dilemma was implementing policies of financial deregulation and monetarism that empowered the market, creating an impression that the economic changes which were introduced arose automatically from market fluctuations rather than being an outcome of political choices.

Under the new leadership of Paul Volcker in 1979, the Federal Reserve embraced monetarism as a way to tackle the surging inflation (Konings, 2011). Instead of changing the federal funds rate

directly, the Fed targeted the money supply, decreasing the amount of currency in circulation, which consequently (yet indirectly) led to a drastic surge in the federal funds rate: from 10 percent in 1979 to almost 20 percent in 1981 (Greider, 1987).¹ While the economic experiment, which came to be known as “the Volcker shock”, did break the back of inflation, it also plunged the United States into an economic recession, with unemployment rates reaching double digits for the first time since the Great Depression and heavily impacting US manufacturing (Panitch and Gindin, 2012). Facing interest rate ceilings (that were imposed as part of the Banking Act in 1933), US commercial banks were also hit hard by the rapid growth in prime lending rates, unable to compete with the money market mutual funds of investment banks, which were able to offer much higher rates of returns to their investors (Hager, 2012).

The drainage of funds from depository institutions created significant imbalances in the financial system, convincing the US Senate to phase out interest rate ceilings altogether: it was argued that restrictions on maximum interest rates was the bottleneck which made capital scarce, and deregulating them would make capital abundant (Krippner, 2011). Instead of having policymakers figure out how to allocate finite resources among competing constituencies and causes, the “impartial” market would decide who would get the capital and for what cost: “interest rate ceilings no longer acted as “speed limits” for the economy: credit simply flowed to the highest bidder” (Krippner, 2011, p.81). Following the partial repeal of Regulation Q, by 1986 the US economy was flooded with credit, which itself was becoming increasingly securitized (Rosenthal and Ocampo, 1989). The high interest environment, which enabled US commercial banks to regain

¹ See <https://fred.stlouisfed.org/series/FEDFUNDS>

their footing after the restrictions on maximum interest rates were lifted, drained funds from the productive sectors of the economy, as financial investments were able to offer much high rates of return (Dumenil and Levy, 2004). At the same time, the climbing interest rates increased the cost of financing for long-term investment projects, encouraging US non-financial corporations to divert capital from productive to financial channels (Orhangazi, 2008).

The appointment of Alan Greenspan in 1987 as Chairman of the Federal Reserve marked another significant milestone for the advocates of financial deregulation. Since the beginning of his appointment, Greenspan (2007) had his sights on repealing the Glass-Steagall Act of 1933 - one of the only remaining pieces of the New Deal legislation that was said to be undermining the global competitiveness of American finance. After more than a decade of slowly chipping away at it, the Act was fully repealed in 1999, finally allowing financial institutions to engage in a full range of services for the first time since the Great Depression and setting the groundwork for the inevitable financial crash of 2008 (Crawford, 2011). Almost immediately after its repeal, Davis wrote “the biggest commercial banks grew to become the biggest investment banks, and the universal banking format prevalent in the rest of the industrialized world quickly came to dominance in the US” (2009, p.119).

A few years prior, the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 eliminated most of the geographical restrictions related to interstate banking that were initially imposed in 1927 as part of the McFadden Act to prevent excessive concentration of financial power (Mulloy and Lasker, 1995). As one might expect, repealing legislation that constricted the power of financial conglomerates in the post-War period facilitated the consolidation of the US

financial sector throughout the 1990s. Dymski (2000) estimates that following a wave of bank mergers in the 90s, the number of FDIC-insured commercial banks has decreased from almost 14,500 in 1984 to less than 9,000 by the end of 1999, with the largest 25 banks controlling over 70 percent of all bank assets at the end of the decade. This trend of financial consolidation continued well into the late 2000s: in 2011, the ten largest US banks accounted for 68 percent of all bank assets compared to only 44 percent in 1997 (Christophers, 2018). The monopolization of US banking, nonetheless, was not the most significant characteristic of contemporary financialization.

1.3 The age of “new finance capitalism” (1990s to present)

Drawing on Hilferding’s analysis of finance capitalism in the early twentieth century (1910), Gerald Davis coined the term “new finance capitalism” to describe a system of corporate ownership that emerged in the United States in the 1990s, in which “a small number of investment funds find themselves with substantial ownership positions in hundreds of corporations simultaneously” (2008, p.11). The most powerful financial intermediaries of the twenty-first century are no longer commercial or even investment banks, but mutual and exchange-traded funds (ETFs). The “great vampire squid wrapped around the face of humanity” (Taibbi, 2010) are not the ‘Goldman Sachs’ of the world, but rather the triumvirate of Blackrock, Vanguard, and State Street – the “big three” index funds (Fichtner et al., 2017), which together acquired over twenty percent of the S&P 500 index (Backus et al., 2019). Driven by the liberalizations of investment regulations, the technological advancements in financial markets, and the economies of scale present in digital asset management platforms (Fichtner, 2019; Haberly et. al., 2019), since the

2000s passively managed investment funds have been able to grow the size of their investment portfolios at an annual rate double that of the actively managed funds (Towers Watson, 2014). And in 2019, for the first time in US history, assets in index-based mutual funds and ETFs have surpassed those in actively managed funds (Gittelsohn, 2019).

While at the end of World War II 95 percent of US corporate stocks were held directly by the American households, by 2018 this number had dropped to 36 percent as a new set of financial intermediaries, providing professional investment advisory and asset management services, emerged. Altogether, since 1945, the share of corporate equities owned directly by US financial firms has grown from 3 to 44 percent (see Figure 1.3). Since the Federal Reserve categorizes private equity firms and hedge funds under the ‘households’ category,² the true share of corporate equities owned by US finance is likely to be at least 12 to 13 percent higher than reported (Braun, 2020). Examining the Securities and Exchange Commission (SEC) filings,³ I estimate that the share of the US stock market owned by US institutional investors (i.e. financial firms with at least \$100 million in assets under management) has grown from 52 percent in 1997 (the first year the SEC data is available) to 66 percent in 2007, subsequently falling to 62 percent in 2018 (see Figure 1.4). Therefore, the share of US corporate capital owned by American financial firms has to be at least 62 percent, as not all financial firms get categorized as institutional investors.

² See https://www.federalreserve.gov/releases/Z1/z1_technical_qa.htm

³ See <https://www.sec.gov/fast-answers/answers-form13fhtm.html>

The initial increase in the share of capital owned by the financial sector between the 1950s and the 1980s was driven by the rapid proliferation of private pension funds (see Figure 1.5) following the dissolution of defined-benefit schemes and their gradual replacement with the defined-contribution plans (Rutterford and Hannah, 2016). While only 26 percent of American workers had defined-contribution pension plans in 1974, three quarters did in 2017 (U.S. Department of Labor, 2019). By the 1980s, however, the share of equity owned directly by private pension funds began to fall rapidly as mutual funds started to gain significant presence in the stock market, surpassing pension funds as the largest shareholder in the mid-1990s. Together with the ETFs, they now account for almost thirty percent of the American equities market. The rapid growth of mutual funds can be partly attributed to the re-organization of the US investment chain following the introduction of new fiduciary requirements to the Employment Retirement Income Security Act (ERISA) in 1979, which necessitated that pension funds follow the prescriptions of modern portfolio theory in their investment decisions (Montagne, 2013). Following these stricter investment requirements, from the 1980s and onward pension funds were incentivized to outsource the management of retirees' savings to professional asset managers, such as mutual funds, instead of directly investing in the stock market themselves (van der Zwan, 2017). As a result, retirement assets as a share of all assets managed by mutual funds has grown from 20 to 45 percent between 1987 and 2018 (Braun, 2020).

Even though the political economy literature often groups pension funds and passive asset managers (e.g. mutual funds and ETFs) under the umbrella term of institutional investors, Braun (2020) proposes that the era of “pension fund capitalism” (Clark, 2000) needs to be distinguished from the corporate governance regime of “asset manager capitalism” (Braun, 2016), as the latter exhibits more concentrated and diversified patterns of control. Since index funds are built to follow

the market instead of trying to beat it, they end up owning firms in a wide range of industries representative of the overall economy. Although in absolute terms in different time periods the total value of their investments in various sectors can vary significantly (as shown in Figure 1.6), the rate of ownership as a share of total market capitalization stays relatively constant across different industries (see Figure 1.4). The investment approach of simply following the market implies that index funds are less invested in the overall wellbeing of the firms they own, preferring to keep their investments liquid, in contrast to pension funds that tend to be very active in issues of corporate governance (Clark and Hebb, 2004). This general disinterestedness in the long-term prosperity of their investees stems primarily from the compensation structure of mutual funds and ETFs. As index funds are expected to pass on any investment gains or losses to the ultimate owners of assets (e.g. pension funds or households), their main (and often only) revenue source are fees, which are charged as a fixed percentage of assets under management (AUM). Due to this compensation structure, Braun writes that “asset managers are incentivized to maximize assets under management” (2020, p.18) rather than investment returns. And with the almost endless economies of scale present in digital asset management platforms (Haberly et al., 2019), the largest asset managers continue to benefit from the falling expense ratios and expand their control over the US economy at higher rates than their less powerful competitors (see Figure 1.7).

The “new finance capitalism” is therefore an economic system in which a very small number of gigantic investment funds directly own and manage historically unprecedented amounts of capital on behalf of the ultimate owners of capital – the shareholders. This transformation in property relations, where the financier class have established themselves as the direct owners of almost two-thirds of US corporations, might be the most notable, worrisome, and under-researched

characteristic of this ongoing period of financialization. Despite what has been promised by the proponents of financial liberalization, a greater participation in the stock market among ordinary Americans did not result in a more equal distribution of resources (Lin and Neely, 2020). At the end of 2019, the top 1 percent of Americans owned 54 percent of the total market for corporate equities and mutual fund shares (an increase from 43 percent in 1989) with the next 9 percent capturing the other 34 percent, all while the bottom half owned less than one percent of the US equities market (see Figure 1.8). What the past four decades of financial liberalization have achieved though was to cede ultimate power and control over the economic activities to a handful of financiers. In this age of “new finance capitalism”, money capital is being transformed into finance capital not because financiers lend more and more of their capital to industrial capitalists as initially conceptualized by Hilferding (1910), but rather because financiers, using other people’s capital, for the first time in American history have established themselves as the direct owners of the majority of US corporations.

This is not the only way the “new finance capitalism” of the twenty-first century differs from the “finance capitalism” of the early twentieth century. As discussed by Davis (2008, p.17), the two periods of financial dominance are distinct in three additional ways. First, compared to the brute force method of gaining control over corporations previously carried out by J.P. Morgan & Co and their ilk through mergers and acquisitions, ownership in corporations today is acquired through an arms length process, where the firms themselves often only become aware of their largest shareholders after the securities filings of investment funds become publicly available. Secondly, in contrast to an earlier era when financial institutions would be determining when and how non-financial firms could access capital, investment funds are not involved in any corporate financing

decisions. And finally, differing from the active roles played by the investment banks of the twentieth century on corporate boards, mutual and exchange-traded funds avoid nominating directors and rarely vote against the management, preferring to liquidate their investments when their investees do not meet set financial targets. The financial control is thus both highly concentrated and liquid. Davis (2008, p.19), for instance, has documented that Fidelity (the fourth largest American investment fund) dropped almost a quarter of its large (>5 percent) investment stakes a year after they were purchased, while only retaining a third of them after a five-year period.

Despite this general disinterestedness in the future of companies they are invested in, Fichtner et al. (2017) suggest that holding such large ownership stakes in a wide range of (often competing) companies enable passively managed investment funds to exert “hidden” power over the activities of corporations in two primary ways: via private engagements with the management of corporations and by encouraging corporations to internalize the objectives of investment funds without needing to provide explicit directives. Similar to the role played by financial institutions in the Gilded Age as consolidators of industrial activity, investment funds of today (as the largest shareholders of US publicly traded companies) engage in “horizontal shareholding” by owning shares of competitors in concentrated markets – the activity which tends to anticompetitively raise prices and lead to various forms of market collusion (Elhauge, 2016).

One of the most detrimental effects of the rise of US institutional investors and the subsequent concentration of stock ownership has been a shift from the era of managerial capitalism to an economic system in which shareholders became the dominant force (Crotty, 2002). The onset of

the ideology of shareholder value maximization in the 1980s as the primary principle of corporate governance necessitated that the US non-financial corporations maximize the short-term returns for their investors through stock-buybacks and high dividend payouts, instead of deploying the retained earnings in the expansion of their operations (Dumenil and Levy, 2011). Lazonick and O'Sullivan described this as a "shift in the strategic orientation of top corporate managers in the allocation of corporate resources and returns away from 'retain and reinvest' and towards 'downsize and distribute'" (2000, p.18), marking the beginning of the era of financial exuberance in which financial growth was conditional on the decline of the real economy.

With the booming stock market and an exponentially growing share of wealth accumulated at the top, Harvey writes that this period of financialization "succeeded remarkably well in restoring ... the power of an economic elite", even though it has not been "very effective in revitalizing global capital accumulation" (2005, p.19). As finance grew increasingly powerful, it underwent a functional change, transitioning from a position of servitude in relation to the productive economy to one of parasitism. In stark contrast to the age of finance capitalism experienced by Lenin, Hilferding, and Brandeis, when financiers became immensely influential by allocating all of their resources into the expansion of production, in the age "new finance capitalism", financiers became immensely powerful by doing the exact opposite: stripping the industrial production to its bare bones to maximize their short-term financial gains. The recent return to a period of finance-led growth (Boyer, 2000) is thus a very contradictory development in late-stage capitalism that temporarily resolves the crisis of accumulation for the capitalist class by providing them the financial mechanism to extract increasing amounts of surplus value from a crumbling economic system, whose primary source of surplus value is being devoured by the vultures of finance.

1.4 Outline of the thesis

As the past four decades have seen a significant re-organization in the underlying structure of capitalism characterized by the ascendance of financialization, scholars across social science disciplines have been paying increasing attention to the changing role of finance in the economy and society. While prior to the global financial crisis of 2008, researching finance was often seen as the exclusive terrain of mathematically inclined economists due to its perceived technical complexity (Christophers, 2009), in its aftermath finance was moved to the forefront of heterodox economics scholarship. This thesis aims to contribute to the proliferating literature on financialization in two empirical chapters. Chapter 2 provides a genealogy of geographical studies of money and finance, describing how the field of financial geography has evolved since the 1980s, while Chapter 3 systematically examines why American finance has grown so profitable during this era of “new finance capitalism” using US macro-economic data.

As the past decade has yielded an unprecedented surge in geographical research on money and finance, Chapter 2 aims to provide an institutional sociology of the rapidly growing subdiscipline of financial geography, using Web of Science bibliometric data and oral histories of key figures in the field. Employing a two-track methodology involving an analysis of 440 financial geography articles published since 1986 and 23 interviews conducted with self-identified financial geographers and scholars allied with the financial geography project, Chapter 2 aims to deconstruct how financial geography emerged as a field by examining the people present at the birth, the intellectual histories that shaped it, and the conditions that have influenced its wider reception.

Chapter 2 presents three main empirical findings. First, it shows how the political economic conditions of financialization in the UK coupled with the patterns of institutionalization and the subfield's origins resulted in an enduring British dominance. Second, through the analysis of financial geography's co-citation networks, the chapter demonstrates that during the three decades of its existence, financial geography evolved into a poly-centric and pluralist subfield with four main intellectual traditions represented: (urban) political economy, geographical economics/regional science, cultural economy, and network studies approaches. Finally, this chapter exposes the extent to which the 2008 global financial crisis was the major force behind the consolidation of financial geography as a subfield, giving momentum to studies of financialization and amplifying the visibility of financial geography's scholarship within the broader social sciences.

Amidst the seemingly endless financial turn witnessed in United States, Chapter 3 aims to understand how the US financial sector has been able to continuously accrue such high levels of profit during the past four decades. While the character of contemporary financialization is still frequently depicted in terms of financial encroachments into "non-financial" worlds, Chapter 3 redirects the spotlight back on to finance and examines the nature of transformations within the financial sector which have occurred during the modern era of financialized capitalism. As we are still lacking a convincing explanation for the immense profitability of US finance, this chapter systematically examines how the sources of profit and types of profit-generating activities have changed in the US financial sector with the onset of financialization in the 1980s.

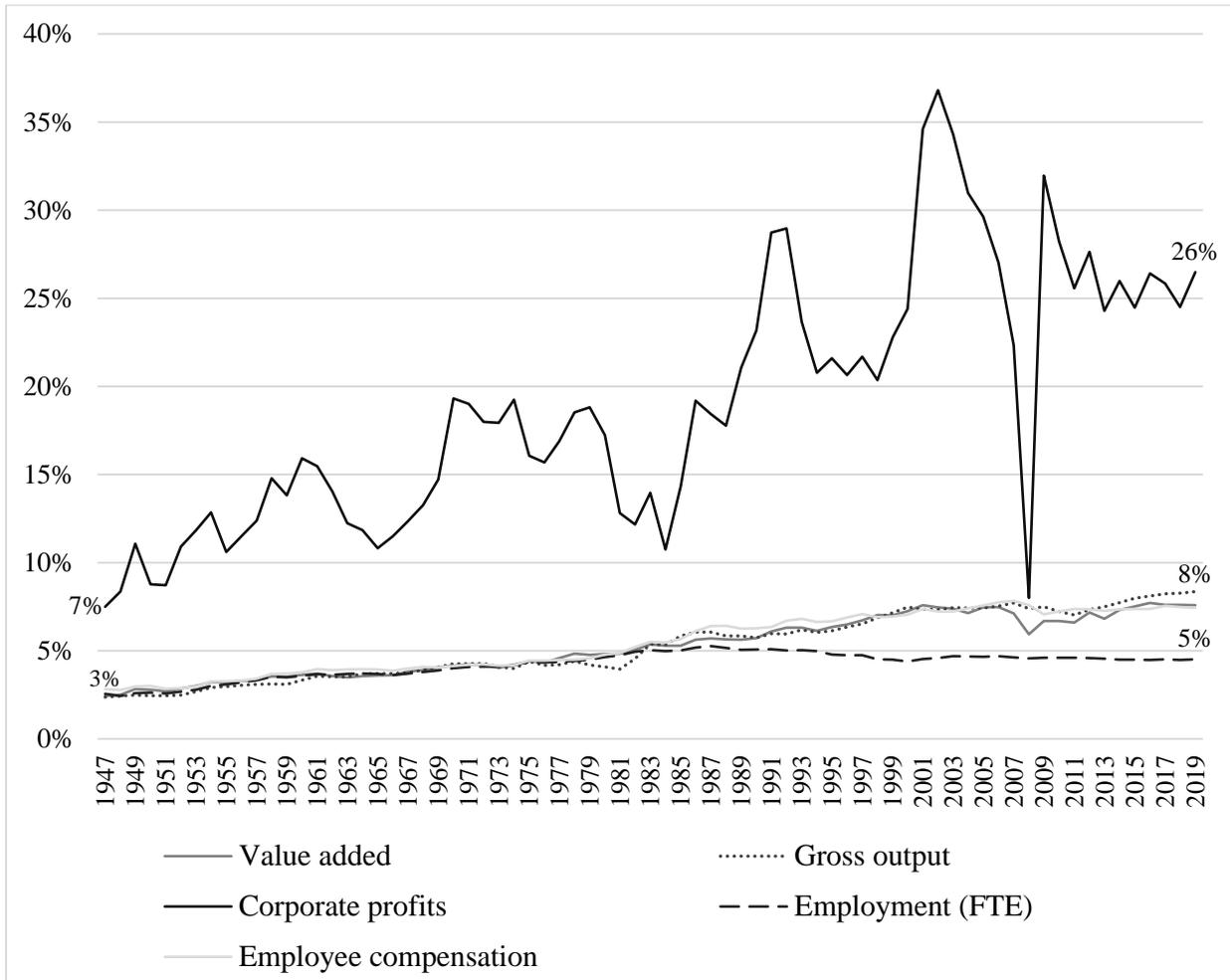
Chapter 3 makes two distinct contributions to our understanding of the rise and transformation of American finance. Conceptually, it challenges the commonly held belief that the activities of the financial sector can be reduced to lending by developing a typology of financial profit-generating activities, which separates the functions of the financial sector into three main categories: credit intermediation, market mediation, and rentierism. A number of scholars (e.g. Erturk and Solari, 2007; Lapavitsas, 2009, 2013) have argued that the latest period of financialization has been characterized by the shift from credit intermediation to market mediation, while others (e.g. Christophers, 2019, Epstein and Power, 2003) have emphasized the rise of the rentier class as a core characteristic of late-stage capitalism. Building on these findings, this chapter draws a separation between financial activities which expand production, producing new surplus value, and those which expropriate value from others (firms, households, and the state) without contributing further to the expansion of capital. This chapter argues that the relationship between these two forms of profit-making in finance is often ridden with conflict, as capital hoarded by financiers depletes the amount of circulating capital available for production, which undermines the future basis of profit in the financial sector as a whole.

Empirically, Chapter 3 examines the changing accumulation dynamics witnessed in the US financial sector between 1964 and 2016. Using the IRS Statistics of Income and Flow of Funds data, it identifies primary income sources for the sector as a whole and its most profitable subsectors, finding strong evidence that financial profit-making has shifted from lending to ownership and management of capital. This chapter further documents that in embracing its role as the largest shareholder of the American economy, US finance has largely forsaken its functions as a lender to productive enterprises, reducing its provision of interest-bearing capital to US non-

financial corporations as a share of all available capital by half since 1978. This chapter concludes by arguing that the transformation of US finance from a lender to an owner of capital has fundamentally changed finance's relationship with the real economy from symbiotic to parasitic, threatening the basis of future profits in the financial sector itself.

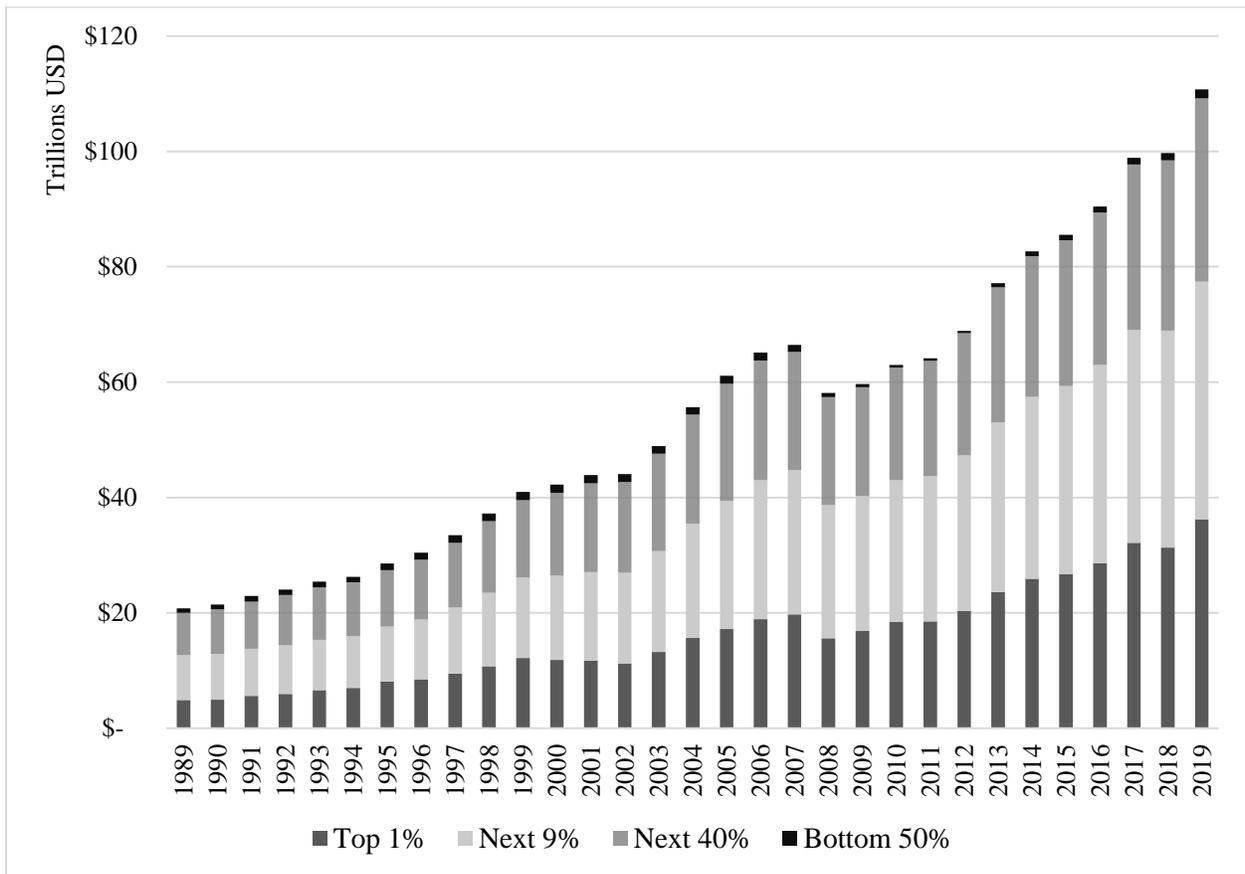
Last but not least, thesis's conclusion discusses the political implications of the new regime of property relations centered around the class of financiers in the United States, reflecting on what this transformation might mean for the American economy and society at large.

Figure 1.1: Finance and insurance share of US economic aggregates⁴



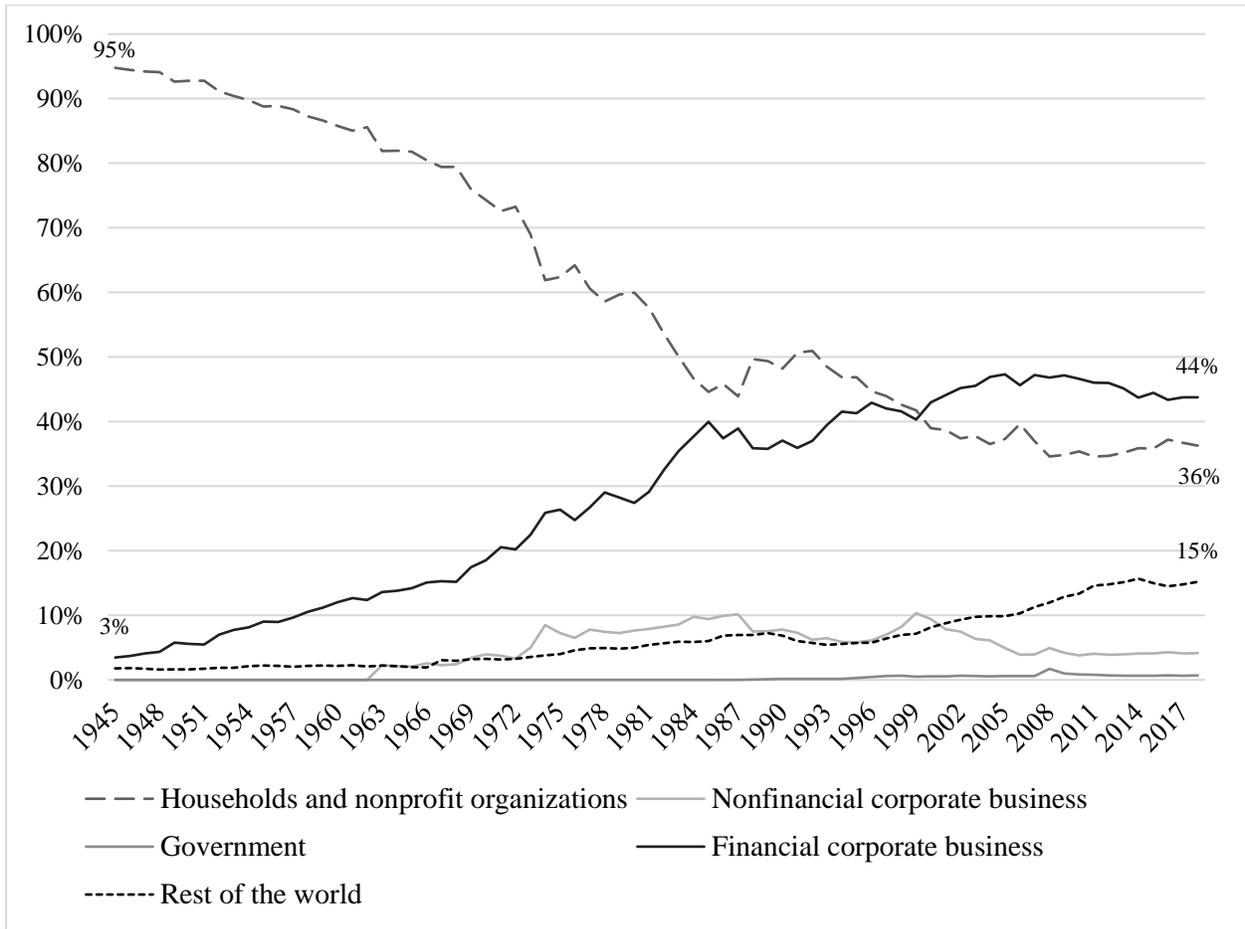
⁴ Source: BEA NIPA Industry Economic Accounts Data (a replication of Christophers, 2018, p.869)

Figure 1.2: Total wealth (net worth) by economic group in the United States⁵



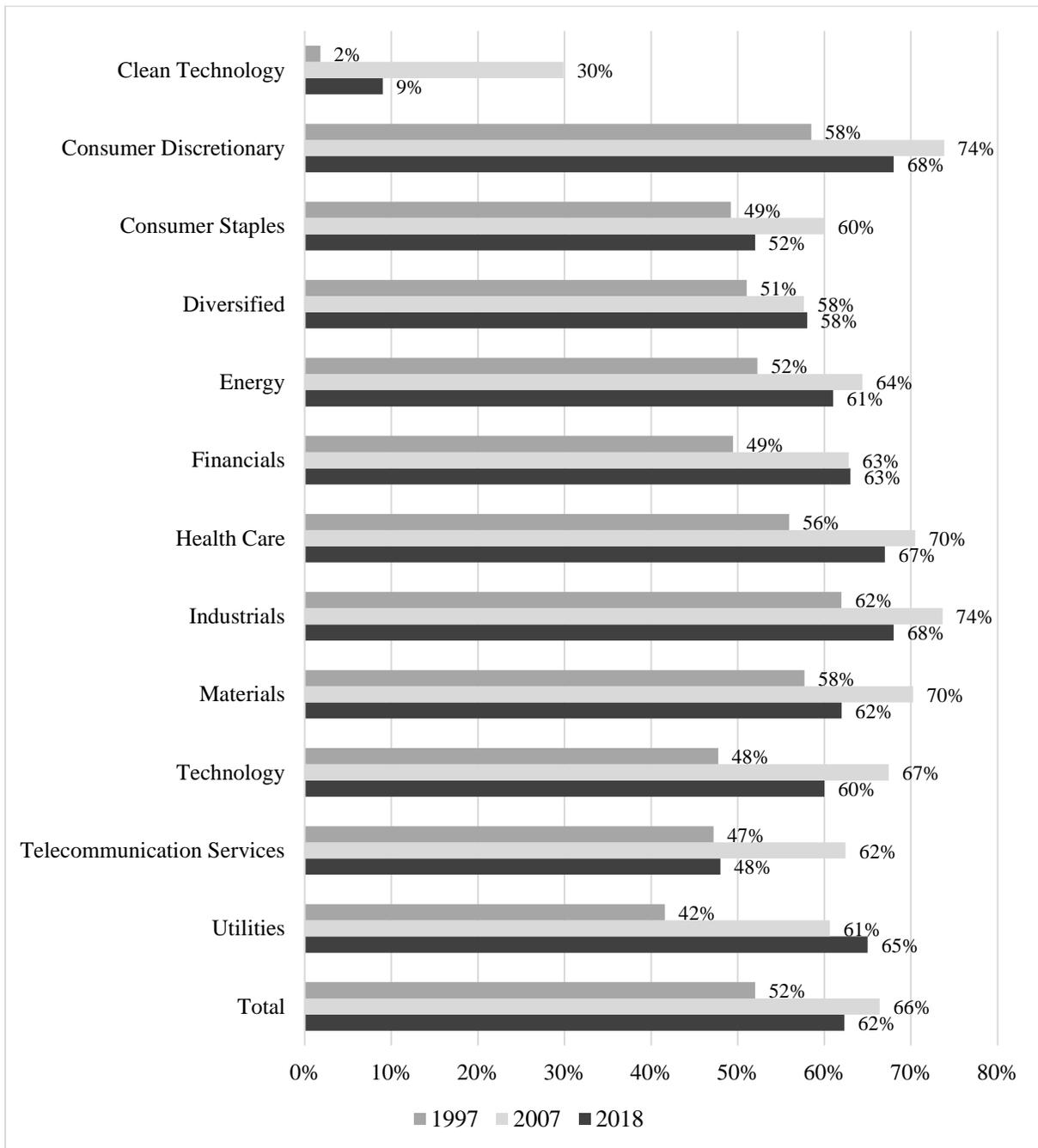
⁵ Source: Federal Reserve, Distributional Financial Accounts.
<https://www.federalreserve.gov/releases/efa/efa-distributional-financial-accounts.htm>.

Figure 1.3: Owners of US corporate equities by ownership percentage, 1945-2018⁶



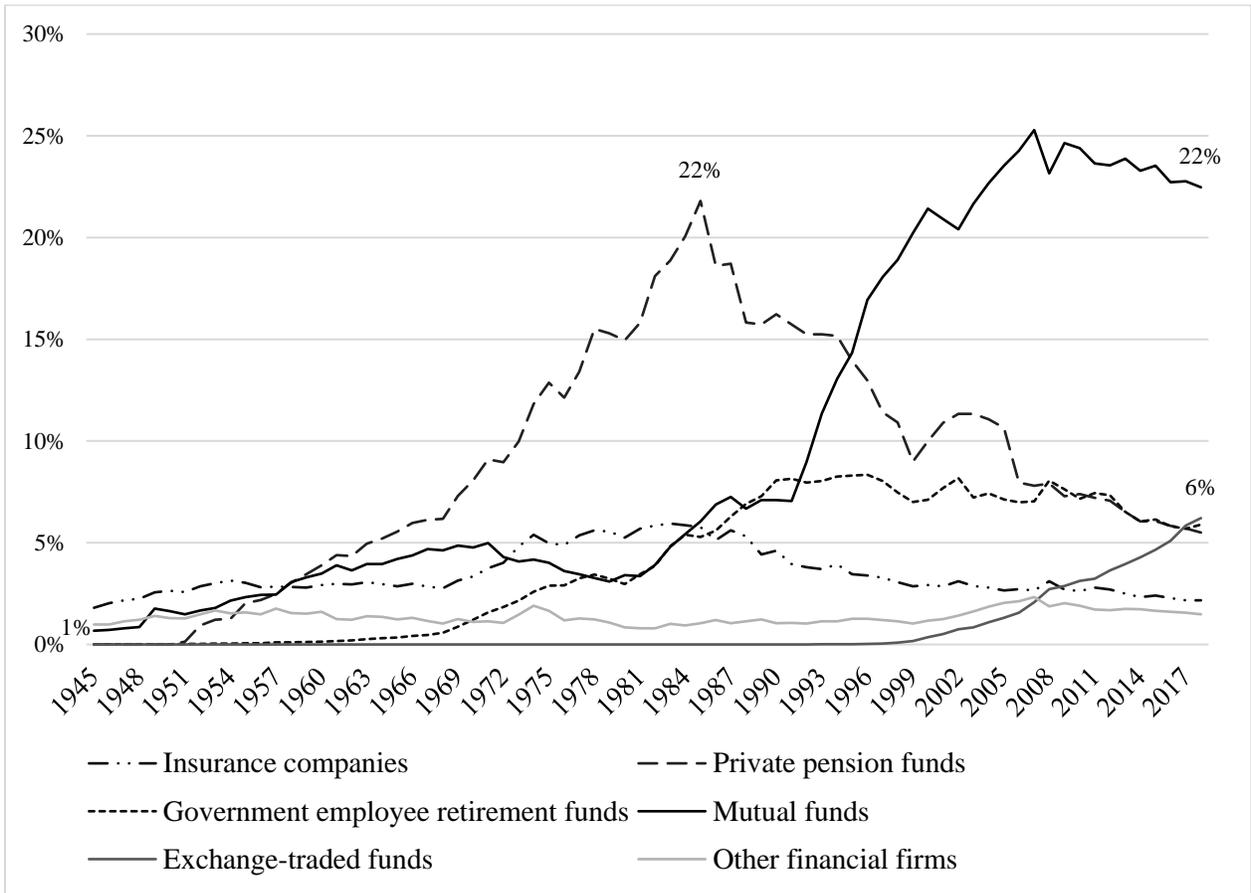
⁶ Federal Reserve Flow of Funds, Table L.223

Figure 1.4: US institutional investors' ownership over US publicly traded firms (by sector)⁷



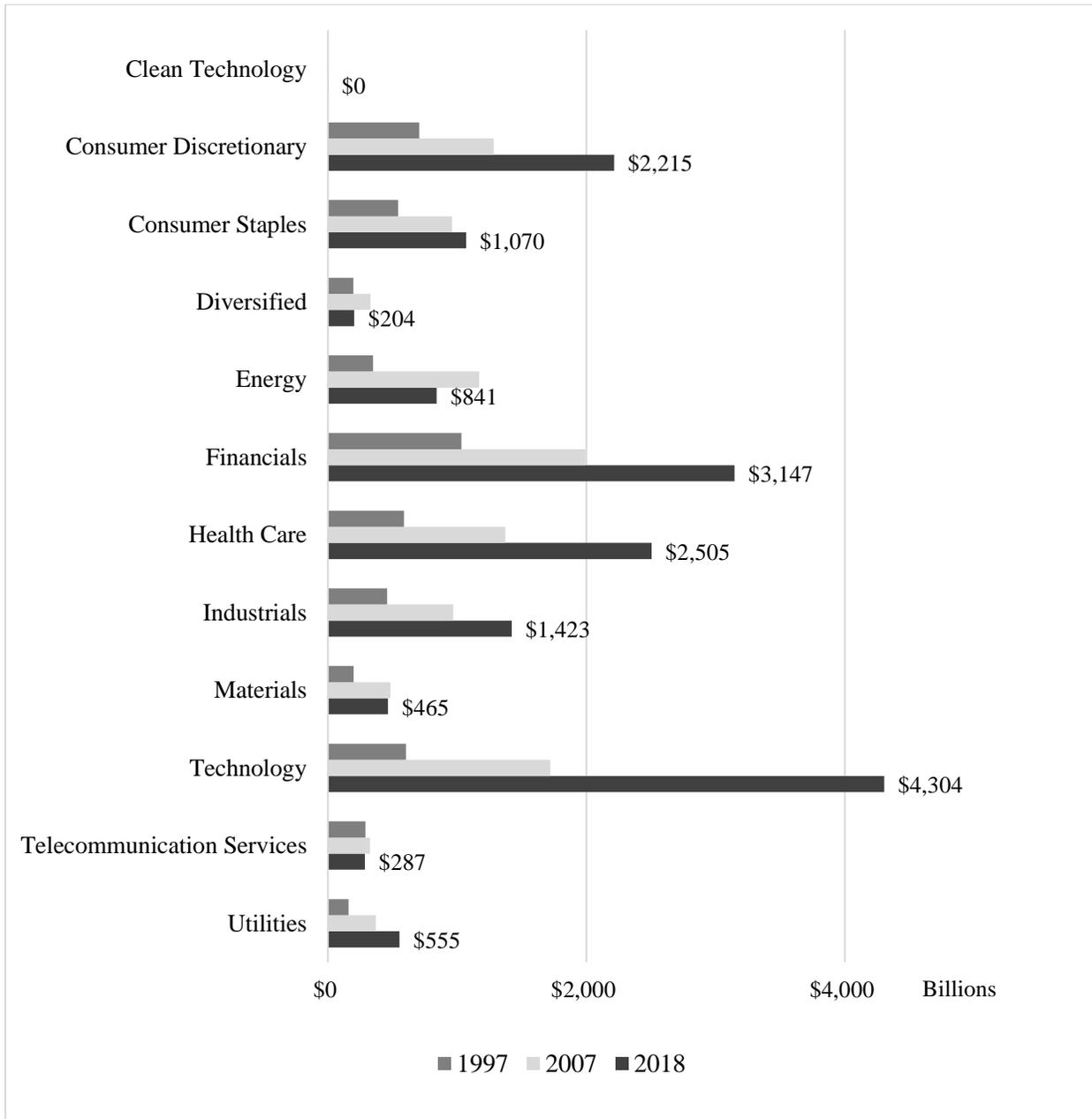
⁷ Author's estimates based on Thomas Reuters, US Institutional Investments (SEC Form 13f) database. Information on investments of US institutional investors who have at least \$100m in assets under management from 1997 to 2018, limited to publicly traded firms only.

Figure 1.5: Owners of US corporate equities by ownership percentage (financial firms only)⁸



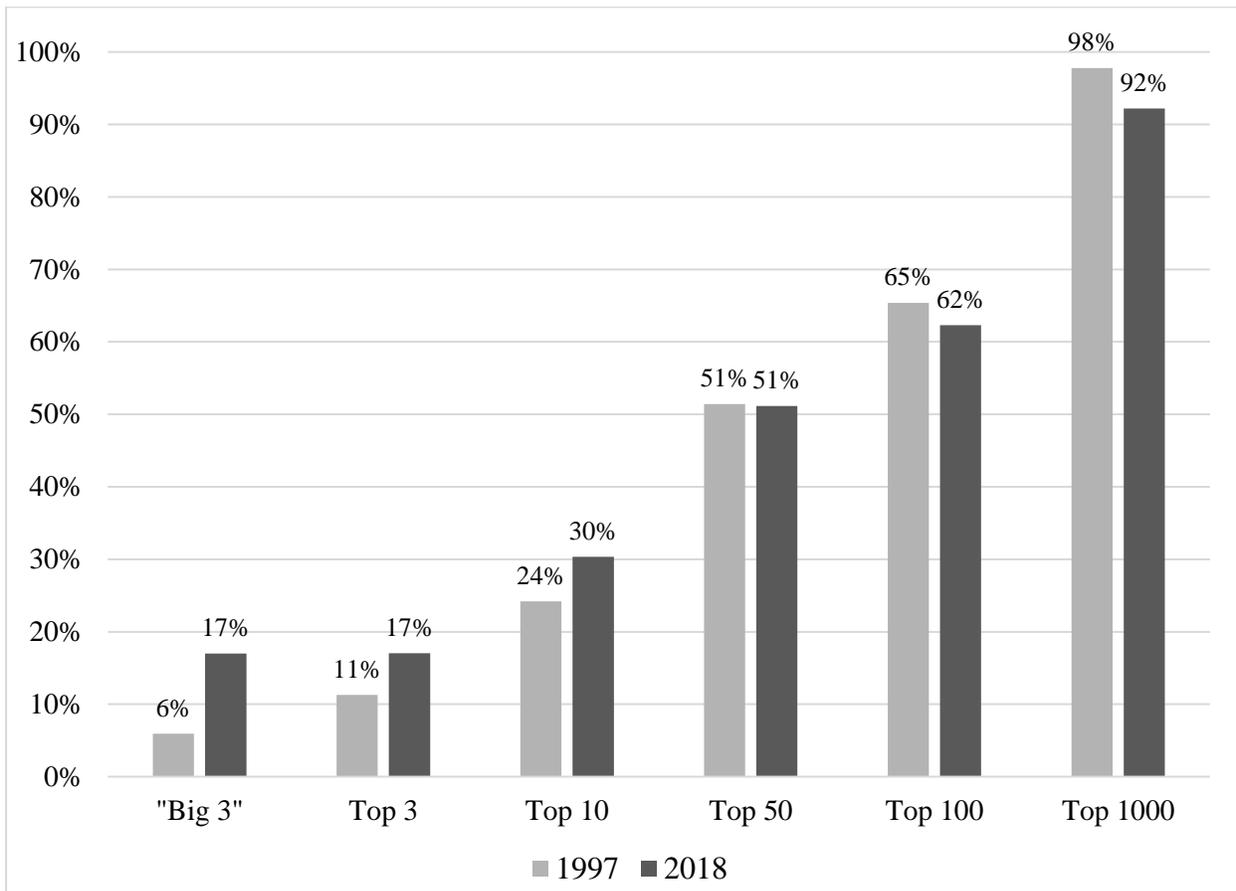
⁸ Federal Reserve Flow of Funds, Table L.223

Figure 1.6: Investments of US institutional investors in the US sectors (in billion USD)⁹



⁹ Source: Thomas Reuters, US Institutional Investments (SEC Form 13f). Information on investments of US institutional investors who have at least \$100m in assets under management from 1997 to 2018, limited to publicly traded firms only.

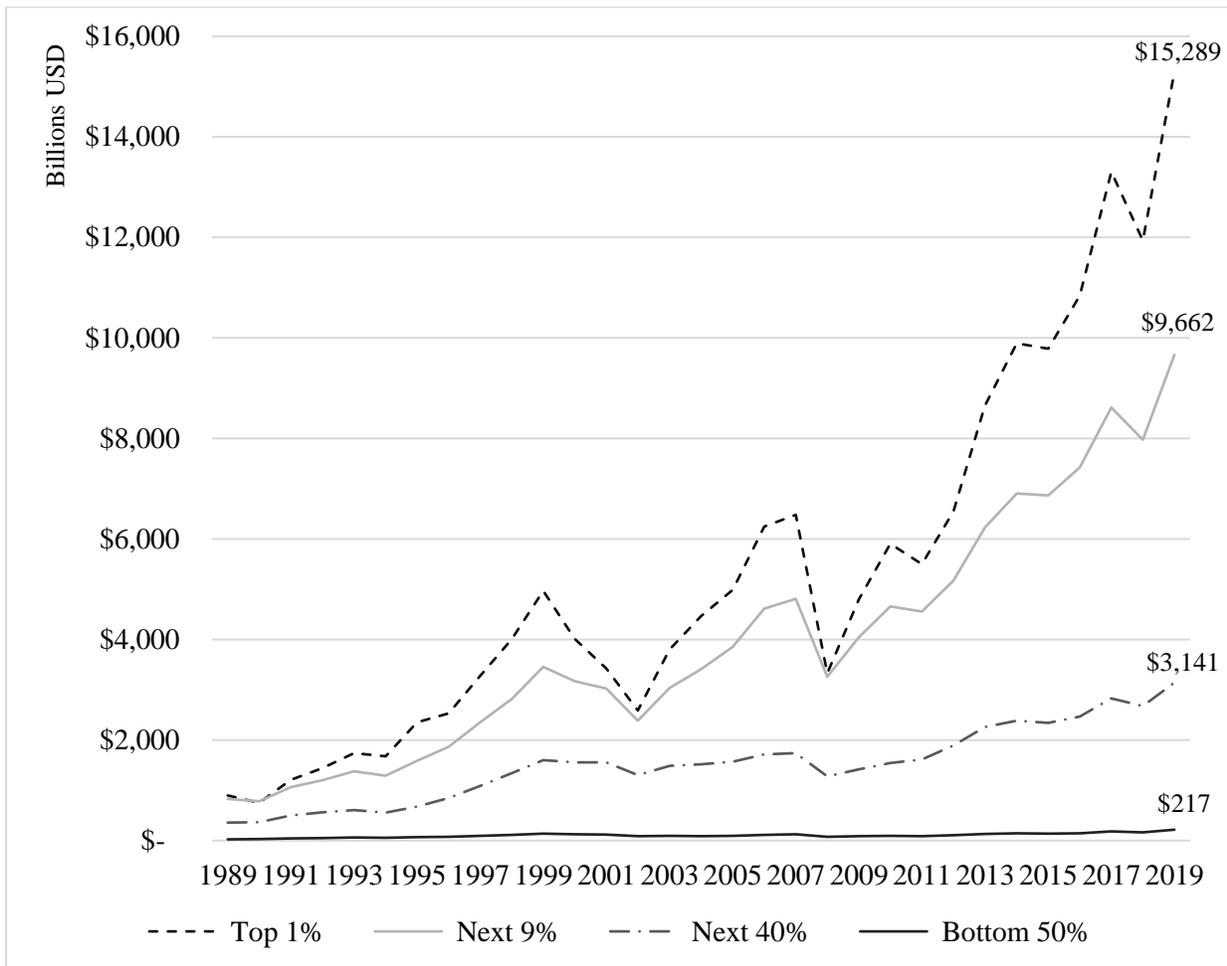
Figure 1.7: Share of AUM of US institutional investors owned by selected group of investors¹⁰



Note: AUM stands for assets under management

¹⁰ Source: Thomas Reuters, US Institutional Investments (SEC Form 13f)

Figure 1.8: Value of US corporate equities and mutual fund shares owned by economic group¹¹



¹¹ Source: Federal Reserve, Distributional Financial Accounts.

<https://www.federalreserve.gov/releases/efa/efa-distributional-financial-accounts.htm>.

Chapter 2: Mapping Financial Geography

2.1 Introduction

In the past decade there has been an unprecedented proliferation of research projects concerning money and finance in geography. Although the subfield of financial geography (previously referred to as the geographies of money and finance) has existed in some form since the late 1980s and the early 1990s, in its nascent stage it remained quite peripheral and insulated in relation to mainstream economic geography (Leyshon and Thrift, 1997). The financial sector was widely believed to have been subservient to the 'real' economy - mostly detached from the productive sphere - and thus seemingly not connected to the processes of industrial restructuring that were at the time afflicting the Anglo-American hemisphere. In addition, finance, with all of its perceived complexity and technical character, was seen as natural terrain for mathematically-inclined economists rather than geographers, especially after the cultural turn (Christophers, 2009). Even among those few geographers who did work in the area, finance was primarily studied in and of itself without significant consideration of its influence on the rest of society.

Andrew Leyshon succinctly expressed a sentiment commonly shared amongst financial geographers in the first progress report to be published about the subfield, writing that "[i]t has almost become *de rigueur* that geographers who write about money and finance will, at some stage, bemoan their apparent isolation within the discipline" (1995, p.531). However he goes on to write "it may not be very long before the repetition of such critiques and appeals will appear curious against the backdrop of a rapidly expanding research field... [I]n the context of the historical evolution of writing on the geography of money and finance, we may well have reached

the end of the beginning” (1995, p.531). With the growing recognition of the central role played by finance in post-industrialized economies following its deregulation in the US and the UK, and the advent of defining geography texts that emphasized the growing importance of money and finance - such as David Harvey’s *The Limits to Capital* (1982), an edited collection *Money, Power, and Space* (Martin, Thrift, and Corbridge, 1994), and Leyshon and Thrift’s *Money/Space* (1997) - the end of the beginning has indeed come to pass. In the last two decades, analyses of finance served to ground many geographical writings on economic and urban transformations while financial geography transformed itself from a relatively small group of loosely tied geographers to a rapidly expanding cross-disciplinary community of hundreds of scholars with its own professional network.

Current work within financial geography constitutes a diverse mix of research questions, theoretical positions, and methodologies and can be found in conversation with scholars from urban studies and planning, sociology, political science, various strands of heterodox economics and to a lesser extent orthodox economics and finance. Four primary intellectual traditions are broadly represented: (urban) political economy, geographical economics/regional science, cultural economy, and network studies approaches. This diversity is also reflected in scholarship aiming to re-think finance at different scales, from micro (the individual or the household) to meso (the corporation or the city) and macro (the nation state or the global economy), often highlighting how these distinct scales of financial processes depend on one another for ongoing reproduction. Finally, geographers have also prioritized moving beyond the Global North in their field sites and case-studies, focusing on the emerging financialized economies and new international financial centers, located particularly in Asia (e.g. Lai, 2012).

Given the increasingly central role of financial themes in economic and urban geography scholarship and the simultaneous lack of a systematic overview of financial geography as a separate field of study, this chapter aims to map the evolution of this subfield within human geography and its dynamic relations to other social science disciplines using bibliometric data from the Web of Science citation index and oral history interviews conducted with twenty-three key actors in this subfield. As Donna Haraway has shown (1988), knowledge is always situated and partial, reflecting the positionality of its authors and the larger social structures in which it is embedded. Barnes later argued that “[i]ntellectual inquiry is not the view from nowhere, but the view from somewhere,” highlighting how the production of knowledge is not a technical exercise done by men in white coats in unknown locations, but rather is a process “tethered to the eccentricities, complex interests, materialities and messiness of lives lived at particular times and places,” requiring particular academic networks and alliances to sustain it (2004, p.568-569). The purpose of this chapter is to deconstruct how financial geography came to exist as a coherent intellectual project - the people and places that birthed it, the intellectual histories that shaped it, and the historical conditions that led to its wider reception.

The chapter proceeds as follows. The first section focuses on data and methods, explaining how I selected my interviewees and created the sample of financial geography texts, as well as describing the types of conducted bibliometric and computational analyses. The second section examines the making of financial geography, discussing the controversies surrounding its disciplinary boundaries and its “reluctant” institutionalization. The third section examines the uneven spatiality of knowledge production and citation, explaining the centrality of the UK in this knowledge

ecosystem. The fourth section provides a description of four distinct intellectual traditions that have developed in the subfield through the analysis of financial geography's co-citation networks. The fifth section investigates the impact that the 2008 global financial crisis had on the discipline's key themes and research agendas, identifying the "*financialization turn*" in the subfield. It then explores the readability of financial geography outside of geography, specifically the prominence of geographical research within the broader financialization literature. The conclusion summarizes some of the pressing opportunities and challenges facing financial geography and provides some reflections on the emerging horizon of financial geography research.

2.2 Data and methods

The chapter employs a two-track methodology combining a critical interpretation of oral histories with a computational analysis of bibliometric data, enabling the two approaches to speak to one another. This integrated approach aims to produce a historically sensitive institutional sociology of an evolving intellectual project by weaving an 'internalist' account centering the viewpoints of key actors with an 'externalist' review of the subfield that unpacks its social and geographical composition while documenting publication and citation dynamics.

Reflecting the polycentric, pluralist, and interdisciplinary nature of economic geography (Peck, 2012), financial geography doesn't seem to have rigid disciplinary boundaries. Geographic work on money and finance is published in a variety of journals (including both disciplinary journals of geography and its neighboring disciplines, as well as the interdisciplinary ones). Research agendas and theoretical frameworks can vary significantly from one project to another. Complicating

matters further, scholars who work in the area are frequently located outside of geography departments. This is in addition to a number of geographers working on questions of money and finance preferring not to label their work as financial geography due to other more primary sub-disciplinary affiliations. Therefore, devising any sort of definitive criteria about what counts as financial geography and what falls outside of it is likely to cause all sorts of definitional controversy, while at the same time further amplifying dominant perspectives and excluding research projects located in the margins. In the next section I will discuss some of the distinct ways in which geographers writing about money and finance define this subfield and highlight some of the unsettled debates about what constitutes this diverse, interdisciplinary, and boundary crossing assemblage of scholarship.

For now, I will temporarily sidestep the challenging task of defining financial geography by simply identifying a group of texts in geography written about finance. This methodology was inspired by Foster et al. (2007), who in their analysis of citation practices in economic geography, sidestepped the problem of drawing the precise boundaries of the field by adopting a generous definition of economic geography and focused instead on primary journal outlets, leading to the intentionally “blurry around the edges” sample of texts. In my modified approach, I also narrowed down the selection of texts based on geography journals. Using the Web of Science Core Collection, I searched for scholarly works that included both the terms “finance” and “financial” in their topics¹² to ensure a sufficient focus on financial themes in the body of the text (this means

¹² Web of Science topics include text’s title, abstract, keywords, and frequent phrases that appear in the titles of referenced articles, but not in the title of the article itself.

that a notable portion of financial geography scholarship could have been left out). I have also narrowed the selection of articles to those published in academic journals (thus excluding many of the non-peer reviewed pieces such as book reviews, book chapters, editorial material, and conference proceedings), which provided format consistency across the analyzed documents. Sources were also limited to geography and urban studies journals. Urban studies were included as geographers writing about money and finance have a long-standing tradition of publishing research on urban topics and the two fields (geography and urban studies) are closely interrelated. However, certain urban studies journals targeting economists (e.g. *Journal of Real Estate Finance and Economics*) were purposefully excluded, generating a list of 49 distinct sources (for a full list of included journals see Appendix 1). The selection was further limited to English-only texts that initially accounted for 95 percent of all search results, highlighting the existing Anglocentricity of the discipline (Aalbers, 2004). Applying the combination of these selection criteria resulted in 440 financial geography articles published between 1986 and 2019.

In order to analyze the position of financial geography in the broader social sciences, a sample of texts written about financialization was generated. Following the 2008 financial crisis, the literature on financialization has exemplified a cross-disciplinary engagement with questions of money and finance spanning social sciences (although less with Economics proper), and can be used to explore how financial geography interacts with other disciplines. The sample of financialization texts was created using similar tactics: terms such as “financialization” or its British variant “financialisation” had to be included in the topics, document types were restricted to journal articles only, and the selection of texts was limited to those written in English. This generated a list of 1566 articles published between 1996 and 2019, featuring 539 unique journals.

The two samples of data were collected between June and July 2019. Web of Science was preferred over other bibliometric databases, such as SCOPUS or Google Scholar, as it provided the most detailed information on each article.

To date, human geographers have used bibliometric analysis in quite diverse ways: to examine journals that bridge the gap between fields (Atienza et al., 2019), explore the geographies of scientific collaborations (Andersson et al., 2014); identify the heavily cited “master-weavers” (Bodman, 1990); explore sites of scholarly exclusion and erasure (Kanai et al., 2018); map out distinct thought traditions (Newell and Cousins; 2015); and measure the levels of outreach and influence on other disciplines (Ng and Ducruet, 2014). Contributing to this growing methodological tradition in the discipline, I deploy various tools of bibliometric analysis (1) to explore the spatial structure of financial geography by examining its collaboration networks, and (2) to examine the presence of distinct epistemic communities in financial geography and its outward influence by using community detection algorithms in the analysis of co-citation networks. I conducted the majority of computational analysis using the R package *bibliometrix* (Aria and Cuccurullo, 2017) and a computer program for bibliometric mapping called *VOSviewer* (Van Eck and Waltman, 2009).

In parallel, 24 semi-structured interviews (including one follow-up) were conducted with both self-identified financial geographers and scholars connected to the financial geography project but who do not identify as financial geographers per se (see Appendix 2 for a list of interviewed scholars). To create a list of potential “informants,” the selected sample of 440 texts was used to generate a list of scholars who either published a significant number of articles or were highly cited by the

financial geography literature. Using the snowball sampling technique, other key actors were identified. Drawing inspiration from Trevor Barnes' historical analysis of geography's quantitative revolution (2004), the interviews were conducted in the tradition of oral histories, where interviewees were asked to reflect on their personal academic trajectories as well as on the broader developments in the subfield.

2.3 The making of financial geography

2.3.1 Locating the core and boundaries of the diffuse subfield

Beyond stating the obvious - that financial geography tends to be concerned with matters of finance and space - it is an unsettled question as to what precisely financial geography entails and where this subfield begins and ends. This existential ambiguity stems partly from some of the underlying characteristics of human geography as an open, diffuse, and interdisciplinary field that tends to defy historically established disciplinary boundaries. In this way, financial geography seems to share the polycentric and pluralist theory-culture of economic geography (Peck, 2015), as it encompasses a wide spectrum of scholarship ranging from orthodox economic analyses of finance to Marxist critiques of capitalism and financialization. The mostly peaceful coexistence of opposing theoretical positions exemplifies the subfield's heterodox nature, highlighting the seemingly thriving tradition of engaged pluralism inherited from economic geography (Barnes and Sheppard, 2010). With "no agreed upon methodological or theoretical perspectives,"¹³ the diffuse nature of financial geography raises the question as to whether financial geography is decentralized

¹³ Brett Christophers, 19/09/2019

with no discernible core, akin to how some describe economic geography (Peck, 2012). If this is the case, we can ask if there is anything beyond the shared interest in finance that integrates geographical scholarship on money and finance into a bounded subfield of financial geography. For some, the explicit awareness of the spatiality of finance and the insistence that finance be grounded in concrete spaces and times is what makes financial geography distinct:

We take space much more seriously... This kind of appreciation of place specific factors ... is very valuable in how we understand, and how we evaluate, and how we perhaps may try to predict how a particular product or process might unfold, or how it might impact different dimensions of the economy or society... We don't always start from looking at the processes or products or firms, we tend to be interested in why something happened the way it did here and not there. That's usually our starting point. [Karen Lai, 23/09/2019]

What unites us is the focus on the question "where" - this is why we are in geography... And it is about the significance of place, space, location, proximity, distance in understanding ... financial phenomena... This is what unites us, not ideology, not whether we are cultural, political, or economic [geographers], but focus on the question "where." [Dariusz Wójcik, 08/10/219]

The centering of financial geography around the question of "where" can be traced to the enduring legacy of theories and frameworks developed within industrial geography, a long-established sub-branch of economic geography concerned with the spaces, places, and geographical constitution of various industries (He and Zhu, 2017). Established in the early twentieth century, industrial geography was originally concerned with the spatial agglomeration of economic activities (Malmberg, 1996), drawing inspiration from economics up until the decline of geography's quantitative revolution. Under the influence of Marxian political economy and following an estrangement from spatial science, industrial geographers became occupied with deindustrialization and the restructuring of manufacturing sectors and regions (He and Zhu, 2017).

And with the disintegration of the Fordist regime of accumulation, the ‘new industrial geography’ has shifted its focus to the study of new post-industrialized economic spaces (Storper, 1987).

Some of the first geographical work on finance emerges in the late 1980s in the UK during this period of economic restructuring broadly characterized by the transition from a manufacturing to a service-based economy. As the restructuring brought about structural re-organization in the UK’s regional economies, economic geographers became occupied both with the decline of regions affected by the reallocation of manufacturing overseas and the resurgence of other regions growing on the basis of post-Fordist industries. As manufacturing grew less important and with London’s Big Bang in 1986 fueling the growth of the UK financial sector, a few geographers began to examine financial services. Two key trailblazers in this emerging literature were Andrew Leyshon and Nigel Thrift. One of their first contributions was to show how the global financial markets were both a source of growth for places like the City of London and a source of decline for regions centered around manufacturing. This earliest work laid the foundations for the subfield of financial geography, giving it a distinctively British flavor and firmly grounding it in economic geography.

If financial geography largely originated from the tradition of British economic geography concerned with the spatiality of various industries, a second distinct group consists of geographers and urbanists interested in questions of money and finance from a Marxist political economy perspective, for whom the questions of power and inequality take precedence over the questions of location and space. Within this political economy camp, a notable number of scholars preferred to distance themselves from being identified as financial geographers per se. While some emphasized their unease with being forced inside certain “disciplinary cages”, others explained

this distancing by describing how their interest in finance is secondary to a broader concern with uneven power distribution, inequality, and social justice with the perception that financial geography often analytically prioritizes finance in and of itself:

The reason I wouldn't want to say that I consider myself to be a financial geographer primarily is that I believe the reason to study finance is because of its importance in thinking about political economy, power, and geopolitics more broadly... Finance is one aspect of that... but the most important thing to me is thinking about this in terms of political economy, power, and social inequality. [Shaina Potts, 18/11/2019]

For other political economy scholars, finance cannot be disentangled from the rest of the economy, thus “bracketing off” finance and studying it in isolation without a theoretical framework concerning where and how it fits into the broader society can be problematic and unnecessarily restrictive:

My perception is that if you hold a commitment to understanding capitalism or trying to theorize or study capitalism from a certain perspective, financial geography builds in a set of limits... Trying to theorize capital in its complexity means that you can't really pick and choose money and credit without having a larger understanding of how those moments, the value relation and the money-form of value, how those connect back to a larger system. [Philip Ashton, 16/10/2019]

For the scholars involved in the institutionalization of the subfield, however, “financial geography is meant to mean much more than geography of money and finance” with finance being “not an end [but] a means to an end to understand social, economic, cultural phenomena.”¹⁴ For Manuel Aalbers, financial geography is “wider than the geography of money and finance” and akin to legal geographies, which are “not a new sub-discipline within geography [but] a lens to study a whole

¹⁴ Dariusz Wójcik, 08/10/2019

range of geographical phenomena.”¹⁵ Financial geography should therefore not be seen as a simple continuation of the geographies of money and finance. Rather, a new name is emblematic of a broader “shift from money and finance as an object of geographical analysis to finance as a lens through which one can look at other issues” (Aalbers, 2018, p.916). Problematizing the notion that financial geography is embedded within economic geography, Dariusz Wójcik describes it as “definitely not a subfield of economic geography... It overlaps with economic geography more than with anything else, but it also overlaps with political geography, it overlaps with cultural geography, social geography... It is meant to be a very interdisciplinary field inspired by a lot of different influences from geography and beyond geography.”¹⁶ Given their historical connections, the decoupling of financial geography from economic geography is noteworthy, reflecting the desire of financial geographers to expand the subfield beyond British economic geography and open itself up to a wider community of scholars interested in questions of finance and space.

The transition from the geographies of money and finance to financial geography has not been without complications. The disappearance of “money” from the subfield’s name appears to be reflective of a broader neglect of money as a research focus. While there was a substantial amount of geographical work on money done in the 1990s,¹⁷ one interviewee noted that today many financial geographers “don’t focus on money as a particularly crucial institution. It’s a given, it’s the way finance works as opposed to something with interesting dynamics of its own,”¹⁸ while

¹⁵ Manuel Aalbers, 18/09/2019

¹⁶ Dariusz Wójcik, 08/10/2019

¹⁷ Paul Langley, 16/10/2019

¹⁸ Geoff Mann, 29/10/2019

another reflected that in geography “there is not necessarily a sophisticated understanding of how money and finance are either distinct or relate to each other”.¹⁹ One explanation for the gradual disappearance of geographical writing on monetary issues and the concurrent proliferation of financial research could be traced to the impact and aftermath of the 2008 crisis that made money seem less relevant while providing urgency to the studies of financial systems and crises.²⁰ With the rise of cryptocurrencies and growing importance of central banks, there have been calls to reinvigorate the critical studies of money (e.g. Christophers, 2017), although whether these efforts will lead to a resurgence of interest in money amongst financial geographers remains to be seen.

2.3.2 Financial geography’s “reluctant” institutionalization

Throughout the 1990s and early 2000s, finance occupied a marginal space within economic geography. With no events devoted specifically to financial geography until the mid-2000s, geographers interested in finance were only able to meet at the general geography or specialist economic geography conferences. However, many future financial geographers “didn't necessarily feel completely at home with the conversations that were taking place in economic geography more widely speaking because a lot of it is very firm-centric or production-centric.”²¹

With the global financial crisis drawing interest in financial questions from a broader contingent of scholars, in 2010 Martin Sokol, Zoltan Gál, Tim Heinemann, and Dariusz Wójcik founded the

¹⁹ Anonymized

²⁰ Sarah Hall, 01/10/2019

²¹ Karen Lai, 23/09/2019

Regional Studies Association research network on the *Geographies of Finance and Post-Socialist Transformations*: “We were at the time relatively young mostly economic geographers interested in finance and around 2009-2010 we spent a lot of time organizing sessions at conferences devoted to financial geography... but we thought we needed something that encouraged and renewed interest in finance in geography in the wake of the crisis and we thought that we should do more, something collectively.”²² Eventually, the idea emerged to organize a network focused on the geographies of finance beyond Eastern Europe, resulting in the formation of the Global Network on Financial Geography in 2015. Since then, the network has grown to over 600 members from 60 different countries and has organized dozens of workshops and seminars across the world, hosting its first early-career “spring school” and an inaugural global conference in Beijing.

It is kind of a reluctant institutionalization that we have been pursuing... We wanted to develop something different than an association, something more open... We don't want too much institutionalization, we don't own financial geography, we just want to promote it. [Dariusz Wójcik, 08/10/2019]

For scholars involved in this “reluctant” institutionalization, the network exists not only to find like-minded people, but also to promote financial geography while “giving other scholars similar opportunities to partake in these conversations”:

We felt that a more institutionalized grouping will enable us to do that whether it's because of publicity, or because of the ability to apply for funding more easily when we are an organized collective, or even in terms of just being able to bring people together ... another key dimension is the desire to train early career scholars to get some of our arguments about why finance is important in understanding urban change, economic development, [and the growth of] financial centres ... So if we want other people to take this seriously,

²² Dariusz Wójcik, 08/10/2019

we need to do more in terms of outreach... which we felt could only be done if we are an institution. [Karen Lai, 23/09/2019]

While many see the institutionalization of financial geography as a positive development, some have highlighted how not being affiliated with the network might have unintended impacts, especially for younger and marginalized scholars: “You have to sort of make a claim that you're a financial geographer to appeal to the center of this field in order to be identified with it. It doesn't seem very open to people who are doing the work but who aren't using the words.”²³ In discussing the gender publishing gap in economic geography, Rosenman and colleagues (2019) highlight that when scholars don't see themselves represented in the field, they may not view themselves as ‘doing’ the work in that field and avoid labeling their research as such. With a number of interviewees being hesitant to assume the label of financial geography, the institutionalization of financial geography might have implications for who defines what financial geography is and what it should be. At the same time, not being part of the network may have consequences for how much one is read and cited:

Patterns of institutionalization and organization, and networking are fundamentally bound up with patterns of reading and citation, and knowledge creation and dissemination... If you are at a relatively early stage of your career and you're interested in financial questions within geography, there are likely to be certain consequences for not becoming aligned with FinGeo because, all other things being equal, you are more likely to be read and cited if you are networking with people within that group than if you are not. [Brett Christophers, 19/09/2019]

²³ Emily Rosenman, 21/10/2019

Citation patterns are also a way through which gender and racial disparities in financial geography manifest themselves. Among the field's key interlocutors, the absence of women and people of color is particularly conspicuous. Of the 120 individuals most cited by financial geography articles, white authors represent 93 percent of cited scholars, capturing 95 percent of total citations, men make up 80 percent of cited scholars, receiving 85 percent of all citations, with white men accounting for 75 percent of cited scholars while being cited 81 percent of the time.²⁴ Historically, economic geography has been known to be dominated by British men (Barnes and Sheppard, 2010) with men comprising approximately 75 percent of the discipline based on the most recent calculations (Rosenman et al., 2019). The masculinist and Anglocentric culture present within the financial sector has meant the world of finance has not been viewed as a natural habitat for women and people of color (Ho, 2009). This atmosphere is reflected in financial geography's concordant lack of gender and racial diversity, a disparity that is even more pronounced than in the neighboring discipline of economic geography. Reflecting on her experience in the field, Sarah Hall shared that "the number of times you find yourself sitting there with hardly anyone like you in the room is quite striking."²⁵ This lack of representation among more senior scholars is not without consequences, as "the visibility of who you read, who you see in conferences, in plenaries, in keynotes, in summer institutes or spring schools, who gets published [has] an impact in [who] you perceive [to be] the right kind of people in the field," which in turn has a ripple effect on junior scholars and consequently on the future of the discipline.²⁶ While more women and people of color

²⁴ Estimates based on author's calculations of gender and racial backgrounds of 120 first authors whose work has been cited at least 20 times by 440 financial geography articles.

²⁵ Sarah Hall, 01/10/2019

²⁶ Karen Lai, 23/09/2019

might be trying to join the subfield, amidst the increasing casualization of academic work, the existing lack of diversity among more senior scholars is compounded by a lack of secure jobs available for recent graduates.

The problem is that you've got all these fabulous young women coming through but if they come up against the brutal political economy that says "well, there's no tenure-track jobs, there's no permanent contracts, what we are going to do is just hire a slew of people on one-year contracts" ... There might be more women coming through the PhD, but they've got to make choices about what kind of work do I want to do, what kind of wages do I want to earn, what happens if I want kids, how long am I going to be on fixed term contracts before I say enough of this, I am going to go and do something else... Certainly, there are more young women coming through and if the jobs were there, I think it possibly would be getting better. And in the US, I think you're knee deep in very, very good people, who are sitting in post-docs and fixed term contracts and are just waiting to pounce on tenure-track jobs. [Jane Pollard, 18/11/2019]

With a mostly European membership and executive team, the FinGeo network has been putting significant effort into making the network “global” by organizing seminars, workshops, and conferences outside of Europe, so far having held events in Australia, Argentina, Brazil, China, Singapore, and the US (with Beijing hosting the inaugural conference), as well as expanding its geographical reach through a network of regional ambassadors. However, the geographical path-dependencies associated with the initial RSA network focused on Eastern Europe, the European backgrounds of its most active members, and the British origins of the geographies of money and finance subfield make the de-centering of Europe quite challenging.

2.4 Uneven spatiality of knowledge production

In the analysis of institutional affiliations of economic geography authors, Foster et al. (2007) document that “[t]he centres of production for economic geography focus ... on a small number

of countries in the global North, through which is threaded a network of a dozen or so key institutional nodes.” Centers for financial geography research appear even more concentrated (Table 2.1). Almost ten percent of all published articles come from the University of Oxford (9.1 percent), followed by the University of Nottingham (4.3 percent), Newcastle University (3.6 percent), Katholieke Universiteit Leuven (3.0 percent) and University of Amsterdam (3.0 percent). Overall, major research centers are located primarily in Europe, specifically the UK, with the noticeable absence of US-based institutions. This geography, of course, is not coincidental and is partly driven by individual career trajectories and institutional path-dependencies arising from them. Oxford has been the centerpoint for institutionalist financial geography since the field’s inception because of Gordon Clark and Dariusz Wójcik. In the mid-2000s, Nottingham (with Shaun French, Sarah Hall, and Andrew Leyshon) replaced Bristol as financial geography’s center for cultural economy, while Newcastle with Andy Pike and Jane Pollard became a hub for studying regional development and the financialization of public finance.²⁷ Outside of the UK, following the 2008 crisis, KU Leuven and Amsterdam with Manuel Aalbers and Ewald Engelen emerged as another powerbase with a focus on financialization and real estate. However, many of these research centers are temporary given the short-term funding schemas for research: “You have these temporary clusters, which burn for 3 or 4 years.”²⁸ It is also exceedingly difficult to develop institutional hubs because of the extremely broad syllabus that European geography departments are required to teach:

²⁷ Interest in finance has been present in CURDS (Newcastle) since the late 1970s (Andy Pike, personal correspondence, 10/06/2020).

²⁸ Michiel van Meeteren, 08/10/2019

It is one of the reasons we have the network because then you need a supra-institutional network which rises above all of these individual universities and institutions to bring people together in a kind of international flying circus of financial geography. It is almost impossible to have a department in which there are three financial geographers, let alone five. These institutional hubs are very temporary as a result, it's very difficult to build them. [Dariusz Wójcik, 08/10/2019]

While there might be no permanent institutional hubs for financial geography, it is impossible to dispute that financial geography is exceedingly British. Almost half of all publications (48 percent) have authors located in UK institutions, accounting for 53 percent of the total citations market, compared to only 17 percent of publications and 13 percent of citations emanating from the US (Table 2.2). This contrasts with the publishing landscape for economic geography in general where British and American-based contributions each constitute approximately one third of all published papers (Foster et al., 2007). One significant factor explaining the UK/US divide is related to the distinct disciplinary cultures that have developed on the opposing sides of the Atlantic. Historically, geography has developed a much deeper institutionalized presence in the UK than in the US. Today some of the most prominent US/Canada-based economic geographers are British expats, and among the few US/Canada-based geographers researching finance, many are urbanists located in planning or policy programs, who are selectively engaging with financial geography:

We may borrow from the methods of financial geography... but we are less concerned with the question of where investment banks are located, or some of those questions that we see at the heart of the financial geography project. We pick and choose which aspects of that scholarship we want to adopt or to work with, but without necessarily committing to the entire project. [Philip Ashton, 16/10/2019]

Additionally, the political economies of financialization in the UK and the US are vastly different due to the underlying differences in their national economic geographies and political structures.

The British economy, with its North-South divide (Martin, 1988), is dominated by the economic activities of the City of London. Following London's Big Bang, the UK financial sector underwent substantial liberalization and deregulation, resulting in a highly-financialized economy and prompting many economic geographers to examine finance as a key driver of economic growth and inequality in the UK.²⁹ For many, it was "hard to ignore finance when you had London in your living room."³⁰ While New York is also a global financial center on par with London, "placed in the context of the US economy [it] does not compare with the influence and shadow that London has."³¹ London's larger relative influence partly stems from the differences in the structure of government bodies: the UK has a highly centralized political system while in the US "each jurisdiction has to be analyzed on its own terms."³²

The US is a much more distributed political beast. You've got federal state-provincial system there. In the UK, we have a very, very centralized administration... Regions are much more dependent on London. All the local authorities get their money from the center, they are dependent on that money, they have very little latitude to have any kind of local autonomy over raising money or doing things differently... I think politically as a place, London is hugely dominant in a way that even New York or San Francisco isn't. That's also because of scale. In the US, it's so much bigger, you've got a lot more other stuff going on. You've got far more manufacturing going on, you've got oil, you've got high-tech, you've got Hollywood, you've got all sorts of things. There are more things to crowd out the economic imaginary in the US. [Jane Pollard, 18/11/2019]

This is not to say that the British economy is more financialized, rather the UK was perceived to be more financialized due to the centralized nature of its financialization, which enabled UK-based

²⁹ Andy Pike, 07/11/2019

³⁰ Gordon Clark, 07/10/2019

³¹ Paul Langley, 16/10/2019

³² Heather Whiteside, 11/11/2019

economic geographers working on non-financial issues to take faster notice of the growing power of finance. At the same time, the economic imaginary of the US was more fractured and the processes of financialization were less visible before the 2008 crisis. This contributed to the geographies of money and finance subfield originating in the UK, and consequently being institutionalized through UK-based institutions.

Examining the country-based collaboration network for financial geography (Figure 2.1), the dominance of the UK becomes clear. UK-based financial geographers are collaborating with scholars located in twenty-two different countries, displaying the highest number of external collaborations. Compared to all other tie configurations, the UK, the US, and Australia form the strongest collaboration triad, further highlighting the hegemony of the Anglophone research cluster. In terms of the network homophily based on the Global North-Global South divide, none of the countries from the Global South are connected to one another, while countries from the Global North are connected by strong collaborative ties, illuminating a clear core-periphery structure in the making of Anglophone financial geography scholarship.

Among the 120 most cited first authors within the sample of financial geography articles, UK-based scholars account for 51 percent of all citations. With only 4 out of 120 most cited authors located outside of Europe or North America (all four emanating from the National University of Singapore), researchers from the Global North account for 97 percent of the most cited authors (Figure 2.2). Considering the locations of authors citing financial geography scholarship, the geographical distribution shifts notably. The share of British scholarship drops to 34 percent with 18 percent of financial geography's interlocutors emanating from outside the West. Given the

sampling of articles written only in English and the preference for Anglocentric journals in the Web of Science database, the overrepresentation of Anglophone research sites is partially an outcome of the data analyzed. Nonetheless, the data shows that authors located in the Global South are six times more likely to cite financial geography than to be cited by it, raising serious questions as to whose voices have been prioritized in the field and from which context and places the theoretical apparatus is developed.

2.5 Financial geography's intellectual traditions and turns

Under the influence of both real-world events and disciplinary developments, during the three decades of its existence financial geography has experienced multiple turns, incorporating theories from urban political economy, regional science, cultural studies, and world/global city research (see Figure 2.3). The presence and influence of these traditions can be examined through analysis of citation patterns present in the financial geography literature. Rather than resort to league tables, one way to explore the field's intellectual affiliations is by visually representing the communities of authors that are cited together. In the co-citation network aggregated at the level of authors (seen in Figure 2.4), the size of nodes corresponds to the total number of times each author was cited by the sample of 440 financial geography articles, while the ties between the nodes measure the number of times these authors were cited in the same paper. Based on the frequency with which nodes are co-cited, we can identify the presence of research clusters, or what Crane (1972) referred to as 'invisible colleges' – groups of scholars working in similar areas that establish informal connections with each other through citations in written literature. Van Meeteren et al. (2016) highlight that the act of citing has multiple purposes: from referencing certain texts as part of a

rhetorical strategy to citing scholarship for reputational reasons, suggesting that the resulting ‘map of knowledge’ represents both the sediment of scholarly inquiry and a reflection of a sociological process of knowledge production, and could be used to examine the presence of ‘subparadigms’ (a combination of sociological clusters, invisible colleges, and discursive clusters) in the literature.

It is important to note a few methodological caveats associated with co-citation analysis. While individual scholars might work in multiple scholarly traditions throughout their lifetime, the network aggregates all the cited work of an individual scholar into one node, possibly overlooking changes in their scholarship over time. Since co-citation analysis only considers literature which is cited by the selected sample, the most cited work of some authors may not necessarily correspond with their overall publication profile. Furthermore, being cited together does not necessarily mean that the co-cited authors share epistemic positions, as contrasting positions can be referenced together. Finally, the Web of Science database records only first authors of referenced articles. Given these limitations, the position of an individual author in one of the research clusters should not be interpreted as that scholar necessarily belonging to a particular tradition. Instead, the co-citation network should be analyzed at an aggregate level of clusters rather than individual nodes.

Using the “association strength” method for normalization of co-occurrence data (Van Eck and Waltman, 2009) and the smart local moving algorithm for modularity-based community detection (Waltman and Van Eck, 2013) developed by VOSviewer, we can generate a co-citation network composed of five distinct clusters. Generally, the formation of research clusters is dependent on the clustering techniques used (Gmür, 2003). The co-citation map of financial geography therefore

needs to be seen as a result of an employed technique for community detection – in this case a weighted variant of modularity-based clustering that modified the modularity function introduced by Newman and Girvan (2004) to enable the identification of smaller clusters (Waltman et al., 2010). The generated five clusters can be said to represent different intellectual traditions that have developed in financial geography since the field's inception. While the network shows the cumulative representation of three decades worth of scholarship, the displayed traditions are all at different stages: some in a moment of emergence, others in decline. As new turns emerge from previous work in the subfield, the network representation enables us to see some of the existing connections between these projects. This type of intellectual landscape has been described by Scott (2000) as a palimpsest where the traces of previous work can be seen in the emerging scholarship.

Financial geography's urban political economy tradition can be seen in the red cluster. With its bipartite shape it features two political economy turns: the pre-crisis literature led by David Harvey, and post-crisis scholarship headed by Manuel Aalbers. David Harvey's (1982) *Limits to Capital* was one of the first texts to stress the importance of understanding money and finance in geography, appearing as the most-cited text among the 440 financial geography articles sampled. Within the existing political economy literature, Harvey's emphasis on finance was quite unusual at the time, as questions of money and finance historically were seen as secondary to questions of production, labour, and exchange.³³ Harvey's scholarship ended up significantly influencing the earlier work on money and finance in geography (Dymski, 2018), providing a theoretical impetus for the analyses of international financial systems and the relationships between nation-states,

³³ Brett Christophers, 19/09/2019

finance capital, and monetary regimes (Lai, 2017). In the first progress report about the subfield, Leyshon (1995) argued for the “enduring salience of the political economy approach in understanding the formation of geographies of money and finance” (p.538), writing that:

Work in a political economy tradition first emerged during the 1970s as ‘radical’ geographers made important contributions to our understanding of the dynamics of financial capital within urban arenas, paying particular attention to the role played by the financial system in making and breaking communities through processes such as credit-rationing, redlining and so on (Harvey, 1973; Harvey and Chaterjee, 1973). Indeed, in large part because of the central role afforded to finance within the highly influential work of David Harvey during the 1980s (Harvey, 1982; 1985; 1989a; 1989b), geographical writings on money have been dominated by a broadly political economy perspective.

Leyshon, 1995, p.532

While prominent throughout the 1990s, by the beginning of the century Marxist analyses of money and finance had declined, making a notable comeback only in the aftermath of the 2008 financial crisis. Prior to the crisis itself, a number of mostly US-based urbanists, first including Kathe Newman, Elvin Wyly and later Manuel Aalbers, were drawing on Harvey’s frameworks (1973; 1974) and the 1990s scholarship on financial exclusion (Leyshon and Thrift, 1995; Leyshon and Thrift, 1996) and redlining (Dymski and Veitch, 1992; Dymski, 1995) to examine changes in the American and Western European mortgage markets and the implications of predatory lending for racial inequality (Newman and Wyly, 2004; Wyly et al., 2006; Aalbers 2007). Located in this new wave of urban research, they were the first in geography to diagnose the build-up to the crisis, recognizing its roots in subprime mortgage markets (Aalbers, 2009; Wyly et al., 2009), and having to then anxiously await the impending real-estate crash.

In 2005, beginning of 2006, I found out about subprime lending, predatory lending... I remember having a conversation with Elvin [Wyly] when he was in Amsterdam. I said "isn't it ironic that you have been more right in a way than you thought you could be right, but yet for a number of years people were not interested in your work about subprime lending." Elvin replied that he would have preferred to have been wrong. The crisis comes and all of a sudden, this work becomes more important, but you were already working on it for ten years before that... In August 2007, there is a Research Committee 21 conference in Vancouver that Elvin is co-organizing. We had a session called the geography of homeownership and mortgage markets. Who was at the session? Us and 5-10 other people. So you would think that around that time, people would be talking about the crisis that's coming, but at the session, at the conference, there was the same interest in the mortgage markets as there had been in any other year. At that moment, it was still a niche topic - mortgages were boring, like pensions. And a few months later, things started to fall apart while I was in New York. [Manuel Aalbers, 18/09/2019]

When then the crisis happened, I remember Ewald [Engelen] announcing Manuel [Aalbers] at an internal seminar at the University of Amsterdam [on 28 October 2008]: "you don't usually find that somebody working in a backwater of geography such as housing studies all of a sudden finds himself in the center of attention." It was very clear that financial geography was the toolkit available that allowed us to make sense of what was literally happening all around us. [Michiel van Meeteren, 08/10/2019]

The 2008 financial crisis substantially revived the interest in Marxian political economy, enabling the rediscovery of pre-crisis political-economic geographical scholarship, while the financial crisis' origin in the US has made financial geography relevant to urban geographers based in North America. In the aftermath of the crisis, researching finance became more mainstream, with post-crisis geographical scholarship drawing on the interdisciplinary financialization scholarship that first appeared in the early 2000s and was initially "brought into" geography by Ewald Engelen through his engagement with financialization scholars Julie Froud and Karel Williams, and was

later popularized within financial geography by Manuel Aalbers.³⁴ Financial geography's financialization strand can be seen in the purple cluster, featuring both its proponents (e.g. Greta Krippner, Julie Froud) and its critics (e.g. Brett Christophers).

Alongside the Marxist analyses, a new strand of financial geography emerged in the 1990s which focused on regional development and the institutionalist analysis of financial actors (represented in the yellow cluster). Initially led by scholars like Ron Martin from the UK and Eike Schamp from Germany, economic geographers in conversation with scholarship in regional science were exploring the changing financing landscape of firms, the role of finance in the regional configuration of economies, and the impact of different funding sources on regional innovation and competitiveness.³⁵ By the late 1990s, this literature evolved into the analysis of institutional investors that were now responsible for a growing share of allocated investment capital. Instead of seeing finance as an “amorphous mass of financial services,” geographers started to pay attention to the distinctions between different financial actors and their disparate impacts on regional economic development.³⁶ This institutionalist tradition in financial geography was pioneered by Gordon Clark in his analysis of pension funds (2000) and methodologically involved “close dialogue” – an approach that requires relatively intimate, long-term, and ongoing ties with informed actors in the industry who supply the researcher with the needed information (Clark, 1998).

³⁴ Dariusz Wójcik, 08/09/2019

³⁵ Stefan Ouma, 02/10/2019

³⁶ Andrew Leyshon, 18/09/2019

Concurrent with the work on regional development and restructuring, in the mid-1980s economic geographers became interested in the emergence of services as “the vanguard of new economies.”³⁷ In his seminal paper on the service-economy, Richard Walker (1985) argued that while services were previously seen as subordinate to production, they have always constituted a core component of industrialized economies and geographers needed to study them in their own right.³⁸ With the publication of John Friedmann’s *The World City Hypothesis* (1986) followed by Saskia Sassen’s *The Global City* (1991), geographical research on services gradually transitioned into the analysis of advanced producer services (e.g. Daniels and Moulaert, 1991; Daniels, 1993), where finance and banking now play a key role.³⁹ With urban studies scholars starting to pay attention to the spatiality of advanced producer services and the concentration of their activities in world/global cities, research on world/global cities was rapidly gaining momentum. And with the establishment of the *Globalization and World Cities Research Network* (GaWC) by Peter Taylor in 1998 at Loughborough University, the project gained an institutional base in geography. In tandem with the growing literature on globalization and internationalization of advanced business services that appeared in the early-mid 2000s (e.g. Jones, 2003; Faulconbridge et al., 2008), the interest in world/global cities substantially broadened the subfield and drew the attention of geographers to the centrality of international and offshore financial centers (IFCs and OFCs). Early research by scholars like David Bassens and Ben Derudder (both located outside of the Anglosphere in Belgium) was particularly key in bridging the literatures on world/global cities and

³⁷ Michiel van Meeteren, 08/10/2019

³⁸ Andy Pike, 07/11/2019

³⁹ Andrew Leyshon, 18/09/2019

financial geography together.⁴⁰ This still-growing body of work has examined why certain financial centers are prominent in the world city network, how they function as command centers in the organization of the world economy, and the impact they might have on regional and urban economic development (Lai, 2017). If the earlier scholarship on the geographies of money and finance was primarily concerned with the processes of restructuring and de-industrialization afflicting Great Britain, the “network turn” has enabled the subfield to expand outside of its home base in the UK by broadening its research agenda to examine changes at the global rather than national scale. With the establishment of Shanghai, Beijing, Hong Kong, and Singapore as global financial centers, and Amsterdam, Frankfurt, and Luxembourg as second-tier financial centers, the network turn made financial geography particularly relevant to scholars located in Asia and Continental Europe. Many of the scholars working in this tradition – David Bassens, Jonathan Beaverstock, Karen Lai, and Dariusz Wójcik – can be seen in the blue research cluster.

Prior to the network turn in financial geography in the mid-2000s, there was an earlier approach in the geographical scholarship on money and finance that emerged in the late 1990s out of the broader cultural turn in human geography. The cultural economy tradition of financial geography is represented in the green cluster, showcasing three geographers from Nottingham (Sarah Hall, Shaun French, and Andrew Leyshon), along with Paul Langley and Michael Pryke. Theoretically aligned with the social studies of finance and drawing from post-structuralist theory, as well as feminist and post-colonial studies, the cultural economy literature on money and finance has

⁴⁰ Dariusz Wójcik, 08/10/2019

examined “the calculative practices that (re)produce the international financial system” (Hall, 2010, p.234); “the role of space and place in constituting financial subjectivities” (Hall, 2011, p.403), and “the role of financial circuits in everyday economic life” (Hall, 2012a, p.285). While Andrew Leyshon and Nigel Thrift were among the first geographers to make the transition from political economy-centric analyses of finance to those attuned to cultural and social factors, by the late 2000s the social make-up of financial geography had begun to shift with Sarah Hall emerging as the leading voice in the literature.⁴¹ At the same time, the hotspot for cultural economy-centric financial geography had shifted from the University of Bristol to the University of Nottingham. Mirroring work on financial centers and global financial networks, the cultural economy studies of finance were also “largely produced through the research in the heartlands of global finance” like London and New York, but differed from the network-oriented analyses in that they tended to be “more concerned with understanding and revealing how finance was produced” rather than being occupied with “its uneven outcomes.”⁴²

In addition to analyzing research clusters of cited authors, we can also aggregate the co-citation network at the level of journals. Examining the generated network of co-cited journals (shown in Figure 2.5), we can identify five distinct clusters represented by different colors.⁴³ The red cluster, with half of its citations going towards economics, finance, and business studies journals (see Table 2.3) and its most cited nodes being the *Journal of Economic Geography* and *Regional Science*, represents the regional development and institutionalist tradition. With strong ties to

⁴¹ Dariusz Wójcik, 08/10/2019

⁴² Sarah Hall, 01/10/2019

⁴³ Note that Figures 3 and 4 use different color schemes.

mainstream economics and finance, its overall position appears to be the most disconnected from the remainder of the network. The engagement with orthodox economics and the world of finance have become more common amongst financial geographers affiliated with Oxford and Gordon Clark. Many of his students followed the institutionalist tradition involving the method of close dialogue, producing close working relationships with financial firms which enabled them to conduct studies of financial industry from the inside.⁴⁴ This engagement with economics was further sustained by Dariusz Wójcik in his effort to make financial geography more interdisciplinary:

I think it's important not to build financial geography as a kind of fortress of critical only, if not radical, social science where we shouldn't mix with economists... In FinGeo it has been one of my objectives not to make it ideological. It is obviously a social science, it is about critique, but it is open to economics and to practitioners and to business studies, so we don't make it too ideological. We openly debate between different ideologies and ideas, rather than just focus on one. It's not a crusade, it's not an ideological mission. [Dariusz Wójcik, 08/10/2019]

The green cluster consists of generalist human geography journals, while the blue is composed of mainly urban studies journals. At the centre of the network, we have a small number of highly cited core economic geography journals such as *Environment and Planning A* and *Economic Geography* that connect the other four clusters. The overall topology of the network shows no discernible core but rather multiple, equally cited clusters, confirming that financial geography has a pluralist theory-culture and is not dominated by any singular approach. The interdisciplinary nature of the field is further highlighted by the fact that almost half of cited journals emanate from

⁴⁴ See <https://www.geog.ox.ac.uk/staff/glclark.html>

outside of geography and urban studies, showing that financial geography draws almost as much inspiration from outside the discipline, as it does from within.

2.6 The 2008 crisis catalyst

As much as financial geography is a result of internal developments within the discipline, individual career trajectories, and patterns of institutionalization, it is also a product of external events. As a discipline seeking to hew to actual economic developments, it emerged in the late 1980s as the UK and the US financial sectors were being deregulated and financial institutions were expanding in reach and influence. While the liberalization of global financial markets provided momentum for the field's inception, this body of work remained on the edges of economic geography throughout the first decade of its existence as others were slow to acknowledge the growing importance of finance in the after-Fordist economy. Andrew Leyshon recalls feeling at the time "in one sense like *Terra Nova*, there wasn't really anyone writing on this... We'd go to events and there wouldn't be many people doing work on this at all."⁴⁵ Adam Tickell remembers attending a finance-related session at the RGS annual conference in the early 1990s where "there were only six or seven people in the room because no one thought finance mattered, because at the time the economy was thought about in terms of stuff that's made and anything else didn't play to the same political trope. It was intangible."⁴⁶ Things were not much different for the geographers located on the other side of the Atlantic. Jane Pollard recounts being

⁴⁵ Andrew Leyshon, 18/09/2019

⁴⁶ Adam Tickell, 23/10/2019

a graduate student at UCLA in the early 1990s where geographers at the time seemed to be interested in everything but money and finance:

Everything could move around, but the money that enabled that to happen just seemed to be entirely missing from the treatments we had of the circuits of capital... Finance was assumed to be the stuff that economists did. People [hadn't] read a lot of stuff around the sociality of money or they just assumed that firms could assemble all this capital and there weren't any particularly interesting strings attached to that capital, and so the money was just this sort of fuel for all the interesting stuff, like movements of labour or producing particular forms of industrial organization. Money was taken for granted. It probably suffered from the idea that people were inclined to see financial markets as technical, and therefore it was somehow difficult to get your head around, somehow detached from space and place. [Jane Pollard, 18/11/2019]

The initially peripheral position of finance-related research in geography can also be seen in the slow growth of published articles on these topics. With the first text in the sample dating back to 1986, the uptake of financial topics was sluggish in the next two decades, following a trajectory of exponential growth seen in Figure 2.6. While before 2008, “financial geography was a small specialist niche ... attracting little scholarly attention” (Engelen, 2012, p.253), the financial crisis became the critical point at which interest in these topics has instantly surged. The influence of the crisis can be understood by examining how much financial geography scholarship is cited (Figure 2.7). We can see a relatively slow initial engagement: the two decades of scholarship prior to 2009 accounted for a mere 17 percent of all citations, with the last two years generating almost a third of them.

It is indisputable that the ascent and formation of financial geography would not have occurred absent the sustained levels of financialization across the Western economies which culminated in

the 2008 global financial crisis. For many economic and urban geographers, the financial crisis acted as a catalytic moment — money and finance had not only risen up the political agenda, they were evidently crucial for any understanding of broader structural changes in the economy. While the crisis was what brought finance to the attention of geographers, financialization is what sustained their interest in the aftermath. Christophers (2015) called it the new research paradigm of the 2010s, which followed in the footsteps of globalization in the 1990s and neoliberalism in the 2000s. Shortly following the crisis, Pike and Pollard (2010) argued that economic geographies of financialization created an imperative to move finance from its “offstage” location (Clark, 2006) into the heart of economic geographic analysis, while French et al. (2011) made a far-reaching call to problematize financialization as a “profoundly spatial phenomenon,” highlighting both the failure of current research to move beyond conceptions of financialization as the Anglo-American ideal type and the need to examine variations of financialization across different geographical contexts and scales. The message resonated, creating an impetus for geographers to take the financialization agenda more seriously. Dymski (2015) later highlighted that geographers were among the only ones who “saw” financialization. With the US subprime mortgage crisis metamorphosing into the European sovereign debt crisis, the financialization lens allowed geographers to explain how seemingly localized financial processes could have unforeseen, widespread impacts on the national economies located on the other end of the world, highlighting the spatial entanglements and interdependencies of the contemporary financial system.⁴⁷

⁴⁷ Karen Lai, 23/09/2019

The “*financialization turn*” in the literature can be verified by examining common keywords before and after the crisis. In the period between 1986 and 2008, the leading keyword was globalization, appearing in 7 percent of published articles, followed by finance (5 percent), and China, economic geography, geography of finance, and venture capital, each at 3 percent. In the aftermath of the crisis, there were notable changes in the field’s research agenda. With no mentions prior to 2009, financializ(s)ation emerged as the most common keyword, appearing in 27 percent of sampled texts. Having had no discernible thematic core in the first two decades of its existence, in the period since the global financial crisis financialization has emerged as a focal concern for financial geography.

Financialization has clearly left a mark on financial geography, but is financial geography scholarship being read outside of geography? Among the disciplines that publish most on the topic, geography and urban studies come second, together capturing 23.5 percent of all publications and being preceded only by (heterodox) economics, which accounts for a third of published articles. The influence of geographical writing, however, can be better captured through citation analysis. Compared to all other disciplines, scholarship published in geography or urban studies outlets is cited the most by financialization articles - 24 percent of the time compared to 22 percent for economics, 16 percent for finance or business, 9 percent for political economy, 6 percent for sociology, 5 percent for political science and 4 percent for development (Table 2.4). Some attribute the prominence of geographical scholarship in this literature to the spatial sensitivity that geographers bring to the understanding of financialization, enabling them to explain how “geographical dimensions of [financialization] are causal and constitutive of how that process

unfolds,”⁴⁸ while others suggest that being primarily concerned with the social and political rather than purely economic impacts of financialization is what distinguishes them.⁴⁹

One of the most important contributions of the financialization literature has been to facilitate conversations across social science disciplines that do not necessarily communicate with one another (Aalbers, 2015). Examining the co-citation network formed at the level of cited journals (Figure 2.8), one can notice five research clusters formed mainly on the basis of disciplinary affiliations with many dense connections between them, highlighting the interdisciplinary nature of the project. The geography/urban studies cluster (shown in red) has many connections extended to the blue cluster featuring sociology, finance/business, political science, and heterodox economics journals. It is also connected to the purple cluster of development journals and less so to the yellow grouping of (macro)economics and political economy outlets. The green cluster featuring orthodox economics and finance/business journals appears both highly interconnected and spatially isolated from the rest of the clusters, even though its overall presence with 26 percent of all citations is quite significant.

Analyzing the financialization co-citation network generated at the level of individual authors (Figure 2.9), we can detect five separate research clusters similarly formed on the basis of disciplinary affiliations. The red cluster constitutes the largest grouping of scholars by total citations, 56 percent of which are geography and urban studies scholars such as David Harvey,

⁴⁸ Andy Pike, 07/11/2019

⁴⁹ Karen Lai, 23/09/2019

Manuel Aalbers, and Paul Langley (see Table 2.5). It is strongly connected to the green grouping of mostly sociologists (e.g. Greta Krippner) and heterodox economists (e.g. Gerald Epstein and William Lazonick) which make up, accordingly, 22 percent and 51 percent of all the authors. The green cluster is then connected to the yellow one, showcasing Post-Keynesian economists such as Engelbert Stockhammer, Eckhard Hein, and Thomas Palley. Notably, the fourth cluster, seen in blue, is spatially isolated from the other three and represents a smaller number of orthodox economists and finance/business scholars, further exemplifying the divide between the orthodox and heterodox approaches to financialization. And while it has been argued that “mainstream economists do not see financialization” (Christophers, 2017), we can notice that there is an island-like cluster of orthodox economists being referenced in the broader financialization literature about 10 percent of the time.

2.7 Conclusion

It is clear that financial geography was transformed by the global financial crisis, transitioning from a position at the margins of economic geography to its present status as one of the fastest growing research fields in human geography and cognate disciplines. The crystallization of geographical scholarship on money and finance into the bounded subfield of financial geography could be attributed to the processes of institutionalization that have been initiated by scholars involved with the FinGeo Network. As a result of these initiatives, coupled with the new reality created by the 2008 financial crisis, the financial geography literature has been growing in terms of size, breadth of research questions, and readership among scholars in other disciplines. The flourishing interdisciplinary reception can be explained by the restructuring of financial

geography's research program around the issues surrounding financialization, as scholars in other fields look to the writings of geographers on this topic.

Even with this thematic centralization, the discipline showcases scholarship belonging to four approximately equally represented intellectual traditions: urban political economy, regional development/institutionalist economic geography, cultural economy, and network studies approaches. The development of these distinct traditions is not only influenced by external events and new theoretical currents, but it is also shaped through conversation across them. The articulated state of the field, therefore, cannot be reduced to the sum of isolated bodies of work in each of these research clusters. Instead, it is best to understand the making of financial geography as a layered and additive process of knowledge creation which produces distinct yet interdependent projects. These interdependencies are critical not only for the formation of these traditions, but this continuous engagement between traditions facilitates the ability of financial geography to generate novel insights at the junction of multiple schools of thought.

Despite the existing diversity of thought and methods, the concentration of knowledge production in just a few places remains an ongoing concern. While financial geography has expanded outside of the UK (particularly to Continental Europe) in the aftermath of the crisis, most scholarship continues to be produced in a few locations in the UK, with a notable absence of literature emanating from the Global South. The geographical path-dependencies associated with the first few financial geographers being based in the UK, compounded by the processes of institutionalization which occurred primarily through British institutions, create an imperative to expand on the existing efforts to de-center the UK as the heart of financial geography's knowledge

production and prioritize research sites located beyond the “heartlands of high finance” (Hall, 2012b). As financial geography remains an exceedingly white field which “struggles to incorporate issues of race as more than an afterthought,”⁵⁰ provincializing financial geography is also likely to encourage a deeper engagement with questions of race and empire. On the other hand, extending the analytical time frame to incorporate the long-durée historical dynamics could enable a more critical interpretation of finance’s ascent in the context of ongoing (neo)colonialism. For Stefan Ouma, “many of the categories taken for granted in finance and in economics more generally can be decentered and re-politicized with this more long-durée perspective [because it can show] how well production in the so-called centers via the workings of finance have been tightly connected to exploitative practices and processes in the so-called periphery, and how race and racialization were a very crucial element there.”⁵¹

As a subfield which unites structural critiques of capitalism with “apolitical” analyses that sit comfortably with financial practitioners, reconciling the existing ideological differences among geographers working on finance-related questions without abandoning the pluralist theory-culture presents one of the biggest challenges. With significant disagreement about whether financial geography should remain open to all perspectives, some of the ongoing engagement with orthodox economics and financial elites appears to have deterred some radical geographers from identifying with the project. Decoupling financial geography from its legacy as a subfield of economic geography without addressing its longstanding relationship with the disciplines of economics and

⁵⁰ Emily Rosenman, 21/10/2019

⁵¹ Stefan Ouma, 02/10/2019

finance does not appear to be enough to attract many of the urban geographers working in the tradition of Marxian political economy. This highlights the need to carefully consider whether continuing to welcome mainstream economists and finance scholars is worthwhile given the epistemological and ontological incompatibilities and the existing power imbalances between the disciplines of geography and economics/finance (Peck, 2012).

Hall (2012b) points out how the pre-crisis economic geographic work on money and finance, having developed close connections with finance, was largely seduced by it, failing to sufficiently problematize its ascent and the uneven development and instability it precipitated. The 2008 financial crisis became a wake-up call for the field, reinvigorating concerns about the growing power of finance and its uneven socio-economic impacts, crystallizing in the still growing literature on financialization. This scholarship, while sharing the underlying political economic concerns of unequal and uneven power distribution, showcases work at the junction of multiple traditions, examining everything from the financialization of nature (Ouma et al., 2018) and the gendered dynamics of financial crises (Pollard, 2013) to the usage of finance as a poverty-regulation mechanism (Rosenman, 2019) and sovereign debt crises in the Global South (Potts, 2017). The financialization strand exemplifies the practice of engaged pluralism where geographers engage in reciprocal exchanges with different strands of heterodox economic studies and 'more-than-economic' disciplines to problematize the ascent of finance and its impacts on the economy and society at large, setting a precedent for the scholarly project in financial geography that is both pluralist and critical of, rather than seduced by, power.

Table 2.1: Number of articles, citations, and collaborations by institutional affiliations

<i>Institutional affiliations of authors</i>	<i>Number of articles</i>	<i>Percent of articles</i>	<i>Total citations</i>	<i>Percent of citations</i>	<i>Citations per article</i>	<i># of external collaborations</i>
<i>University of Oxford</i>	40	9.1%	651	6.7%	16.3	25
<i>University of Nottingham</i>	19	4.3%	594	6.1%	31.3	5
<i>Newcastle University</i>	16	3.6%	316	3.3%	19.8	13
<i>KU Leuven</i>	13	3.0%	102	1.1%	7.8	4
<i>University of Amsterdam</i>	12	3.0%	229	2.4%	19.1	7
<i>University of Bristol</i>	9	2.0%	194	2.0%	21.6	2
<i>Uppsala University</i>	9	2.0%	101	1.0%	11.2	2
<i>Ghent University</i>	8	1.8%	153	1.6%	19.1	5
<i>University of Birmingham</i>	8	1.8%	93	1.0%	11.6	8
<i>University of Hong Kong</i>	8	1.8%	198	2.0%	24.8	6
<i>University of Illinois Chicago</i>	8	1.8%	236	2.4%	29.5	2
<i>University of Southampton</i>	8	1.8%	184	1.9%	23.0	4
<i>NUS</i>	7	1.8%	83	0.9%	11.9	4
<i>University of Sheffield</i>	7	1.8%	108	1.1%	15.4	1
<i>University College London</i>	7	1.6%	63	0.6%	9.0	5
<i>LSE</i>	7	1.4%	49	0.5%	7.0	4
<i>University of Cambridge</i>	6	1.6%	166	1.7%	27.7	8
<i>University of Manchester</i>	6	1.6%	68	0.7%	11.3	2
<i>University of Sydney</i>	6	1.6%	68	0.7%	11.3	3
<i>Kings College London</i>	6	1.4%	59	0.6%	9.8	5
<i>University of London</i>	6	1.4%	123	1.3%	20.5	3
<i>Monash University</i>	5	1.4%	31	0.3%	6.2	5
<i>Lancaster University</i>	5	1.1%	67	0.7%	13.4	5
<i>University of Neuchatel</i>	5	1.1%	73	0.8%	14.6	1
<i>University of York UK</i>	5	1.1%	92	0.9%	18.4	4
<i>Utrecht University</i>	5	1.1%	17	0.2%	3.4	3
<i>Goethe University Frankfurt</i>	5	1.1%	37	0.4%	7.4	4
<i>University of Toronto</i>	5	0.9%	43	0.4%	8.6	4
<i>Durham University</i>	4	1.1%	41	0.4%	10.3	5
<i>Loughborough University</i>	4	1.1%	511	5.3%	127.8	3
<i>University of Kentucky</i>	4	1.1%	96	1.0%	24.0	3
<i>SUNY Buffalo</i>	4	0.9%	5	0.1%	1.3	5
<i>University of Leeds</i>	4	0.9%	70	0.7%	17.5	6
<i>University of Sussex</i>	4	0.9%	49	0.5%	12.3	3
<i>Vrije Universiteit Brussel</i>	4	0.9%	52	0.5%	13.0	3

Table 2.2: Geography of knowledge production and citations of financial geography

<i>Countries</i>	<i>Number of articles</i>	<i>Percent of articles</i>	<i>Total citations</i>	<i>Percent of citations</i>	<i>Average citations per article</i>	<i>Percent of multinational collaborations</i>
<i>United Kingdom</i>	211	48%	4012	53%	19.0	30%
<i>USA</i>	75	17%	959	13%	12.8	41%
<i>Australia</i>	29	7%	204	3%	7.0	38%
<i>Belgium</i>	28	6%	285	4%	10.2	25%
<i>Netherlands</i>	23	5%	303	4%	13.2	48%
<i>Canada</i>	20	5%	382	5%	19.1	60%
<i>China</i>	19	4%	252	3%	13.3	37%
<i>Germany</i>	19	4%	211	3%	11.1	47%
<i>Spain</i>	11	3%	158	2%	14.4	18%
<i>Sweden</i>	10	2%	106	1%	10.6	20%
<i>Ireland</i>	8	2%	100	1%	12.5	0%
<i>Singapore</i>	8	2%	83	1%	10.4	38%
<i>Switzerland</i>	7	2%	63	1%	9.0	14%
<i>France</i>	6	1%	77	1%	12.8	33%
<i>Italy</i>	5	1%	21	0%	4.2	40%
<i>Finland</i>	4	1%	14	0%	3.5	75%
<i>South Africa</i>	4	1%	34	0%	8.5	50%
<i>South Korea</i>	4	1%	63	1%	15.8	0%
<i>Austria</i>	3	1%	28	0%	9.3	67%
<i>Brazil</i>	3	1%	135	2%	45.0	0%
<i>Ghana</i>	3	1%	6	0%	2.0	100%
<i>Kenya</i>	3	1%	13	0%	4.3	67%
<i>New Zealand</i>	3	1%	0	0%	0.0	33%
<i>Qatar</i>	3	1%	0	0%	0.0	100%
<i>Denmark</i>	2	0%	2	0%	1.0	0%
<i>Luxembourg</i>	2	0%	0	0%	0.0	100%
<i>Norway</i>	2	0%	1	0%	0.5	50%
<i>Portugal</i>	2	0%	5	0%	2.5	50%
<i>Turkey</i>	2	0%	11	0%	5.5	50%
<i>Cayman Islands</i>	1	0%	0	0%	0.0	0%
<i>Czech Republic</i>	1	0%	0	0%	0.0	100%
<i>Greece</i>	1	0%	0	0%	0.0	100%
<i>India</i>	1	0%	1	0%	1.0	0%
<i>Indonesia</i>	1	0%	0	0%	0.0	100%
<i>Iran</i>	1	0%	5	0%	5.0	0%
<i>Israel</i>	1	0%	6	0%	6.0	0%
<i>Japan</i>	1	0%	25	0%	25.0	100%
<i>Kuwait</i>	1	0%	4	0%	4.0	0%
<i>Poland</i>	1	0%	0	0%	0.0	100%
<i>Saudi Arabia</i>	1	0%	6	0%	6.0	100%
<i>Slovakia</i>	1	0%	0	0%	0.0	100%
<i>Taiwan</i>	1	0%	0	0%	0.0	100%

Figure 2.2: Geographical locations of financial geography scholars and their interlocutors

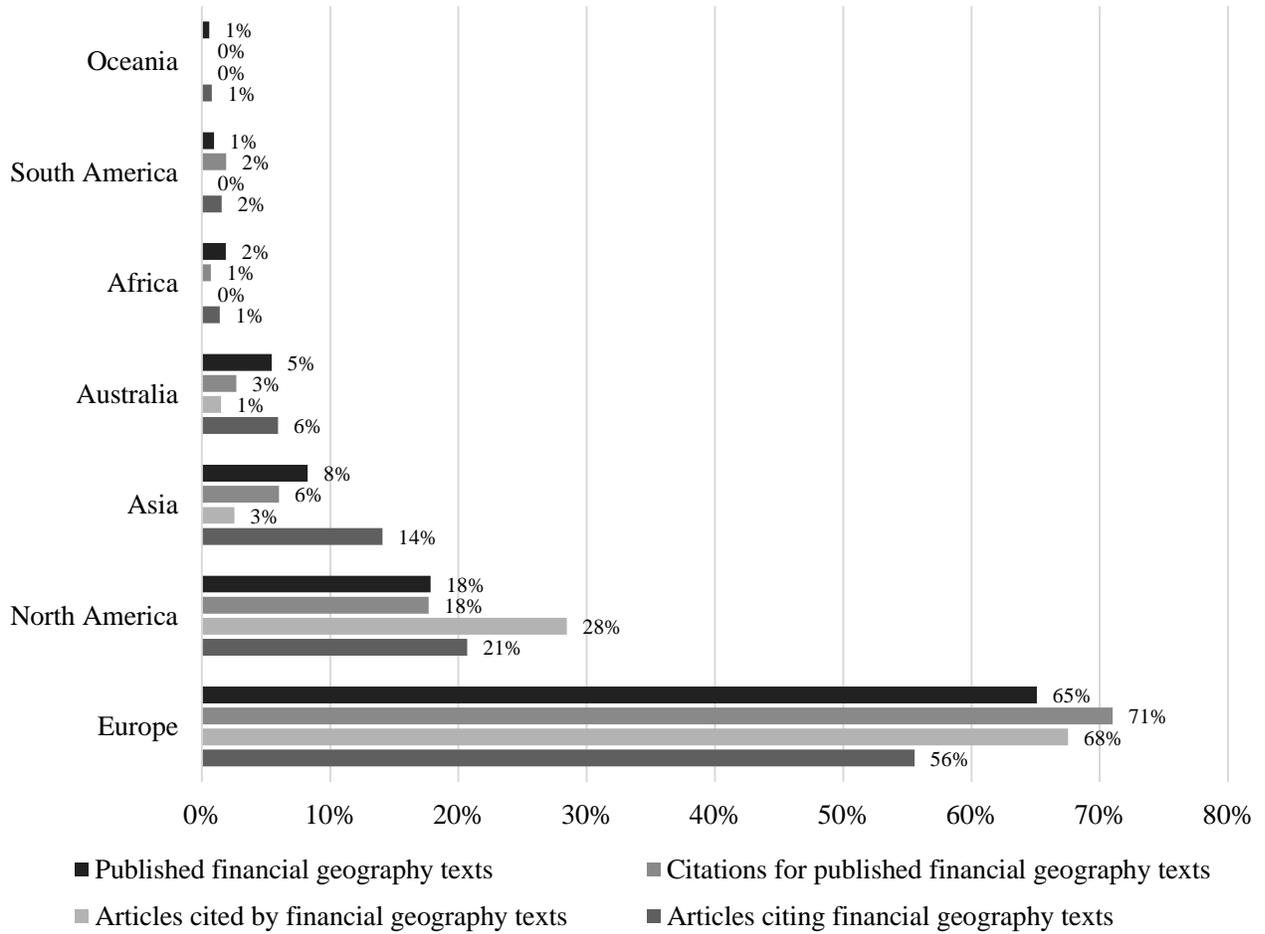


Figure 2.3: Genealogy of Financial Geography

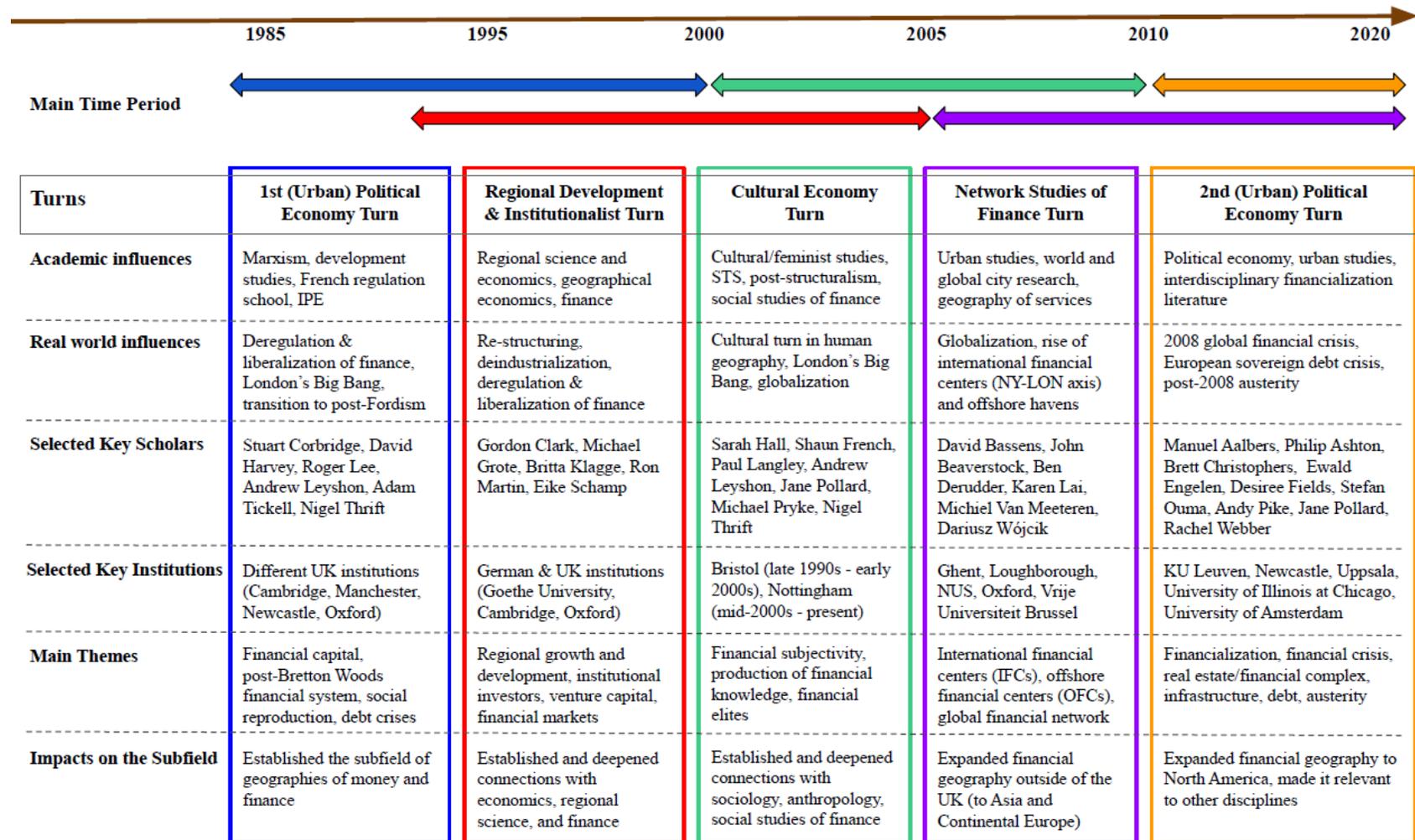


Table 2.3: Disciplinary composition of the financial geography journal co-citation network

<i>Disciplines</i>	<i>Cluster 1 (Red)</i>	<i>Cluster 2 (Green)</i>	<i>Cluster 3 (Blue)</i>	<i>Cluster 4 (Yellow)</i>	<i>Cluster 5 (Purple)</i>	<i>Grand Total</i>
<i>Urban Studies</i>	1% (2%)	0% (0%)	67% (43%)	1% (4%)	2% (13%)	16% (13%)
<i>Geography</i>	38% (6%)	62% (27%)	19% (14%)	0% (0%)	97% (75%)	45% (15%)
<i>Economics</i>	25% (39%)	1% (2%)	6% (18%)	7% (14%)	0% (0%)	8% (19%)
<i>Finance/Business</i>	26% (41%)	1% (4%)	0% (0%)	0% (0%)	0% (0%)	6% (13%)
<i>Sociology</i>	7% (6%)	4% (9%)	1% (2%)	2% (7%)	2% (13%)	3% (6%)
<i>Political Science</i>	1% (2%)	1% (7%)	0% (0%)	28% (36%)	0% (0%)	4% (8%)
<i>Political Economy</i>	0% (0%)	1% (4%)	0% (0%)	48% (25%)	0% (0%)	6% (5%)
<i>Other</i>	3% (4%)	29% (47%)	8% (23%)	14% (14%)	0% (0%)	12% (21%)
<i>Grand Total</i>	23% (29%)	25% (26%)	23% (25%)	11% (16%)	17% (5%)	100% (100%)

*The first number in each cell measures the proportion of citations by discipline; the second number (shown in the brackets) measures the proportion of unique journals by discipline.

Figure 2.6: Number of published financial geography articles per year

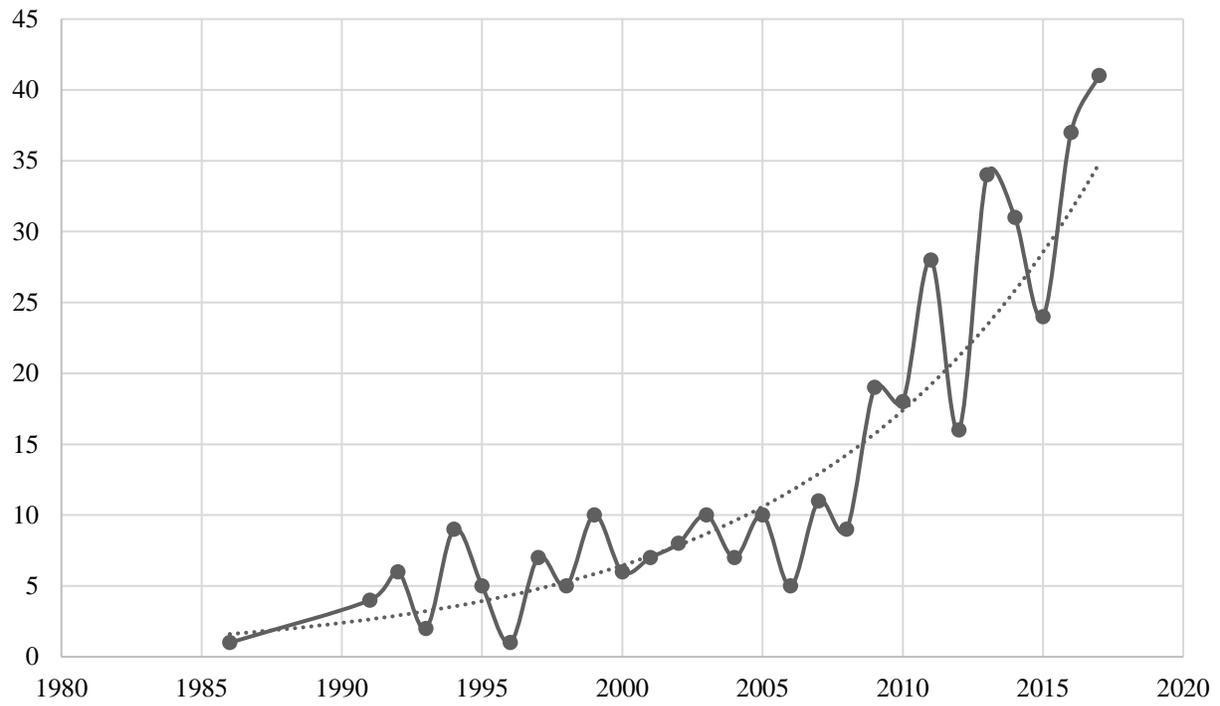


Figure 2.7: Number of times financial geography articles were cited per year

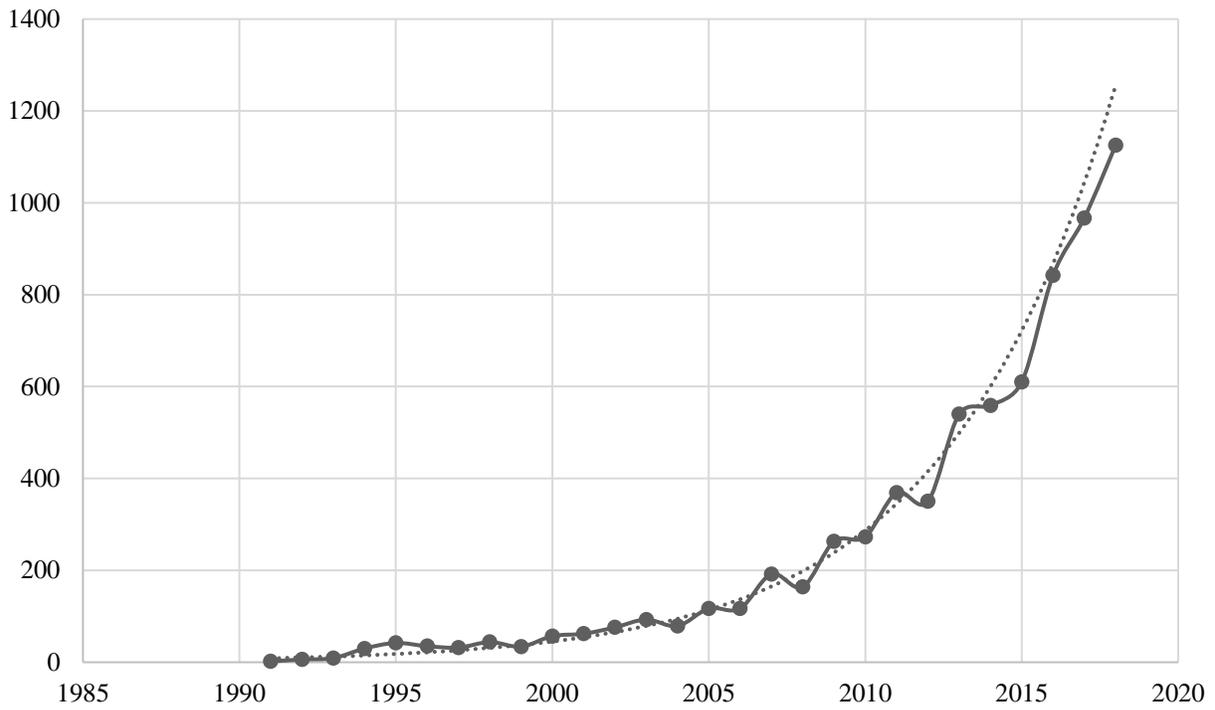


Table 2.4: Disciplinary composition of the financialization journal co-citation network

<i>Discipline</i>	<i>Cluster 1 (Red)</i>	<i>Cluster 2 (Green)</i>	<i>Cluster 3 (Blue)</i>	<i>Cluster 4 (Yellow)</i>	<i>Cluster 5 (Purple)</i>	<i>Grand Total</i>
<i>Geography/Urban</i>	59% (58%)	0% (0%)	0% (0%)	0% (0%)	5% (10%)	24% (20%)
<i>Political Economy</i>	15% (12%)	0% (0%)	0% (0%)	28% (42%)	11% (10%)	9% (8%)
<i>Economics</i>	1% (4%)	49% (58%)	13% (11%)	70% (50%)	0% (0%)	22% (25%)
<i>Finance/Business</i>	0% (0%)	47% (38%)	19% (26%)	0% (0%)	0% (0%)	16% (17%)
<i>Sociology</i>	4% (6%)	0% (0%)	22% (17%)	0% (0%)	4% (10%)	6% (7%)
<i>Political Science</i>	8% (8%)	0% (0%)	8% (14%)	0% (0%)	0% (0%)	5% (6%)
<i>Development</i>	0% (0%)	0% (0%)	0% (0%)	0% (0%)	67% (50%)	4% (3%)
<i>Other</i>	13% (12%)	4% (4%)	38% (31%)	3% (8%)	14% (20%)	15% (14%)
<i>Grand Total</i>	40% (33%)	26% (30%)	20% (23%)	9% (8%)	6% (7%)	100% (100%)

* The first number in each cell measures the proportion of citations by discipline; the second number (shown in the brackets) measures the proportion of unique journals by discipline

Figure 2.9: Financialization co-citation network of most cited authors (1996-2019)

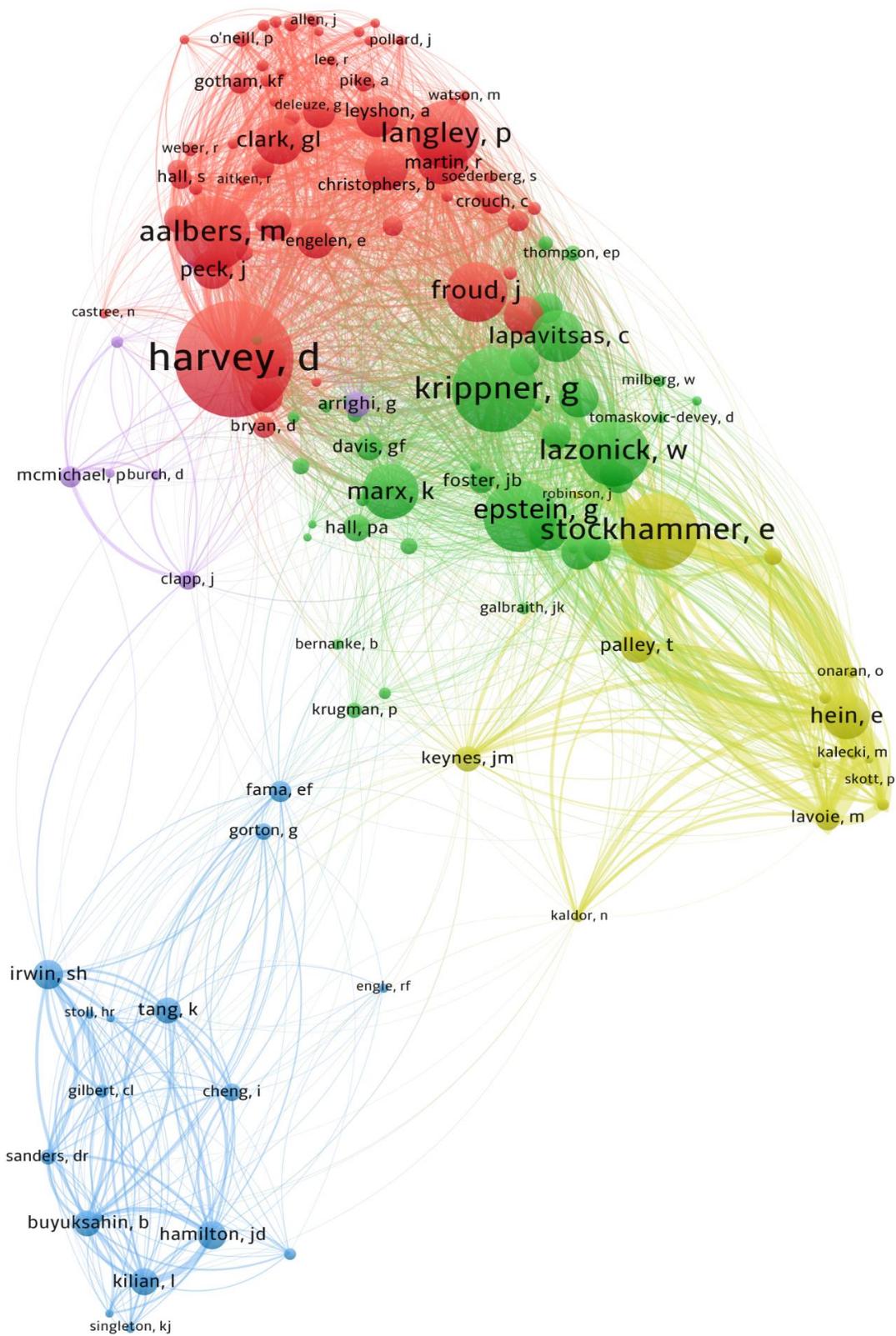


Table 2.5: Disciplinary composition of the financialization author co-citation network

<i>Disciplines</i>	<i>Cluster 1 (Red)</i>	<i>Cluster 2 (Green)</i>	<i>Cluster 3 (Yellow)</i>	<i>Cluster 4 (Blue)</i>	<i>Cluster 5 (Purple)</i>	<i>Grand Total</i>
<i>Geography/Urban</i>	62% (56%)	0% (0%)	0% (0%)	0% (0%)	8% (14%)	28% (24%)
<i>Sociology</i>	15% (15%)	21% (22%)	0% (0%)	0% (0%)	44% (29%)	15% (14%)
<i>Economics</i>	3% (2%)	59% (51%)	96% (93%)	62% (59%)	0% (0%)	36% (33%)
<i>Finance/Business</i>	10% (10%)	5% (5%)	0% (0%)	38% (41%)	0% (0%)	9% (11%)
<i>Other</i>	11% (17%)	15% (22%)	4% (7%)	0% (0%)	48% (57%)	12% (17%)
<i>Grand Total</i>	44% (42%)	32% (29%)	10% (11%)	10% (12%)	4% (5%)	100% (100%)

* The first number in each cell measures the proportion of citations by discipline; the second number (shown in the brackets) measures the proportion of unique journals by discipline

Chapter 3: Rents and Financial Accumulation

3.1 Introduction

“[F]inancialization is typically depicted as something that is ‘done’ by finance to or within other or wider domains: life, business, and capitalism ... Yet finance itself—its institutions, its functions, its revenue-and-profit generation models, and its socio-spatial configurations—is all too often black boxed, as if finance’s usurpation of the world thoroughly transforms the latter but does not require us to overhaul our conceptualization of the former.”

Christophers, 2015, p.191

Over two decades ago, Giovanni Arrighi published his ground-breaking text *The Long Twentieth Century* on the rise and fall of world empires (1994). Arrighi proposed that periods of financial expansion are recurrent cyclical phenomena, occurring when the profitability crisis in the productive sphere leads to a surplus of capital looking for higher rates of returns in financial investments. As a “sign that the possibility of continuing to profit from the reinvestment of capital in the material expansion of the world economy has reached its limit” (Arrighi, 2010, p.371), periods of financialization signify the impending death of the old hegemonic power and the birth of the new. Relying on Arrighi’s historical analysis, Greta Krippner provided a more precise definition of financialization as “a pattern of accumulation in which profits accrue primarily through financial channels rather than through trade and commodity production” (2005, p.174).

Krippner’s (2005) seminal study established one of the most notable stylized facts about the contemporary US economy – the fact that its financial sector has managed to accrue approximately thirty percent of all corporate profits, despite only employing around five percent of the national

workforce and contributing only seven percent to the GDP of the United States.⁵² Krippner's study raises fundamental questions as to how and why the US financial sector alone is able to continuously achieve such immense profits relative to all other industries despite its relatively small contribution to the overall economic activities in the US as measured by employment or value added statistics. Not only do we lack a convincing explanation for the excessive profitability of American finance, but we also lack a systematic understanding of what exactly it is that the US financial sector does to achieve it. Krippner (2011) suggests that the initial surge in profit in finance occurred in the 1980s following the expansion of US credit markets, which in turn was driven by financial deregulation and further enabled by high interest rates imposed by the Reagan administration as part of their effort to restrain the demand for credit and break the cycle of inflation. With real interest rates reaching historical lows in the 2000s, it remains unclear how the US financial sector has managed to retain its immense profitability, especially in the aftermath of the 2008 global financial crisis, which seemingly had no discernible impact on long-term accumulation dynamics.

While much of the literature studying financialization as a new regime of accumulation has focused on how this period of financial expansion has impacted the real, 'productive' economy (e.g. Lazonick and O'Sullivan, 2000; Epstein and Power, 2003; Krippner, 2005; Epstein and Jayadev, 2005; Crotty, 2003; Froud, 2006; Orhangazi, 2008; Lin and Tomaskovic-Devey, 2013; Williams and Kliman, 2014), how financialization transformed the internal dynamics of the US financial sector has not been sufficiently or systematically examined. This chapter aims to unpack this

⁵² See Christophers (2018) for an extended replication of Krippner's (2005) study.

conceptual and empirical ‘black box’ by investigating how the sources of profits and the profit-generating activities in the US financial sector have changed with the onset of financialization in the 1980s. Drawing on David Harvey’s writing on the circulation of capital, this chapter challenges the widely held assumption that financial activities can be reduced to lending and develops a relational framework of financial accumulation, drawing a separation between financial profit-generating activities which contribute to the production of surplus value and those which expropriate it from others.

To explain how American finance was able to grow so profitable in the past four decades, this chapter first points out how the widely used Bureau of Economic Analysis (BEA) estimate of US corporate profits omits a significant portion of income which US financial firms receive from their non-lending activities and thus cannot be used as an accurate measure of profit in finance. Instead of relying on the BEA estimates, this chapter examines all the income sources which the US financial sector receives as reported by the Internal Revenue Service (IRS), and proposes a new measure for the share of surplus value accrued by the US financial institutions. Through the analysis of US financial subsectors and the changing structure of their income sources, this chapter exposes how management and ownership of capital have replaced lending as the primary profit-generating activity which the US financial sector performs. It is estimated that the transformation of American finance from a lender to an owner of capital resulted in the US financial sector reducing its provision of interest-bearing capital to US non-financial firms (as a share of all available capital) by half in the past four decades, implying that finance no longer accrues profits through expanded production – instead, it has fully embraced accumulation through expropriation.

This chapter proceeds as follows. The following section provides an overview of the financialization literature that explicitly considers the impacts of financialization on the internal dynamics of the US financial sector. The third section develops a typology of profit-generating activities, with a separation drawn between credit intermediation, market mediation, and rentierism. It then provides a relational visualization of these profit-generating activities using a modified version of David Harvey's "circuits of capital" framework. The fourth section provides an examination of the changing accumulation dynamics witnessed in the US financial sector since the 1960s, documenting the decline of credit intermediation and the rise of rentierism. The chapter's conclusion discusses the broader implications of the findings, suggesting that the relationship between fictitious and real economies has been fundamentally changed in the contemporary phase of financialization.

3.2 Examining the impacts of financialization on the US financial sector

In reviewing studies which examine the changing nature of financial accumulation, we can begin by identifying the primary function finance used to play in the capitalist economy prior to the financialization turn in the world economy. Writing about the importance of the ongoing circulation of capital for compounding capital growth, Harvey distills the fundamental role of finance down to the allocation of the right amount of money "in the right place at the right time to launch that money into circulation as capital" – the service for which money capitalists "demand their cut of the surplus value that is produced" in the form of interest payments (2011, p.7). The initial role of financiers in a capitalist economy was to facilitate the production process by

providing industrial capitalists with the initial “M” in the “M-C-M’” circulation process.⁵³ Since surplus value can only originate in the M-C-M’ cycle, finance does not have the ability to produce surplus value by itself but can only extract it at the end of the production cycle from industrial capitalists. As the economy of contemporary capitalism has been moving away from commodity production and toward service provision, one might imagine that the decline of the real economy must result in the decline of the financial sphere. However, as Krippner (2005) illustrates, the processes of de-industrialization in the West coincided with the growing economic power of the financial sector, signaling how profits in the financial sector became decoupled from productive activities altogether. What we are currently observing then is the growing ability of the financial sector to expropriate increasing amounts of surplus value without facilitating the production of surplus value. This is achieved by developing various “expropriation” techniques which create money out of money (M-M’) – or what Lapavistas calls “profiting without producing” (2013). As a result of these transformations which shifted the balance of power between real and fictitious capital, Tomaskovic-Devey and Lin (2011) estimate that the US financial sector was able to accrue an additional 5.8 to 6.6 trillion dollars between 1980 and 2008 either in the form of corporate profit or compensation for finance professionals. With US finance undergoing a series of multifarious and fragmented transformations in the past four decades, a number of hypotheses as to how the US financial sector was able to grow so profitable are examined below.

⁵³ The M-C-M’ cycle refers to the transformation of money (M) into commodities (C), and back into money (M’) of altered value (‘ refers to surplus value generated in the production process).

3.2.1 The increasing profitability of credit intermediation

Krippner (2011) attributes the rise in financial profits in the US to the expansion of credit which occurred as a result of deregulation in domestic financial markets throughout the 1970s and the 1980s. One of the most significant regulatory changes was the partial repeal of Regulation Q, which by 1986 served to eliminate all interest rate ceilings (except for the interest on demand deposits), drastically expanding the supply of credit in the economy while at the same time increasing the cost of borrowing.⁵⁴ Crotty (2003) observed how the increase in real interest rates forced non-financial corporations to pay higher amounts in interest as a proportion of the company's total cash flows to various financial actors, estimating that by 1998, 74 percent of the cashflows of US non-financial corporations were appropriated by financial agents in the form of either interest payments or dividends. Krippner (2011, p.54) further notes that "although the circulation of credit through an economy increases corporate profits generally... financial profits are especially likely to ride the wave of credit expansion." Credit expansion and financial profits are linked for two reasons: financial institutions act as intermediaries for credit flows, charging fees and interest for facilitating these transactions, and secondly, credit expansion often leads to asset price bubbles, which generates further profits for institutions involved in financial market mediation (Krippner, 2011).

The growth in real interest rates in the 1980s also increased the cost of borrowing for individuals. As the education and healthcare sectors were privatized and social security was defunded, the cost

⁵⁴ For the detailed discussion of this see Krippner, 2011, p.73-82.

was shifted onto individuals. Faced with a climate of stagnating wages, many were forced to finance these expenditures through loans, contributing to record levels of consumer debt, which reached \$14 trillion at the end of 2019. Over the past four decades, interest payments extracted from the personal incomes of workers became a growing source of revenue for many US credit intermediaries. Lapavitsas (2009) estimates that lending to consumers and real estate has grown from slightly over 30 percent in 1965 to almost 50 percent in 2006 as a proportion of all bank lending, and by 2006 the combination of all interest payments had reached 20 percent of disposable income for an average person.

Concurrently with the deregulation of interest rates across depository institutions and the re-orientation of lending towards individuals, US banking has experienced a significant decline in market competition. Christophers (2018) calculates that between 1997 and 2011, the market share of the largest ten US banks has increased from 44 to 68 percent for total assets, from 38 to 56 percent for issued loans, and from 30 to 50 percent for domestic deposits. Turning to the scholarship of post-Marxian scholars, he argues that the growing concentration of monopoly power has sustained above-average rates of sectoral profitability, writing that “[a]s banking has gotten more profitable it has in fact gotten less competitive” (Christophers, 2018, p.866).

The monopolization of US banking has been driven by several regulatory changes. Tomaskovic-Devey and Lin (2011) point out the role that the 1980 Depository Institutions Deregulation and Monetary Control Act played in enabling bank mergers by weakening the distinctions between different financial institutions previously established by the Glass-Steagall Act of 1933. With the passing of the Financial Services Modernization Act of 1999, commercial banks, investment

banks, and insurance companies were legally allowed to combine their operations, leading to a rapid increase in the number of consolidated bank-holding companies (Tomaskovic-Devey and Lin, 2011). The monopolization of US banking was further accelerated by the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994, which enabled banks to expand their operations across the state lines and take advantage of the fragmented regulatory landscape (Lin and Neely, 2020).

3.2.2 The shift from credit intermediation to market mediation

The erosion of distinctions between different types of financial institutions meant that the traditional function performed by banks, such as taking the savers' individual deposits and lending to borrowers at higher interest rates, was being threatened by lower-cost financing options available to firms involving raising funding through capital markets (Davis, 2009). As a result of the declining profit opportunities in the traditional "deposit–loan cycle" and the repeal of the Glass-Steagall Act in 1999, commercial banks expanded into various fee-based services, as well as into investment banking and securities trading (Lapavitsas, 2009). Analyzing the income sources of US commercial banks, Erturk and Solari (2007) find that the share of income generated from fees increased from 24.7 percent in 1984 to 44.6 percent in 2003.

The growing reliance on fees rather than interest reflects a broader transition of US finance from credit intermediation to market mediation, which encompasses the concurrent development of both the sell-side of securities markets (investment banks, brokers) and the buy-side (asset managers, pension funds, hedge funds, wealth managers). Davis (2009) describes this as a structural shift in

the composition of the most important players in US finance: commercial banks, which provided most of the financing during the industrial era, were replaced with new financial intermediaries that relied on financial markets rather than deposits to raise capital.

The changes in the sectoral composition of the US financial sector and the shift towards market mediation can be partially seen in the US employment and payroll data. Wojcik (2012) finds that while the proportion of people employed in the FIRE (finance, insurance, real estate) sector remained constant at 6.6 percent between 1978 and 2008, the proportion of people employed in the securities industry has almost tripled, growing from 0.3 percent to 0.8 percent of the total US workforce. Within the same time period, FIRE's share of total payroll has seen an increase from 6.7 percent to 11.3 percent, while the securities industry has seen the most drastic increase, raising its share of payroll from 0.5 percent to 3.6 percent (Wojcik, 2012).

Alongside the growth in the securities industry, others have examined the ascent of "pension fund capitalism" (Clark, 2000) and asset management more broadly. Starting in the 1980s, institutional investors such as pension funds and index funds have gained significant prominence in the US stock market following technological advancements in information processing, a steep decline in trading commissions, the liberalization of regulations for institutional investors, and the transition of US pensions from a "defined benefit" to "defined contribution" scheme (Crotty, 2003; Rutterford and Hannah 2016). With the share of stocks held by households dropping from 90 percent in the 1950s to 42 percent in the 2000s, by the 2000s US institutions owned 46 percent of US shares and were responsible for 75 percent of all stock trades (Crotty, 2003). In the 2000s, mutual funds and exchange-traded funds (ETFs) replaced pension funds as the largest shareholders

of US publicly traded firms following a series of regulatory changes that incentivized pension funds to outsource management of their assets to index funds (Braun, 2020). The influx of capital to index funds coincided with an overall monopolization of the asset management industry, whereas the “Big Three” index funds (BlackRock, Vanguard, and State Street) now account for 80 percent of the ETF market share (Kim, 2019) and own over 20 percent of an average S&P 500 firm (Backus et al., 2019).

3.2.3 US finance goes “global”

While many analyses of financialization are limited to the scale of the nation-state, French et al. (2011) insist that the rise of finance cannot be properly understood without considering how the collapse of the Bretton Woods system in the 1970s led to the emergence of a new international financial system in the form of global, disintermediated, and securitized financial capitalism organized primarily from the New York-London axis. Thus, when analyzing the processes of financialization, one has to consider the global reach of modern financial institutions. Christophers (2012, p.287) further suggests that “existing attempts to substantiate a history of capitalist financialisation are misconceived because they are framed rigidly at the national scale, whereas capitalism in general, and financial capital in particular, is of course highly and increasingly internationalised.”

The profitability of global finance cannot be understood without considering the ongoing transnational growth within shadow banking - a parallel credit intermediation system not formally regulated by the state, but which is effectively responsible for the proliferation of the global

derivatives market and the associated rise in the production of debt (Fernandez and Wigger, 2016). In 2018, shadow banking accounted for \$45 trillion in total assets unevenly distributed across the world, with 30% of those assets located in the US, 15% in China, 10% in the Cayman Islands, 7% in Luxembourg, and 5% in Ireland and Japan, respectively (Financial Stability Board, 2018). Shadow banking entities are often affiliated with or owned by their regulated counterparts, sometimes through the use of special purpose vehicles/entities and other complex legal structures (Aalbers, 2017) and often for the purposes of manufacturing and storing debt-related securities (Nesvetailova, 2014). Pozsar et al. (2013) found that shadow banking firms warehouse an amount of debt comparable to that of regulated financial firms: in 2007 shadow banks stored \$22 trillion worth of debt compared to \$14 trillion in regulated financial markets; in 2013 it was \$14.5 trillion compared to \$16.5 trillion in regulated markets. While not being subject to the same type of legal restrictions, shadow banking entities effectively participate in regulatory arbitrage, carrying higher amounts of risk than would be formally permitted, allowing them to make risky but highly profitable investments. However, as Knuth and Potts (2016) point out, even in the so-called offshore jurisdictions, capitalism can never exist outside of the law, as “all financial processes are constituted in and through differentiated, overlapping, often competing, and frequently contradictory geographies of legal space” (p.458). In fact, some forms of law and regulation, such as the legal protection of “intangible” property and the enforcement of private contracts, are absolutely necessary for financial accumulation (Knuth and Potts, 2016). And while legal jurisdictions do compete with one another on their ability to attract financial investments, it is not the absence of regulation but rather its different forms which expand the profitability of the financial sector.

In addition to regulatory arbitrage, many financial firms engage in tax avoidance or tax evasion. While the total amount which the global financial sector avoids or evades in taxes annually is not clear, estimates for the global economy as a whole show that 40 percent of all corporate profits are shifted to tax havens every year, resulting in 17 percent of lost tax revenue for the US and 21 percent for the UK (Torslov, Wier and Zucman, 2019). Given how many financial institutions are in the business of providing tax advising services to their clients, it is highly likely that the financial sector would be more likely to participate in various schemes to reduce their tax bill compared to non-financial entities. The process of tax avoidance and evasion often involves creating opaque legal structures through subsidiaries located in offshore locations (Fichtner, 2016; Garcia-Bernardo et al., 2017). For instance, while Goldman Sachs has 1474 subsidiaries registered in the United States, it has a comparable number of subsidiaries located in explicit tax havens: 739 in the Cayman Islands, 202 in Luxembourg, 90 in Ireland, 50 in Netherlands and 50 in Mauritius (Open Corporates, 2019). Tax avoidance, however, goes beyond the creation of subsidiaries and shell companies – it also involves lobbying government officials to modify the tax law. Richter et al. (2009), for instance, have found that increasing lobbying expenditures by 1 percent tends to lower effective tax rates by 0.5 to 1.6 percentage points for the average firm that lobbied.

3.3 Towards a theoretical conception of financial accumulation

In developing a typology of the financial sector, this chapter separates its profit-generating activities into three broad categories: credit intermediation, market mediation, and rentierism (see Table 3.1).

Credit intermediation

Institutions engaged in credit intermediation such as commercial banks and other savings institutions are in the business of lending to either firms or households and rely on the difference between interest received from borrowers and interest paid on the lent deposits as their main source of income. Productive lending (or lending to non-financial firms) expands the production of commodities, thus contributing to the production of surplus value. Lending to households, on the other hand, expands the ability of individuals to consume beyond their earned wages and helps the produced surplus value to be realized at the point of exchange, as no surplus value can be realized unless produced commodities are sold. Since financialization of the economy contributes to worsening conditions in the labor market (e.g. stagnating wages, a rise of contingent work, privatization of services previously paid for by the employer), lending to households temporarily resolves the crisis of underconsumption. Most credit intermediation institutions rely on the ongoing supply of individual deposits to sustain their lending practices and thus end up relying on the state to provide a sense of trust and financial security for savers. The US government, for example, guarantees the liquidity of commercial banks through the Federal Reserve's discount window and the FDIC's deposit insurance (Pozsar et. al., 2013).

Market mediation

Institutions performing market mediation functions can be separated into two main sub-categories. On the sell-side, financial firms such as investment banks assist mostly non-financial firms in raising capital either through initial public offerings for initially privately-owned firms or stock and bond issuance for institutions which are already publicly traded. Investment banks then charge

fees for acting as an intermediary between firms in need of capital and investors. In addition to enabling companies to raise money through capital markets, investment banks also manufacture financial derivatives, which are financial contracts whose value derives from the price movements of an underlying asset (Chui, 2012). Since financial derivatives function as bets on the price of underlying assets (e.g. stocks), the market for derivatives can be exponentially large as there are no restrictions on how many financial contracts one could enter into. In contrast to raising capital for firms through stock and bond issuance or IPO, the issuance of financial derivatives is a purely speculative activity which does not expand the production of surplus value, and only redistributes existing surplus value among different financial actors.

The buy-side of securities markets is broadly composed of long-term asset management and short-term trading. Institutional investors such as pension funds, hedge funds, mutual funds, and ETFs aggregate individual investments into collective investment portfolios, while other investment firms develop personalized investment plans based on the particular needs of individual investors. The profitability of long-term asset management depends on the continuous growth of capital, while trading involves profiting off of the volatile price movements of various financial securities. Annual fees for these types of investment services can range anywhere between 0.05 and 2 percent of invested assets (plus sometimes additional performance fees), depending on the type of fund and levels of involvement. While in principle the buy-side of finance is supposed to provide new sources of capital to the real economy, under the pressure to maximize investment returns, the US stock market was transformed from an institution that provides funding to firms in need of capital into “a mechanism that channels funds out of listed firms to investors” through share buybacks, dividends, and mergers (Fichtner, 2019, p.268).

Rentierism

The last type of profit-generating activities could be broadly described as different forms of rentierism, the category which includes profits generated from ownership of financial securities, such as stocks and bonds, avoided or evaded taxes, profits obtained from regulatory arbitrage, and monopoly rents. In his work on the rentierization of the UK economy, Christophers (2019, p.2) defines rent as “income derived from the ownership, possession or control of scarce assets and under conditions of limited or no competition,” writing that the financial sector is perhaps the ‘leading rentier sector,’ and financialization is the leading edge of rentierization.

While Christophers (2019) includes all interest under “financial rents,” this chapter distinguishes between interest received from loans (both commercial and consumer) issued by various credit intermediaries and interest received through ownership of debt securities (such as corporate or treasury bonds). Since lending requires notable involvement on the part of financial institutions in contrast to the ownership of various debt securities which automatically generates interest payments, the chapter considers only the latter to be a form of rentier income. Similarly, capital gains and dividends are also considered a type of rent as receiving them requires minimal involvement on behalf of the rentier. With the price of financial assets reflecting the expansion of surplus value, it is important to note that there is no such thing as “innocent” capital growth: the differential between economic growth (g) and return on capital (r) extensively documented by Piketty (2014) is predicated upon either the extraction of surplus value from workers through

underpaid wages, the devaluation of socially reproductive and other forms of “non-productive” labour, the privatization of publicly owned resources, or the commodification of nature.

As much of the legal infrastructure in the US has been tailored to subsidize institutional risk-taking for the “too-big-to-fail” (TBTF) financial institutions (Dymski, 2011), monopoly rents need to include both the additional profits which financial institutions receive when they overcharge their clients for their services in the absence of market competition, as well as the indirect subsidies which TBTF institutions receive from the state. In addition to monopoly rents, other forms of rentier income include evaded or avoided taxes and profits obtained from non-tax related regulatory arbitrage (such as moving to a jurisdiction with lower capital reserve requirements or lower financial disclosure standards), as well as all the additional profits financial firms were able to attain as a result of lobbying that either lowered their taxes or led to deregulation.

3.3.1 Circuits of financial capital

Given the derived typology of financial accumulation, it is important to set all these forms of profit generation in relation to one another, as well as in relation to activities of productive enterprises, households, and the state. A relational approach is necessary for theorizing financial accumulation, as profits cannot originate from inside of the financial system (Harvey, 1982). Thus we have to explain from whom the profits are being expropriated. In developing a relational understanding of financial accumulation, this chapter turns to “circuits of capital,” a concept originally developed by Marx in *Capital* (1967) and later expanded on by David Harvey in *The Limits to Capital* (1982) and most recently in *Marx, Capital and the Madness of Economic Reason* (2017).

Marx developed the circuits of capital to explain how the processes of capital circulation contribute to the ability of capitalists to continuously extract surplus value from labor through unequal exchange relations (Ayoama et al., 2011). For Marx, capital circulates through three primary channels: the circuit of money capital, the circuit of productive capital, and the circuit of commodity capital, which all together form the foundation of the capitalist system. Harvey integrated two additional circuits to Marx's conception: secondary circuits focused on investments in financial markets, fixed capital, and the built environment and tertiary circuits that transfer extra surplus value into science, technology developments, and social expenditures. Harvey (1982) proposes that these additional circuits exist as self-correcting mechanisms that constrain capitalism's tendency towards overaccumulation and consequent devaluation by providing means for 'switching' excess profits out of the primary circuits. In his more recent book *Marx, Capital and the Madness of Economic Reason* (2017), Harvey provides an updated version of circuits of capital.⁵⁵ Harvey argues that to ensure continued growth, capital needs to be able to move cyclically through the economy, in the process taking on different forms from money to commodity and back to money. Harvey's visualization provides a sophisticated illustration of the circuits of production, exchange, and distribution. In his diagram, however, finance capital plays a noticeably marginal role, with its functions being solely reduced to the circulation of interest-bearing capital – which represents only one role (though presumably the most helpful one for capitalist expansion) that the financial sector performs. By turning to Harvey's earlier writing on

⁵⁵ This version can be seen in *Marx, Capital and the Madness of Economic Reason* (Harvey, 2017, p.6)

finance, this chapter aims to provide a modified version of circuits of capital that more accurately captures the circulation of financial capital in this most recent period of financialization.

In the two chapters in *The Limits to Capital* devoted to money and finance, Harvey (1982, p.253) starts his exploration by stressing the importance of money and credit in the processes of production. With the material basis of production characterized by disruption and disorganization, interest-bearing capital serves a crucial role in smoothing out the discontinuities between the money, commodity, and productive circuits of capital. He writes that “the credit system appears, in short, as a kind of central nervous system for co-ordinating the divergent activities of individual capitalists” with the interest rate functioning as a ‘barometer and thermometer’ for capitalism (1982, p.270). With finance advancing the circulation of production by providing the right amount of money at the right time and place, he argues that “fictitious capital is as necessary to accumulation as fixed capital itself” (1982, p.269). The issues arise when fictitious capital is no longer being used to advance production but instead is being invested in appropriation or speculation. Harvey suggests that the ability of banks to create credit money detached from production can lead to various market distortions, over-speculation and devaluation of financial assets (1982, p.279), writing that “the bankers and other ‘gentlemen of high finance’ can set about exploiting the credit system ‘as if it were their own private capital’ and thereby can appropriate ‘a good deal of the real accumulation’ at the expense of industrial capital” (1982 p.287, citing Marx, *Capital*, volume 3, p.478).

The modified version of Harvey’s circuits of capital (Figure 3.1) aims to provide a more accurate representation of the role of finance in the circulation of capital by incorporating financial

investments into production, appropriation, and speculation, as well as considering interactions between the financial sector, the productive sector, households, and the state. The proposed diagram differentiates between money capital (capital available for production) and financial capital (capital accumulated by the financial sector). At the point of distribution, it shows that a portion of industrial and merchant profit gets transferred to the financial sector in the form of market mediation fees, dividends, and interest payments, noting that only a portion of received interest circulates back into production and the other stays as accumulated capital in the financial sector. In contrast to Harvey's conception, interest-bearing capital is not the only source of funding available for production, another being equity capital from which the financial sector receives short-term or long-term capital gains.

Similar to the surplus value extracted from production, a portion of wages are appropriated by the financial sector in the form of fees and interest. In return, the financial sector provides households with borrowed capital and access to gains from financial markets such as dividends and capital gains. The financial sector also contributes to the production of a financialized subjectivity among the population that in turn provides an additional source of capital for the financial sector in the form of lent capital (e.g. deposits). At the point of distribution, the financial sector also receives regulation, taxation, and monopoly rents. Finally, the diagram showcases two internal movements of capital within the financial sector itself – one for the speculative flows of capital in the financial markets (e.g. trading of securities amongst each other), and another for the capital provided by the financial sector to financial institutions in the form of either equity or debt financing.

Updating Harvey's circuits of capital in the context of the contemporary period of financialization allows us not only to more accurately represent the role that the financial sector plays in the expansion of production, but also to emphasize the parasitic nature of the financial sector and highlight rentierism as a fundamental characteristic of financial accumulation. Similar to how the circuits of capital were originally conceived by Marx to explain how capitalists extract surplus value from labor, the circuits of financial capital enable us to see how financiers extract surplus value from industrial capitalists, workers and the state. Given the long history of reducing the activities of financial institutions to lending, the emphasis on accumulation through expropriation rather than expanded production is worth noting. While it is possible to develop a generalized typology of financial accumulation and map out the relations between various forms of financial profit-making, the relational significance of individual flows in the circuits of financial capital cannot be known a priori but has to be empirically determined at particular spatio-temporal conjunctures. The next section aims to do this for the United States through the analysis of the accumulation patterns of its financial sector.

3.4 Changing patterns of accumulation in the US financial sector

This chapter follows Arrighi (1994) in emphasizing the need for studying the *longue durée* patterns of economic change and explores the half-century of corporate data to not only document the rise of US finance, but also to examine how the sector was internally transformed in order to attain its current standing. In contrast to Krippner (2005) who provides estimates for the FIRE sector as a whole and Christophers (2018) who combines finance and insurance but excludes real estate, this chapter focuses primarily on changes in the financial sector, merging finance with insurance only

in a few instances solely for the purpose of comparison with the stand-alone financial sector. In the industry classifications currently employed by the IRS, the financial sector is functionally composed of (1) credit intermediation (both depository and nondepository), (2) securities, commodity contracts, other financial investments and related activities, and (3) funds, trusts, and other financial vehicles.⁵⁶ Firms in the latter subsector generate income by managing financial investments on behalf of the shareholders and beneficiaries of trusts and earn money through interest, dividends, and other forms of passive income. Financial firms are categorized in one of these three subsectors based on the activities that account for the largest percentage of their total receipts. Thus, large corporations with diversified activities are only included in one industry that accounts for most of their revenue.

⁵⁶ In 1998, the IRS adopted the North American Industry Classification System (NAICS) in its statistical reporting, replacing the previously used Standard Industrial Classification (SIC). This resulted in certain changes for the categorization of the financial sector and its major and minor industries. Particularly, bank holding companies have been moved out of the financial sector into the management of companies (holding companies) sector. To preserve the historical boundaries of the US financial sector, after 1998 all the statistics associated with the bank holding companies have been added to the financial sector under credit intermediation. Another significant change entails the SIC industry “holding and other investment companies except bank holding companies” being replaced with the NAICS industry “funds, trusts and other financial vehicles” with the primary difference being that the NAICS major industry does not include non-bank holding companies while the SIC one does. As non-bank holding companies do not necessarily represent the financial sector and represent less than 5% of all holding companies, I have decided not to include them in the NAICS “funds, trusts and other financial vehicles” industry, resulting in slightly lower estimates for the financial sector as a whole from 1998 and onwards.

3.4.1 Developing an alternative measure of financialization

One of the primary (and now widely accepted) ways to demonstrate that the US economy has become financialized is to show the growing share of US corporate profits accumulated by finance. With the publication of Krippner's (2005) landmark study, researchers commonly rely on the BEA National Income and Product Accounts (NIPA) estimates of US corporate profits to do this. However, the BEA measure only includes income earned by US corporations as a result of current production, resulting in several income and expense sources arising from non-productive activities being excluded from the calculation, which in turn has significant implications for what gets counted as profit accrued by financial institutions.

The most straightforward way to understand the BEA corporate profits measure is to examine all the income and expense sources which are included and those which are excluded.⁵⁷ First, the BEA does not itself collect financial data from individual corporations. Instead, it relies on the tax data provided by the IRS in its Statistics of Income (SOI) reports. To arrive at the corporate profit measure, the BEA starts with the IRS "total receipts less total deductions" and adds several modifications shown in Table 3.2. Specifically, it excludes (1) receipts that are not part of current production (dividends received from domestic and foreign corporations, short-term and long-term capital gains, gains or losses from the sale of property) and (2) expenses that are not part of current production (e.g. state and local corporate tax accruals and bad debt). It also includes (1) costs of current production that are not current IRS deductions (interest payments of regulated investment

⁵⁷ See <https://www.bea.gov/system/files/2019-12/Chapter-13.pdf> for a methodology on how the BEA develops its corporate profits measure.

companies and costs of trading or issuing corporate securities), (2) profits of certain financial institutions that do not file corporation income tax and thus are not counted by the IRS (e.g. Federal reserve banks and federally sponsored credit institutions), (3) taxable income from related foreign corporations, and (4) an allowance for the misreporting of corporate income.

For the financial sector, this means that income received from credit intermediation activities (such as interest) is included while income arising from financial investments, such as capital gains and dividends, is excluded. Similar to the IRS, the BEA also provides a breakdown of profits by financial subsector (shown in Figure 3.2). According to this source, the credit intermediation subsector has more than doubled its share of profits from less than 10 percent in the late 1970s to its peak at 26 percent in the early 2000s, while the remaining subsectors (securities, funds and trusts, and insurance) have experienced little to no change in this period of financial exuberance – a rather peculiar finding given the rapid growth in the securities and asset management industries in the past four decades. If we consider the estimate of corporate profits provided by the IRS called net income (less deficit), which considers all income and expense sources (except for interest received from government bonds) of tax-filing US and related foreign corporations, it is the funds and trusts subsector that experiences the most drastic growth in its share of profits from 5 percent in the late 1970s to 32 percent in the early 2000s (see Figure 3.3). Here, credit intermediation’s share of profits has also grown but the changes are more modest in comparison with the increases seen in the funds and trusts subsector. In contrast, if one were to use the estimates provided by the BEA, the funds and trusts’ share of profits fluctuates around 0 percent, precisely because many of the activities performed by the buy-side financial firms do not get counted as “productive”. Approximately half of the discrepancy between the BEA and IRS profit estimates for the “funds

and trusts” subsector arises from the BEA considering interest payments of regulated investment companies to be an expense (and subtracting it from the profit measure) in contrast to the IRS categorizing it as a type of dividend.⁵⁸

The BEA’s production-centric profit measure not only significantly under-estimates the actual profits accrued by the financial sector by excluding all forms of passive income, but what is more worrisome is that it completely misrepresents which parts of the financial sector accumulate said profits, leaving us with an erroneous understanding of how precisely American finance was able to grow so powerful in the past four decades. The measure also obfuscates the impact that the 2008 financial crisis had on the accumulation dynamics in finance by showing no change in credit intermediation’s share of profits during the turbulent period of 2007-2009, when many of the largest US credit intermediaries went bankrupt (this is in contrast with the IRS estimate which shows credit intermediation subsector experiencing financial losses).

Writing about how “the facts of financialization are only visible under certain regimes of perceptibility, certain representational and analytical conventions,” Christophers (2017, p.260) explains that mainstream economists did not see financialization due to the widely adopted conceptions of finance as located on the outside of the production boundary. The exclusion of finance from “the economy” was partially institutionalized through the US national accounts, which separated data about outputs from financing statistics, with the former being recorded in the

⁵⁸ The chapter agrees with the IRS categorization of interest payments of regulated investment companies as dividends, as they represent income received by investors from their investments, and thus should not be subtracted as an expense source.

BEA's NIPA while the latter was measured by the Federal Reserve's Flow of Funds Accounts (Christophers, 2017). Starting in 1993, the system of national accounts placed financial intermediation inside the production boundary, and thus activities associated with credit intermediation and market mediation were finally included. However, only partial inclusion of functions performed by finance means that the BEA's corporate profit measure still does not see finance in its entirety.

By including income sources arising from both productive and non-productive channels, the IRS net income measure provides a more accurate estimate of profits accrued by the US financial sector. However, it does have two methodological complications. First, the measure excludes income received by financial institutions that do not file corporation income taxes, specifically the Federal reserve banks and federally sponsored credit institutions, resulting in the under-estimation of profits of US credit intermediaries. Secondly, it does not include tax-exempt interest received on government obligations in its pre-tax net income measure. To address these limitations, a new measure of profit is proposed by adding interest received on government obligations and profits of Federal reserve banks to the IRS net income (see Figure 3.4). In contrast with the BEA and the IRS measures, the new estimate shows that the credit intermediation's share of profits does not increase during the 1980s – instead it fluctuates around 15 percent throughout the five decades. At the same time, the funds and trusts subsector replaces credit intermediation as the most profitable segment of US finance in 1981. In addition to the surge in profits which “funds and trusts” experience in the early 1980s, another occurs during the late 1990s in the build-up to the dot-com bubble, with a final surge during the 2008 financial crisis. The 2008 surge not only highlights how the crisis had disparate effects on different segments of finance, but more importantly it exposes

the extent to which “funds and trusts” were able to exploit the crisis, more than doubling their share of profits between 2005 and 2008 while the rest of the economy plummeted.

In addition to tracing the financialization of the US economy through various profit measures, an alternative way to evaluate the growing power of American finance would be through its share of net worth. Net worth represents the book value of capital owned by the shareholders and can be computed by subtracting liabilities from total assets. Finance’s share of net worth could be crudely interpreted as a share of capital owned or managed by the financial sector. For publicly traded firms, a firm’s net worth (the book value of capital) is typically lower than a firm’s market value. The latter aims to measure the expected value of all future profits discounted to the present that one might obtain from the ownership of said capital. It is then also possible to interpret finance’s share of net worth as a conservative estimate for the share of total profits that the financial sector is expected to accrue in the foreseeable future. Figure 3.5 illustrates that while finance’s share of total assets has only grown from 39 to 55 percent between 1964 and 2016, finance’s share of net worth surged from 16 to 64 percent in the same time period. Prior to the early 1990s, finance’s share of profits and share of net worth closely mirrored one another, suggesting that the expectations of future profits were directly tied to the profit accrued by the financial sector at the end of each year. Starting in the 1990s, however, these two estimates became increasingly decoupled. In the most recent ten-year period, finance’s share of net worth has on average exceeded finance’s share of profits by 29 percent.

The surge in the financial sector’s net worth has been largely driven primarily by the funds and trusts subsector – in 2016 ‘funds and trusts’ accounted for 83 percent of all the net worth in the US

financial sector compared to only 44 percent in 1964 (see Figure 3.6). As most of the capital owned by the US financial sector is composed of investments in other firms, the decoupling of profit and net worth measures suggests that the financial sector is not monetizing a large portion of its capital growth. Instead, it appears to have used the resulting capital growth to further expand its share of capital ownership and consequently its share of all future profits. This implies that the widely used profit-based measures of financialization significantly underestimate the economic power of US finance as they only capture the proportion of profits accrued at the end of each year, failing to expose the staggering consolidation of power and capital ownership that the US financial sector was able to attain over the past half-century. The share of net worth can then be used as a more reliable measure of accumulated power.

3.4.2 The decline of credit intermediation and the rise of rentierism

As the US financial sector grew increasingly reliant on income extracted from ownership of capital, it has largely forsaken its function as a lender. Between 1981 and 2016, the share of revenue which the US financial sector receives from interest has decreased by almost half from 78 percent to a mere 42 percent (see Figure 3.7). While this value can be used as a proxy measure for the share of income which the US financial sector receives from its credit intermediation activities, a more precise estimate can be developed by examining distinct revenue sources for each financial subsector. As suggested earlier in the chapter, profit-generating activities in finance can be broadly separated into three main categories: credit intermediation, market mediation, and rentierism. Revenue obtained from each of the three financial subsectors (as classified by the IRS) – credit intermediation, securities, and funds and trusts – can act as another proxy measure for the share of

income which the US financial sector receives from each of its three profit-generating activities. However, given that certain revenue streams – such as interest on government obligations, dividends, capital gains, rents, and royalties – constitute rentier income regardless of the type of financial firm which receives them, a few modifications to the measure are added (Table 3.3). The proposed measure for the composition of revenue sources (shown in Figure 3.8) estimates that the share of income which the US financial sector receives from credit intermediation activities has been gradually declining (from 82 percent in 1974 to 54 percent in 2016), while the shares of income associated with rentierism and market mediation have been respectively increasing from 15 percent to 32 percent and from 4 percent to 14 percent in the same time period.

One can also illustrate the decline of credit intermediation and the growing role of rentierism by examining the composition of assets held by US financial firms. As different types of assets generate different forms of income, it is possible to evaluate the functions performed by the US financial sector by examining the composition of its assets. While both loans and debt securities generate interest payments, interest received from loans constitutes income arising from credit intermediation, while interest received from debt securities represents a form of rent due to the passive nature of income generation. Therefore, the amount of outstanding loans measures the value of assets arising from credit intermediation, while the value of debt securities combined with corporate equities and mutual fund shares represents a portion of assets devoted to generating rentier income. Between the 1960s and the 1980s, loans, on average, accounted for 38 percent of financial assets held by the US financial sector (see Figure 3.9), reaching their peak of 41 percent in 1979, after which they entered into a long period of decline – in 2019, they contributed to a

mere 23 percent of total financial assets.⁵⁹ Within the same time period, the US financial sector has quadrupled the share of financial assets held in corporate equities and mutual fund shares from 7 percent to 28 percent. Combining debt securities, corporate equities, and mutual fund shares, the share of “rentier” financial assets has altogether increased from 31 percent in 1979 to 54 percent in 2019.

3.4.3 The battle for financing between real and fictitious capital

[I]n an era of finance, finance mostly finances finance.

Toporowski, 2010, p.12

As market-based finance has largely replaced the traditional loan-based financing, one has to ask how the transformation of the US financial sector from a lender to an investor has impacted the ‘real’ economy. Does the relative decrease in loans issued necessarily imply that the productive sector is not receiving the capital it needs to continue the expansion of production? Do the non-financial firms not receive this capital now through debt securities rather than loans? To determine whether the US financial sector has reduced its provision of interest-bearing capital to the real economy, a few clarifications are needed. First, non-financial firms have not received the majority of loans issued in the US since at least 1945 (see Figure 3.10). In fact, the share of loans taken out by non-financial firms has been in decline since the mid-1980s. Combined with the general relative decline in lending, this implies that even fewer resources (as a share of all available financial

⁵⁹ Financial assets have accounted, on average, for 97.5% of all assets held by the US financial sector since 1945.

capital) were provided in loans to US non-financial businesses. This, however, does not necessarily mean that the financial sector has been providing less interest-bearing capital overall to non-financial firms, as debt securities have been increasingly replacing loans as a form of debt financing.

Figure 3.11 reveals that among all debt securities owned by the US financial sector, the share of securities issued by non-financial businesses has also been in decline since the 1970s. In fact, it has fallen by more than half (from 26 percent to 12 percent) between 1978 and 2018. At the same time, the share of debt securities issued by financial firms has surged from 26 percent in 1978 to its peak of 56 percent in 2009, reaching 37 percent in 2018. This means that the US financial sector has provided more debt capital in the form of debt securities to financial firms than non-financial firms every year since 1978. In recent years, financial firms have received more than three-to-four times the amount of capital (in the form of debt securities) than non-financial firms from the US financial sector. The sharp decline in lending to productive enterprises can similarly be seen in Figure 3.12. While in the 1950s, the US financial sector used to own 90 percent of all debt securities issued by US non-financial firms, in 2018 it accounted for a mere 53 percent. In recent years, non-US-based investors have provided a third of the funding for debt-securities to the US non-financial firms.

To fully estimate the extent to which the US financial sector has reduced its provision of interest-bearing capital to productive enterprises, one has to combine capital provided through loans and debt securities. Assuming that the composition of loan borrowers in the US reflects the

composition of those specifically borrowing from US financial firms,⁶⁰ this chapter estimates that as a share of all financial assets held by the US financial sector, capital provided to US non-financial firms either in the form of loans or debt securities has decreased from 23 percent in 1978 to 11 percent in 2018 (see Figure 3.13). In the same time period, capital provided to financial firms either in the form of loans or debt securities as a share of financial assets held by the US financial sector has increased from 8 percent to 12 percent (it reached its peak of 18 percent in 2003). All in all, for the past 25 years, the US financial sector has provided more funding through debt financing to itself than the real economy.

3.5 Conclusion

In the golden age of American capitalism, finance played a central role in the expansion of US production and the creation of surplus value by providing industrial capitalists with money capital “in the right place at the right time to launch that money into circulation as capital” (Harvey, 2011, p.7). Finance today is no longer a servant of production. Faced with a climate of declining interest rates and new opportunities to maximize investment returns outside of lending, US finance has largely abandoned its function as a provider of interest-bearing capital, choosing instead to chase profit opportunities in the equity markets. In the past four decades, the US financial sector has diverted the majority of capital previously reserved for lending to expanding its ownership of the

⁶⁰ Not all US loans are provided by financial firms (in the 1950s, only ~75% of loans were issued by financial entities; since the 1990s, they accounted for ~90% of issued loans). Since data on the profile of borrowers who took out loans from the US financial sector is not available, this chapter assumes that the profile of overall loan borrowers in the US matches the profile of those who borrowed from US financial firms.

US economy. Despite what has been argued by others, the US financial sector has grown so repugnantly profitable not because of the increased profitability of credit intermediation, but rather because, as the largest shareholder of the US economy and the beneficiary of the accrued capital growth, it was able to derive the majority of its post-1980s profits from the booms (and busts) in the US stock market. This means that the United States does not just have a financialized economy with a highly profitable financial sector. Rather, it is living in the age of ‘new finance capitalism’ (Davis, 2008) where financiers are its new kings, imposing their visions of the future through historically unseen levels of capital control and ownership.

Many of the existing accounts explaining the profitability of American finance have failed to notice this underlying transformation of the US financial sector from a lender to an owner of capital. This is partly a reflection of how much of our collective (heterodox) conceptual apparatus is still tied to and informed by the experiences of the pre-financialized era. On top of the outdated conceptions that reduce finance to banking, the empirical analyses of financialization too often rely on the production-centric estimates of economic change. The wide usage of the BEA corporate profit data in the US financialization literature highlights the extent to which heterodox analyses can be led astray by an uncritical use and interpretation of the macroeconomic statistics.

All of this is not to say that the US financialization literature has failed to notice many of the empirical findings documented in the previous section. In fact, there have been many insightful and detailed investigations of the “financial services revolution” (Aalbers, 2019). For example, Lapavistas and Powell (2013) documented the decline of productive lending for US commercial banks, while Fichtner et. al. (2017) exposed the consolidation of power amongst American passive

index funds. These analyses, however, frequently focus on changes occurring exclusively within one segment of finance. The compartmentalization of empirical evidence means that while both of the phenomena are being recognized in the literature, their relative importance has not been established. And because the larger picture of how these services have changed relative to one another is absent, some analyses have missed the forest for the trees. For instance, examining the activities of US commercial banks, one can find that lending to households has increased, even though at the scale of the financial sector as a whole lending to households has been in decline since 1979 on par with lending to non-financial firms (see Figure 13). This chapter suggests that attributing the increased profitability of US finance to the increased profitability of US banking is misplaced as this framing cannot recognize the relative decline of credit intermediation and overlooks the transformation of US finance from a lender to a rentier.

While much of the existing financialization literature has been preoccupied with how finance transforms the ‘non-financial’ worlds (Christophers, 2015), the primary goal of this chapter has been to look internally at the changes occurring within the US financial sector. This chapter problematizes the notion that activities performed by American finance have remained unchanged during this most recent period of financialization. Countering the claim that financial activities can be reduced to lending, this chapter develops a relational conception of financial accumulation, showing that while the financial sector is not able to produce profit by itself, it can extract profit from other sectors in two different ways: by receiving a portion of generated surplus value in exchange for providing capital to productive enterprises at the right place and the right time, or as a parasite, solely extracting capital from others and accumulating it for accumulation’s sake. The counter-positioning of accumulation through expanded production and accumulation through

expropriation highlights how the relationship between these two forms of profit-making in finance is often ridden with conflict, as capital hoarded by financiers depletes the amount of circulating capital available for production.

By deconstructing US corporate profit statistics and examining the composition of assets held by US financial firms, this chapter illustrates that the US financial sector was able to attain such high levels of profitability in the past four decades precisely because it changed its primary function from lending to ownership and management of capital. This transformation has fundamentally changed finance's relationship with the real economy from symbiotic to parasitic. As financiers are hoarding increasing amounts of capital in order to expand their ownership and control over the economy, the productive sector is not receiving the money capital it needs to continue the production and realization of surplus value. Without newly generated surplus value, capital cannot grow, and without capital growth, finance is effectively valueless. By effectively withdrawing resources from productive enterprises (in the form of interest-bearing capital) in its pursuit of ownership and control over the infrastructures of a precarious, post-production economy, the US financial sector has been undermining the basis of its future profits. The self-destructive metamorphosis of the US financial system reveals that the autumn of the American empire (Arrighi, 1994) has arrived.

Table 3.1: Typology of profit-generating activities in the financial sector

Profit-making functions	Types of firms	Sources of profit	Who is paying?	Conditions for accumulation	Relation with the state
Credit Intermediation					
Lending to non-financial firms	Commercial banks	Interest	Non-financial firms from surplus value later created in production	Deposits available for lending, production needing to take place in need of funding	The state guarantees liquidity through central banks (e.g. FDIC deposit insurance, Federal Reserve's discount window)
Lending to households	Commercial banks, savings institutions, credit unions	Interest	Workers from wage income	Deposits available for lending, stagnating wages, growing costs of social reproduction	
Market Mediation					
Facilitating access to capital markets (IPO, bond/stock issuance)	Investment banks (relying on brokerage firms)	Fees for investment and advisory services	Firms (mostly non-financial)	Functional financial markets, penalties to firms for not participating	The state provides legislation and institutions that protect private property and enforce private contracts, firms have to meet various SEC specifications on financial disclosure
Production/issuance of financial derivatives	Investment banks	Sale of financial products to investors	Investors (individuals, firms)	Functional financial markets, surplus capital	
Management of assets (long-term and short-term)	Institutional investors (pension funds), asset managers (mutual funds, ETFs), wealth management firms, hedge funds	Fees for managing investments	Investors (often higher income individuals)	Continuous growth of capital ($r > g$), information asymmetries and volatility in capital markets	
Rentierism					
Ownership of equity securities or derivatives	All financial firms to different extent	Dividends, capital gains (short/long-term)	Firms (financial and non-financial)	Continuous growth of capital ($r > g$)	Legislation protecting private property and enforcing private contracts
Ownership of debt securities (corporate or treasury bonds)	All financial firms to different extent	Interest	Firms and Government	Continuous growth of capital ($r > g$)	
Tax avoidance/evasion (including from lobbying)	All financial firms to different extent	Avoided and evaded taxes	Government, taxpayers	Capital mobility	Firms exploiting the state and expropriating its resources
Regulatory arbitrage (including from lobbying)	All financial firms to different extent	Regulation rents	Government, taxpayers	Capital mobility	
Monopolization	Investment and commercial banking, asset management	Monopoly rents	Firm's clients, Government	Lack of anti-trust legislation, natural monopoly costs	Government subsidizing "too-big-too-fail" institutions

Figure 3.1: Circuits of financial capital (modified version of Harvey's circuits of capital)

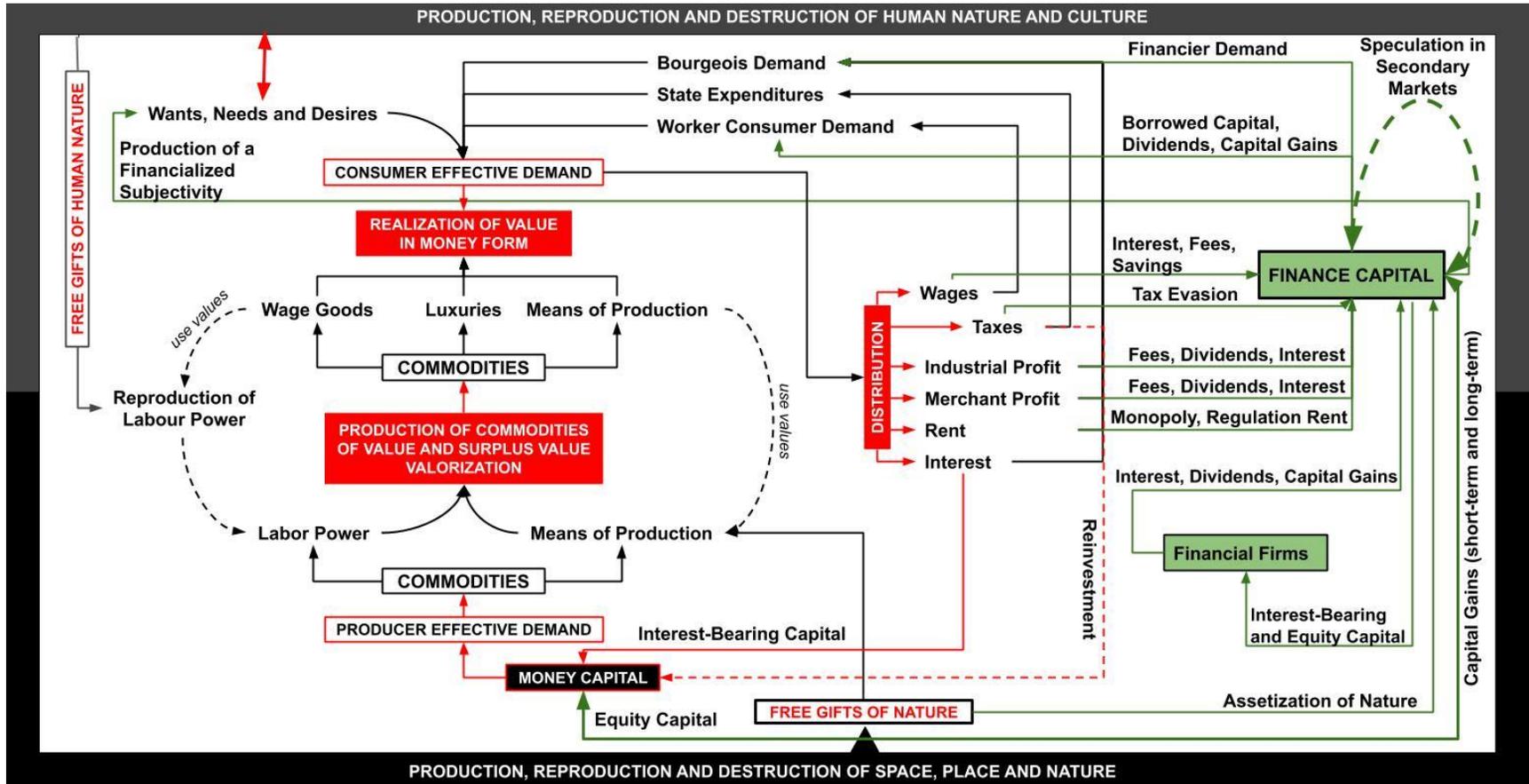
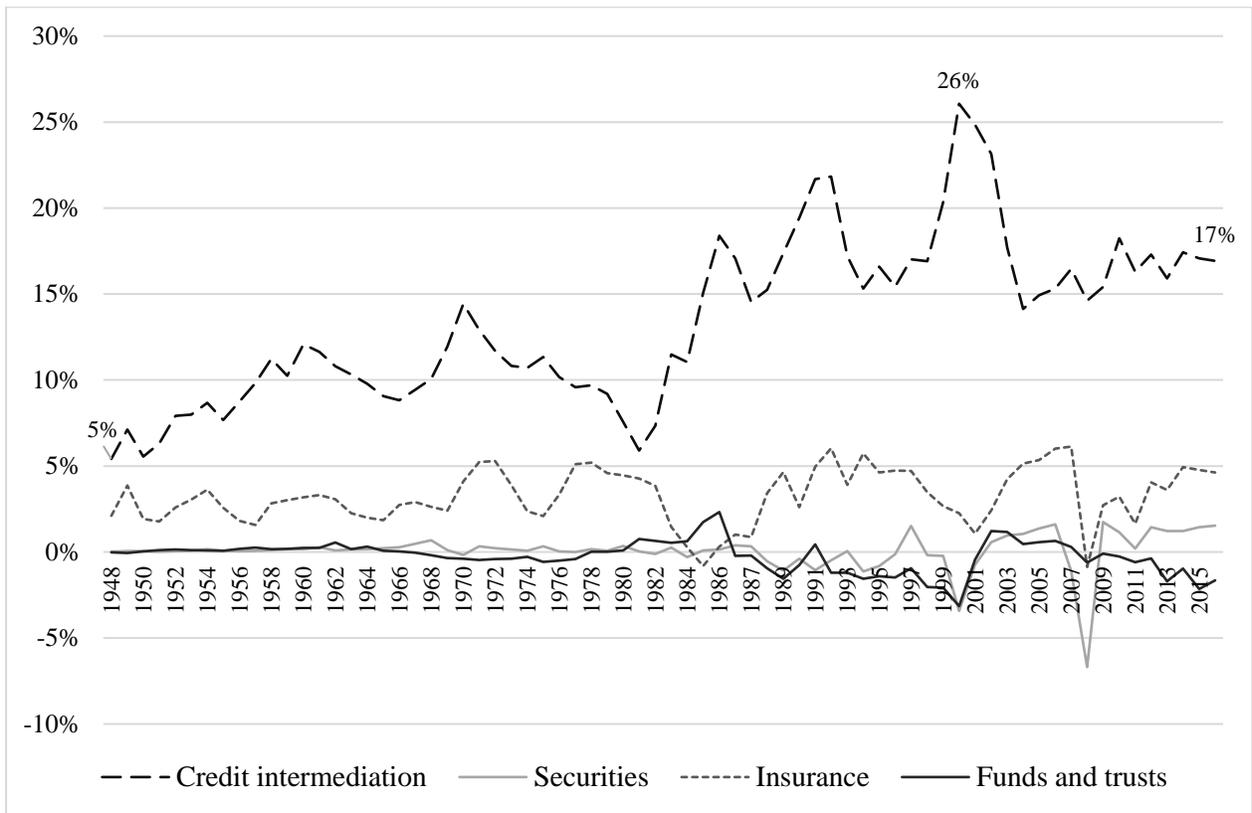


Table 3.2: Comparison between IRS and BEA estimates of US corporate profit/net income

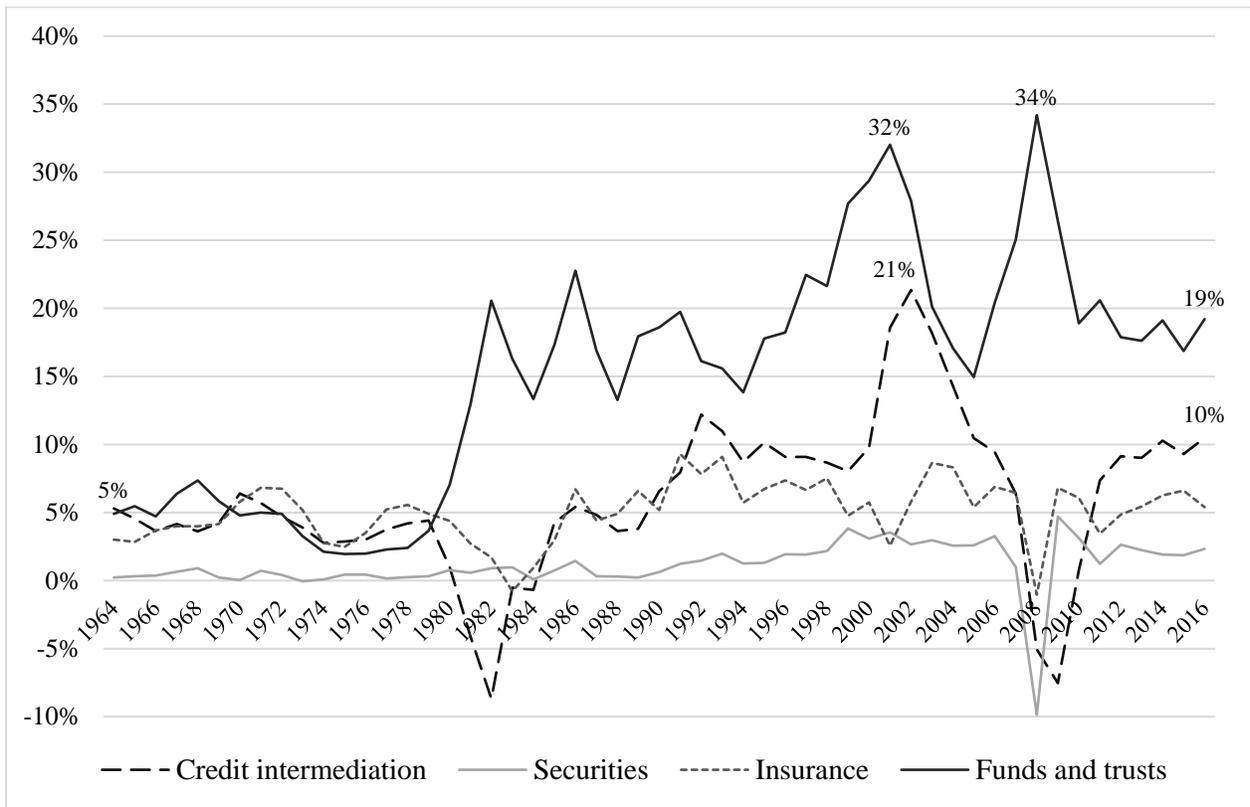
Included/excluded revenue and expense sources	IRS net income (less deficit)	BEA corporate profit	Proposed profit measure
IRS total receipts			
Business receipts	✓	✓	✓
Interest on state and local government obligations	✗	✓	✓
Other interest	✓	✓	✓
Dividends received from domestic corporations	✓	✗	✓
Dividends received from foreign corporations	✓	✗	✓
Rents	✓	✓	✓
Royalties	✓	✓	✓
Net short-term capital gain reduced by net long-term capital loss	✓	✗	✓
Net long-term capital gain reduced by net short-term capital loss	✓	✗	✓
Net gain, noncapital assets	✓	✓	✓
Other receipts	✓	✓	✓
IRS total deductions			
Cost of goods sold	✓	✓	✓
Compensation of officers	✓	✓	✓
Repairs	✓	✓	✓
Bad debts	✓	✗	✓
Rent paid on business property	✓	✓	✓
Taxes paid	✓	✓	✓
Interest paid	✓	✓	✓
Contributions or gifts	✓	✓	✓
Amortization	✓	✓	✓
Depreciation	✓	✓	✓
Depletion	✓	✓	✓
Advertising	✓	✓	✓
Pension, profit-sharing, stock bonus, and annuity plans	✓	✓	✓
Employee benefit programs	✓	✓	✓
Net loss, noncapital assets	✓	✓	✓
Other deductions	✓	✓	✓
Other added values			
Taxable income from related foreign corporations	✓	✓	✓
Allowance for the misreporting of corporate income	✗	✓	✗
Deductions that are not part of current production (depletion on domestic minerals, expending for mineral exploration, state and local corporate tax accruals)	✗	✓	✗
Elements of domestic income from current production that are not in IRS income (profits of certain types of financial institutions - e.g. Federal reserve banks, federally sponsored credit agencies)	✗	✓	✓
Other subtracted values			
Elements of current production that are not current IRS deductions (interest payments of regulated investment companies, costs of trading or issuing corporate securities)	✗	✓	✗
Elements of IRS income that are not income from current production: Gains, net of losses, from the sale of property	✗	✓	✗

Figure 3.2: BEA share of US corporate profits by financial subsector⁶¹



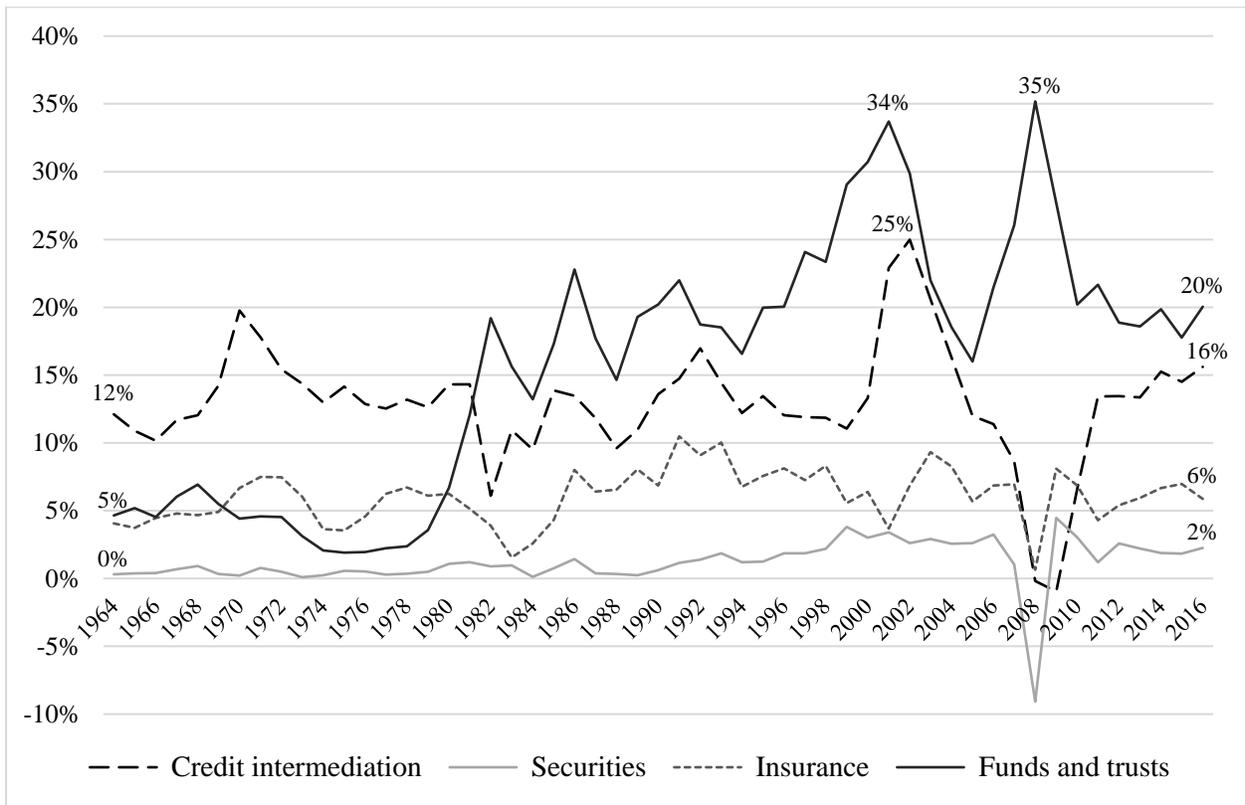
⁶¹ Source: BEA NIPA Corporate Profits Before Tax by Industry, Table 6.17

Figure 3.3: IRS share of US net income (less deficit) by financial subsector⁶²



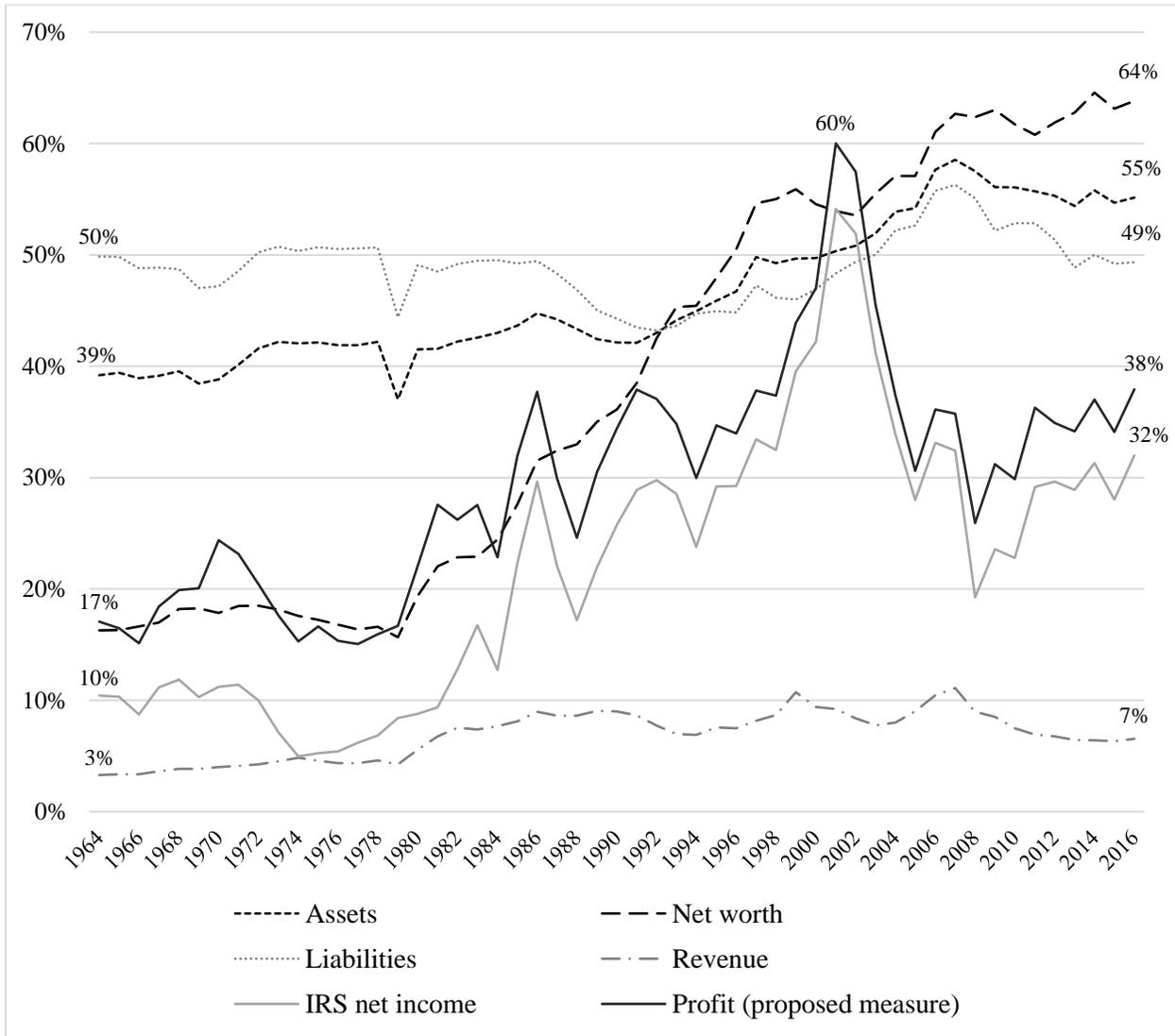
⁶² Source: IRS Statistics of Income, Corporation Complete Report Table 5.1 (2014-2016), Table 6 (1994-2013), Corporation Source Books, Returns with and without net income (1964-1993)

Figure 3.4: Proposed measure of share of US profit by financial subsector⁶³



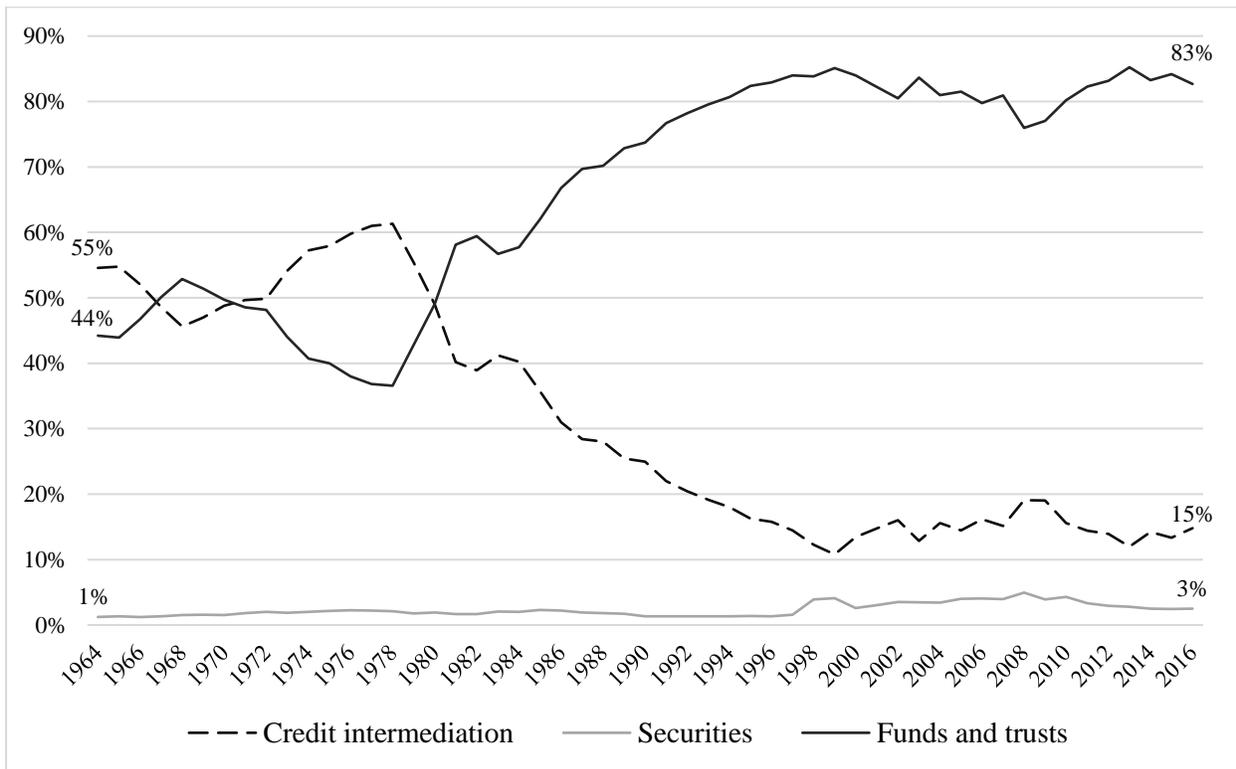
⁶³ Source: IRS Statistics of Income, Corporation Complete Report Table 5.1 (2014-2016), Table 6 (1994-2013), Corporation Source Books, Returns with and without net income (1964-1993)

Figure 3.5: Finance sector share of relevant US economic aggregates⁶⁴



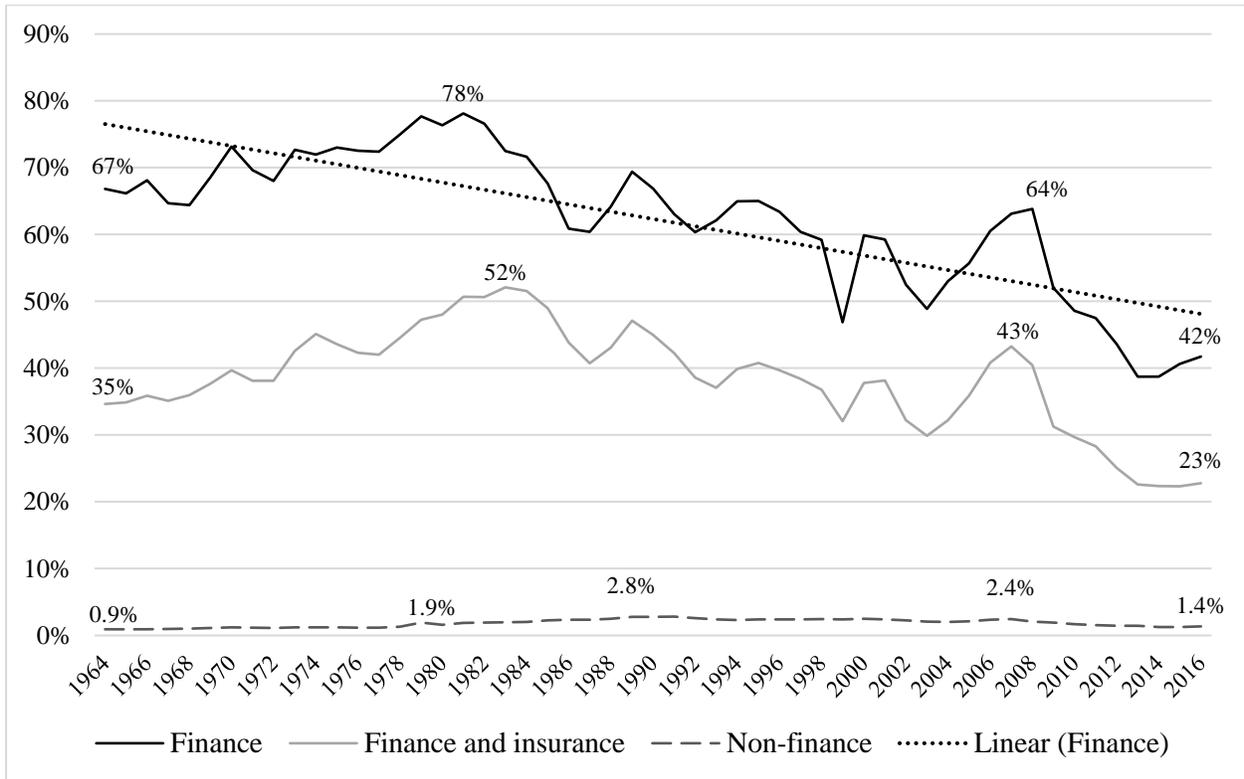
⁶⁴ Source: IRS Statistics of Income, Corporation Complete Report Table 5.1 (2014-2016), Table 6 (1994-2013), Corporation Source Books, Returns with and without net income (1964-1993)

Figure 3.6: Financial subsector share of net worth in the US financial sector⁶⁵



⁶⁵ Source: IRS Statistics of Income, Corporation Complete Report Table 5.1 (2014-2016), Table 6 (1994-2013), Corporation Source Books, Returns with and without net income (1964-1993)

Figure 3.7: Share of interest income as a proportion of total revenue by US sector⁶⁶

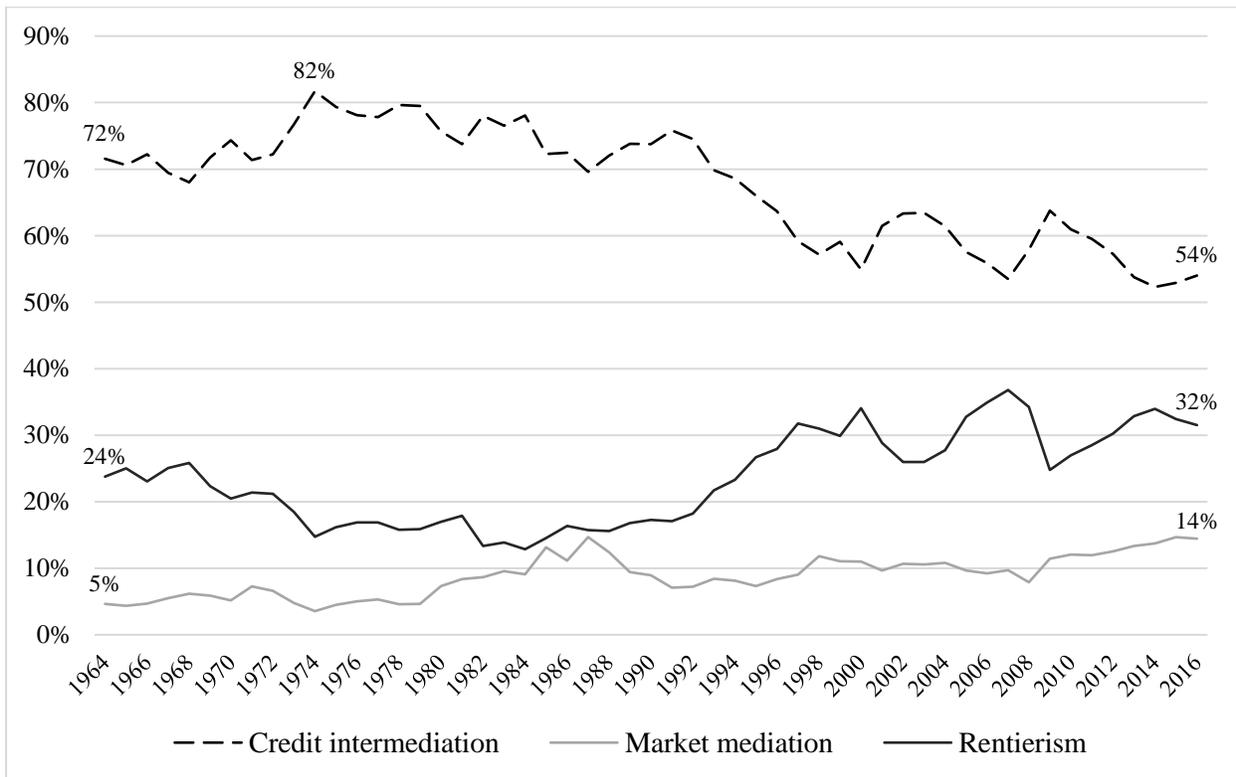


⁶⁶ This includes interest on corporate and consumer debt, as well as on government obligations. Source: IRS Statistics of Income, Corporation Complete Report Table 5.1 (2014-2016), Table 6 (1994-2013), Corporation Source Books, Returns with and without net income (1964-1993)

Table 3.3: Correspondence between financial accumulation typology and IRS classification

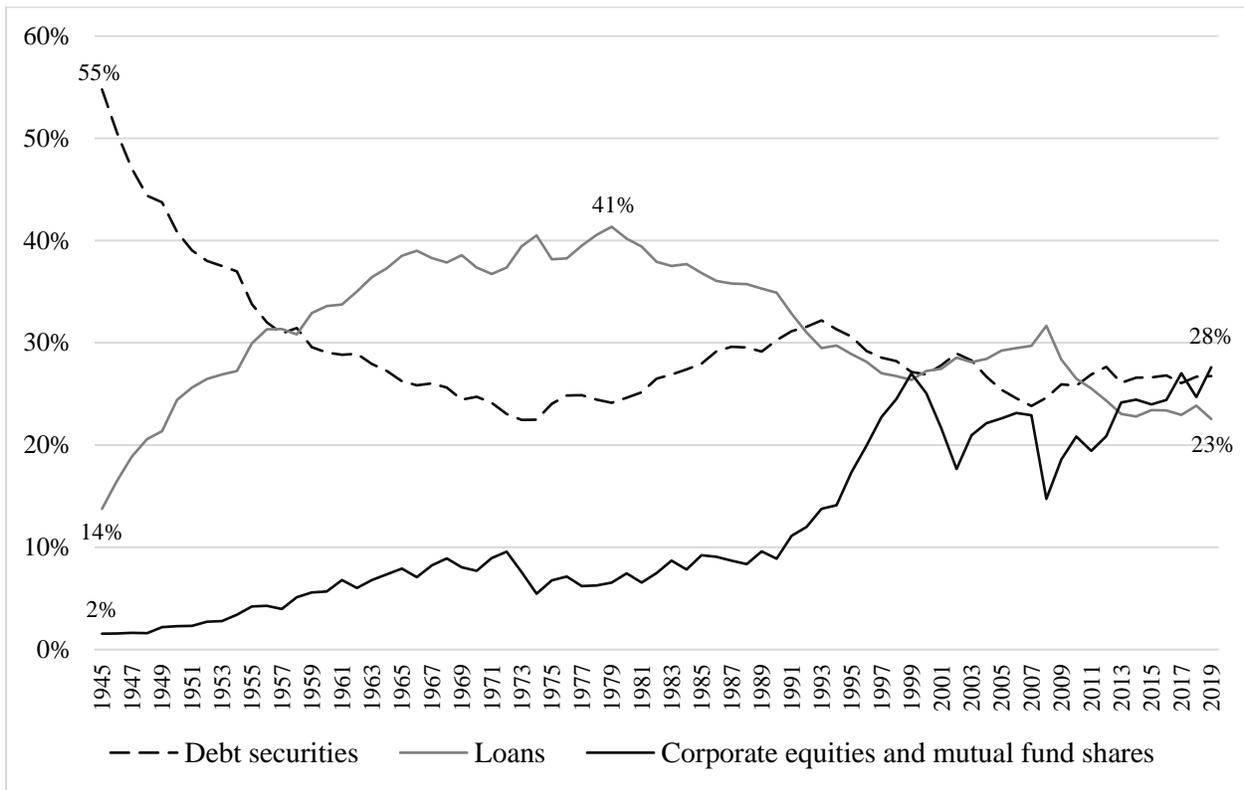
Income sources for financial subsectors (IRS classification)	Credit Intermediation	Market Mediation	Rentierism
Credit intermediation			
Business receipts	✓	✗	✗
Interest on state and local government obligations	✗	✗	✓
Other interest	✓	✗	✗
Dividends received from domestic corporations	✗	✗	✓
Dividends received from foreign corporations	✗	✗	✓
Rents	✗	✗	✓
Royalties	✗	✗	✓
Net short-term capital gain reduced by net long-term capital loss	✗	✗	✓
Net long-term capital gain reduced by net short-term capital loss	✗	✗	✓
Net gain, noncapital assets	✓	✗	✗
Other receipts	✓	✗	✗
Securities, commodity contracts, other financial investments and related activities			
Business receipts	✗	✓	✗
Interest on state and local government obligations	✗	✗	✓
Other interest	✗	✗	✓
Dividends received from domestic corporations	✗	✗	✓
Dividends received from foreign corporations	✗	✗	✓
Rents	✗	✗	✓
Royalties	✗	✗	✓
Net short-term capital gain reduced by net long-term capital loss	✗	✗	✓
Net long-term capital gain reduced by net short-term capital loss	✗	✗	✓
Net gain, noncapital assets	✗	✓	✗
Other receipts	✗	✓	✗
Funds, trusts, and other financial vehicles			
Business receipts	✗	✓	✗
Interest on state and local government obligations	✗	✗	✓
Other interest	✗	✗	✓
Dividends received from domestic corporations	✗	✗	✓
Dividends received from foreign corporations	✗	✗	✓
Rents	✗	✗	✓
Royalties	✗	✗	✓
Net short-term capital gain reduced by net long-term capital loss	✗	✗	✓
Net long-term capital gain reduced by net short-term capital loss	✗	✗	✓
Net gain, noncapital assets	✗	✗	✓
Other receipts	✗	✗	✓

Figure 3.8: Share of income in US finance according to its profit-generating function⁶⁷



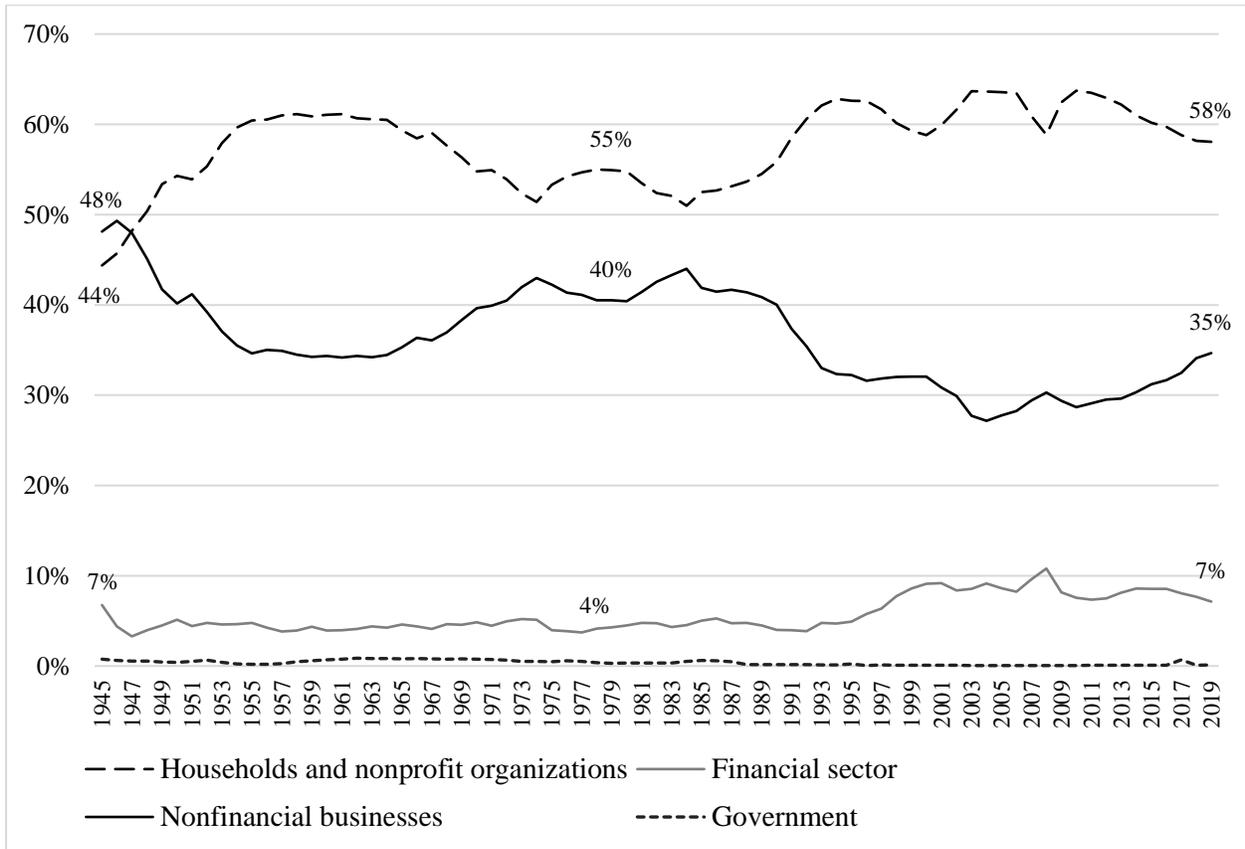
⁶⁷ Proposed distribution of income arising from each type of financial activity according to the methodology developed in Table 3. Source of original data: IRS Statistics of Income, Corporation Complete Report Table 5.1 (2014-2016), Table 6 (1994-2013), Corporation Source Books, Returns with and without net income (1964-1993)

Figure 3.9: Composition of financial assets in the US financial sector by asset type⁶⁸



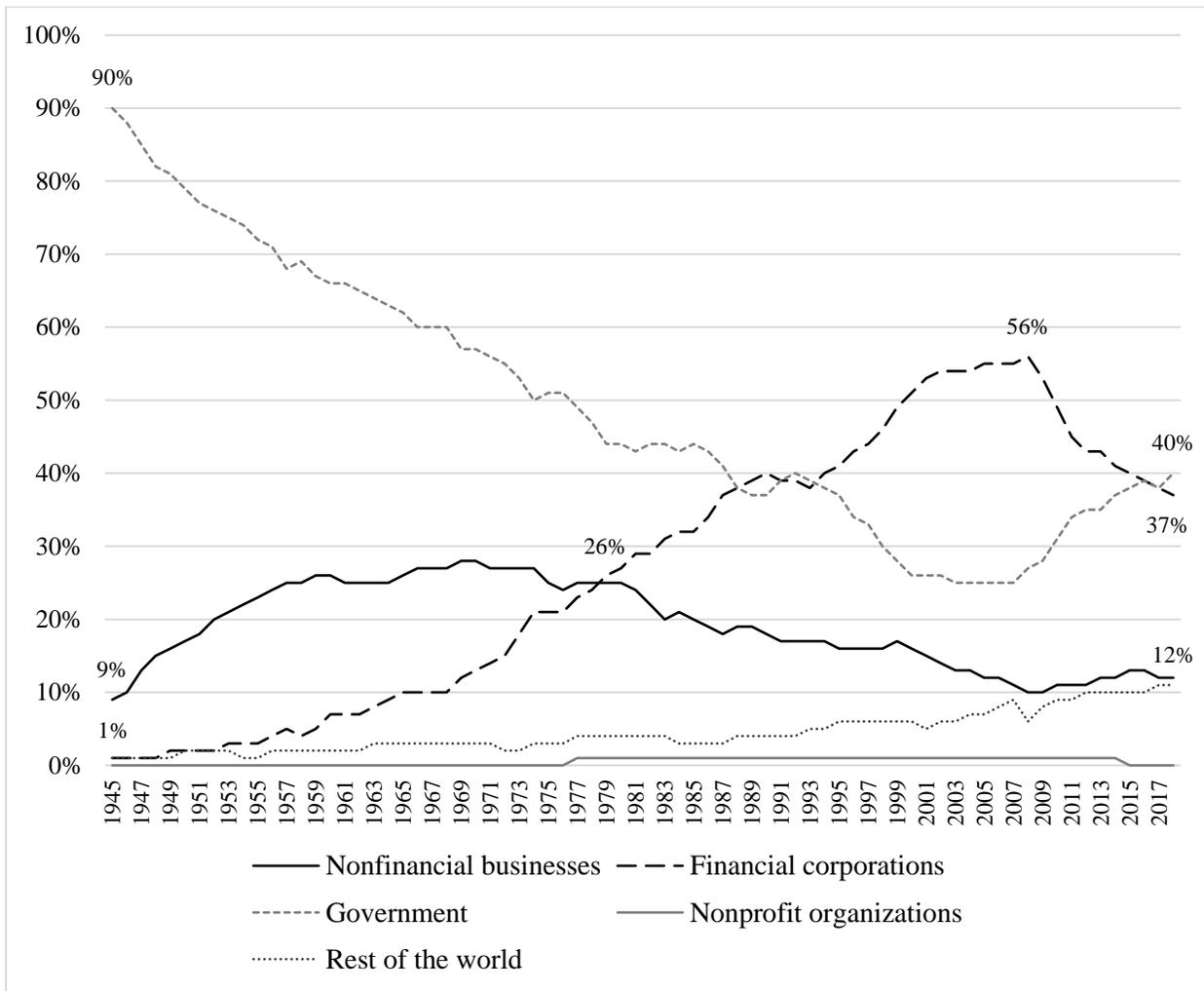
⁶⁸ Source: Federal Reserve, Flow of Funds, Table L.108 (note: financial sector includes insurance and monetary authorities)

Figure 3.10: Loan borrowers in the US by the amount of outstanding loans⁶⁹



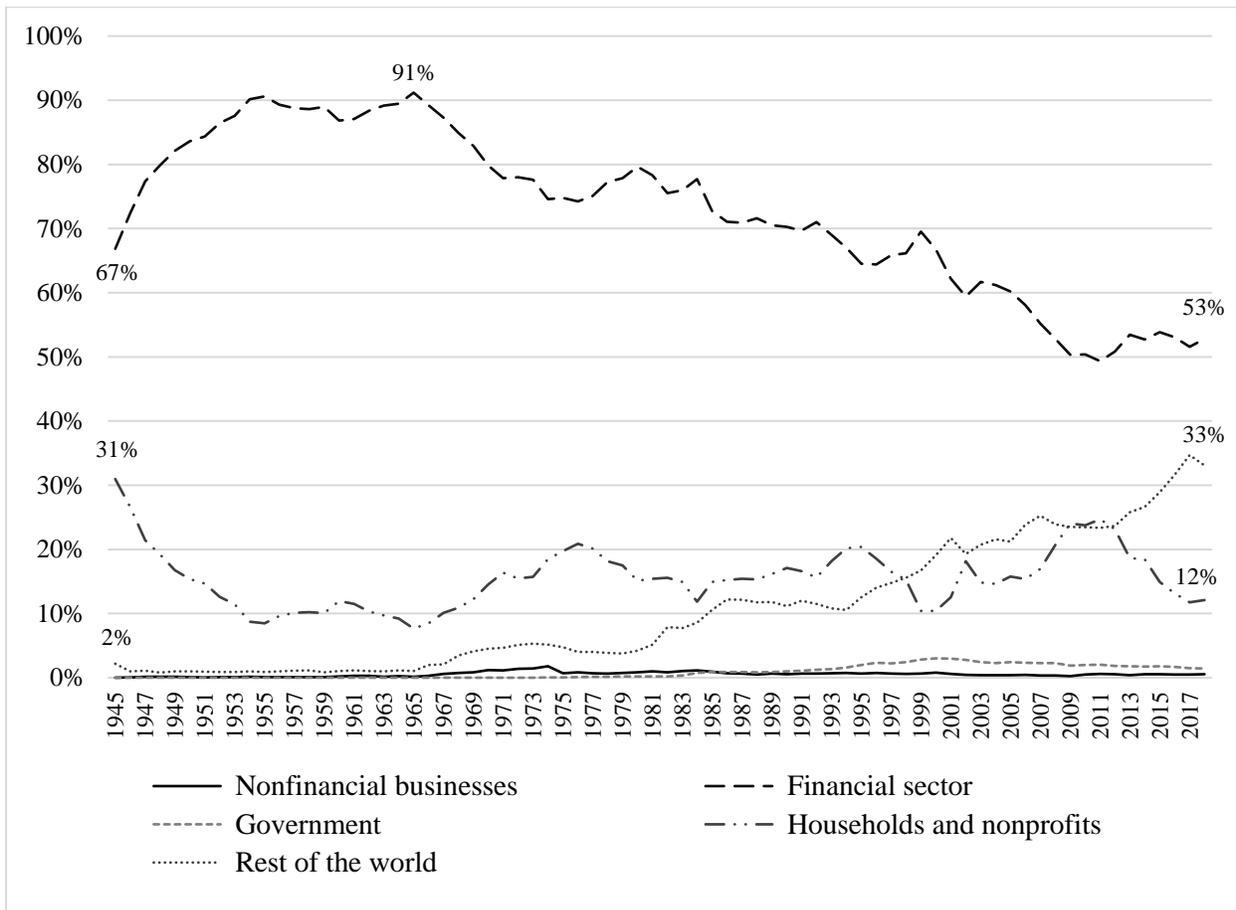
⁶⁹ Source: Federal Reserve, Flow of Funds, Table L.101-L.108

Figure 3.11: Debt securities owned by the US financial sector by type of issuer⁷⁰



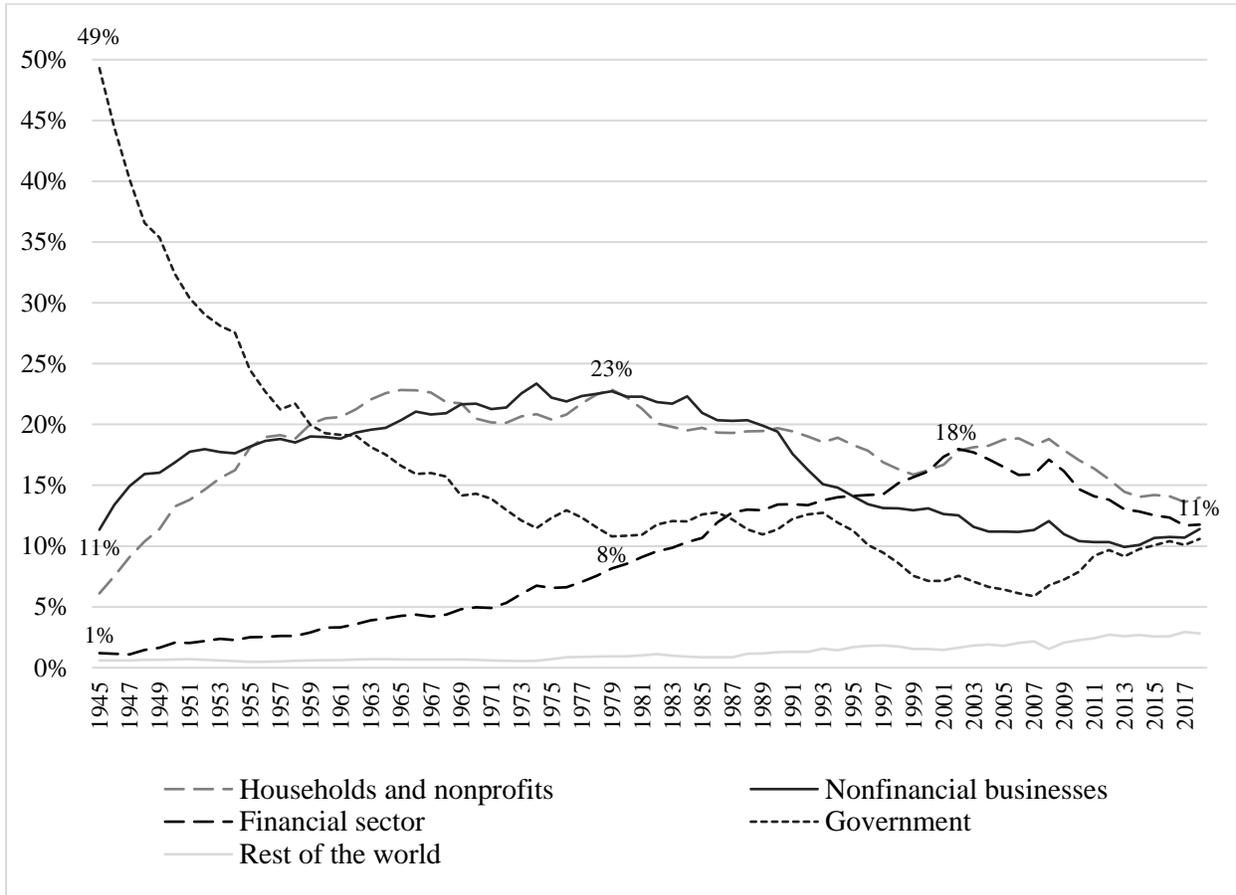
⁷⁰ Source: Federal Reserve, Flow of Funds, Table X.12

Figure 3.12: Debt securities issued by US nonfinancial businesses by type of owners⁷¹



⁷¹ Source: Federal Reserve, Flow of Funds, Table X.12

Figure 3.13: Lent capital (from loans and debt securities) as a share of total financial assets in the US financial sector by type of borrower⁷²



⁷² Source: Federal Reserve, Flow of Funds, Tables L.101-L.108, X.12

Chapter 4: Conclusion

Situated in the age of “new finance capitalism,” this thesis aims to explore financialization as a defining feature of contemporary capitalism, both epistemologically and ontologically. The thesis begins by describing the ascent of finance throughout the 1980s and the 1990s in the United States and explains how this latest period of financialization is distinct from the previous financialization turn that occurred during the Gilded Age. In differentiating the “finance capitalism” of the twentieth century from the “new finance capitalism” of the twenty-first century, this thesis emphasizes how the influence exerted by the financier class in the United States has changed from indirect forms of control, exerted by the financial sector as a provider of credit, to direct forms of control attained through historically unseen levels of capital ownership. Given that nearly two-thirds of American corporations are now directly owned by US financial firms, I propose that the most recent period of financialization in the United States needs to be seen not just as a new pattern of accumulation as initially conceptualized by Krippner (2005), but as a new regime of property relations, where ownership of capital is being increasingly concentrated in the hands of a small number of increasingly powerful financial firms.

Having established the defining feature of “new finance capitalism” as the financialization of capital ownership and control, this thesis proceeds to examine how the discipline of human geography was transformed since the 1980s as it examined the changing role of finance in the world. While research on money and finance occupied a marginal space in human geography throughout the 1990s and the early 2000s, Chapter 2 highlights that the 2008 global financial crisis became a critical moment for the subfield of financial geography, drawing wide interest in

financial topics from a broad contingent of geographers and giving momentum to the geographical studies of financialization. This chapter also documents how the contributions of geographers in the broader financialization literature have been immensely influential in the past decade, suggesting that the importance of understanding the spatiality and unevenness of global finance has been recognized across non-geography social science disciplines in the post-crisis era.

Chapter 3 provides a systematic examination of the changing income sources in the US financial sector since the 1960s, aiming to explain the immense profitability of American finance in the past forty years. Through the analysis of US macroeconomic data, this chapter demonstrates that management and ownership of capital have replaced lending as the primary profit-generating activity performed by the US financial sector since the early 1980s. In the most recent decade, approximately 55 percent of all profits accrued by US finance have emanated from the “funds and trusts” subsector compared to only 35 percent emanating from credit intermediation and 10 percent from the securities subsector. I suggest that the US financial sector has been transitioning from lending to ownership and management of capital in response to a low interest-rate environment, which was produced by the Federal Reserve to stimulate consumer spending and economic growth. The expansionary monetary policy reduced the profitability of lending, leading to an influx of capital from credit intermediation to asset management. This chapter further highlights that in its pursuit of profit opportunities outside of lending, the US financial sector dramatically curtailed the supply of interest-bearing capital to the productive economy—by half as a share of all available capital in the past four decades. Furthermore, in cumulative terms, the financial sector has provided more capital through debt financing to itself than to the real economy for every year since 1995.

On the surface, for a firm seeking investment capital, equity and debt financing serve similar functions as they both enable the raising of capital. Thus one might argue that the transition of American finance from a lender (i.e. provider of debt financing) to an investor (i.e. provider of equity financing), in principle, should not have much of an impact on the operations of the firms to whom they provide funding, as long as they are still funneling capital into the economy. This perspective, however, ignores two main points. The first is that the benefits received by debt investors from the issued loans or purchased debt securities are restricted to predetermined financial payments. This is in stark contrast to equity investors, which, in addition to receiving all of the profits generated by a firm, are also granted control over the enterprise itself. The transition from debt to equity financing for US finance thus marks a shift from indirect to direct forms of control over their investees. Secondly, in most cases, the increases in finance's share of capital ownership does not emanate from the issuance of new shares but rather it is the result of the displacement of previous capital owners by the financier class, meaning that very little of the capital purchased by the US financiers has trickled down to the actual firms in which they are invested. In contrast to the majority of stock transactions that occur in secondary financial markets, most debt securities are traded over-the-counter (OTC) – i.e. debt securities have to be purchased directly from the firm issuing debt rather than other financial investors. Thus, when the US financial sector allocates its available capital into equity rather than debt investments, it is significantly less likely to provide new sources of capital to other sectors of the economy.

It thus becomes clear that the transition of American finance from a lender to an owner of capital in the age of “new finance capitalism” has had a long-term detrimental impact on the American economy – that of the depletion of financing opportunities available to its productive sectors. As

US non-financial firms are forced by powerful blocks of institutional investors to “downsize and distribute” their profits (Lazonick and O’Sullivan, 2000), unable to re-invest their retained earnings in the expansion of their operations, they are also facing a “disinterested” financial sector (Braun, 2020) that is no longer extending lines of credit like it used to. The transition of US finance from a lender to an owner of capital has thus been a very contradictory, crisis-ridden development. On the one hand, as the US financial sector is becoming more reliant on profits accrued through capital growth rather than lending, it is increasing its dependence on the long-term well-being of the US economy, particularly on the continuous ability of US non-financial firms to expand and grow the value of their capital. On the other hand, by disengaging from productive lending and by forcing productive enterprises to maximize investment returns for shareholders, US finance has been depleting the financial resources available to the real economy, which consequently directly undermines the ability of US non-financial firms to grow and expand. In its transition from a lender to an owner of capital, the US financial sector has thus forsaken a very crucial function finance used to perform in a capitalist economy – that of providing financing to industrial capitalists at the right place and at the right time – and by doing so, it has been effectively creating the conditions for its own, now seemingly, inevitable collapse.

In my critiques of “new finance capitalism” and financialization, I also want to be careful not to romanticize the “golden age” of US capitalism, as this earlier period of capitalist development was also destructive, although in a different way: much of the post-war economic growth of the Fordist era, which provided economic security for white working-class families, was dependent on racial exploitation occurring domestically and the dispossession of resources from the Global South following the expansion of the US empire during the Cold War. Although accumulation through

dispossession and exploitation continued to accelerate both domestically and abroad during the age of “new finance capitalism,” capitalism has, for the first time since the Great Depression, embraced an explicitly self-destructive regime of accumulation, one where finance seeks to feast, vulture-like, on the corpse of the productive economy.

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Appendices

Appendix 1: Included geography and urban studies journals with cumulative number of articles

Journal name	Articles	Journal name	Articles
Environment and Planning A	48	Geografiska Annaler Series B-Human Geography	4
Geoforum	39	Annals of The Association of American Geographers	3
Journal of Economic Geography	31	Australian Geographer	3
Urban Studies	31	Journal of Transport Geography	3
Housing Studies	25	African Geographical Review	2
Economic Geography	21	Annals of The American Association of Geographers	2
Regional Studies	21	Applied Geography	2
Antipode	19	Gender Place and Culture	2
Progress in Human Geography	19	Geography Compass	2
International Journal of Urban and Regional Research	18	Geojournal	2
Cambridge Journal of Regions Economy and Society	16	Acme-An International E-Journal for Critical Geographies	1
Cities	14	Computers Environment and Urban Systems	1
European Planning Studies	13	Dialogues in Human Geography	1
Competition & Change	11	Environment and Planning C-Politics and Space	1
Journal of Housing and The Built Environment	11	Geographical Research	1
Environment and Planning D-Society & Space	9	Geographical Review	1
Transactions of The Institute of British Geographers	9	Journal of Geography in Higher Education	1
Global Networks-A Journal of Transnational Affairs	7	Journal of Historical Geography	1
Tijdschrift Voor Economische En Sociale Geografie	7	Mobilities	1
European Urban and Regional Studies	6	New Zealand Geographer	1
Urban Affairs Review	6	Papers in Regional Science	1
Area	5	Post-Soviet Geography and Economics	1
Eurasian Geography and Economics	5	Professional Geographer	1
Political Geography	5	Singapore Journal of Tropical Geography	1
Urban Geography	5		

Appendix 2: Financial geography interview schedule list

<i>#</i>	<i>Name</i>	<i>Date</i>
1	Dr. Dariusz Wojcik, University of Oxford	September 17, Beijing, China
2	Dr. Andrew Leyshon, University of Nottingham	September 18, Beijing, China
3	Dr. Manuel Aalbers, Katholieke Universiteit, Leuven	September 18, Beijing, China
4	Dr. Brett Christophers, Uppsala University	September 19, Vancouver, Canada
5	Dr. Karen Lai, Durham University	September 23 (skype)
6	Dr. Sarah Hall, University of Nottingham	October 1 (skype)
7	Dr. Stefan Ouma, University of Bayreuth	October 2 (skype)
8	Dr. Gordon Clark, University of Oxford	October 7 (phone call)
9	Dr. Michiel van Meeteren, Loughborough University	October 8 (skype)
10	Dr. Dariusz Wojcik, University of Oxford (follow-up interview)	October 8 (zoom video)
11	Dr. Jessie Poon, University at Buffalo	October 11 (phone call)
12	Dr. Philip Ashton, University of Illinois at Chicago	October 16 (skype)
13	Dr. Paul Langley, Durham University	October 16 (skype)
14	Dr. Emily Rosenman, Pennsylvania State University	October 21 (skype)
15	Dr. Adam Tickell, University of Sussex	October 23 (phone call)
16	Dr. Rachel Weber, University of Illinois at Chicago	October 28 (skype)
17	Dr. Geoff Mann, Simon Fraser University	October 29, Vancouver, Canada
18	Dr. Gary Dymski, Leeds University	October 30 (skype)
19	Dr. Fenghua Pan, Beijing Normal University	November 4 (skype)
20	Dr. Andy Pike, Newcastle University	November 7 (skype)
21	Dr. Chris Muellerleile, Swansea University	November 7 (skype)
22	Dr. Heather Whiteside, University of Waterloo	November 11 (phone call)
23	Dr. Jane Pollard, Newcastle University	November 18 (skype)
24	Dr. Shaina Potts, University of California Los Angeles	November 18 (skype)