
Fredrik Movitz1  Michael Allvin
Dept. of Sociology, Dept. of Sociology,
Stockholm University Uppsala University

PAPER FOR ILPC 7-9TH MARCH 2014, LONDON

DRAFT. DO NOT CITE OR QUOTE WITHOUT AUTHORS’ PERMISSION

Abstract

In recent years, the concept of financialization has become increasingly influential in political economy and labour process studies, in no small part due to Thompon’s (2003) oft-cited article. Financialization is commonly defined as the increased importance of financial markets, actors, motives and perspectives in society (e.g. Epstein 2005; Krippner 2003), although there also exists a variety of alternative definitions (Stockhammer 2008). It is argued in this paper that the process of financialization is vital in understanding current changes in work organization and the labour process. However, the plurality of definitions and the expansionist tendencies of the financialization concept might pose a risk of repeating the previous ‘globalization (or IT-innovations, neoliberalism, etc.) debacle’ when globalization meant everything (and thereby nothing) and almost every change in work and organization was attributed to the process of globalization without any arguments regarding the specific causal mechanisms at play (cf. Movitz 2013).

Given the above, the purpose of this paper is to critically discuss the relations between one important aspect of financialization – the increased use of ‘financial innovations’, specifically financial derivatives – and changes in work towards e.g. increased work intensification and employment insecurity. While there are few explicit claims of a direct link between the use of derivatives and changes at work (of course apart from among derivatives traders themselves) and that making such sweeping associations are best avoided in order not to weaken the value of the financialization concept. Second, other processes than financialization contribute to changes at work. It is however, thirdly, argued that one can find indirect links between financialization and work changes. To do this, one largely has to leave labour process theory’s traditional focus on the workplace level and examine the function of financial markets, e.g. competition between and pressures upon institutional financial actors to maximize profits for their owners/clients using alternative investments, which in turn places demands on CEOs in non-financial firms to deliver comparable levels of return on investments. One also has to add (larger) non-financial firms own financial speculations on e.g. currency changes. From the perspective of financial investors, actual workers are thus in a sense compared to and seen as direct alternatives to financial instruments such as derivatives with equal demands for (short-term) profits. This can be understood in relation to and perhaps also as an extension of the historical drives to automation; comparing the output of workers and machines and attempts to replace the former with the latter.

1 For contact: Fredrik.movitz@sociology.su.se
Introduction: It’s All Financialization?²

In recent years, the concept of financialization has become increasingly influential in the social sciences, especially in Western Europe and the US (ref-five spec. issues). In its broadest sense, financialization means that finance (understood broadly, but not including the whole economy) has gradually become more important over time, something which has consequences for society as a whole. An obvious reason for the increased interest in financialization is the financial crisis which originated in the US (manifested by the subprime loans) and then spread internationally (Stiglitz 2010).

While the crisis was important to increase the wider awareness of the process of financialization, it can be argued that the crisis intellectually has become too influential, e.g. a focus on using the financialization thesis to explain why the crisis occurred (Freeman 2010; Giacché 2011), rather than exploring the reasons behind financialization itself and its broader societal consequences. Even if the former approach is both understandable and perfectly legit, it is necessary to be cautious of the risk that general discussions about a broader historical process of financialization becomes too shaped by the dramatic events starting in 2007. The financial crisis is but one event that financialization probably contributed to, not all of it.

Many of the influential writings on financialization and its inherent aspects were however published before the crisis (e.g. Boyer 2000; Epstein 2005; Froud et al 2006; Krippner 2005; Martin 2002). A telling example is Thompson’s (2003) *Disconnected Capitalism* article, which for a period was decreasingly cited but came to be increasingly referred to again after the crisis erupted. The article did not focus on or anticipate the crisis (which others did) but instead discussed a gradual shift towards a separation between ownership, management and workers and the increased focus on shareholder value at the expense of other stakeholders (cf. Thompson 2013). Thompson’s article also contributed to introduce the concept of financialization to the labour process community, which traditionally has been more focused on the workplace level (Thompson & Smith 2010).

There is a small but growing body of work exploring in more detail how and why financialization affects work and organization (e.g. Froud et al 2006; Appelbaum et al 2013; Cushen 2013). Still, it is unfortunately more common to find sweeping references and generalisations of financialization similar to treatments of neoliberalism, globalization and IT-innovations (Ezzamel et al 2008).

---

²This research is part of a project on contractualised organisations, sponsored by the Swedish Public grant supplier Forte.
This can to some extent be attributed to the broad definition of financialization itself and the alternative explanations offered concerning its growth (Dore 2008; Erturk et al 2008).

Epstein (2005), for instance, defines financialization as ‘the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies’, thus involving both actors, arenas, rules and ideas (compare Krippner 2005). Martin (2002) complements by pointing out that financialization also entails a shift in our self-identity with financial investments increasingly becoming a life-strategy (cf. Belfrage 2008), thus suggesting a psychological-ideological governmentality angle.

Explanations why we are witnessing financialization include the crisis of the fordist production regime, the end of the Bretton Woods agreement, neoliberal policies, globalization of capital, the deregulation of financial markets, the changing background of managers, the falling rate of profits, IT-innovations and the development of ‘financial innovations’ such as derivatives (e.g. Boyer 2000; LiPuma & Lee 2006; Wigan 2009; Bryan & Rafferty 2006; MacKenzie 2007; MacKenzie & Millo 2003; Stiglitz 2010; Widmer 2011). Regardless of explanations offered, there are ample empirical evidence to support the existence of financialization in terms of ‘hard facts’ e.g. the growth and changing nature of financial markets and volumes of capital and trading, (e.g. Dembinski 2009; Dore 2005; Krippner 2005; Stockhammer 2008).

While we agree that financilization is vital, occurring and actually having important consequences, we however argue in line with Engelen (2008) and Haslam (2010) that the concept of financialization has taken on a multitude of partially competing meanings and runs the risk of conceptual expansion and dilution to the extent that it becomes devoid of explanatory power. Financialization has complex and at times paradoxical outcomes (Froud et al 2006) and not every aspect of it is likely to have direct effects on work and employment. It is further important to keep in mind that there are other processes occurring with effects on work – some of which hypothetically runs counter to financialization.

The last few decades hardly lack concepts that initially denote important phenomena and changes but which after having become fashionable are used as far from well-founded catch-phrases, a shorthand to describe, prescribe and predict other changes or just to denote that which is left unexplained: neoliberalism, globalization, individualization, IT-innovations, to name a few. While references to financialization as a general process in certain instances might be a convenient shorthand, it is in line with critical realism (Sayer 2000) necessary to detect the causal powers of financialization’s parts and the mechanisms through which it affects work, organization and
management. What is it that gives financialization the ability to have an effect on firms and workers and how does that manifest itself – when it does? Simply stating that financialization in general (however defined) is the reason why e.g. industrial workers in a specific plant in Northern Sweden are faced with increased employment insecurity is, at best, an incomplete explanation and might even prevent detecting actual causes.

To fully comprehend the impact of financialization, a fruitful strategy is to unpack its inherent aspects and develop partial but interrelated explanations. By doing so, it becomes evident that why e.g. privatization of pension funds (Belfrage 2008; Naczyk 2013) and growth of private equity firms (Appelbaum et al 2013) occurs, the mechanisms and logics of their workings and the consequences for the labour process can be quite different.

Following the above, the purpose of this paper is to critically discuss the relations between one important aspect of financialization – the increased use of ‘financial innovations’, specifically financial derivatives – and changes in work towards increased work intensification and employment insecurity. While numerous links are possible, examining this particular one is not chosen arbitrarily. First, derivatives are repeatedly singled out as a key factor in explaining the rapid growth of the financial sector, altering the ways of extracting profits and in changing the very meaning of money and capital (Bryan & Rafferty 2006; LiPuma & Lee 2006; Miller 1986; Wigan 2009). Second, work intensification and employment insecurity are commonly referred to inter-related characteristics of contemporary working life (Movitz 2013) signifying the breakup of the invisible contract and bargain between employers and employees (Thompson 2003). Employees are continuously expected to supply more labour input, but to a decreasing extent can expect this input to contribute to their employment security.

Third, there are suggestions of links between financial derivatives and work. With the exceptions of Bryan & Rafferty (2006), who relate derivatives to wages, there are few explicit claims of a direct link between the use of financial derivatives and practical changes in the labour process, so we are admittedly to some extent making a strawman argument. However, one does find examples where derivatives and practical work changes are discussed in proximity under the more general umbrella of financialization and its consequences, more or less implicitly creating a perception of ‘causation by association’. Alvehus & Spicer (2012: 497-8), for instance, in a piece

---

3 This is itself of course a shorthand. It would be a rather extreme reification to claim that a number of alternative but interconnected macro-level processes which have been labeled financialization can act. Still, the phenomena and processes that the term financialization refer to have different consequences and it is thus real in the sense of having causal powers.
on auditing firms, make a quick leap from speculative financial instruments to workplace control.\(^4\)

As argued below, an understanding of what derivatives really are and how derivative trade works in practice however show that a direct link to workplace changes are far from obvious. Still, it might indirectly contribute to work intensification and increased employment insecurity, making it relevant to investigate.

**Data & Methods**

Even though the paper is largely theoretical and argumentative in its presentation, the arguments are based on interviews with relevant informants that have practical experience of derivatives trading (in Sweden), as well as publicly available records and documents. The records and documents originate from major market facilitators (banks and market actors), the Swedish national bank, the Swedish Financial Supervisory Authority (Finansinspektionen). Examples of documents include public offerings made by investment banks to invest in derivatives, market facilitators explanations of how derivatives work intended for the public and reports on risks associated with derivatives trading published by government regulatory bodies [more detailed info on interviews+quotes to be developed and inserted in text].

**Derivatives: Meaning and Practice**

Financial derivatives are contracts between partners that derive their value from an underlying actual or constructed asset (e.g. a single share, a stock-market index, a currency, raw goods, interest rates, loans, or even another derivative).\(^5\) Typically, the contract gives the buyer the right – but not the obligation – to purchase (‘call’) or sell (‘put’) a specified amount of the underlying asset at a predetermined price and future date from the actor issuing the derivative. In plain words, this can take the form of ‘I agree to purchase 10,000 shares in AstraZeneca from you at the price of 350 Swedish Krona a share six months from now’.

The history of derivatives trading dates back thousands of years (Dodd 2005; Engel 2013), particularly in relation to crops and livestock, but the origins of modern-day derivatives markets can be quite precisely pinpointed to Chicago in the 1970s (Miller 1986; MacKenzie & Millo 2003). These later developments can largely be attributed to new economic theories and models in risk management (the Black-Scholes-Merton models), as well as deregulations of financial

---

\(^4\) Alvehus & Spicer’s article is an interesting analysis of workplace control that, among other things, undermine the all too common tendency to assume that knowledge intensive jobs are dominated by soft forms of control. We are not critical of the article itself, it is merely included as an example of how links between financial innovations and work changes are suggested.

\(^5\) Derivatives are here used to also include futures, forwards, options and swaps. While important differences exist between these variants, they are not central to the argument made here.
markets (REF). The rationale behind the development of the models was to find a way to mathematically determine and price risk based on historical information about the fluctuations of the underlying assets, hence turning uncertainty into risk (Knight 1971). While the models are based on certain questionable assumptions (Wigan 2009), they have become widely accepted, developed and used to the extent that they partially shape overall market prices (MacKenzie & Millo 2003; McKenzie 2012; Smith 2011). As pointed out by e.g. Abolafia (1996), MacKenzie (2007) and McKenzie & Millo (2003), the markets were deliberately constructed rather than spontaneously appearing (compare Aspers 2011), largely in order to increase trading and speculation for profits, not risk management.6

The actual trading of derivatives either takes place ‘over the counter’ (OTC-trading) directly between the trading partners, or on dedicated exchanges similar to stock-markets – with OTC-trading standing for the largest proportion (Dodd 2005; BIS 2013). In OTC-trading, buyers often take the initiative and ask for a specific derivative to hedge for currency changes, for instance. In exchange market based trading, issuers such as commercial and investment banks make public offers of derivatives contracts based on e.g. underlying shares (see e.g. Carnegie 2013). Like shares, derivatives traded on exchanges can be resold several times on secondary markets before the contract expires (Chen 1997).

Important to understand for the purposes of this paper is that neither the buyer nor the seller of a derivative usually need to own the underlying asset (e.g. a particular share) when the contract is written, and often not even when it is completed (so-called ‘naked’ trading). When the contract is written, the purchaser pays a sum which is a fraction of the (potential) value of the contract at completion, but usually also need to supply information on sufficient collateral to meet possible future obligations (see contract by Nasdaq OMX 2013). In some cases (such as interest rate swaps), purchasers of derivatives might also be obliged to supply additional funds during the duration of the contract to balance outstanding net differences (margin calls) (Chen 1997, p. 164). At the expiration date of the contract, a clearinghouse (which also can be the issuer) settles the financial scores, meaning that capital is transferred from the ‘losers’ account to the ‘winner’ –

---

6 There is limited consensus on this (cf. Engel 2013). Proponents of risk management argue that derivatives constitute a financial innovation that correctly prices risk and therefore solves central problems for economic actors, ultimately increasing the effectiveness and rationality of the economy in general (ref). In reading the accounts of the construction and early days of the modern derivatives markets in Chicago, it is however clear that the initiative largely came from representatives of the exchange itself who experienced decreased trading in other financial instruments and increased competition from other markets, notably the NYSE. The perceived needs and interests from the market actors was very low in the beginning, to put it mildly, and there was a need to actively encourage traders to participate using e.g. personal contacts and favours (Mackenzie & Millo 2003).
often without any underlying assets actually changing ownership (shares usually being an exception).

According to mainstream economic theory, there are two main functions of derivatives: risk management and speculation, although the dichotomy is historically contingent and somewhat arbitrary in practice (Engel 2013). First, an actor dependent on the future value of an underlying asset can attempt to reduce (hedge) risks by purchasing a derivative based on the same asset. A Swedish export-oriented steel company who write contracts for future deliveries in a foreign currency such as US Dollars, for instance, can hedge against the risk of an increase in the value of the Swedish Krona since such a change will reduce their profits (and potentially even turn them into losses).

The second function is pure speculation, whereby an actor places a financial bet on the future value of an underlying asset. An actor might for instance speculate that the value of the Swedish Krona will go down compared to the US Dollar, or that the share-price of a particular company (or a whole industrial sector) will be lower in six months compared to now. These latter examples point to important conditions of derivatives trading: as compared to directly owning a share or other asset, it is possible to make huge profits also on lowered share-prices and volatility (price movements) is central.

While mainstream economists and traders themselves generally emphasize the risk management function, which is perceived as more legitimate (Engel 2013), there are also claims that pure speculation serves an important function since it contributes to risk distribution and to correct prices relative to ‘fundamentals’ (Bryan & Rafferty 2006).

Central here, Bryan & Rafferty (2006, p. 274) argue that derivatives, or rather the system of derivatives, also have the functions of binding and blending: tying spaces and times to each other and facilitating comparisons and (floating) pricing relationships between different forms of assets [new ref]. Traditionally, money has usually been viewed as the universal means of valuing and transacting different assets (Simmel 1900/1978). But money is a signifier of value, not a system for determining correct prices (French ref). Such a system is what derivatives based on risk management models at least theoretically offer, using risk as the basic unit of analysis. In the practical work of single traders, the values suggested by the mathematical models are however not the only thing that matters (Smith 2011). Still, derivatives prices on actual markets do to some

---

7 A third function pointed out by one of our state pension fund interviewees is speed. They might want to rapidly increase holdings in a share, but find it hard to find sufficient sellers on short notice given the amounts they purchase for. Purchasing derivatives is thereby a transfer of responsibility to find sellers to the issuer of the derivatives (usually a local investment bank or trader).
extent adjust to pricing models over time (MacKenzie 2012). The economic models that originally were developed to ‘efficiently’ price risk have therefore, through the system of derivatives trading, evolved into a universal albeit fallible system for pricing and comparing all assets. In the process of pricing, values and the assets they are assigned to are effectively transformed into (supposedly) calculable risks, meaning that the valuation is based on particular logics and perspectives.

There is little doubt that actors in all parts of society – investors, entrepreneurs, rulers and warlords et cetera – throughout history has thought in terms of the chances of a favourable outcome of decisions, the rewards connected to success and the cost of failure. That is the very essence of decision-making. As argued by March & Simon (1967) and Kahneman (2011), our abilities of making rational evaluations and decisions are however limited. But the economic models of risk management promise to overcome this by offering calculated precise risks (Knights 1971).

Unlike money, derivatives are further not passive reflections, but active drivers, of underlying asset values due to binding over time (Bryan & Rafferty 2006gold, p. 275). According to basic assumptions in earlier risk management models, derivatives should not effect the price of the underlying asset, quite the opposite: the prices of derivatives are supposed to be based on assumptions of future prices of the underlying value as predicted by prior price fluctuations. In practice, however, information that the majority of traders (the ‘market’) for instance predict that the price of a particular share will go down - which will be reflected in derivatives prices (MacKenzie 2012) – might cause the price of the share itself to go down. Later proponents of risk management models have put forth the argument that this is beneficial rather than a problem since prices thereby adjust to fundamentals. But such changes can happen even if traders and business analysts believe that there is no real substance for a lowered price with respect to fundamentals: others behave as if the price will go down, which makes it into a risky asset.

From the above perspective then, derivatives and the underlying economic models have the partial performativity (Callon 1998; Svetlova 2012) or causal powers to redefine the meaning of capital, money, assets, R&D investments, production and work processes and even labour itself.

---

8 Derivatives pricing models are not alone in this. There are several systems for determining the ‘correct’ price and value of assets which are not directly based on supply and demand, including Marx’ notion of use value (Beckert & Aspers 2011). Such models are the basis for talking about discrepancies between actual prices of e.g. shares and ‘fundamentals’ such as p/e numbers – especially during bubbles (Stiglitz 1990; Augustsson 2005). With a few exceptions, most of them however tend to be limited to particular types of assets.

9 Similar effects but on a much larger scale were at play during the Swedish economic crisis with heavy speculation against the Swedish Krona (Dennis 1998; Augustsson 2005, pp 62-3).
in terms of risk (see also Bryan & Rafferty 2006; Wigan 2009). Such arguments have contributed to the longstanding debate on the meaning of money (Bryan & Rafferty 2007; Dodd 2005; Ingham 2001; 2006; Lapavitsas 2005; Zelizer 2005). The specifics of the debate are beyond the scope of this article, but they do point to derivatives’ role in facilitating comparisons of value and the increased attention to risk as a calculable central parameter in valuation.

**Effects on Work Intensification and Employment Security**

The fact that the derivatives prices are calculated using abstract mathematical risk management models, are separated from owning underlying assets and to a significant extent are used for pure speculation rather than hedging own risks have contributed to more general discussions of a disconnection between a ‘real’ economy (of jobs, production, etc.) and an ‘artificial’ financial economy of speculation, rentiers and the like (ref). If such a separation is accurate (which we question below), it begs the question why and how ‘artificial’ derivatives trading, one aspect of financialization, effects ‘real’ work in terms of intensification and employment security.

Recent research has shown the increased role of shareholder value at the expense of other stakeholders’ interests and how this contributes to work intensification and decreased employment security (Thompson 2003, Appelbaum et al 2013). But owners of derivatives based on a certain share have no formal authority to exert ownership pressures since they technically are not owners of the particular company (unless they also own shares directly). Neither are derivatives traders unanimously interested in increased share valuations or larger dividends (owning a derivative usually does not give rights to dividends). Put simply, for every trader that has speculated in increased valuation of a stock, there is a counterparty in the contract who has put a calculated bet on the opposite development. Major owners of a company that by traders on the derivatives markets is expected to experience lowered share valuations can of course put pressures on the CEO and investor relations managers to take actions that regain the markets’ confidence in the company and thus the share. Still, the assumption that derivatives traders directly contribute to work intensification and insecure employments as a means to increase profits, stock-market valuation or dividends cannot credibly hold true, at least not from a legal/formal perspective of rights to authority and corporate control.

---

10 With reference to credit rating agencies, Ourdoussoff (2010) describes similar shifts in the valuation of companies’ credit worthiness towards calculable *ex ante* risk exposure and how these external views clash with CEOs’ and other insiders’ perspectives on the running of companies.

11 A purchaser of a derivative concerning the share value of a specific firm might of course also at the same time be an owner of shares in the same company. The shares might be leveraged, creating an incentive to hedge against a future decrease in share prices when the shares must be sold. But the influence that the actor has over the firm is in the capacity of a shareholder, not as an owner of a derivative of the share.
If the above reasoning concerning a separation between a speculative and real economy is accepted, derivatives are unlikely to have an effect on work. Our argument is however that such a separation is largely fictional. The recent financial crisis is ample proof that the actions within the financial sector can have important consequences for non-financial firms and jobs. Derivatives do influence work intensification and employment security, although indirectly and in ways originally not fully anticipated by derivatives and risk management proponents. In order to show this, it is necessary to transcend the boundaries of companies being affected and examine the financial sector where derivatives originate and are traded (cf. Edwards et al 2014).

The Swedish Financial Sector; A Very Brief Overview

From an international perspective, the Swedish financial sector is proportionally large (Sveriges Riksbank 2013). In terms of capital and turnover, the sector is dominated by four fullservice banks (Nordea, SHB, SEB and Swedbank), around ten major insurance companies (with Alecta, Skandia and AMF being the largest), a couple of major investment companies (notably Investor, Industrivärlden and Kinnevik), state pension funds (the AP-funds) and private equity companies. Apart from these, there are a series of smaller and often specialized actors.

Sweden has further for a long time had a comparatively large proportion of large multinational export-oriented non-financial companies (e.g. Volvo, SKF, Ericsson, ABB, H&M, Ikea and Skanska), which together with historically relatively low levels of wealth inequality has consequences for patterns of ownership and corporate control. Put simply, there are very few ‘super-rich’ individuals able to dominate firms, resulting in a substantial cross-ownership and a high and growing proportion of institutional ownership. With respect to companies on the Swedish stock exchange, the major ownership groups are foreign – mainly institutional – owners (accounting for 40 per cent of ownership of publicly traded shares), who often trade through Swedish banks and fund managers, Swedish financial actors including e.g. insurance companies (owning 28 per cent), Swedish non-financial companies (12 per cent) and to a decreasing extent households with 11 per cent (Riksbanken 2013, p. 53).

All major Swedish fullservice banks deal in loans and savings, funds, insurances, securities and finance (for instance M&A and IPOs), also having treasury and markets divisions (or equivalent) that invest the banks’ own as well as customers’ money in shares, currencies, company and state bonds, derivatives, et cetera (Riksbanken 2013, p. 63). To this, there are as mentioned a number of more specialized and often smaller financial actors investing in diverse assets: investment banks, private equity and venture capital firms, and so on. Some of these actors, notably state and
private pension funds, have restrictions on the types of investments to make (e.g. only low-risk state bonds or shares), but the majority invest in more than one type of asset. Taken together, the Swedish financial system is thus heavily dominated by a mix of domestic and foreign institutional actors and financial firms with overlapping areas of business through which the majority of capital and investments are channeled.

The institutional financial actors such as pension funds are, at least in theory, facing competitive pressure and demands from customers to maximize returns. If customers notice that they can get a better return on their investments from another supplier, it increases the likelihood that they will switch (Miller 1995, p. 154). In practice, Swedish citizens have however proved to be highly inactive due to tradition, financial illiteracy, lock-in effects et cetera (cf. Belfrage 2008). A large proportion of customers almost never change bank, pension funds or negotiate interest rates on house loans. Still, institutional actors – and especially private ones – do have an interest in maximizing returns since revenues are largely proportional: the higher the return, the more going to the intermediant in terms of fees and interest. State pension funds have similar explicit expectations of levels of returns placed upon them by the state (Sjunde AP-fonden 2012), creating similar pressures (Severinson & Stewart 2012). In e.g. investment banks, there are furthermore internal pressures on single traders as the top minority of managers and partners receives a larger proportion of gains and promotion and bonuses largely are based on money made for the firm (ref).

*The Role of Derivatives for investors*

Institutional actors thus have clear incentives to search for the highest level of return within given boundaries, no matter the type of investment. The economic models underlying derivatives and risk management in general offers a means of more easily calculating levels of risk of all traded assets while at the same time disconnecting the assets from their essential characteristics. This way, all investments and assets are effectively rewritten in the specific (and utopian) quantitative language of calculable risk, rather than e.g. use-value. The constructed common language of valuation at least seemingly creates a logic that thereby increase the possibilities of comparing all sources of investment (blending) and the daily practice of derivatives trading offers real-time information on price/risk developments that connect the present with the future (binding).

Put simply, this has made it easier for financial companies seeking to maximize returns to compare a wider range of possible investment opportunities before choosing where to invest. They can not only switch between different shares, but also between different types of assets and
possible investments: raw materials, real estate, funds, bonds, shares, interest rates, currency, derivatives, *et cetera*. In practice, individual traders and analysts in e.g. banks of course generally focus on a smaller number of markets and sectors due to specialization, demands for knowledge and contacts (Hardie & MacKenzie 2007). But the board and senior managers within banks continuously evaluate the overall placement of the investments, giving directives to departments and traders on desired exposures to alternative markets and types of assets. The fact that many Swedish banks regularly alter the relative size and budget of their different divisions and exposures is an evidence of this.\(^{12}\)

Given the potential high returns and speed of trading of derivatives and other structured leveraged investments, it is far from certain that direct ownership of shares will seem the most attractive option when choices are made by institutional investors – unless investors have the financial muscles to take a dominant position or complete a total takeover or buyout, which brings with it other means of extracting short term gains through refinancing, restructuring *et cetera* (e.g. Appelbaum et al 2013).

Institutional and other owners have of course always had an interest in increasing gains, but derivatives and other financial innovations contribute to, firstly, raise the bar for what is considered acceptable returns given risk levels. The major Swedish banks, for instance, currently have explicit demands on them from owners of up to 15 per cent annual return on capital, despite inflation and interest rates being around two per cent (Lindvall 2012). This creates demands to find alternative sources of income like derivatives trading when incomes from loans, bonds, *et cetera* are insufficient. Secondly, derivatives contribute to *legitimizing* taking higher financials risk among investors by creating the perception of calculability – while at the same time decreasing the acceptance for uncertainties among partially owned non-financial firms.\(^{13}\)

Third, derivatives trading contribute to more financialized perspectives on investments, including companies, as financial objects. From the perspective of investors, the predominant questions do not necessarily concern relative market share, product portfolio, promising R&D developments, effective management and organization, streamlined production processes, personnel skill-levels, *et cetera*. The simple question is rather whether a particular company share (often in the short run) outperforms alternative investment opportunities relative to risk be they, for instance, currency

---

\(^{12}\) In relation to the most recent financial crisis, the most apparent example is the flight from American subprime loans and credit default swaps to more secure investments.

\(^{13}\) The public legitimacy of financial risk-taking has no doubt taken a hit after the latest financial crisis and financial actors have to some extent reconsidered their risk-exposure (which paradoxically further increases focus on risk management), but this mostly looks to be a temporary dent in the long-term development.
derivatives, state bonds, coffee options, private equity fund shares, real estate or subprime credit default swaps.\textsuperscript{14}

Rather than being viewed as an integrated production unit or stable work organization, companies are thus from the perspective of financial investors and in line with research on corporate finance increasingly perceived as temporal and internally loosely coupled bundles of investment opportunities with the sole purpose of maximizing shareholder value (Froud et al 2000). Any inherent part (even if profitable) that does not add sufficient economic value, weights down the valuation of the investment bundle as a whole or significantly adds to the risk valuation (e.g. in the eyes of credit rating agencies) are to be sold off or shut down. Viewed from a longer historical perspective, this is to some extent a return to earlier understandings of companies (enterprises) as temporal legal entities and endeavours where risks and profits were shared between investing shareholders before dismantling operations (Cameron 1993).

In line with classic labour process theory, alternative forms of control and work intensification are then merely managerial means to maximizing shareholder value by extracting surplus value from labour (Thompson & McHugh 2009). Maximizing shareholder value is however not confined to extracting capital in terms of profits and ownership dividends, but also in terms of sustaining the perception of being an attractive investment opportunity that can be sold at a higher price in the future – which is not necessarily the same thing.

\textit{Effects for Companies and CEOs}

In order for companies and CEOs to attract the interest of financial actors and thereby increase demand for their shares, they do not only have to prove that they are delivering shareholder value and satisfactory returns on capital compared to other firms on the stock-market. In the face of especially institutional investors, companies and CEOs are at least theoretically to a growing extent competing with all alternative sources of investment.\textsuperscript{15} Companies are of course still competing against each other over customers on ‘real’ markets in order to secure sufficient revenues to avoid bankruptcy and preferable make a profit. If anything, such demands have increased in terms of shareholders’ heightened demands for annual levels of return on capital. But as part of the process of financialization, companies are increasingly also competing for investors in the sense of being possible investment opportunities on global financial markets. The competition itself is at least as old as stock-markets since investors sell shares in companies they

\textsuperscript{14}This can pose particular problems to CEOs during bubbles when capital moves into a particular sector like under the IT-bubble (Augustsson 2006) or into housing credits during housing booms (Stiglitz 2010).

\textsuperscript{15}A counteracting force is the growing amount of international institutional capital in pension funds that has to be invested in shares, contributing to pushing up share prices.
perceive to have less favourable developments and reinvest them in other companies. With the growth and increased influence of financial actors, their interests and thus financial markets are given even increased weight. What the system of derivatives trading and the underlying economic models add is a more refined, shared and public way of comparing practically all possible investment opportunities in real-time on a global scale.

The developments contribute to increase pressures on CEOs to deliver ever-higher returns on investments in terms of profits, share valuation and dividends irrespectable of whether derivatives are traded in their specific company or not. CEOs need not closely monitor the derivatives market in general or those connected to their own operations. Given the high proportion of OTC-derivatives, it would be hard for them to do so (BIS 2013). There in fact need not be any derivatives trading connected to their specific operations. The very existence of derivatives as a calculable and competing ‘high-return option’ is sufficient to increase expectations and demands towards higher ROI, stockmarket valuation, a focus on shareholder value and a view of companies as bundles of assets. [put in data from investor relations officers]

Inspired by agency theory and debates about corporate control (Jensen & Meckling), there are incentives and sanctions in place that increase the likelihood that CEOs and other top managers actually adhere to demands to live up to a focus on shareholder value and increased returns. Despite recurrent public criticism, there has first been a stedy increase in the use of bonuses and other economic incentives tied to share valuation and profits among Swedish CEOs and top managers, while similar programs directed to other employees continue to be uncommon (KPMG 2013).

Second, CEOs that are not perceived to pay sufficient attention to shareholder interests run the risk of being replaced, especially by ‘impatient’ institutional owners. Third, companies that are perceived as undervalued with respect to fundamentals, overcapitalized or too diversified are under potential threat of hostile takeovers or buyouts by competitors or private equity firms (Widmer 2011), often resulting in demotion or replacement of the CEO and other top managers. While the latter scenarios are quite uncommon in Sweden, they do exist as a consistent potential threat perceived by CEOs. The pressure further need not be direct ‘voice’ from current shareholders, credit rating agencies and the media, but also silent exit or non-entry strategies of investors (Hirschman 1970).
As CEOs face increased pressure to make their companies more attractive as investment opportunities, they turn to the means at their disposal. The crucial point here are actions that are sending the right signals to the financial investors’ market (cf. Powell & DiMaggio 1991).

Reflecting on the writings of Weber (1978, chapter 2), Chandler (1990), Porter (1985), Appelbaum et al (2000), DiMaggio (2001), Roberts (2004) and others, it is clear that not only companies themselves have changed over time, but so has the investors’ perceptions of what constitutes successful companies and preferable strategies (cf. Lazonick & O’Sullivan 2000).

The days when CEOs boasted about the many plants they had, the vast number of workers they employed and the numerous different markets the company was active in are largely gone – at least in the West and in relation to financial markets (compare Fligstein 1991). In the eyes of financial markets, and as can be seen from changes in share-prices, companies that restructure, downsize and increase labour input through strategies in line with lean management are viewed as more attractive. Despite talks of a knowledge society, the importance of innovations and competitive advantage, investors and credit ranking agencies further often look unfavourable on uncertain R&D investments and there are increasing pressures to rationalize and control creative development work and calculate expected returns of uncertain projects (Thompson & Harley 2013+more).

From this perspective, work intensification is not only a response to pressures from competing companies to rationalize production processes, cut prices and increase ‘real’ market share, but a means to satisfy investors by sending the right signals affecting share prices and to sustain or even increase profits despite falling market prices and a decreased workforce following downsizing. As companies increasingly become viewed as bundles of investment projects comparable to alternative investments, each individual part of the company and those working there are expected to deliver comparable returns on capital as alternative investments, contributing to work intensification. Since operations deemed not profitable enough are restructured, shut down or sold off, this in itself also increases employment insecurity.

Companies have always been dependent on labour power to extract value and make profits, which constitutes a continuous source of conflict and uncertainty. Influenced by the risk management models underlying derivatives trading, as well as new HR and accountancy practices, there is a strengthening of the perspective of employees as calculable risks that can be estimated and priced similar to any other assets (REF). CEOs and management are thereby under pressure
to determine, control and limit the potential risks that workers constitute for owners. One way of doing this is to decrease employment security in terms of substituting permanent employment with other more insecure contracts, thereby reducing current and future liabilities, claims and obligations (e.g. pensions, sick-pay and training). In this sense, to decrease employment security is pure risk management altering employer-employee relations from the mutual trust traditionally characterizing invisible contracts to relations of risk.

**Discussion and Conclusion**

The argument made in this paper is that it is hard to establish a direct link between financial derivatives, work intensification and increased employment insecurity. One can however trace indirect effects. In short, the chain of reasoning is that the underlying economic models and the practical system of derivatives trading offers a fallible, but increasingly accepted, system of at least theoretically comparing current and future values of all assets, including constructed ones. The comparisons are made possible by transforming all assets – including firms and labour – into calculable risks to investment. With the aid of IT-solutions and regulated market places, this in turn makes it possible for the growing proportion of institutional financial actors such as pension fund managers, who themselves are under pressure from investors and further have personal economic motives through incentives, to compare investment opportunities in real time on a global scale. Given that financial innovations such as derivatives have proven to be highly lucrative (although high-risk) opportunities demanding small capital investments and have contributed to rapid growths in turnover and profits in the financial sector, they make direct investments in production less attractive to many investors.

The result for CEOs are increasing pressures to portray their companies as attractive investment objects relative to risk not just in relation to other shares (Williams 2000), but potentially all other forms of financial investment. This translates into increased expectations of return on capital and steadily increasing share valuations.

The responses from management increasingly seems to be work intensification and decreased employment security rather than long-term investments (cf. Lazonick & O'Sullivan 2000), which are deemed more risky and less calculable by outsiders (Ouroussoff 2010; Gleadle et al 2012). The process is strengthened by the performative features of the derivatives logic. First, labour is directly compared to alternative sources of investment and expected to yield comparable returns, which contributes to work intensification (Cushen 2013). Second, labour is at the same time treated as a (calculable) risk, encouraging management to limit and control its potential damaging
effects to shareholders. From this perspective, the increased use of staffing agencies *et cetera* is not about transaction costs (Williamson XX) or attempts to reach flexibility (Atkinson XX) *per se*, but a kind of securitization of labour comparable to for instance mortgage bonds: companies are dependent on the output of labour power, but not willing or able to accept the risks of having obligations to actual employees (Thompson 2003). Third, from the investors’ views of companies as bundles of investment opportunities, workers are in some cases perceived as substitutable for other – often financial – sources of revenue.

While there is no direct link between derivatives trading itself and the situation for workers, it is thus possible to argue that they have an indirect effect by making direct ownership through shares and the disconnected derivatives ownership into competing investment alternatives with the system of derivatives risk-based valuation of assets taking precedent. Obviously, the actual processes are not as mechanic or deterministic as this summary of the argument might entail (cf. Lazonick & O’ Sullivan 2000). Complete shareholder value or commitment to risk management is an utopian project (Froud et al 2006) or ideal type that even managers lured by excessive monetary incentives – and even more so other employees and union representatives – to some extent can and do resist (Ouroussoff 2010; Widmer 2013; Cushen 2013). The ‘disciplinary powers of the market’ in terms of e.g. decreased valuation are further not as harch as sometimes assumed (ref). Such assumptions not only overestimate the knowledge and rationality of market actors, but reifies the market as a single actor with coherent and ‘single’ goals. In reality, markets – or rather the broader economy – is made up of a multitude of actors with alternative interests, hopes and plans.

Still, it is reasonable to talks in terms of *causal tendencies* whereby derivatives *contribute* to change: professional institutional investors *have* become more important; they increasingly *do* invest in other opportunities than shares; demands on shareholder value *have* gone up despite falling rate of profits; investments *are* increasingly moving into finance; despite criticism, there *are* continuous pleas for incentives directed to top management incentives linked to share prices (KPMG 201x); and layoffs, insecure employments and work intensification *are* visibly increasing.

Economic risk models and derivatives themselves are of course not the only and probably not the most important cause of work intensification and increased employment insecurity. Neither is work intensification and increased employment insecurity the only means by which management attempts to increase shareholder value. Having said that, we contend that derivatives strengthen tendencies of financialisation and through binding and blending contribute to reshaping
companies with consequences for labour that cannot be fully attributed to current owners, something not fully shown before.

Although derivatives work in very indirect ways by changing investors’ views of what constitutes reasonable rates of return and altering principles of valuation, such effects are not trivial or unprecedented. Rationalization in industrial production through technical innovations, for instance, puts pressures on the direct services and the public sector to increase efficiency even when the same technical developments are of little or no value. With reference to critical realism and identifying causal mechanisms, the major ones pointed out here are based on competition between investment opportunities and the financial innovations’ contribution to making alternatives comparable to investors by redefining the basis for valuation.

In the paper, we have in a sense gone full circle from arguing for the necessity of disentangling different aspects of financialization to showing that an understanding of the indirect effects of derivatives on work and organization demands paying attention to financialization in general. While this might seem cumbersome, we argue that it is necessary to reveal some of the causal mechanisms through which financialization operates and make a difference.

The argument further highlights a series of assumptions and preconditions which are likely to differ depending on context (compare Widmar 2011) and are subject to further empirical studies. Prerequisites for the growth of derivatives trading for instance include globalization of capital, innovations in IT-based trading systems and the limits are set by financial regulations. Pressures for work intensification and increased unemployment insecurity are further unlikely to materialize despite alternative investment opportunities in situations of no or very low unemployment and strong unions.
References


Clark et al.


Williamson OE.