THE PERVASIVE EFFECTS OF INCONGRUENCE BETWEEN ECONOMIC AND MORAL VALUES: A CRITIQUE OF FINANCE

Bruno Kömel

05/01/2017

Abstract

Markets worldwide have been so impressed with what finance *can* do that few have stopped to think about what finance *should* do. It seems America has failed to question whether financial markets have become inappropriately powerful. It is true that finance and creative accounting have increased firms' profitability and market value, but it also seems to be true that investment in such areas has deprived the world economy of growth. Real product development is malnourished, while financial engineering has been spoiled rotten. This paper will provide an overview of how the American economy has suffered by putting its eggs in the wrong basket. The analysis will explore the shift from the real economy to artificial finance, the ways the shift contributed to the crisis of 2008, and the underlying reason for this infamous shift. This analysis will be followed by a critique of the system and of the findings themselves.

The critique will develop assumptions from which a fresh understanding of the discipline of finance will flow. The paper will survey the basis for a proper understanding of the goal of the firm, which will then help the reader develop a proper understanding of the purpose of finance. The conclusions about the goal of finance will be derived by employing deontological ethical frameworks and Reformed theological constructs. Furthermore, the paper will conclude with a recommendation of two crucial changes in the field: that companies should beware of financialization, and educators ought to take a normative approach to finance.

Literature Review

I. Houston, We Have A Problem!

It is essential to begin the discussion by exposing the fact that there is an identifiable problem with the financial market. As with most things, an appropriate perspective of the role of finance falls somewhere in the continuum of conflicting opinions; finance is probably more beneficial than the Occupy Wall Street Movement would like to admit, but it is also more dangerous than financiers themselves would purport. Therefore, it is of utmost importance for to "separate the wheat from the chaff" (Zingales, 2015, 1328) to put it in Zingales' words, if one has any intention of painting a fair picture of the situation. Luigi Zingales, former president of the American Finance Association, raises the questions of whether "financial innovation over the last 40 years has been beneficial and whether the size of the U.S. financial system has outgrown its benefits"(1340). The way he tackles these issues is by challenging the theoretical and the empirical basis for the wide belief that finance contributes to growth. By alluding to the works of Greenwald and Stiglitz, Hart, and Elul, he argues that theory would support the idea that finance may have negative effects on market efficiency. Zingales alludes to the First Welfare Theorem, as it relates to the introduction of a new market into an incomplete market economy, for which there is evidence supporting the notion that this introduction can"can make all agents worse off" (Zingales, 2015, 1340). Thus, Zingales claims, "there is no theoretical basis for the presumption that financial innovation, by expanding financial opportunities, increases welfare" (Zingales, 2015, 1340).

By means of evaluating empirical data, there seems to be a lack of evidence supporting the idea that finance leads to growth. It seems, however, that more recent evidence challenges the notion that a large sophisticated banking sector leads to higher growth. Arcand, Berkes, and Panizza discovered a "non-monotone relationship" between finance, represented by ratio of credit to GDP, and growth; there is a tipping point at which "the marginal effect of financial depth on output growth becomes negative" (Zingales, 2015, 1340). These findings are well in line with the rest of economic theory, as one would expect to encounter diminishing marginal returns to most factors in production functions. Economic production theory is mostly based on the notion of diminishing marginal returns to capital. Interestingly, however, the notion of diminishing marginal returns to finance, or to credit, is not explicitly discussed in academic articles. With the findings of Arcand, et al. in mind, one ought to wonder if there is any justification for the financial sector to account for about 7% of the economy's GDP, and 25% of all corporate profits (Foroohar, 2016). Zingales himself claims to be unaware of a positive correlation between the growth of the junk bond market, the option and future markets, or over-the-counter derivatives and economic prosperity. In addition to the lack of empirical correlation, we should not ignore the fact that the crisis of 2008 was ushered by this very obsession with excessive and speculative finance.

To build on this argument, there is an apparent negative correlation between financialization and productivity growth. Rana Foroohar, in her book *Makers and Takers: The Rise of Finance, and the Fall of American Business*, fiercely argues that the unrestrained growth of the financial sector is responsible for "the longest and weakest economic recovery of the post-World War II era" (Foroohar, 2016, p. xi). Foroohar's argument is based on three main premises: (1) financialization draws resources that could have been put to better use in the real economy; (2) financialization is inherently dangerous because of the risks it assumes; and (3) financialization leads to myopic behavior by corporations. The latter two assertions become self evident once one considers balance sheets of the banks and financial institutions around 2008. The first assertion, however, is justified when one considers the reality that inasmuch as some of the brightest minds are working for financial institutions, or engaging in rent-seeking behavior, they are not solving world hunger. Let us go no further before defining the term "financialization." In the literature, financialization takes two forms, first is a general increase in financial-market activity, as seen by an increase in speculative transactions, an increase in the amount of credit as a percent of GDP, and the growth of the derivative market, but also secondly, financialization can be seen by a change in corporate goals in favor of shareholder value maximization (i.e. focusing on stock values). The term is used interchangeably in both contexts, as regardless of interpretation the results point to the same conclusions.

Empirical data seems to confirm the notion that there is such thing as an excessively large financial sector. Two research papers have been ventured to examine the topic; the earlier by Cecchetti and Kharroubi, and the later by Cournède and Denk. Both articles arrived at the same conclusion: there is a threshold at which increases in the size of the financial sector become counterproductive. The studies show a non-monotonic parabolic relation between increases in "finance," measured share GDP or share of labor market, and GDP growth. The high point of the parabola, after which, further financial development leads to contractions, is approximately the point where private capital exceeds GDP. When using employment measures, "when the financial sector represents more than 3.5% of total employment" (Cecchetti & Kharroubi, 2012, 2).

Both of these measures are relevant to the U.S., because, as one may expect, America. is beyond the point where financial investment is productive. In terms of private capital, the country found itself at a level greater than 200% of GDP by 2008, and in terms of employment, the financial market takes up about 4% of American jobs. The message should be clear; "there is a pressing need to reassess the relationship of finance and real growth in modern economic systems" (Cecchetti & Kharroubi, 2012, p. 14). Thus, Foroohar's point stands, financialization negatively affects growth, and America cannot afford to ignore that.

II. A Survey of the Arguments

Now that we have seen that there is some evidence for the belief that financial market making has outgrown its benefits, let us analyze whether Foroohar's claim that the rise of American finance is driving the decrease in productivity in American firms. The implicit question being asked by the academics researching the topic is whether the correlation between rise of finance and fall of economic growth is marked by causation. We should entertain the possibility that times of low economic growth lead economic agents to invest in less profitable investments, such as financial endeavors, making the causation "arrow" go in the other direction. This possibility does not seem to match the data, as the years leading up to the Great Recession showed steady growth in the United States; if this reverse causation was the case, we would expect to see low growth accompanied by the increase in financial activity, rather than what we posture to be growth in spite of the increase in financial activity (leading to the crisis in 2008).

Engelbert Stockhammer is one academic to consider a negative correlation between financialization and growth. He develops his model based on Keynesian understandings of the firm and of "the role of accumulation and investment as the driving force behind growth" (Stockhammer, 2004, p. 719). Stockhammer goes great lengths to create a theoretical foundation upon which to present his findings. He argues that the firm is made up of workers, managers, and investors; the workers pursue wages, the managers pursue growth, and investors pursue returns through interest and dividends. Such division of classes within the firm is in no way revolutionary, but it is useful for clarity in the following argument: the so called "shareholder revolution" has confused the roles of managers within the firm. An important extension of this model is the implied assumption that managers and investors are put at odds, as managers are to pursue long term growth, and investors are interested in short term returns.

Setting profit maximization as the central goal of the firm, has been accompanied by the practice of trying management's pay to company performance via stock-options and the like, which incentivize immediate gains. This change in the structure of compensation put management in two conflicting positions simultaneously: stewarding the resources of the company as to generate long-run growth, and taking actions to boost stock price as quickly as possible, without regard for the distant future. The earlier representing the manager's fiduciary duty, and the latter preying on the manager's individual economic incentives. Thus, the argument follows that management chose to act as homo economicus, making decisions to boost short term returns, instead of pursuing long run growth of the firm. Rana Foroohar pours great energy into this subject in her book, as she believes this practice promulgates the disparity between Wall Street and Main Street. Both Foroohar and Stockhammer focus heavily on the shareholder value tradition, critiquing the trend of moving from "retain-and-reinvest" to "to downsize-and-distribute," arguing that such behavior benefits only the investors, and only in the short run.

Stockhammer addresses the topic of conflicting interests when he jumps from theory to reality in an attempt to assess the fairness of the idea of a trade-off between present profits and future growth. His methodology is centered around the observation of the developments in the financial sectors and the simultaneous slowdown in accumulation in the USA, UK, France, and Germany, from the 1960s until the early 1990s. The findings show that financialization was responsible for most of the slowdown in the USA. Although the results in Germany and the UK were not robust, Stockhammer believes that the argument still stands because of the economic stages in which the two nations found themselves; the UK had very little accumulation to begin with, and Germany was still very young to the shareholder revolution.

Conversely, some believe Stockhammer's results to be inconclusive, at best. Andrew Kliman and Shannon Williams take great issue with Stockhammer's position. They argue that financialization is not only a dubious term, but also not responsible for the decrease in American productive investment. The heart of their argument and findings, is that there was no diversion of funds from productive investment toward financial assets. Moreover, they claim that the decrease in investment was not driven by the expansion of neoliberal thought (i.e.shareholder value). Kliman and William's main point of contention is that Stockhammer and others measured the decrease in investment starting at a time when the rate of investment was unsustainably high. Therefore, irrespective of other changes, the rate would have dropped. Furthermore, they found that once they controlled for the rise in the rate of depreciation in their calculations, "the share of profit invested in production was as great or greater throughout the neoliberal period as a whole as it had been during the preceding decades" (Kliman & Williams, 2015, p.88). Thus, they do not believe that the decrease in productive investment was caused by the financialization of non-financial firms, but rather that it was caused by the decrease in profits that came around at the same time as neoliberalism became more prevalent; a decrease that they attribute to external factors. It is important to mention that the authors did not give a satisfying explanation for the driver of the decrease in profits.

It seems Kliman and Williams fail to account for a some variables in their study. It is simplistic to negate the theory that the decrease in capital accumulation is a result of financialization in favor the general claim that overall profits decreased, and arguing that diversion of resources never occurred because firms borrowed the funds to pay for their dividends and buybacks. In their analysis they failed to account for the fact that the large increase in debt, which ironically financed financialization, has had significant effects on profit. One could argue that profits are being diverted to pay for the debt incurred rather than being productively invested. Moreover, nowhere in the article did the authors provide a satisfying explanation of the opportunity cost of financialization. They employed so much effort addressing how corporations have borrowed to pay for their financial endeavors, that they forsook commenting on where those borrowed funds could have otherwise been used. They never mentioned the rate of return of alternative endeavors that firms could have pursued. Every corporate financial management program in the country teaches its students to measure the marginal costs of borrowing against the marginal benefits of different opportunities, and yet they failed to address the possibility that the borrowed funds could have been used for other real, as opposed to financial, investments.

Another scholar in the discussion, Brett Fiebiger, believes that the decrease in accumulation is less related to financialization and more related to globalization. He argues that due to unfavorable economic settings and regulations, many corporations have fled to tax-havens. Fiebiger agrees with Kliman and Williams that "there is a potential for a trade-off regarding decisions to expand productive capacity in the domestic sphere versus the international sphere" (Fiebiger, 2016, p. 15). His main point is that "US national NFCs [(Non-Financial Corporations)] now have a strong preference for external accumulation and have forsaken a sense of nationalism for a 'home' in tax havens" (Fiebiger, 2016, p. 24) and that such preference has been the cause of the decrease in productivity that the American economy has experienced. As we will see in the study of Ireland and Iceland, there are more factors than just taxes that stimulate the preference for foreign lands shared among US corporations.

Aside from productivity and accumulation, it seems that financialization has a substantial effect on employment dynamics. Ken-Hou Lin, from the Department of Sociology at the University of Texas at Austin, analyzed the impact of increases in financial activities within non-financial firms on workforce growth (or contraction). He notes that part of his analysis involved contrasting the effects of globalization and financialization on employment dynamics, because of the stigma that globalization currently holds. Interestingly, he found that both trends affect American employment negatively. Lin's research concluded that, for a given firm, "if the level of debt ratio remained at the 1982 level, the firm would employ nearly 9 percent more production workers, 6 percent more service workers, and 7 percent more total workers in 2005" (Lin, 2005, p. 27) than it actually did. It is important to note that in his argument Lin creates room for the possibility that financialization contributes to some types of employment growth, namely workers and managers in areas of finance. However, he nevertheless believes that the rise of finance and the shareholder value ideology have "marginalized the role of labor in revenue generating and sharing processes, which in turn led to employment stagnation among the largest firms in the United States" (Lin, 2005, p. 28). Lin argues that investment in financial assets crowds out investments in production in three different ways: by allocation of resources, increasing debt, and by giving managers incentives to act in ways that are not beneficial to employment growth. Ultimately, Lin's analysis provides us with evidence of the negative impacts of the rise of finance, especially in non-financial corporations.

III. Frailty, Thy Name is Finance

Irrespective of whether financialization crowds out *productive* investment, there seems to be little question of its effect on stability. If the causes and effects of the American financial crisis of 2008 were not clear, let us look at what finance did to two smaller economies. Raza et al. (2016) argue precisely that disproportionate growth in the financial sector of a given economy can, and indeed does, lead to economic fragility. The article poetically begins with the James Russell Lowell quote: *One thorn of experience is worth a whole wilderness of warning.* Raza then proceeds to offer "two thorns of experience," in Ireland's and Iceland's testimony of the 2008 crisis.

Both economies provide evidence to the argument is that the financial sector outgrew its capacity, becoming insatiable. Ireland became an "international hub" for investments due to "tax policy initiatives aimed at attracting foreign investments," and its entrance in the Eurozone (Raza et al., 2016 p. 3). Moreover, the large capital inflows led Ireland to engage in very aggressive lending in property markets, which eventually led to an asset bubble in those markets "caused by excessive credit lent to households from the financial corporate sector" (Raza et al., 2016, p.3); an asset bubble that eventually burst. Ireland's fiscal policies aggravated the situation; amidst the financial proliferation, the Irish government decreased taxes, and engaged in coordinated wage-setting policies that increased wages over the period. These factors, along with the hardly unnoticeable increase in inflow of capital, caused the economy to "overheat." Additionally, regulations were "lacking in the extreme"(Raza et al., 2016, p.4), and banks were not appropriately managing risks,. Raza et al. argue that the housing market bubble could have been avoided with effective regulatory supervision to contain the credit supply. Ireland found itself growing exponentially, in a manner that was, counterintuitively, quite dangerous. The tipping point, which caused the whole system to collapse, was the sudden stop in capital inflow caused by the crisis in 2008. In Ireland, unlike Iceland, the obligations of the whole banking system were guaranteed by the European Central Bank. Nevertheless, the meltdown of the financial system, upon which the economy had become too reliant, led to a 15% GDP contraction between ‘08 and ‘09.

Iceland, on the other hand, experienced the same narrative through different mechanisms. Iceland made itself attractive to foreign investors by benefitting from low risk premia and high liquidity, due to its open, although small, economy, and also by lowering taxes, and loosening regulations and supervision. Moreover, the liberalization of the European financial environment facilitated borrowing from foreign banks; a liberalization of which the country took great advantage. Additionally, Raza explains, “Icelandic companies and newly privatized banks benefited from the AAA status of the sovereign and rushed into financial ventures overseas, eventually accumulating financial debt and assets of gargantuan proportions” (Raza et al. 2016 p. 3). This accumulation of foreign debt was not met with a simultaneous hedging of the Icelandic krona; meaning that the banks and corporations were not protected from a currency depreciation. The incentives to lure foreign investment worked beautifully, and the system worked like a well oiled machine, until it stopped. *As long as* capital inflows were increasing, the stock market prospering, and the currency appreciating, the economy would do just fine. The similarities between a Ponzi scheme and the Icelandic economy between 2000 and 2008 were as real as they were damning. Like any other fraudulent pyramid, the system crashed when capital inflows came to a sudden stop. The effects of the ‘08 crisis were even more pervasive in Iceland, as it lacked the protection of the Eurozone and lacked a lender of last resort to bail out its institutions. The depressing consequence of such irresponsible financial growth was a contraction of almost 40% of Icelandic GDP between 2007 and 2009.

Following this topic of monetary policy, some believe that financial instability is a by-product of monetary stability, counterintuitive as it may seem. Felix Martin, author of *Money: an Unauthorized Bibliography – From Coinage to Currencies,* takes on the challenge of explaining financial crisis from a historical perspective, as delineated by a survey of the lineage of money as a social technology. The central argument in his book is that society has held to a wrong understanding of what *money* really is, which has led to unforeseen problems. One of the fascinating arguments in his book is his perspective on the impact of low (or stable) inflation on the financial market.

Martin argues that due to the inflation perils that central banks had faced in the 20th century, price stability became the main target at the turn of the millennium. This led, for instance, to the Bank of England and the European Central Bank taking on the control of inflation as one of their central responsibilities. Martin further argues that "the single-minded pursuit of inflation not only drew attention away from the other monetary and financial factors that were to bring the global economy to its knees in 2008 – it exacerbated them" (Martin, 2016, p. 219). The mechanism by which such *catalyzation* worked is as follows: an environment of low inflation, marked by the presence of a successful central bank, leads to investor confidence and optimism, which then leads to the willingness of investors to assume higher risk and less liquidity. Martin believes that "squeezing the balloon in one place [...] will simply reinflate it in another;" thus, he argues, "monetary stability will actually breed financial instability" (Martin, 2016 p. 220). Martin's insight in finding underlying reasons to the crisis of 2008 does not end there, as he goes on to delineate that the incongruence in the academic and practical understandings of financial economics is also responsible for the lack of an efficient response to the crisis.

IV. From Macro To Micro

It is appropriate to assume that if financialization has negative effects on a macroeconomic level, then those effects should also be observed "microeconomically." This assumption is the foundation of one of Foroohar's central arguments. As noted above, financialization has manifested itself in Corporate America, not only through the increase in financial activity (even in nonfinancial corporations) but also through a change in corporate goals. Shareholder value maximization undoubtedly has changed the corporate world; one question that remains unanswered is whether this was for the better. Business schools seem to think that such shift is the pouring out of God's grace, and teach it as if it were the gospel truth. However, the model has been met with some resistance lately, as it seems to have been a factor in the most recent financial crisis.

Foroohar argues that the shareholder value model has taken the power from "car guys" and put it in the hands of "bean counters." At the heart of her argument is the anecdote of General Motors. Foroohar argues that the GM switch crisis (which caused at least 124 deaths), the depressing creation of the Pontiac Aztec, and the fall of Hewlett-Packard were caused by a "very long-term shift in corporate America toward balance-sheet driven management" (Foroohar 2016, p. 69). She argues that the blind pursuit for shareholder value maximization, driven by several factors like the Dodge v. Ford lawsuit, the increase of MBAs in CEO positions, and the rise in popularity of Taylorism, are reasons for the fall of *real* American business. She shows that profits and stock prices of the large American car manufacturers were indeed growing, but that such growth came from cost-cuts. She notes that GM's stock was boosted in 1991 by the decision to "close twenty-one plants and cut 74,000 workers" (Foroohar 2016, p. 83). These profits were "increasingly bolstered not with truly new products and technologies, but by nipping and tucking costs" (Foroohar 2016, p. 83). All of this for the sake of maximizing shareholder value, a goal that was indeed achieved in the short-term, but a goal of which the pervasive effects were not noticed until the post-World-War recovery was over. Her conclusion is unavoidable: if companies are managing the bottom line by cutting costs, and thus not investing in R&D, their growth will be stunted in the long run. Evidence of this comes also from Stanford University research that shows tech firms cut down on innovation by 40% after an IPO, because at that point the focus becomes shareholder satisfaction rather than future growth (Bernstein, 2015).

Yang joins in a call for a shift away from this Chicago School of thought. Yang tells the story of the decline of IBM, which paralleled the rise of shareholder maximization. The company saw a shift in leadership that led to a stark change in culture. When IBM was put in the hands of Louis V. Gerstner Jr., everything changed. Gerstner Jr. altered the ranking of stakeholder priorities, moving employees and innovation from the top of the list to the bottom (Yang 2013). The company went from taking pride in avoiding layoffs to unapologetically doing so, presumably to boost stock prices; the goal went from meeting needs of society (i.e. market demands) and employees, to "nearly doubling earnings per share to $20" (Yang 2013). Yang also notes that IBM's change in culture had a significant impact on American business because of the company's influence; like blind sheep, American business followed IBM as it fell into an abyss of mismanagement.

The critique goes much further, in directions that are far too wide to be discussed here, but the idea can be observed in these few cases. American business has arguably moved from managing the top line to managing the bottom line. A potentially deadly shift that can lead to productive/innovative stagnation and financial vulnerability. Thus, the literature has shown that financialization, whether defined as an increase in participation in the financial sector or a shift to focusing on shareholder value maximization, has had pervasive effects in American society, business, employees, and consumers alike.

Informed Response

I. Do Put Finance In a Box

1. The Debate

One can only arrive at a proper understanding of the appropriate role of finance in the context of business after one has arrived at a proper understanding of business itself. Thus, the a normative discussion of finance leads us directly into the arms of the famous topic of the ultimate purpose of the firm. Milton Friedman's school of thought has morphed into the shareholder value maximization (SVM) movement, which has been identified earlier as both one of definitions of financialization and potentially one of the drags on productivity that the American economy has experienced in recent years. According to Friedman (1970), the firm's only social responsibility is to maximize profits. It is important to note some nuances and clear downfalls in Friedman's theory. First, Friedman does acknowledge that corporations must indeed behave in a way that conforms to the rules of the society, both legal and ethical (Friedman, 1970). To put it clearly: though he states that the social responsibility of the firm *is* to maximize profits, he would agree that the firm can only succeed in doing so if it acts responsibly. Thus, in a sense Friedman understands socially "altruistic" behavior in the same way that one would understand the payment of taxes: the citizen is required, and expected, to pay only as much as he owes and not a penny more.

A different understanding of the firm, and of its responsibility to society, has become known as stakeholder theory. R. Edward Freeman was the original advocate for this theory, the crux of which is the idea "that all behavior that influences another person entails responsibility" (Wescher, 2008, p. 143). The most marking characteristic of stakeholder theory is the explicit assertion of the firm's responsibility to be beneficial to its shareholders, suppliers, employees, customers, and communities. Although this is not as explicit, it seems that Freeman believes that these responsibilities are simultaneous, not sequential; that is, his primary concern is not in the priority of specific stakeholders but rather in their concurrent satisfaction. Stakeholder theory has become increasingly popular as of late for a wide variety of reasons, ranging from the Enron and WorldCom accounting scandals to the increased understanding of the value of employees and/or the environment.

2. Picking Sides

Friedman's investor capitalism clearly states that the goal of the firm is to maximize the return of shareholders. Unfortunately, however, such claim produces a mindset that complicates decision-making. As expressed earlier, the shareholder value maximization model leads to a tendency to make decisions that produce immediate results, often to the detriment of long term profitability. One reason for such diagnosis of myopia is that the most efficient way to increase profits is to cut costs. Cost cutting, although beneficial through the elimination of non-value-added activities, can be dangerous if done only for the sake of Machiavellian accounting (vide IBM). Another reason is that investors in equity markets, especially day traders, are not concerned with the company's success five or ten years from the date of the original investment, but they are interested in immediate returns. Moreover, executive and managerial compensation, as mentioned earlier, prompts a conflict of interest upon managers and executives, adding yet another layer of complexity to the topic. In short, shareholder value maximization has led to a diversion of focus from the firm's actual *purpose*, to provide goods and services, in favor of an *artificial goal* to maximize numbers at the bottom of an income statement.

The longitudinal downfall of SVM is a great testament to the importance of a proper ascription of value to the firm's various stakeholders. It is essential that the firm pursues the creation of *value* to all of its stakeholders, because such pursuit will lead to a proper managerial mindset. Freeman's theory seems to force the firm to behave in a way that will be profitable in the long run, not because it specifically tries, but simply because long run profitability seems to be a consequence of proper treatment of all stakeholders. Quatro (2016) makes this clear in his discussion of the importance of the "primacy of human capital." Quatro points out that the firms that make up the *Fortune 100 Best Companies to Work For* have handsomely rewarded their investors with an appreciation of stock price almost four times greater than that of the S&P 500 over the last 15 years (Quatro, 2016, p. 70). The negative effects of the profit maximization mindset, coupled with the exuberant gains from the stakeholder perspective (made evident by human capital primacy), ought to suffice in showing what the true purpose of business should be:

doing good business rather than maximizing a specific piece of financial statement data. For the purposes of the argument in this paper, this will be assumed as the proper goal of the firm.

3. Free Man's Finance

Now that we have surveyed the discussion of the purpose of business, we can move on to the discussion of the purpose of finance. Here we ought to make a distinction between financial institutions and non financial corporations (NFCs). Dealing with the earlier ought to be simpler, given that their purpose becomes an extension, or specification, of the general purpose for business, which is stated above. Financial institutions fulfill their purposes when they serve all of their stakeholders well. This is crucial because of the nature of financial products: financial assets are potentially dangerous for the buyer as they may completely depreciate in value, or even become liabilities, such as a short sale gone wrong. The importance of a proper treatment of all stakeholders by financial institutions was made explicit through the lenses of the sub-prime mortgage crisis. Banks lent more money than they should, to borrowers whom they should have avoided, in order to collect handsome bonuses. This is an ironic situation because the banks' lack of regard for their clients led to offering loans to borrowers that (1) could not pay back and who (2) did not understand the complexities of the agreements they were engaging in. The irony lies in the eventual downfall of entire institutions, as seen by the necessity of the government bail out.

One example of heedlessness for clients is the more recent Wells Fargo scandal, where employees opened fake accounts to meet managerial expectations and boost their own paycheck. Wells Fargo paid for this mistake on multiple levels, suffering scrutiny from all of its stakeholders: including the government, employees, clients. Thus, by *via negativa,* we can conclude that financial institutions are better off when they work to satisfy the needs of all of their stakeholders *simultaneously*. The provocative term “financial weapons of mass destruction” should clearly demonstrate the need for financial institutions to realize that they are responsible for their actions, and while they have the power to greatly benefit society, they are just as easily capable of destroying it.

The real challenge, however, is dealing with the manner in which non-financial firms should engage in financial activities. At this point, it becomes essential to establish the purpose of finance as a peripheral activity. As shown above, there seems to be empirical basis for the belief that the increase in financial activities of NFCs has negative effects, either through a crowding out of productive investment, the impoverishment of employment dynamics, or simply a managerial distraction. Nevertheless, it is true that firms greatly benefit from the equity market and other financial institutions. Firms need to raise funds for a variety of reasons, thus it is good and right for firms to engage in finance, but only inasmuch as they need funds to finance their *real* investments (as opposed to financial ones). Furthermore, equity markets should be a source of access to funds, not a constant pressure on management; it is disconcerting the amount of influence that the desires of short term investors can have on managerial activities. As discussed earlier, the market punishes companies for investing in R&D, but rewards them for redistributing earnings through dividends or stock repurchases, which then encourages managers to engage in the latter even though it has no effect on the long run competitiveness of the firm.

This dynamic raises the question of the extent of sway that shareholders should have on business decisions, especially in light of the fact that the shareholders can separate themselves from the firm more easily than the other stakeholders. This topic leads us back into the discussion of shareholder value maximization, which we have established to be an insufficient management strategy due to its potential to undermine non-direct investing stakeholders and even direct investors in the long run. Therefore, given the losses from increased exposure to financial markets one must conclude that corporations should seek shelter from the primacy of the shareholders to protect other stakeholders, as well as their own long term interests. Although this line of reasoning may seem inane, countless American corporations have fallen prey to the temptations of deviating from it, as seen by IBM's tragic narrative depicted by Yang (2013).

II. Go and Sell All Your Derivatives: A Biblical Framework

Now that we have established a framework for understanding finance as a supporting activity to NFCs, and as a responsibility-laden activity for financial institutions, we can survey it from a biblical perspective. Henry (1955) summarized the necessity of such endeavor

> *All Schemes of economic recovery which isolate economic thought and behavior from the spiritual and moral world cannot secure human well being, because economic activity is not in the service of God gravitates to the service of the demonic… Separate the economic sphere from the living God and His claims, and men will drift from one crisis to another under any economic formula* (p. 1244)

Given the importance of the financial sector, Christian practitioners cannot ignore it, and given its track record, these same practitioners must seriously question its purpose in God's redemptive history.

It is appropriate to ask what purpose, if any, finance serves in God's *οἰκονομία* (economy), His work of self-revelation. This question becomes especially interesting in light of God's clear prohibition of charging interest in the Old Testament (Deut 23:19-20, Lev. 25:27, etc.), and His strong admonition against it in the New Testament (Lk 6:35, Rm 13:8). What then, should Christians make of this? Should they rationalize it away? Is it fair to say that "a child contends that a *fib is not a lie*, a president asserts *fellatio is not sex*, and Christians profess that *interest is not usury*" (Porter, 1999, p. 44)? If we use interest as a proxy for the whole financial sector, which is not much of a stretch since debt instruments are the most basic financial assets, we can extend this critique to the whole system. However, I do not find this critique to be appropriate. As we will further discuss below, it seems that God's prohibition of interest was directed at the abuse of usury, the charging of exuberant interest rates, rather than at the mechanism of lending money in exchange for a premium. Three frameworks are essential for a proper understanding of this subject: sphere sovereignty, common grace, and hermeneutics.

1. Sphere Sovereignty

The Kuyperian construct of sphere sovereignty can help us in this discussion. According to this Reformed framework, God's created order can be divided into several spheres, each having "its own identity, its own unique task, its own God-given prerogatives" (Spykman 1976, p. 167). Naturally, if the field of finance is to have place in the created order, it ought to be placed under the sphere of economic activity, which is most directly influenced by businesses. Thus, as a subsidiary sphere, finance must share the purpose of its parent sphere (i.e economics). The central purpose of the sphere of economic activity is the subject of heated debate among academics, especially with regard to the extent of the obligation of caring for the poor[2]. But for the purposes of this paper let us assume the purpose of economic activity to be the utilitarian pouring out of God's grace in a fashion that maximizes welfare while minimizing harm. Therefore, simply, in this context we will work under the assumption that God uses commerce to make as much of His creation as better off as possible in a fallen world. Furthermore, we must then conclude that finance is only fulfilling its God given calling inasmuch as it benefits the rest of creation while minimizing collateral damage.

The nature of the field calls for further nuance in its exposition in order to give it its own specific purpose in God's creation. A direct implication of this is that financial institutions ought to operate differently than businesses, in that their true purpose is to serve as support to business activities, not guides to it; a bank should not be run like a corporation. Two reasons for such distinction between the finance and business spheres are: (1) the products financial institutions sell have a particular intangible nature, and (2) all firms must engage in financial activities of some sort, making financial institutions' influence extremely pervasive. I propose here that if we are to understand finance as its own subsidiary sphere, we must be careful not to overstate its usefulness; as exposed above, excessive financialization seems to harm society, hence its purpose must be limited to being supportive to business endeavors. In other words, finance as an institution ought to exist only to provide businesses with access to capital and a means to safely store funds. A profound implication of this model is that financial activities that do not provide clear and tangible benefits to society are at odds with the sphere's task. Thus, if Zingales' intuition is right –as it seems to be– and there is indeed no correlation between economic growth and the prosperity of the derivative market, we must seriously question whether finance is operating in accordance with its purpose. Then, once we've made up our minds, we must act on our conclusions in order to be agents of renewal (Mouw, 2011, p. 15).

2. Common Grace

We cannot ignore the possibility that finance may have no place in God's created order, however, a proper understanding of the field as an agent of common grace appropriately addresses such possibility. It seems clear that God has used financial markets to bestow His grace on all of His creation, as seen in the prosperity of capitalistic societies, which have allowed for an unprecedented furthering of the Gospel. The world has benefitted greatly from the development of financial instruments, which have provided corporations with the funds necessary to create new and better products, as well as given the opportunities for start-up companies to get up and running. Although the economic success generated by a strong banking sector is materialistic in nature, it is also true that such success provides God's creation with the opportunity to *work* by creating jobs. Thus, if we can use the charging of interest as a proxy for finance, we may conclude that finance indirectly helps humans to fulfill the cultural mandate (Gen. 1:28). Thus we conclude finance to be at least *instrumentally* good, as it facilitates the pursuit of an *intrinsic* good, namely *work*. Another way in which finance acts as an agent of common grace is by making it possible for workers to engage in good stewardship by investing some of their current earnings on retirement accounts, and also for companies to "put their excess cash to work." Therefore, even though finance, like the rest of creation, has been affected by the Fall, as seen in the countless financial crises throughout history, the triune God still uses it for His redemptive purposes.

3. Hermeneutics

Furthermore, a proper understanding of the cultural context of God's command to abstain from the practice of charging of interest is of extreme relevance. The passages used in objection to charging interest (Deut 23:19-20, Lev. 25:27, Lk 6:35, Rm 13:8) explicitly condemn the financial practice as it relates to the poor, giving the idea that the true problem with the action is not the action itself, but rather with the strain placed on the borrower. In fact, the Deuteronomy passage condones the charge of interest to foreigners, further strengthening this argument. The cultural context of the Old Testament is quite different from current times, and two aspects that must be highlighted are: (1) the Israelite understanding of the nation-state, and (2) their understanding of one's obligation to his neighbor. The people of Israel under Mosaic Law were to behave more like a family than an economy, as the sharing of resources was common practice. This is observed in the Israelite understanding of property as belonging to God, not to the individual (Lev 25:23). Thus, charging interest would be understood as a charge for the use of something that does not belong to the holder, making it clearly inappropriate.

4. Stewardship

A fourth biblical framework that is pertinent in the discussion of finance is stewardship. There are many degrees to which stewardship ought to influence the manner in which one engages in financial transactions. First, one must understand one's self as a steward of God's resources, since He is the provider of all that one believes to own. This truth is made clear in the first verse of the twenty-fourth psalm, which claims that "the earth is the Lord's, and everything in it." Therefore, individuals ought to see themselves as stewards for all of the following: their communities, their companies, and "their" shareholders.

Inherent to the nature of financial assets is the connection to the state, because monetary assets, as we understand them, are of no value if they are not backed by a currency backed by a confidence in a given sovereign state. In a rather tangible sense, financiers are also stewards of their communities; their actions directly affect the resources of their neighbors through their retirement accounts, and also through the overall consumer sentiment/optimism. This point was clearly seen in the subprime mortgage crisis, which led to severe losses in retirement accounts, as well as triggering a recession that led to substantial increases in unemployment. The negative impact on unemployment was even more noticeable in Ireland, where the levels went from below 6% to around 15%. It is worth mentioning, moreover that there is significant overlap in the principles guiding the mechanics of stewardship and in those guiding Freeman's stakeholder theory.

This doctrine is even more relevant in the discussion of financialization because of the phenomena's long-run implications to individual firms. Liang (2011) made this point very clear when he exposed the flaws of the SVM movement's obsession with short term returns. He calls SVM "incompatible with the creation of true prosperity in the long run." He goes even further when he claims that the "decoupling of gain from value creation [represented by SVM] violates a fundamental trust in stewardship, which is to serve the best interest of the owner or principal" (Liang, 2011, p. 200). The parallel between corporate executives and the story of Joseph (Gen. 37-47), as made evident by Liang, is clear. Joseph is praised for his long-term mindset, and he is greatly rewarded for it; furthermore, it is precisely this that made him a great steward. Therefore, as stewards of shareholder's capital, executives ought to resist the lure of the self-defeating short term gains, and focus instead on long-run returns.

III. Broad Fixes for a Broader Problem

With the backdrop of finance's purpose in God's kingdom, we ought to talk about the manner in which the industry can better fulfill its calling. This section will propose two constructs as the solution for the downfalls of the current practices in the world of finance.

1.Finance as Normal: The New Business as Usual

In the same manner that a proper understanding of the purpose of finance was essential for the establishment of its place in the greater sphere of business, a proper understanding of the *nature* of the field is essential for the proper functioning of financial markets. Practitioners and academics have treated finance and economics as as positive subjects failing to acknowledge the profound normative nature of the fields. As exposed in the discussion of the central goal of the firm, corporate America has been, by and large, working under three Friedmanite assumptions: (1) shareholder wealth maximization is the goal of the firm, (2) such goal is ethical, and (3) ethics work as a constraint on the maximization of profits. Dobson (1993) addresses the logical and empirical shortcomings of all three of these assumptions. With regard to the first and second assumption, he argues that the maximization of profits cannot be the ethical base for a value system because such a materialistic system "encourages us to cheat, lie, steal" (58). Moreover, he identifies the "essence of the wealth-maximization rubric," as the underlying problem with the system (59). Borrowing Dobson's terminology, Friedman's system holds *external goods,* which at best have instrumental value, as the central goal of the firm, as opposed to *internal goods*, which have intrinsic value. According to Dobson's logic, this dynamic makes the system unethical. Regarding the third assumption, he argues that ethics cannot serve as a "constraint on achieving some materialistic end" because such mechanics would be "illogical and ambiguous." He believes it to be illogical because it "may actually sanction unethical behavior if such behavior can be shown to led to material gain," and ambiguous because "ethics has generally been viewed as a behavioral *motivation*, not as a constraint" (57, italics added).

I believe that Dobson is right, and that a shift from valuing external goods as ethical is the s*ine qua non* condition for the proper unfolding of finance. Firms can only use financial assets properly when their goals of engaging in financial transactions becomes the achievement of virtuous objectives, which have intrinsic worth. One example of a virtuous objective is that of benefiting society by or providing goods or services to meet needs. Firms will only become responsible when the individuals running them develop an understanding that they ought to abide by rules of ethics, not because of social constraints, but rather because such motivation is right and intrinsically good. Ironically, genuine "perfect virtue" is essential for the proper functioning of markets (as claimed by Adam Smith and addressed in the following section); meaning that virtuous behavior ought to lead to higher returns in the long run. Thus, although it is impossible to empirically prove that perfect ethical behavior by all financiers would prevent the occurrence of all future financial crises (because of the nature of economics and the reality of the Fall) it ought to be self-evident that it would at least have subdued the sub-prime mortgage fiasco, where banks made loans they never expected to collect, and sold the loans such that they were someone else's problem.

2. Crossroads: Where Finance Meets Proverbs

It should come as no surprise to Christians, that market efficiency relies heavily on Christian virtues for their proper functioning. Logue (1996) discusses this topic in great depth, focusing on the virtues of trust, integrity, and honor. He argues that "trust would act as a costless contractual enforcement," which would enable "first-best outcomes" because of the elimination of agency costs, which are a deadweight loss (48). The commodities market, Logue adds, "works on the honor system," making integrity essential. Thus, besides the deontological basis for his argument, he highlights that "enthusiastic cooperation rather than grudging compliance by firms can reduce these [unnecessary deadweight] costs once regulations are in place" (Logue, 1996, 46). The conclusion then is clear: if individuals were to behave in a genuine, non-pragmatic manner that is consistent with Biblical virtues, they would be working to facilitate market efficiency by ridding the marketplace of the very blemishes that are responsible for the bureaucracies that foster market inefficiencies. In this light, Adam Smith's invisible hand resembles God's austere correction of his people.

The need for Christian virtues is just as great in the financial market as it is in the market for goods and services. The financial nature of the assets being traded demands a great degree of trust for transactions to take place; one would not place one's money on another's hands if one did not *trust* that the other would return the funds, preferably with interest. Lenders would not engage with borrowers if they believed the latter to be *dishonest* about their current financial position. Investors would not provide capital to firms that lack *integrity*, because they are aware of the dangers of unethical behavior (e.g. Enron, WorldCom). Though unachievable, pushing the practice of Christian virtues to the extreme, would mean that there would be no use for institutions such as the SEC, or for regulations such as the Sarbanes-Oxley Act or the Dodd-Frank Act. This look at an extreme scenario should make clear how the adoption of Christian virtues would behoove all market participants.

Conclusively, these two remedial constructs, if accepted, would eradicate the inefficiencies in financial markets, and also provide the necessary focus on inherent value. In the same fashion that, in times of low inflation, investors tend to become less risk-averse, in a market where there is trust among the participants, investors would engage in more substantive transactions. These substantive transactions, then, would be secured by the high standard of ethics of the participants in the markets. Meanwhile, the ethics focused mindset, undergirded with the aim of intrinsic good, would be guiding this whole process through the individual participants. This is how these individual participants, then, guided by the Sovereign God and driven by their ethical motivations, would be able to appropriately and effectively engage in financial transactions. Though this perspective may seem flowery, it is only a few incentives away from implementation. The reality is that various institutions (Government, Academia, regulatory bodies, etc.) have the power to employ the appropriate incentives which would lead the various economic agents in markets to act according to the ethical demands required for the flourishing of finance.

Recommendations for Business Practice

Ambitious though it may be, a desire to change the way Corporate America operates by making it more aware of its ethical responsibilities and of the benefits of moral behavior should not be disregarded. But it would be optimistic to believe that corporations at large would stop worrying about Wall Street, and start worrying about themselves and how they want to do business. But, irrespective of how likely the full proposed paradigm shift may be, it is necessary for corporations to start moving in that direction, which will only happen when someone starts making a push. Tragically, it seems that business education and financial markets are constructed in a way to contribute to this problematic system. CEOs are trained to manage the bottom line and to take advantage of financial engineering, with little incentive to do otherwise. Executive compensation has increasingly been comprised of myopic stock options. Thus, executives will do as any neoclassical economic agent would: they maximize stock prices to benefit themselves.

My recommendations involve a Pauline repentance of the whole system. I believe that the market must change the way it values companies' stocks, all the while business schools must to teach their students proper management. There is something deeply troubling about the fact that the most common models by which stocks are valued (dividend discount models) weigh short-term cash-flows grossly more heavily than they do long-term ones; this is not much different from time-inconsistencies, which are described by hyperbolic models. The real problem is that such valuation directly affects operations by the incentives given to managers through equity-based compensation. One way to prevent such distorted focus is to measure and reward management and executive performance on the basis of tangible success rather than on the basis of market perception. There should also be more controls over shareholder influence, since shareholders are the least involved stakeholders. Although it is true that shareholders provide the firm with their capital, it is important to be aware that employees give their lives to the firm by exchanging their time for money. Thus, the impact on employees should be at the heart of the measure for executive compensation, not immediate stock market performance.

Furthermore, business schools must address the issue by designing courses on financial ethics to teach students how to take advantage of financial markets sustainably. Finance has fallen prey to a common temptation: individuals have failed to evaluate the field normatively, and have treated it as a positive subject. As seen by recent events, the world can no longer afford to do so. The gargantuan effects of the 2008 crisis cannot be ignored as if they were natural. The crisis was a consequence of reckless behavior by extremely powerful organizations in an inappropriately regulated sector. Financiers must be educated to think about their responsibility to society. They must learn that it is immoral to sell products that are, or may be, detrimental to their buyers. Therefore, an implicit assumption is that business schools ought to explicitly teach students the full costs and benefits of their financial market making, including social costs and benefits, thus stimulating activities beneficial to society. As is, the system puts financiers at odds with society, as seen by the corrosive effects of such an overpowered system. The best way to change the system is to change the values of its individual members. Given that this shift is as unfeasible as it is idealistic, the least the field can do is design incentives to align financiers' goals with society's.

Practitioners, like the rest of creation, ought to look to the Bible for guidance. As we have seen, the Bible is a useful resource for teachings on virtues that are pertinent to market efficiency. Therefore, practitioners ought to make use of such virtues and not discard them because of taboos or skepticism surrounding religiosity.

Lastly, companies must remember, or be reminded of, the purpose for which they are created. Businesses are started to meet needs in the market, to meet demand with supply. Whether one's ultimate goal in starting a business is to maximize profits or not, does not matter. A company will only be profitable inasmuch as it meets the needs of the market; as soon as it stops doing so, the *invisible hand* will come and sweep them out. Therefore, companies must rearrange the order in which they prioritize stakeholders, for if society is no longer served by a company, its shareholders will starve. As it relates to our conversation, if unnecessary financialization stands in the way of long run growth, or of current stability, then companies will need to be very careful with the extent of their participation in the financial sector. Implicitly, companies should remember that, in the grand scheme of things, they are agents of society, and they are designed for, and dependent upon, the well being of society at large. This means that companies are accountable to the individuals whom they benefit or damage. With that in mind, as well as the volatility of the financial markets, companies should be hesitant in putting their eggs in the proverbial basket of finance.

Endnotes

1. For this argument's purpose this shall suffice, but Felix Martin's *Money* (2015) provides a deeper exposition of this reality.
2. See Quatro 2012, Corbett and Fikkert 2009, and Belcher 2016 for a full discussion of the two approaches to Sphere of Sovereignty as it relates to the central (and peripheral) purposes of business.

References

Belcher, L. J. (2016). “Poverty and Aid to the Poor: Scripture, Kuyper's Sphere Sovereignty and Entitlement Spending”. *Journal of Biblical Integration in Business,* Spring 2016. Web. 29 Jan. 2017

Bernstein, S. (2015). *Does Going Public Affect Innovation?* Journal Of Finance, 70(4). Web. 4 Nov. 2016.

Cecchetti, S G., and Kharroubi, E. (2012) *Reassessing the Impact of Finance on Growth*. Basle: Bank for International Settlements Monetary and Economic Department. *Www.bis.org*. Bank For International Settlements, 1 July 2012. Web. 4 Nov. 2016. <www.bis.org>.

Cournède, B. and O. Denk (2015), "Finance and economic growth in OECD and G20 countries". *OECD Economics Department Working Papers*, No. 1223, OECD Publishing, Paris. Web. 4 Nov. 2016.

Fiebiger, B. (2016). Rethinking the Financialisation of Non-Financial Corporations: A Reappraisal of US Empirical Data. *Review Of Political Economy,* 28(3). Web. 4 Nov. 2016.

Freeman, E. R. (1984). *Strategic management: A stakeholder approach.* Massachusetts: Pitman

Friedman, M. (1970). The social responsibility of business is to increase its profits. *New York Times Magazine.*

Foroohar, R. *Makers and Takers: The Rise of Finance and the Fall of American Business*. New York: Crown Business, 2016. Print.

Gordon, J. S. (1976). “Sphere Sovereignty in Calvin and the Calvinist Tradition,” in Holwerda, D. E., ed. *Exploring the Heritage of John Calvin.* Grand Rapids. Print.

Henry, C. (1955). “Christianity and the economic crisis”. *Vital Speeches of the Day,* 21(14), 1243-1248. Web. 29 Jan. 2017.

Kliman, Andrew & Williams, Shannon. (2014). Why ‘Financialisation’ Hasn't Depressed US Productive Investment. Cambridge Journal of Economics. 39. 67-92. 10.1093/cje/beu033.

Liang, E. P. (2011). “The Global Financial Crises: Biblical Perspectives on Corporate Finance”. *Journal of Biblical Integration in Business,* Spring 2011. Web. 29 Jan. 2017.

Lin, K. (2016). The Rise of Finance and Firm Employment Dynamics. *Organization Science*, *27*(4). Web. 4 Nov. 2016.

Logue, N. C. (1996). “Christian Virtues and Finance”. *Journal of Biblical Integration in Business,* Spring 1996. Web. 29 Jan. 2017.

Martin, F. (2014) *Money: The Unauthorised Biography.* New York: Alfred A. Knopf, 2014. Print.

Mouw, R. J. (2011). *Abraham Kuyper: A short and personal introduction*. Grand Rapids, Mich: William B. Eerdmans Pub.

Porter, B. (1999). “Charging Interest: Is It Biblical? A Response” *Journal of Biblical Integration in Business,* Fall 1999. Web. 29 Jan. 2017.

Quatro, S.A. (2008) “*Profit Matters!: Christian Religiosity as Support for Milton Friedman's Provocative Claim”*, in Quatro, S.A., and Sims, R. (editors) *Executive Ethics: Ethical Dilemmas and Challenges for the C-Suite*. Information Age Publishing: Greenwich, CT. Web. 29 Jan. 2017

Quatro, S.A. (2012) “Is Business as Mission (BAM) a Flawed Concept? A Reformed Christian Response to the BAM Movement”. *Journal of Biblical Integration in Business*, 14 (1). Web. 29 Jan. 2017

Quatro, S.A. (2016) “*Profit Profits!”* in Quatro, S.A., and Sims, R. (editors) *Executive Ethics II: Ethical Dilemmas and Challenges for the C-Suite*. Information Age Publishing: Greenwich, CT. Web. 29 Jan. 2017

Raza, H., Gudmundsson, B., Zoega, G., & Kinsella, S. (2016). “Two thorns of experience: financialisation in Iceland and Ireland”. *International Review Of Applied Economics*, *30*(6). Web. 4 Nov. 2016.

Yang, J. L. (2016) "Maximizing Shareholder Value: The Goal That Changed Corporate America." *The Washington Post*. WP Company, 26 Aug. 2013. Web. 11 Dec. 2016.

Wescher. L. R. (2008) “Global Stakes Globalization’s Challenges and Opportunities for Stockholder Theory” in Quatro, S.A., and Sims, R. (editors) *Executive Ethics: Ethical Dilemmas and Challenges for the C-Suite*. Information Age Publishing: Greenwich, CT. Web. 29 Jan. 2017

Engelbert Stockhammer, Financialisation and the slowdown of accumulation, *Cambridge Journal of Economics*, Volume 28, Issue 5, September 2004, Pages 719–741, https://doi.org/10.1093/cje/beh032

Zingales, L. (2015). Presidential Address: Does Finance Benefit Society?. Journal Of Finance, 70(4). Web. 4 Nov. 2016.