

# **Labor and Finance\***

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## **Abstract**

This paper overviews the growing literature on the effects of finance on labor. At their best, financial markets allocate resources efficiently, expanding output, investment and employment but also forcing inefficient firms to shut down or restructure. This second effect creates employment risk and costly reallocations. At firm level, this risk is mitigated by long-term employment relationships based on explicit and implicit contracts; at the macroeconomic level, it is contained via regulations and social norms. These are beneficial insofar as they improve risk sharing and encourage investment in firm-specific human capital, but may also allow managers and workers to entrench themselves and extract rents at the expenses of investors. Regulation, technological change and international trade openness affect the balance between the bright and the dark side of employment relationships.

**Keywords:** labor, corporate finance, manager, trade union, ESOP, alliance, employment protection laws, investor protection laws.

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## 1. Introduction

A few years ago, the typical financial economist would have recoiled at the idea that finance may have something to do with labor relations or trade unions, and the typical labor economist would have dismissed as bizarre that shareholder protection or corporate governance might be relevant for labor economics. This is not just due to lack of imagination or intellectual laziness: dividing research between disciplines and sub-disciplines often enhances progress by allowing researchers to restrict our attention on certain social or economic phenomena. But in doing so, for analytical convenience we may overlook some interesting aspects of social and economic life, simply because they happen to fall “in between” fields and cannot be understood or even noticed unless one is able to bridge them. This is the case with labor and finance, whose boundaries are drawn so that the two fields appear remote from each other. Indeed they are not, by the very nature of the object of their inquiry: firms need financiers and managers as well as workers, and it would be surprising if the relationships between any two of these parties were not to affect the third one as well, and in turn be affected by its behavior.

This statement, which may appear trivial to most managers and trade-unionists, unfortunately is not equally self-evident to economists. But in recent years a number of research contributions have started to show that interesting insights can be gleaned by crossing the boundary between labor and corporate finance. This paper attempts to take stock of at least some of these early contributions, by illustrating some of the insights that contaminating these two areas can offer, rather than aiming at completeness.

The paper starts from the simple remark that, when they operate at their best, financial markets tend to allocate resources efficiently, with two effects: expanding aggregate output, investment and employment, but also forcing inefficient firms to shut down or restructure. As noted in Section 2, the first effect is favorable to labor, the second is not, insofar as it produces layoffs, and thereby creates employment risk and costly reallocations.

This leads to a second observation: that at the company level, norms and patterns of behavior may develop that mitigate this risk and protect stable employment relationships. These may be enshrined in contracts or simply be implicit mutual obligations, for instance based on trust. These firm-level arrangements are beneficial insofar as they favors risk sharing and raise work incentives, but may also have drawbacks, especially when employee-manager relationships develop at the expense of third parties – shareholders or possibly consumers or taxpayers. For instance, they may allow managers to entrench themselves and extract large private benefits of control, while granting abnormally high wages to their employees. The recent literature has provided a number of theoretical and empirical contributions on this point, which are described in Section 3.

The occurrence of these employment relationships and their specific form are arguably affected by the overall “rules of the game” set out in laws and regulations and enforced to various extents by courts and public officials. If so, it is interesting to identify the legal settings that induce the bright or rather the dark side of employment relationships to prevail. But, as highlighted by the literature on the political economy of regulation, the legal setting cannot be considered as entirely exogenous: it also depends on the voting behavior of workers, managers and shareholders, so that there is a mutual feedback between economic firm-level arrangements and aggregate political and legal outcomes, as explained in Section 4.

Finally, economy-wide circumstances such as the rate of technological change, the degree of international trade openness and product market competition also affect the relationship between finance and labor. For instance, as discussed in Section 5, at times of rapid technical change the

gains from financial market discipline may exceed those from stable employment relationships, so that firm-level arrangements promoting the latter may break down, and even regulation may start evolving endogenously so as to favor capital market pressure on firms. The opposite may occur at times when the technology is mature and stable.

Section 6 concludes by looking at the many issues that are still left open for future research in this fascinating area.

## **2. Finance and Labor: A Two-Edged Relationship**

By allocating capital efficiently, financial markets have a two-edged effect on labor. On the one hand, they boost the growth of production and thereby that of employment. On the other, by reallocating resources from losing to winning sectors and firms, they reshuffle employment across industries and firms, inducing firm closures, layoffs and restructuring at the same time as they promote new ventures and entry. Therefore, finance creates employment growth but also heightens employment risk and mobility. Even though these two aspects are intimately related, in the public debate the latter is often more keenly perceived than the former.

### **2.1. Finance and Real Economic Activity**

The way in which financial markets operate affects real economic activity, and thereby the level of employment and wages. This can be seen most clearly by considering reforms that promote financial market development. These can affect the real economy at least in several ways. They may increase competition between intermediaries or enhance the protection of creditors and shareholders, encouraging them to provide more abundant and cheaper finance. As a result, the costs of intermediation fall, and the savings channeled to investment increases, enhancing the opportunities of talented and hard-working individuals to start businesses or expand existing ones. Deeper and competitive financial markets can also contribute to growth by allocating capital more efficiently. By facilitating risk sharing, a more highly developed financial sector allows investors to fund profitable but risky investment opportunities that would otherwise be forgone. Moreover, to the extent that more sophisticated intermediaries can distinguish good projects from bad, funds will go to the more profitable projects and the productivity of the economy will increase.

The thesis that finance matters for growth has been tested empirically in many studies, and it has been found that countries with better financial markets grow faster. However, this mere correlation does not establish that finance actually causes growth. To identify this causal link, researchers have used econometric techniques and identification strategies that can control for possible feedback of economic growth on financial development. The work designed to disentangle this causality issue has relied on three types of data: country-level, industry-level and firm-level.

Using country-level data, King and Levine (1993a, 1993b) relate economic growth rates to measures of lagged financial development in a cross-section of 80 countries. Their main finding is that all the indicators of economic performance are positively associated with the predetermined component of financial development, as measured by the size of financial sector at the beginning of the sample period. However, the use of predetermined variables to measure financial development can overcome endogeneity problems only in part. An omitted common variable could still drive both long-run growth and the initial level of financial development, generating a spurious correlation. To overcome this problem, researchers have sought instruments that are unquestionably exogenous. Some scholars have identified such an instrument in the type of legal system, which

were shown to be correlated with the size of a country's financial market by La Porta et al. (1998). This variable can be considered exogenous because legal systems were created centuries ago and spread mainly through occupation and colonialism. Hence Beck, Levine and Loayza (2000a) use the legal origin as instrument for financial development, and again find that the size of the financial sector has a positive and robust correlation both with the rate of growth of both per-capita GDP and total factor productivity – a result later corroborated and extended by several studies, among which Beck, Levine and Loayza (2000b) and Demirguc-Kunt and Levine (2001).

Another strand of empirical work relies on industry-level data to study the issue of causality. Financial market development should benefit industries that are highly dependent on external finance disproportionately. Based on this idea, Rajan and Zingales (1998) construct their test by first identifying each industry's need for external finance from US data, on the assumption that the US financial system is the most highly developed, and then interact this industry-level "external dependence" variable with a country-level measure of financial development. Finally, they include this interacted variable in a regression for industry-level growth, where its coefficient should capture how severely financial development constrains growth, controlling for any other country and sector characteristics. Applying this approach to industry-level data for a large sample of countries in the 1980s, Rajan and Zingales find that various measures of financial development disproportionately affect real economic growth in externally dependent industries.

Further evidence on the nexus between finance and growth is offered by work using firm-level data. Guiso, Jappelli, Padula and Pagano (2004) apply the Rajan-Zingales approach to microeconomic data for companies incorporated in the EU and in Central and Eastern Europe. Their firm-level estimates are consistent with those produced by studies based on industry-level data, and indicate that financial development benefits particularly the growth of smaller firms. Microeconomic data have also been used to investigate the effect of capital flow liberalizations: based on firm-level panel data from twelve Latin American countries, Galindo, Schiantarelli and Weiss (2007) show that liberalization has increased the share of investment going to firms with a higher marginal return to capital, thereby increasing investment allocation efficiency.

Firm-level data can also be used to detect the impact of financial development on the entry of new firms and on the expansion of successful new businesses. Aghion, Fally and Scarpetta (2007) apply the Rajan-Zingales approach to harmonized firm-level data in 16 industrialized and emerging economies and find that financial development encourages entry by small firms in the sectors that are most dependent on external finance, and also helps new firms expand. These findings are consistent with other recent studies. For European firms, Klapper, Laeven and Rajan (2006) document that financial development favors entry in the sectors that are relatively dependent on external finance. The entry of new firms also appears to be an important element at work in capital flow liberalizations: using cross-sectional data for approximately 24 million firms in nearly 100 countries for 1999 and 2004, Alfaro and Charlton (2007) show that easing restrictions on international capital flows enhances firm entry and other measures of entrepreneurship.

## **2.2. Finance, Corporate Restructuring and Employment Risk**

The evidence summarized so far may suggest a rather idyllic relationship between finance and labor: if financial development leads to greater output, and thereby to employment expansion, and greater productivity growth, hence faster wage growth, it should be perceived as labor-friendly by employees. Instead, it is often perceived as posing a threat to labor in the public policy debate: for instance, journalists, trade-unionists and political leaders often insist on the alleged adverse effects of private equity deals and takeovers on the stability of employment.

Indeed, the claim that *on average* financial development enhances output, employment and wages, is not at all at odds with the statement that an efficient financial system may increase employment risk, insofar as it promotes restructuring or forces the exit of firms with low productivity or poor market prospects. Indeed, it is precisely by weeding out these inefficiencies that finance can reallocate resources to more promising ventures and thereby raise the aggregate growth rate.

### **2.2.1 Employment Effects of Takeovers, Buy-outs and Liberalizations**

This labor-unfriendly side of finance is exemplified by the effects of corporate restructuring and asset sales that typically follow hostile takeovers or leveraged buyouts. For instance, it was apparent in the large wave of hostile takeovers and restructuring activity that occurred in the U.S. during the 1980s, when professional raiders, such as Carl Icahn, Frank Lorenzo and Victor Posner, targeted inefficient companies, especially conglomerates, to restructure them, sometimes after going through bankruptcy proceedings, and divested parts of them or liquidated their assets at a premium. For instance, in 1981 Frank Lorenzo's Texas Air launched a takeover of Continental Airlines, and in 1983 Lorenzo took it into Chapter 11 bankruptcy after extensive negotiations with labor unions proved unsuccessful. Bankruptcy allowed immediate cessation of union contracts and imposition of new labor conditions. Similarly, in 1986, Texas Air acquired Eastern Airlines, divested non-strategic assets, and after a long confrontation with the machinists, flight attendants and pilot unions, took it into bankruptcy and liquidated its assets in 1991. Similarly, Shleifer and Summers (1988) document that in Icahn's takeover of TWA, the takeover premium paid to TWA shareholders was equal to about half the present value of the wage losses to members of the TWA unions of pilots, flight attendants, and machinists. The ruthlessness of U.S. corporate raiders did not give them great popularity: suffice it to remember the popular movie *Wall Street* where a ruthless raider, Gordon Gekko (played by Michael Douglas), intends to take control of an airline in order to profit from its over-funded pension, with complete disregard to the loss of jobs or other people factors involved in the deal.

Yet, the idea that much of the gains from hostile takeovers comes from wage cuts does not stand up to more systematic scrutiny. Bhagat, Shleifer and Vishny (1990) examine layoffs for a sample of 62 hostile takeover attempts, and find that "layoffs are an important but not a dominant source of hostile takeover gains, accounting perhaps for 11 percent to 26 percent of the premium on average". Rosett (1990) examines 5,353 labor contracts signed by 1,009 companies between 1976 and 1987 to investigate whether union wage concessions following takeovers explain the share price premium paid on target firms' shares, and finds that union wage changes in the 6 years after the takeover can account for 1 to 2 percent of such premium, and for 5 percent over 18 years.<sup>1</sup> But surprisingly for hostile takeovers, Rosett's estimates imply that "unions actually gain 3% over 6 years and 10% over 18 years, of what target shareholders gain." (p. 264).

In more recent years a similar indictment has been leveled at private equity investors, who typically buy mature companies by issuing large amounts of debt, and repay them by increasing revenue or cutting costs, or both. Since cost-cutting often involves layoffs or wage cuts, some have accused these leverage buy-outs (LBOs) to be aimed at transferring wealth from employees to private equity investors. For instance, in April 2005, during the national election campaign in Germany, the

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<sup>1</sup> However, estimates of the contribution of union concessions to the takeover premium are quite sensitive to the choice of sample period and company coverage. For a sample of about 300 large publicly traded target firms in 1982-86, Becker (1995) estimates that in unionized firms the employees' annualized loss approached 8% of annual earnings. Interestingly, he also reports that the shareholders' average return was larger for unionized than for non-unionized target firms.

Chairman of the German Social Democratic Party, Franz Müntefering, likened private equity firms and hedge funds to “swarms of locusts that fall on companies, stripping them bare before moving on”, claiming that “some financial investors don’t waste any thoughts on the people whose jobs they destroy”. An equally colorful metaphor was used in March 2007 by John Evans, secretary of the Trade Union Advisory Committee (which advises the OECD) who referred to private equity as “a cancer eating away at the job-creation system” and announced a concerted effort by European trade union leaders to persuade policy-makers to impose tougher international regulation and levy more taxes on private equity firms and hedge funds (Arnold (2007)).

There is indeed considerable statistical evidence that in the U.S. LBOs are followed by declines in employment levels, as shown by Davis, Haltinwanger, Jarmin, Lerner and Miranda (2008), Kaplan (1989) and Lichtenberg and Siegel (1990), while in the U.K. they are followed by significantly lower wage growth, though not by significant changes in employment than non-LBOs, as documented by Arness and Wright (2007). However, this does not establish a causal relationship between private equity buyouts and employment declines, because it is hard to assess the counterfactual, that is, the employment losses that would have occurred in the absence of such financial transactions. The reason is that such transactions typically occur in ailing industries and target particularly distressed firms. So it is crucial to compare LBO target firms with a suitable control group, in terms of industry, age, size and other characteristics. It is also important to have reliable data, tracking employment levels both before and after target firms have been taken private, and taking into account the jobs that they create with Greenfield investments. The study by Davis et al. (2008) is the most accurate one so far on both accounts, and their evidence suggests that “private equity acts as catalyst for creative destruction” (p. 7). They intervene in underperforming firms and shrink their less efficient operations, as shown by the fact that employment growth in establishments of target establishments is lower than in the control group both in the two years before the LBO (by 4 percent) and in the two years after it (by 7 percent). However, private equity also tends to expand the target firms in new directions in the first two years after the LBO: greenfield job creation is 15 percent for target firms and 9 percent for control firms, and acquisition and divestiture activity is also significantly greater.

Such “creative destruction” is epitomized by the story of Grohe, the bathroom equipment company that was produced by Franz Müntefering as main example to motivate his “locust” metaphor. Grohe was taken over by private equity group TPG, and at the time was expected to fire more than half of its German-based workforce. However, David Haines, the CEO that TPG appointed to guide the ailing company, was able to restructure and renew the company’s product lines, by investing substantially in R&D and thereby restore the company’s profitability and growth, while eventually cutting only 743 of the initially envisaged 3,000 jobs. Ironically, the current German finance ministry recognizes that the restructuring was necessary and allowed the company to recover its international competitiveness, and cites it as an example of how private equity can successfully restructure companies and put them on a path to growth (Milne, 2008).

Therefore, on the whole the evidence so far does not appear to support the “locust” epithet. As mentioned at the beginning of this section, financial markets tend to make companies more efficient, which may require cutting some jobs or reducing wages, but can also create new jobs in new lines of business, as well as retaining jobs that might have been lost in the absence of restructuring.

However, the fact remains that the process of creative destruction forced by the pressure of financial markets generates winners and losers, and thereby also increases volatility and inequality, harming workers hit by the restructuring process. This is particularly clear when the disciplinary activity of financial markets is suddenly released from the shackles of previous regulatory obstacles, which typically happens in the wake of financial liberalizations or deregulations. For instance, in their

analysis of the firm-level effects of deregulation in the French Banking Act of 1985, Bertrand, Schoar and Thesmar (2007) document that banks became less willing to bail out poorly performing firms, while firms in bank-dependent sectors became more likely to restructure. At the same time, they document an improvement in allocative efficiency across firms at industry level, and a decline in concentration. Similarly, Giannetti and Ongena (forthcoming), who investigate the effects of foreign bank entry on firm performance using a panel of 60,000 firm-year observations on listed and unlisted companies in Eastern Europe, find that foreign lending stimulates growth in sales and assets, but that incumbent firms connected with domestic banks or the government suffer. In this case, financial liberalization corrected pre-existing credit market distortions due to political connections and government intervention, generating both winners and losers in the process.

### **2.2.2 Financial Markets: Risk Sharing or Risk Creation?**

In principle, financial market development should also help households to buffer shocks more effectively, by holding more diversified portfolios, and in particular by diversifying the portion of risk that arises from country-specific shocks: if they are well diversified, shocks to domestic income should not affect domestic consumption, but be diversified away by borrowing or investing abroad. A whole line of research studies the covariance of consumption across regions or countries to test whether financial markets afford full risk sharing to consumers in different jurisdictions (see Cochrane (1991), Mace (1991), Obstfeld (1994), van Wincoop (1994), and Townsend (1994), among others). However, much evidence indicates that, even in developed countries, households are far less than perfectly diversified, and in particular that they fail to diversify sufficiently into foreign stocks (the “home equity bias”, documented for instance by Tesar and Werner, 1995, and Lewis, 1999). If households hold portfolios that are not enough internationally diversified, their consumption growth will disproportionately reflect domestic shocks. This is confirmed by macroeconomic evidence: using U.S. data for 1963-90, Asdrubali, Sorensen and Yosha (1996) find that 25 percent of a shock to gross state product is not smoothed, either via fiscal redistribution or via financial markets. Sorensen and Yosha (1998), applying the same approach to the EU and the OECD for 1966-90, find that the unsmoothed residual is much larger, around 60 percent.

So the enhanced risk sharing made possible by financial markets hardly goes far enough as to shelter employees from the consequences of the resource reallocations that financial markets themselves bring about, due to limited participation to financial markets, as shown by Guiso, Haliassos and Jappelli (2002), and to households’ insufficient or mistaken diversification policies, documented by Barber and Odean (2000), Huberman and Sengmuller (2007), Kelly (1995), Goetzmann and Kumar (2008) and Polkovnichenko (2005).

Put roughly, the foregoing suggests that from employees’ standpoint, finance may generate more risk than risk-sharing opportunities. This popular perception is to a certain extent corroborated by the financial crises that intermittently generate large drops in asset prices, credit crunches and waves of bankruptcies, often with negative effects on employment levels. Such crises suggests that the portrait of financial markets as smoothly running mechanisms that invariably lead to the efficient allocation of resources misses important elements of their actual operation. The subprime lending crisis is just one more reminder that herding behavior, moral hazard in financial institutions and botched regulation and monetary policy may combine to determine financial crises that may exert recessionary impulses on the real economy, and therefore eventually hurt employment levels.

Besides amplifying the effect of real shocks, financial crises may themselves generate shocks to output and employment that are unwarranted by economic fundamentals. This occurs when interdependencies in financial markets spread a crisis to countries or regions that would otherwise

be unaffected (Allen and Gale, 2000). This “contagion” is exemplified by the losses from loan insolvencies that European banks are currently suffering due to their investments in U.S. asset-backed securities or in derivatives written on them: even though these banks are not recording abnormal losses on their domestic loan portfolios, they are forced to reduce their lending activity to domestic firms and households due to these capital losses.

More generally, the recent literature has highlighted that financial integration can make a country more vulnerable to external macroeconomic shocks and financial crises. Contagion effects, possibly amplified by “fickleness” and herding behavior of financial institutions, may actually increase output and consumption volatility, instead of lowering them as the risk-sharing thesis holds. So far, the evidence on this point is inconclusive (Rogoff, Kose, Prasad and Wei, 2006), but it does add one more reason why finance might increase employment risk.

### **3. The Countervailing Role of Long-Term Employment Relationships**

The tendency of financial markets to increase employment risk may have detrimental effects not only on workers’ welfare but also on their “loyalty”, that is, on their investment in firm-specific human capital. This explains why firms may find it worthwhile to offer workers contractual arrangements that reduce the risk of firing and maintain stable wages even in the presence of adverse productivity or demand shocks. Such arrangements may play a double role: (i) a risk-sharing role, whereby the firm’s owners, being better financially diversified than their employees, effectively insure them against employment and wage shocks, and thus pay them lower average wages; and (ii) a loyalty role, whereby the pledge of greater employment stability makes it worthwhile for workers to invest in firm-specific human capital, and therefore be more productive. Of course, there is also some tension between employment stability and work incentives: for instance, if investment in firm-specific human capital is unobservable, complete job security would discourage such investment, as there would be no penalty for under-investment. This suggests that firms have a rationale for spontaneously offering a limited degree of employment and wage stability to their employees.

This pledge to wage and employment stability may be enshrined in contracts, or simply entrusted to an implicit contract between the firm and its employees. Only a limited proportion of all labor transactions are carried out under formal, multi-period contracts, and few of those reach the complexity of detail that the literature on optimal contracting would require. Indeed already as early as Baily (1974), economists have recognized that many of these arrangements between firms and workers may be “implicit contracts”. The key problem of such “contracts” is that by their very nature they are not enforceable in court. Hart (1983) and Holmstrom (1981) and (1983) have suggested that in a multi-period setting they may be enforced by reputational constraints or by front-end loading of the penalties for contract breach. Yet, even these solutions are problematic.

As pointed out by Shleifer and Summers (1988), reputation may not be a feasible enforcement device if corporate control is contestable, because the firm may be taken over by a management that is not bound by this commitment. Indeed, a takeover raider may be enticed precisely by the short-run gain from breaching such contracts, for instance from cutting wages once employees’ investment in firm-specific human capital is sunk. As for the front-end loading of the penalties for contract breach, this mechanism is not feasible if both parties may breach the contract, since in this case by definition the contract payments cannot be front-end loaded on both. Moreover, workers



may face wealth constraints that limit the extent to which the contract may be front-end loaded on their side via lower initial wages.

However, we do observe arrangements that to some extent overcome these commitment problems, and they differ considerably between family and non-family firms.

### **3.1 Implicit Contracts in Family Firms**

One way to preserve implicit contracts and the implied long-term employment relationships is to isolate the firm from the pressure of the market for corporate control. This applies to family firms where the control over the company is firmly in the hands of a single family, especially if the firm is not publicly listed. When control is unassailable, the controlling family has enough credibility to enforce implicit contracts. Indeed, Sraer and Thesmar (2007) find that in French family firms not only the founder but also his descendants pay lower wages to employees, even after controlling for the quality of the workforce. Moreover, heir-managed firms shelters the firm's employees from industry-level sales shocks, by smoothing out these shocks as part of their labor management policy. This is likely to be related to the fact that in such firms management takes a longer-term view of the business, as witnessed by their significantly lower CEO turnover. Interestingly, French heir-managed firms are not damaged by such arrangement: their profitability actually exceeds that of comparable non-family firms, probably due to the lower wages they pay to their employees.

### **3.2 Implicit Contracts in Non-Family Firms**

To a certain extent, non-family firms may try to replicate the behavioral patterns common among family firms by subscribing to codes of corporate social responsibility, by which they commit to certain standards of behavior vis-à-vis their employees and their local community. For instance, they may provide public services to the local community, or subsidize their provision, with the purpose of gaining greater loyalty from their workforce. However, a code of corporate social responsibility suffers from the same commitment problems described above, being an unenforceable promise by the incumbent management.

Therefore, for a manager-controlled firm a better device to enhance the congruence of the objectives of a firm and its employees is to grant employees' participation schemes to share ownership and/or control. In the U.S., this is typically done via employee share ownership plans (ESOPs). As these plans cannot be revoked even by a takeover raider, they are immune from commitment problems on the management's side, even for a widely held firm whose control is contestable. At the same time, such schemes may improve the incentives of the workforce, both by making their overall compensation more sensitive to the company's performance and by inducing lower conflict with management and better team coordination. Indeed Jones and Kato (1995), Fitzroy and Kraft (1987) and Beatty (1995) document worker productivity increases following the adoption of ESOPs, although Blasi, Conte and Kruse (1996) argue that the evidence is not unambiguously supportive of a positive link between ESOPs and firm productivity.

However, these arrangements also have a dark side, which emerges precisely in the context of widely owned companies, where the separation of ownership and control is most acute. In companies with dispersed ownership, the workers' counterpart is not a monolithic entity – the firm – but rather a coalition formed by shareholders and management. This coalition is to varying extents riddled by internal conflicts, which in finance go under the label of “corporate governance problems”. In situations where these problems are acute, for instance because managers own a tiny

fraction of the firm's cash flow rights, managers do have an incentive to forge an implicit contract with the employees, but at the expense of shareholders: they are willing to pay high wages, so as to save effort to monitor employees and yet induce them to work hard via monetary incentives.<sup>2</sup>

One would expect the market for corporate control to prevent such managerial behavior. In fact, Pagano and Volpin (2005a) show that this is not the case. Incumbent managers have an interest in a generous employment policy precisely to defend against hostile takeovers. There are two distinct but complementary reasons. First, long-term employment contracts effectively transform employees into a "shark repellent": the inability to renegotiate their wages makes the firm unattractive to raiders. Second, to the extent that they are not protected by long-term contracts against the risk of a wage cut by the raider, employees will act as "white squires": to protect their high salaries, they will fight hostile takeovers by lobbying and demonstrating against the raider, and if they own shares in the company, they will vote against the takeover.

Interestingly, no commitment problem arises for this implicit contract between management and workers: managers do not seek to renege on their generous wage concessions even if the takeover threat does not materialize, because they prefer to pay generous wages and enjoy an "easy life", while wage-cutting is the raider's preferred course of action. This difference in preferred policies is rooted in the different stakes that the incumbent and the raider hold in the company. The incumbent management has a smaller stake in the company than the raider would have upon taking over, because the raider must gain control on the market.

Moreover, the incumbent management can count on employees to act in their defense against raiders, by lobbying against the raider. There have been several instances of such action by employees, sometimes openly solicited by the incumbent management. For instance, in March 1997 the German steel producer Krupp-Hoesch announced plans for a hostile takeover of its main competitor, Thyssen AG. The management of Thyssen claimed that the takeover threatened thousands of jobs and that it would seek partners in the battle. In the next two weeks, politicians, unions, and media joined the protest. Krupp withdrew its hostile bid and eventually negotiated a friendly deal.

Workers can be particularly effective in their defense of incumbent management if they can also play the role of "white knights" against an undesirable raider. This is the case when they hold an equity stake through an ESOP, since in this case their response to a raider's bid will directly determine the takeover's chances of success. Since employees are interested in retaining well-paid jobs, they are likely to vote for incumbent management in proxy contests. Indeed, Pagano and Volpin (2005a) show that managers will set up an ESOP as a defensive device when they themselves have only a small stake in the company and their private benefits of control are high—the same circumstances in which they would use employment policy as a takeover deterrent, if this were possible.

These predictions are consistent with a large body of evidence about ESOPs. Chaplinsky and Niehaus (1994) and Beatty (1995) show that ESOPs tend to reduce the likelihood of takeover

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<sup>2</sup> Such manager-worker collusion can also arise in state-owned enterprises, whenever the government behaves as an absentee shareholder, creating corporate governance problems akin to those common in private-sector corporations with dispersed share ownership. Typically, when these companies are privatized, employment levels are reduced, workers' productivity increases, and profitability increases. This is consistent with the idea that, under state ownership, these enterprises featured employment and wage levels that were not warranted by their employees' productivity, revealing slack in the employment policies chosen by their managers.

attempts. Rauh (2006) finds that, conditional on employees and top executives holding 15-30% of the firm, “each additional percentage point of employee ownership reduces the probability of takeover by 0.44 percentage points per year” (p. 381), a figure to be compared with the unconditional takeover probability of 4.7% per year.

Kim and Ouimet (2008) provide further evidence for the idea that ESOPs often allow collusion by managers and workers at the expense of shareholders. They show that, while ESOPs increase firm value if they are small (less than 5% of outstanding shares), they generate no changes in firm value when the ESOP is larger. In such large ESOPs, the productivity gains induced by the adoption of the plan are offset by increases in worker compensation, because employees have so large control rights that they can affect the firm’s wage-setting policy. If these companies were managed in the interest of shareholders, such large ESOPs should not be observed. But they do occur, and are more prevalent in states with business combination statutes (BCS), which make ESOPs a more effective anti-takeover deterrent. Moreover, the compensation increases following the adoption of ESOPs are concentrated in the firms incorporated in BCS states. This finding complements that by Bertrand and Mullainathan (1999, 2003) that workers enjoy significant compensation increases following the enactment of BCSs: Kim and Ouimet (2008) show that the wage increases documented by Bertrand and Mullainathan occur mainly though the adoption of large ESOPs.

This considerable amount of evidence is consistent with the idea that large ESOPs allow managers to enhance their anti-takeover protection by granting more generous compensation to their employees. In these cases, they become a vehicle through which the alliance between managers and workers is struck at the expense of the firms’ shareholders, and thus does not enhance its valuation.

Should we conclude that such manager-worker alliances are inefficient? Not necessarily. The effects documented so far are distributional: such alliances tend to shift resources from shareholders to managers and workers, and to reduce the reallocation of control. While often the maximization of shareholder value is identified with social efficiency, this need not be always the case, as shown by Allen (2005). Indeed, as mentioned at the beginning of this section, the implicit contracts between firms and workers can generate important efficiency gains – risk sharing and enhanced investment in firm-specific human capital. These gains are no less valuable for society if they are appropriated by workers and managers, as in the case of large ESOPs, than if they accrue to shareholders, as in the case of small ones.

However, it must also be recognized that a manager-worker alliance *may* also generate dynamic inefficiencies. For instance, consider a situation where agency problems between managers and investors tend to generate equity or credit rationing. In this case, if managers and workers appropriate part of the firm’s expected cash flow, they reduce the future income that can be pledged to repay investors and thereby the external finance that can be raised from them. Hence, the firm will face a tighter external equity or credit rationing constraint, and may be forced to pass valuable investment opportunities. Similarly, when manager-worker collusion prevents the transfer of control to better managers, the firm may miss valuable growth opportunities. These dynamic inefficiencies will be all the more pronounced the shorter the horizon of incumbent managers and workers, so that they care less about the firm’s prospects far into the future than about the rents that they currently extract from it at the shareholders’ expenses.

The question then becomes whether the efficiency losses arising from forgone investment and growth opportunities exceed or not the efficiency gains arising from the implicit contracts between firms and workers. This question cannot be given a general answer. What can be stated in general is that these implicit contracts are likely to lead to collusion between management and workers – and thereby possibly to inefficiencies – when there are severe agency problems between managers and

shareholders. Otherwise stated, the dark side of these implicit contracts emerges when firms have poor corporate governance.

#### **4. The Role of Regulation**

Many aspects of regulation play a key role in the extent to which managers and workers may form the alliances described so far, and in their effects on corporate policies, as shown by a considerable body of recent evidence.

##### **4.1 Shareholder Protection**

As stated in the previous section, the quality of corporate governance partly reflects the rights that the law grants shareholders vis-à-vis managers: their rights to obtain timely and accurate information from corporate directors, their ability to monitor managerial decisions, their right to obtain judicial redress of managerial abuses, etc. The more limited and poorly enforced are these rights, the larger the private benefits that managers can extract from the company at shareholders' expenses, and the keener they will be to enlist workers in defense of these benefits. This is consistent with the finding by Atanassov and Kim (2007) that in weak investor protection countries poorly performing firms are less likely to replace top management and undertake mass layoffs of employees than in strong investor protection countries, based on a sample of 9,923 firms in 41 developed and emerging economies between 1993 and 2004.

##### **4.2 Employment Protection and Trade Union Empowerment**

Pagano and Volpin (2005a) show that not only poor shareholder rights protection, but also strict labor market regulation can reinforce manager-worker alliances: the stronger is the legal protection employees have against changes of their employment contracts after a takeover, the greater is the incumbent managers' ability to use long-term wage contracts as a "shark repellent" against raiders. The empirical prediction is that hostile takeovers should be less frequent in countries with high employment protection.

As noticed in the previous section, managers can also enlist workers as lobbyists against a raider, insofar as they are sufficiently cohesive and organized to play such role. Regulation can play a role also in this respect, since it can enhance unions' power in many ways. For instance, in some countries the law gives workers a right to appoint some members to the board of directors, which allows labor to affect directly decisions over managers' dismissal and compensation. The most famous example of this is the German "codetermination", by which companies with more than 2,000 employees must allow workers' representatives to form half of their supervisory boards, and therefore heavily influence the choice of chief executives and the assessment of their performance.

If in such countries workers tend to side with managers, the latter should be harder to remove even when the firms performs poorly. This prediction is also supported by the evidence in Atanassov and Kim (2007): top managers are less likely to be replaced as union power increases, in low investor protection countries – consistently with the idea that these are the countries where private benefits should be largest and therefore managers should be more eager to entrench themselves.

### **4.3 Takeover Regulation**

The law itself can offer protection to managers against the threat of dismissal. It can do so, in particular, by enhancing their ability to fend off hostile takeovers, for instance by allowing them to include poison pills, staggered boards, and other anti-takeover provision in their company's statute. The availability of such legal devices should make managers less prone to strike alliances with workers in order to entrench themselves.

This prediction is born out by Chaplinsky and Niehaus (1994), who show that ESOPs tend to substitute for other anti-takeover schemes. This substitution role is also documented by Rauh (2006), who finds that companies reduce their reliance on ESOPs when state-level takeover law allows them to fend off takeovers threats more effectively. In particular, after Delaware validated the use of poison pills in conjunction with staggered boards in the mid-1990s, companies incorporated in Delaware saw a reduction in employee ownership between 0.3 and 1 percentage points of the company's value.

### **4.5 Political Economy of Regulation**

So far, regulation has been treated as exogenously given. In fact, regulation comes about and persists only if it is supported by a sufficiently large political constituency. Therefore, regulations that promote manager-worker alliances – such as poor shareholder protection, strict employment protection and pro-union regulation – can persist only if a political majority supports them. Quite naturally, this majority will tend to include the same people who benefit from these regulations: workers and managers. In other words, through politics, labor and financial regulations may themselves be shaped by employees-employers relationships, leading to an equilibrium where political choices and economic outcomes are mutually consistent.

The idea that the “natural alliance” between workers and incumbent managers against non-controlling shareholders and potential raiders extends beyond firm-level relations was first noted by Hellwig (2000), who pointed out that “Incumbent managers who try to buttress their positions will regularly find allies in the political system, labor, the media, the judiciary, and even the universities” (p. 122) against outside shareholders. Pagano and Volpin (2005b) and (2006) capture this idea in the context of political economy models, which allow them to identify the circumstances in which managers (or controlling shareholders) and workers may converge on a political platform that limits the protection accorded to non-controlling shareholders.

Proportional voting regimes facilitate such a political outcome, as shown by Pagano and Volpin (2005b) in their analysis of a political equilibrium among three social groups: owner-managers (controlling shareholders), outside investors (non-controlling shareholders) and workers. They show how poor investor protection may be the result of political incentives to cater to workers and owner-managers, who seek to protect their labor and control rents against outside investors. These political incentives are highest under proportional voting, which pushes political parties to cater more to the preferences of social groups with homogeneous preferences, such as owner-managers and employees. Under a majoritarian system, by contrast, there is keen competition for the votes of pivotal districts where no focused interest group is dominant. Therefore outside investors may be pivotal in choosing elected politicians in a majoritarian system. This is consistent with the cross-country evidence that they produce, showing that in proportional representation systems minority shareholders get poorer protection and employees get stronger protection than in majoritarian ones.

Once a certain regulatory regime is established, it can be very difficult to change it: by strengthening the constituencies that support it, it tends to generate its own political support. This “path-dependence” is illustrated by Pagano and Volpin (2006) in the context of a model where there is mutual feedback between investor protection and stock market development. Better investor protection induces companies to issue more equity and thereby leads to a broader stock market. In turn, equity issuance expands the shareholder base and increases support for shareholder protection. This feedback loop can generate multiple equilibria, with investor protection and stock market size being positively correlated across equilibria. Only large enough shocks to the economy can move the economy from one equilibrium to another. For instance, if the economy is trapped in an equilibrium with low investor protection and low share issuance, shifting it to an equilibrium with high investor protection and large share issuance requires shifts in wealth distribution or in firms’ profitability large enough as to increase worker participation to the shareholder base and thereby increase political support for investor protection.

Such political changes may also arise from an economic crisis, which most voters come to perceive as due to bad investor protection – at least in part. An interesting example occurred in the aftermath of the 1997 Korean crisis. As argued by Kim and Kim (1998), a key reason of the crisis was widespread corporate value destruction, especially by the family-controlled large business groups known as “chaebol”. Before the crisis, the controlling shareholders of these business groups routinely pursued empire-building policies and schemes to divert corporate resources from minority shareholders to themselves, rather than the maximization of shareholder value. This was allowed by the poor legal protection of minority shareholders and encouraged by the large discrepancy between the distribution of ownership and control: in 1996, controlling shareholders owned on average 23% of chaebols’ shares, but effectively controlled 68% of their votes. As a result, “nearly three-quarters of Korean companies destroyed value by failing to generate sufficient operating profits to cover their capital costs over the five-year period preceding the crisis” (Kim and Kim, 2008, p. 47). In response to the currency and financial crisis that erupted in November 2007, popular support materialized to pass major reforms aimed at increasing corporate transparency, oversight and accountability. These reforms drastically changed the corporate governance of Korean corporations in the subsequent decade. Clearly, the crisis had underscored that low investor protection had allowed private benefits extraction on such a scale as to sap firms’ ability to invest and grow, and therefore damage workers as well as non-controlling shareholders.

## **5. The Role of Technological Change and International Financial Integration**

The overall relationship between finance and labor is also affected by the technological environment. At times of fast technological innovation, the efficient re-allocation of capital becomes more important than in a more stable environment, and the need to raise fresh external capital by firms to innovate increases the cost of the dynamic inefficiencies arising from manager-worker collusion, as well as the cost of insuring employees against shocks. In this situation, the conflict between the discipline provided by financial markets and employee-employer relationships becomes more acute, and regulation as well as social norms may change so as to favor outside shareholders and break down stable employment relationships. When instead technology is mature and stable, the incentive and risk-sharing benefits of these relationships tends to become more important than their costs. In such circumstances, institutions and social norms tend to develop that tend to restrain the creative destruction induced by financial markets.

The degree of international financial integration is also crucial in shaping the relationships between labor and firms. When obstacles on international capital flows are removed, firms will invest more

in countries where labor costs and employment protection are lower, for instance by relocating parts of their production in such countries via foreign direct investment or by acquiring foreign companies. Since they do this mainly to take advantage of low labor costs or good investment opportunities, foreign-owned firms and multinationals tend to breach local pre-existing implicit contracts, shedding excess labor and/or slashing wages. They can also be tougher negotiators with trade unions: being internationally mobile and less subject to local political and media pressure, such employers are more likely to leave the bargaining table and shut down their local operations to reinvest elsewhere than the typical domestic company.

Indeed, there is evidence that foreign firm ownership tends to lower the union wage premium. Using matched employer-employee data for Denmark, Braun (2008) reports that, while domestically-owned unionized firms pay 2 to 4% higher wages than non-unionized ones, foreign firms pay no such wage premium. This, together with their greater tendency to rely on large employment cuts to improve profitability, helps to explain the frequent resistance of trade unions to foreign ownership. In some cases, foreign acquisitions cause widespread labor unrest. For instance, in May 2001 General Motors (GM) bid for Korea's ailing Daewoo Motor, on the condition that Daewoo layoff 5,000 employees. This led to mass nationwide strikes and demonstrations. Although GM had the backing of the South Korean government, the employees played a key role in the outcome of the deal. The conflict with the employees continued until April 2002, when an agreement was finally reached.

Similar conflicts are now also increasingly erupting in European countries, as cash-rich companies from emerging countries such as India and China engage in acquisitions of better established but struggling rival companies: examples are the acquisitions of Jaguar and Land Rover's U.K. car-production plants by the Tata group and of the French Arcelor steelmaking group by Mittal, both Indian-based groups. In both cases, local unions have opposed the acquisitions, voicing concerns over possible plant closure and employment cuts, and workers' unrest has mounted. For instance, in April 2008 French workers at an Arcelor Mittal steel plant ransacked the office of their managers after these confirmed that they would fire 575 of the 1,100 local employees.

Precisely to counter the advantages that global mobility confers to business, recently there have been moves by workers' unions to form international alliances and even merge in supranational trade unions. In June 2008 the U.S.-based United Steelworkers (USW) and UNITE, Britain's larger union are to announce a merger, "aimed at helping workers whose jobs or terms of employment are threatened by economic globalization" by fighting the relocation of plants to countries with lower wages and employment protection (Aslam, 2008). The new international union would have about 3 million members in manufacturing, transportation, energy and public sectors in the U.K., Ireland, the U.S., Canada and the Caribbean, but it is envisaged that it will be later extended to workers in Latin America, Eastern Europe and Asia. Similar attempts are being carried out by the Australian Workers Union (AWU), the USW, Brazil's National Confederation of Metalworkers, South Africa's United Mineworkers, Russian aluminum workers and Britain's Amicus (a component of UNITE), to bargain jointly with the large U.S.-based aluminum producer Alcoa.

This might suggest that ironically global capital might succeed where the socialist movement failed, pushing labor to realize the famous slogan of Marx and Engels' 1848 *Manifest*: "Workers of the world, unite!" However, it remains to be seen whether mergers such as that between U.S. and U.K. steel workers can be easily extended to workers in other countries, especially in the developing world. American and British workers have similar wage scales, language, culture and laws, while true globalization of labor would require coordinated efforts by workers in countries with different wage scales and regulations, which tend to create conflicts of interests between them. Moreover, the

opposition of unions against foreign takeovers often exploits nationalism, an ideology that is at odds with that of global workers' solidarity.

## **6. Conclusions**

This paper illustrates that exploring the linkages between labor and finance can yield new and illuminating insights in both of these research fields. But it also suggests that more insights can still be gleaned by such contamination, especially on the empirical front: on several issues, this survey has drawn more on anecdotal evidence rather than on a consolidated set of empirical contributions. This is the case, for instance, of the effect of international financial integration on labor relations.

Moreover, most of the evidence discussed in this paper relies on U.S. and occasionally U.K. data, and fails to exploit data from other countries, as exemplified by the studies on the employment effects of takeovers and private equity LBOs. Similarly, while we know much about the effect of ESOPs on firm value, managerial entrenchment and labor compensation, we have no comparable knowledge of similar arrangements that also in other countries lead to workers' participation to control and ownership. Drawing on data from other countries to explore these issues would enable us to exploit the wide international variation that exists in legal settings, company-level arrangements and labor relation structures.

Finally, we have almost no evidence on the possible effects of employment laws and union power on the frequency and outcomes of takeovers, as well as on the possible effects of corporate governance on managers' relations with labor. Of course, delving into such matters requires a considerable effort to match company-level data on financial and balance sheet variables with contract-level or plant-level data on employment, wages and labor relations. The effort of joining such disparate data sets may partly explain why so far efforts in this direction have been limited.



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