



Network for Studies on Pensions, Aging and Retirement

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Rhineland Exit?

Discussion Paper 03/2008 - 055

March, 2008

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Abstract

We argue in favour of the shareholder model of the firm because assigning the full surplus of the firm to shareholders provides the best possible social insurance by diversifying firm-specific risks on capital markets. Coordination in wage bargaining and collective norms on what is proper compensation play an important role in reducing the claim of workers on the firm's surplus. In Denmark, workers bear less firm-specific risk than workers in the United States do. Collective action thus has an important role to play. Politicians, however, face the temptation to please voters and incumbent workers with short-run gains at the expense of exposing workers to firm-specific risks and reducing future job creation.

The authors gratefully acknowledge the comments of two anonymous referees and Rob Aalbers, David Autor, Arnoud Boot, Marco Becht, Nick Draper, Adam Elbourne, Jean Pisany-Ferry, Anja Deelen, George Gelauff, Egbert Jongen, Bernard ter Haar, Ruud de Mooij, Alexander Rinnooy Kan and Vino Timmerman.

1 Introduction

Harry Truman is purported to have asked for a single-handed economist. Whenever he asked for an economist's advice, the answer invariably would be: one the hand ..., but on the other hand This is indeed how economists often reason. They think in terms of trade-offs - for example, equity versus efficiency, insurance versus incentives, and rules versus discretion. The optimal policy response is almost always a combination of various sides of the trade-offs. Extremes usually do not work that well. One should thus expect a similar response on issues of corporate governance. Should corporate governance legislation (and in line with that legislation: public norms on corporate behaviour) oblige the management of a company to weigh the interests of all of its stakeholders (that is, its workers, customers, suppliers and shareholders) equally, as is supposed to be the case in the so-called Rhineland model? Or should the law impose on management the sole duty to pursue the long-term interest of the shareholders, as being the ultimate owners of the company, as is supposed to be the case in the so-called Anglo-Saxon model? In the tradition of Harry Truman, one would expect economists to favour the Rhineland solution, which gives all stakeholders their fair share (e.g. by giving workers the right to nominate some board members, as in Germany).

This paper discusses an exception to the general rule that compromises are optimal. Indeed, we argue that firms should maximize long-run shareholder value because this provides the best possible insurance to workers. Making shareholders the ultimate residual claimant allows diversification of firm-specific risks. By reducing the exposure of workers to the risks associated with international competition, this outcome makes globalisation of markets and the associated creative destruction more legitimate, so that productivity growth can increase. The shareholder model does not imply that the firm should not care for its workers. To the contrary, maximization of long-run shareholder value should lead the firm to listen to its workers, and seek to please them and learn from them. In this way, workers stay loyal to the firm and hence contribute to the firm's profits to the best of their ability while reducing costly job turnover.

Whereas we argue in favour of the shareholder model, we maintain that the traditional focus on corporate governance legislation is mistaken. A change in this legislation will likely be of little help to reach the optimum. In fact, countries such as the United States and the United Kingdom that have this type of legislation are further away from this optimum than some other countries are. In order to explain this, we take a labour economists' perspective, and show that proper norms regarding the way excess profits should be shared between the firm and its workers are more important than corporate governance legislation in arriving at an efficient organization of society. In particular, labour-market institutions such as central wage bargaining in Scandinavian countries appear to be key in restraining the claims of workers on the surplus of the firm.

The rest of this paper is structured as follows. By distinguishing various risks, section 2 allows us to lay out a Utopian world: who should bear what type of risk, and for what reason? Section 3 discusses the reasons why such a world is difficult to realize. Section 4 explores the question which of three prototypical economies is closest to Utopia. Section 5 explores why politicians have an inherent tendency to move away from Utopia. Section 6 sketches the implications of our analysis for corporate governance legislation. Section 7 concludes.

2 The grand design of Utopia

New ideas are tested all the time by investing effort and other resources. Most ideas fail, only some succeed. This permanent state of experimentation drives productivity growth. The

question is: who should bear the risk on these investments? A large part of these investments takes the form of workers getting a job at a particular firm and acquiring knowledge and skills that to a greater or lesser extent are specific to the mission of the firm. The risk on these investments can be decomposed into three types: i) individual-specific risk; ii) firm-specific risk; and iii) aggregate risk.¹ For each of these risk types, different rules determine who is the best party to bear this risk in a Utopian world of optimal risk sharing.

Individual-specific risks

Individual-specific risk relates to the ability of the individual to acquire skills and the market value of these skills. Both are unknown at the moment when the worker starts learning them. Since the worker is risk averse, she would like to put the risk of these investments on others -- for example, social insurance, a private insurance company or the owners of the worker's firm. This gives rise, however, to a moral-hazard problem. Acquiring skills requires effort on the part of the worker, and this effort is not easily observable by the insurer. If the worker obtains no monetary reward for her skills, she has little incentive to spend this effort. We thus face a trade-off: if the insurer takes all of the risk, then the worker is perfectly insured, but has no incentive to provide effort; if the worker takes all of the risk, she has optimal incentives to provide effort, but she is not insured at all. Here, the optimum is indeed a fair compromise: the individual-specific risk should be shared between the worker and the insurer -- whoever that may be. This is a so-called *principal-agent problem*: if information about the effort of the risk-averse agent is imperfect in the presence of individual-specific risks, then getting the incentives right in the relationship between a principal (the insurer) and a risk-averse agent (the worker) yields some loss of efficiency (see Holmstrom and Milgrom, 1987).

How could a firm insure workers against their individual-specific risks? An answer to this question requires that we look somewhat deeper into the nature of individual-specific risk. Though most people consider unemployment as the main source of individual-specific risk, other factors are more important. Unemployment spells usually last only a couple of months, which is only a small time span from a lifetime perspective. Changes in individual wages have a much larger and more persistent effect on lifetime incomes (Low, Meghir and Pistaferri, 2006). In fact, an upward or downward shock in a worker's productivity² today is likely to affect almost one-for-one her productivity until the date of retirement (Abowd and Card, 1989; Topel and Ward, 1992). Individual wages thus follow (almost) a geometric random walk.

This shape of an individual's productivity profile has strong implications for the type of insurance that a firm can provide. Since a negative shock today affects a worker's earning capacity from today until the date of her retirement, some form insurance by the firm implies that the firm must cover part of that lifetime cost. One likely form this insurance takes is that productivity shocks are not fully transmitted into the wage so that individuals with positive shocks are underpaid compared to their productivity, while individuals with negative shocks are overpaid.

Since workers are free to switch between firms, and this raises a serious problem. Workers who experienced positive productivity shocks will find it easy to find a new job at an equal or higher wage, since their productivity levels are way above their current wages. However, for workers with negative shocks, the reverse holds. Hence, firms face an adverse-

¹ Teulings (2008) distinguishes a fourth type of risk: match-specific risk. This is individual-specific risk that applies only as long as the relationship with the firm survives. One could thus say that these individual-specific risks are firm specific. Just as other firm-specific risks, these risks are ideally born by the shareholders of the firm who can diversify this risk on capital markets. See the discussion below on firm-specific risks.

² Empirically, we observe only the individual's wage, not her productivity, but it is likely that both series are similar in this regard.

selection problem: good workers quit, bad workers stay. Workers, on their part, face a moral hazard problem: by firing the bad workers, the firm saves the wage subsidy to this group of workers. Firms can thus not contribute to insurance of individual-specific risks. Public social insurance is the only option for insurance, either via social security, or through a progressive tax system. An elaborate discussion of these issues is beyond the scope of this paper, which focuses on the role of firms as insurers of various risks.

Firm-specific risks

The second type of risk, firm-specific risk, is related to the evolution of the market for the firm's products, the market value of its R&D, etcetera. In a modern knowledge economy, the increased importance of innovation, creative destruction and international competition has raised firm-specific risks. Just like individual-specific risk, firm-specific risk is characterized by a geometric random walk (see Jovanovic, 1982).

Firm-specific risk can be well diversified on the capital market. By holding the equity of a large number of different firms whose risks are uncorrelated, shareholders can ensure that the bad luck of one firm cancels against the good luck of another. In this way, firm-specific risk almost "disappears". Traditionally, the scope for diversification has been limited by the strong *home bias* in the portfolios of investors. Investors tend to hold too large a share of their investments in their home country, thereby foregoing part of the gains from diversification (see Feldstein and Horioka, 1980 and Gordon and Bovenberg, 1996). However, the most recent wave of globalisation of capital markets has undone most of the home bias in portfolios, thereby improving the scope for risk diversification (see Rajan, 2005). Even if capital markets are incomplete, it is more efficient to allocate firm-specific risks to capital rather than labour because capital markets provide better scope for diversification than labour markets.

Since the firm-specific risk can be diversified in the capital market, it does not make sense to assign part of it to risk-averse workers. Providing individual workers with a claim on the firm's profits does not improve individual incentives much. An individual's reward should instead be tied to indicators that better measure individual performance (e.g. by comparing individual performance with that of other workers). Hence, the wages of individual workers should not vary too much with the firm's well being, except in small firms where the effort of each individual worker has a considerable impact on the performance of the firm as a whole.

Firm-specific human capital

If the firm bears all of the firm-specific risk, does not this imply that investments in firm-specific human capital would be too low? This depends on whether the Hosios (1990) condition is met: the cost of specific investment should be shared between the worker and the firm in the same proportion as the revenues.³ From the perspective of optimal insurance, it is optimal to assign all returns to the firm, since the firm is able to diversify the risk on that return on capital markets. Hence, the optimal contract allocates also the cost of investing in firm-specific human capital to the firm.⁴ The same logic applies to forms of firm-specific capital other than human capital. Accordingly, in the absence of restrictions on shifting the costs and benefits of specific capital to the firm, assigning the firm-specific risk to the firm does not impede this investment.

³ Hosios (1990) derived this condition in a search-matching context in which the specific investments were search efforts of both parties. We take a broader interpretation of specific investments here.

⁴ In fact, this conclusion is reminiscent of the old normative rule of Gary Becker in that the cost of general human capital should be borne by the worker, while the cost of specific human capital should be borne by the firm.

To the extent that the return on firm-specific investments and the workers' share in these investments (e.g. search and other hiring costs, the workers' effort in firm-specific training) are not fully observable and thus difficult to contract on, workers have to bear part of the cost themselves. In that case, the worker and the firm face a classic trade-off between insurance and incentives, like in the *principal-agent problem*: assigning a risky return to workers implies that workers face optimal incentives for specific investments but are not optimally insured and face some firm-specific risk. Firms may be able to soften the trade off between insurance and incentives by better measuring individual performance. One way to do this is to split works and teams and rewarding employees on the basis of the relative performance of these teams.

Aggregate risks

The final type of risk, aggregate risk, affects all firms in the same way. Hence, it cannot be diversified; somebody has to bear it. A simple solution would be to let everybody share in the aggregate risk in proportion to individual wealth. This would imply that the wage rate of workers varies in the same way as the stock market index does. In practice, however, capital takes a larger share of the risk than labour does, especially in the short run. We return to this issue in the next section.

Conclusions

Let us summarize the discussion thus far. For individual-specific risk, we face a classical trade off between insurance and incentives. Hence, it must be shared in some way between the worker and the rest of society. Firm-specific risk should be assigned fully to the holders of the firm's equity, because they can diversify their portfolio of equity holdings on the capital market. By implication, firms should pay the largest possible share of firm-specific capital. Finally, aggregate risk cannot be diversified and must therefore be shared in some way between all agents in the economy.

3 Blockades on the way to Utopia

Would a decentralized society end up with this efficient assignment of the various components of risk to workers and shareholders? Or are there reasons to suspect that some components end up in the wrong hands? We argue that the optimal contract is hard to implement in practice because workers may not be able to commit to not claiming part of the surplus.

To understand the problem, we should explore what it means for workers to share in the firm-specific risk. In particular, it implies that workers enjoy part of the excess profits if the firm performs better than expected. If, in contrast, shareholders would bear all of the risk, workers would not get anything of the upside. In practice, however, this outcome is unlikely to materialize, regardless of what has been negotiated in the *ex ante* contract. The *de facto* bargaining power of the incumbent workforce is such that they can capture part of the larger profits. To prevent the claim of current workers on the surplus, the firm could use the threat of hiring replacements for the incumbents. This threat, however, is hardly credible; for the incumbents have to cooperate in teaching the replacements the intricacies of the firm's production process (see Lindbeck and Snower, 1990). Obviously, both problems are related: to the extent that the workers cannot commit to exploit their bargaining power in the future, it is optimal to assign a greater share of the cost of firm-specific investments to workers today, as required by the Hosios condition.

One might think that this commitment problem also has a downside: if the firm faces losses, it can use its bargaining power to impose some of these losses on workers by threatening them with lay-offs in case they do not agree. In Utopia, however, this strategy of the firm will not work, since firms bear the full cost of the specific investment and should therefore get the full profit. If the firm would reduce wages following an adverse shock, its workers would quit and take a job in another firm. Hence, in Utopia, the relationship between the worker and the firm is asymmetric: the worker can claim a higher wage in case of excess profits, but the firm cannot shift part of the excess losses to its workers, since they will simply execute their option to quit. This asymmetry is the logical consequence of assigning all firm-specific investments to the firm. It is at the heart of the stability problem of Utopia: incumbent workers can only gain and the firm can only lose from renegotiating the contract.

The Utopian outcome seems to contradict the interest of workers. Even though the firm-specific risk is a risky return, it is a positive return. Not sharing in that return thus seems just another way of relinquishing part of the remuneration. Although this may indeed be true *ex post* (after a worker has been employed by the firm), it is not true *ex ante* (before being hired). Firms invest in new jobs to maximize profits. The *expected* return on the investment in the marginal job must be sufficient to offset the costs of the investment. If workers are expected to capture part of the profits in good states, the expected return on the investment will be lower so that fewer jobs will be created. Since firms create fewer jobs, the demand for labour will be lower, as will be starting wages. This adverse effect on starting wages more than offsets the expected positive effect on wages of capturing part of the profits. In a global capital market where the supply of capital is almost infinitely elastic, this effect is even stronger.

Insider power and the return to seniority

Most analyses of insider-outsider problems distinguish only between employed insiders and unemployed outsiders. However, in practice, insider power varies significantly not only between workers and the unemployed, but also between workers with various degrees of seniority. In particular, in an insider-outsider society, senior workers obtain a far greater share in the firm's rents than do workers who have recently been hired. Kuhn (1988), Kuhn and Roberts (1989), Buhai et.al. (2007) developed a model that allows a better understanding of how incumbents can exploit their bargaining power to the detriment of new hires.

Suppose that a monopolistic firm faces a downward sloping product demand that evolves over time according to a random walk. Consider the case where the firm pays the full cost of firm-specific capital. It hires additional workers only when today's marginal revenue of an additional worker is strictly above the market wage. The surplus of marginal revenue above the market wage serves as a compensation for the cost of investing in specific capital. Suppose that a firm has just hired a new worker and paid the specific investment cost for that worker. In that case, a small downward shock in demand does not affect employment, because the firm would then lose the specific investment in the worker that it had just made. Only if product market conditions depress demand substantially below the level at which it hired the new worker, the firm starts to fire workers.⁵

The surplus of marginal revenue above wage costs implies that the firm captures quasi rents, which provide compensation for the cost of the investment in firm-specific capital. The firm hopes for a future rise in demand, so that the marginal worker today will become an infra-marginal worker with higher quasi rents tomorrow. In that case, the firm realizes the upside of the return on its investment. However, the firm runs the risk of getting the downside, if demand falls instead of rises. Hence, as in Utopia, the firm bears the risk on the

⁵ In this discussion, we leave aside the option value of hiring and firing; see Buhai et al. (2007) for a discussion.

specific investment. In general, the firm captures higher quasi rents for infra-marginal workers. These higher rents are the upside on previous investments in specific capital; demand must have been lower when these infra-marginal workers were hired because more workers were hired from that moment on.

A simple way for workers to expropriate part of these quasi rents is to impose a LIFO (Last-In-First-Out) rule on the firm, requiring the firm to fire workers with lower seniority (= lower tenure) first before it is allowed to fire more senior workers, and to require the firm to pay higher wages to more senior workers. This seniority wage profile shares the quasi rents between the worker and the firm, more senior workers getting a larger share of rents in the form of a seniority premium in their wage than junior workers. Firms cannot evade paying these rents by laying off expensive senior workers, since the LIFO rule obliges them to fire the cheap low seniority workers first. Hence, the firm obtains lower compensation for its investments in firm-specific capital. The firm responds to this fall in the return by postponing hiring new workers. It will only hire additional workers if the surplus of marginal revenue is such that even though part of the (quasi) rents goes to the workers, they can recoup the cost of specific investment from their share in the rents. This reduces employment at the firm.

Once hired, workers are less likely to be fired in this case. The reason is that there is a large initial surplus, which is unlikely to evaporate by random shocks to product demand. Hence, seniority premiums raise the average job tenure of a worker and workers are less easily relocated to more productive job opportunities. To the extent that the worker and the firm can offset this excess bargaining power by shifting part of the cost of firm-specific investment to the worker, this problem can be undone. However, then workers bear part of the firm-specific risk, which is at variance with optimal risk sharing. In particular, the firm should assume all firm-specific risk, since its share holders are best able to diversify this risk on capital markets.

The strong position of senior workers in a world with seniority profiles generates resource transfer from junior workers towards these senior workers. In other words, it involves implicit pay-as-you-go transfers from one group of workers to another. Accordingly, the key social conflict in a modern economy is not between labour and capital, but between incumbent workers, who capture part of the surplus, and new entrants on the labour market, who rely on investments by capital in new jobs to become employed.

Aggregate risks

What about aggregate risk? There is an extensive literature on the rigidity of wages with respect to aggregate shocks (see e.g. Layard, Nickell and Jackman, 1991). Wages adjust to aggregate shocks only after a lag, implying that capital bears most of the short-run impact of aggregate shocks. Hence, workers are well insured against these shocks in the short run. Whereas capital markets can diversify the firm-specific risk, they cannot diversify aggregate risk because these risks affect all parties in the same way. However, this excess short-run non-diversifiable risk imposed on capital is not the main problem. More problematic is rigidity of relative wages, which limits the opportunities for differentiation of wages between new hires and incumbent workers. If relative wages would be flexible, the wages for new hires would adjust so as to generate new jobs for this group. Wage rigidity prevents this from happening.

4 Utopia versus the “real world”: the United States, Denmark and Portugal

We have identified some blockades on the way to the Utopia in which capital pays the full cost of firm-specific capital, receives its full surplus and bears all of the firm-specific risk. This section explores how actual economies behave in this respect. Do workers indeed

capture part of the excess profits, and if so, how do they do that? We explore these questions by comparing the labour-market outcomes in three countries: the United States, Denmark and Portugal. These countries are prototypical in the sense that Portugal features high firing costs, which strengthens the ex-post bargaining power of workers. Denmark and the U.S. lack these costs. Denmark differs from the U.S. in that it exhibits more central wage bargaining. We selected Denmark and Portugal also because we had access to matched worker-firm data for these countries.

A simple and crude way to explore how different countries perform in this respect is to estimate tenure profiles in wages: how much does your wage go up if you have a longer tenure (keeping other things equal)? Table 1 provides an overview of the wage returns to tenure for our three prototypical countries. Tenure profiles turn out to be much steeper in Portugal and, especially, the United States, compared to Denmark. However, this evidence on the returns to tenure remains indicative at best. The models in Kuhn (1988) and Kuhn & Roberts (1989) imply that wages go up with tenure (because the only way to obtain seniority is to stay at the same employer), but a higher tenure does not lead automatically to seniority. It depends also on how many more senior workers retire and on how many new workers are hired: that is, whether or not your firm grows. Moreover, many alternative theories predict a positive relationship between wages and tenure, so that we would like to have more conclusive evidence.

Table 1: Returns to tenure in various countries

Country	% higher wage compared to a new hire after:	
	4 years of tenure	8 years of tenure
United States*	12 %	20 %
Denmark**	2 %	3 %
Portugal**	6 %	10 %

Sources: * Teulings & Hartog (1998), ** Buhai et al. (2007); all coefficients are based on simple OLS regression, not using corrections for selectivity.

Fortunately, we can put these ideas to a more stringent test when we have data on seniority of the worker. Wages vary not so much with the tenure of the worker, as they do with the seniority of the worker, that is, her tenure relative to the tenure of other workers in the firm. Buhai et.al. (2007) tested this idea for Denmark and Portugal.⁶ When no worker quits and the firm's employment is increased by 10% (meaning that your seniority goes up), then your wage increases by at least⁷ 0.1% in Denmark and 0.2% in Portugal. For higher educated workers, these numbers are substantially higher. Regrettably, we do not have data on the United States for this issue. However, there is plenty of other evidence to suggest that wages include a larger share of firm-specific (quasi) rents in countries such as the United States, the United Kingdom and Portugal than in Scandinavian countries and countries such as the Netherlands (see Teulings and Hartog (1998) for an overview). First, wage differentials between industries for workers with equal human capital are much larger for the first group of countries than for the second, and these industry differentials are strongly correlated to the (quasi) rents in that industry, due to either its capital intensity, or to its market power. Likewise, fluctuations in the output prices exert a much larger effect on wages in the first group than in the second. Furthermore, an extensive literature explores the reasons why large

⁶ All results are highly significant. We refer to the original paper for t-statistics and details of the estimation procedure. The authors argue extensively why these results cannot be explained by selectivity problems of the type that have plagued the literature on the estimation of the return to tenure.

⁷ Measurement error biases these estimates downward.

firms pay higher wages than small firms do. At least part of this firm-size wage premium seems to be due to (quasi) rents. Again, the firm-size wage effect is larger in the first group of countries than in the second. All of this evidence corroborates our claim that there are substantial differences in the share of rents in wages across countries, with the United States, the United Kingdom, and Portugal having a large share.

The model laid out in the previous sections implies that a higher seniority profile that is not offset by a shift of the cost of firm-specific investment from the firm to the worker yields a higher average job tenure. As shown in table 2, the fraction of short tenures is rather high in the United States and Denmark, and it is low in Portugal. Hence, the difference in the tenure distribution between the three countries suggests that Denmark and the United States are closer to satisfying the Hosios condition than Portugal is. Apparently, firms in the United States are able to offset the large returns to tenure by shifting back part of the cost of firm-specific investments to workers, while firms in Portugal have not been able to do so.

This empirical evidence suggests two things. First, Utopia is hard to reach. In all countries, workers assume some share of the firm-specific risk.⁸ Second, there are substantial differences in how far various countries are away from Utopia.

Table 2: Tenure distribution in various countries, 2006

Tenure in years	0-1	1-3	3-5	5-10	10 or more
United States*	24	12	17	21	26
Denmark**	24	15	13	19	29
Portugal**	12	11	11	22	44

Sources: * Bureau of Labour Statistics; ** OECD

5 The role of politics: Coordinated wage setting and employment protection

What causes the substantial institutional differences between countries that were documented in the previous section? Almost by necessity, they must be related to some form of collective action so that it is natural to wonder about the role of politics. The outcome of bargaining processes is highly unpredictable. Small details of the bargaining process, such as who is the first to make an offer, can have a large impact on the final outcome. The evidence in Teulings and Hartog (1998) suggests that collective wage bargaining reduces the impact of firm-specific risk on wages. Collective wage contracts do not specify the wage rate for each individual worker, but they do provide a norm for wage negotiations at the individual level. To the extent that this norm is common to all firms, it restricts the impact of firm-specific factors. In this way, coordination and collective action can help to move us closer to Utopia.

Most collective action requires some form of political support, but political intervention can also easily bring us further off track. The reason for this involves the *hold-up* problem and the limited capacity of politicians to commit to future policies. The ability to commit to future policies is a crucial condition for resolving hold-up problems. In particular, workers have to be forward-looking and aware of the gains of keeping their promises today in terms of better future employment prospects for themselves and for future generations. Almost by definition, politicians exhibit only a short time horizon. An election is to a politician what market competition is to an entrepreneur: it counteracts abuse of power -- monopoly power for the entrepreneur and political power for the politician. At the same time,

⁸ With non-contractible firm-specific investments, workers must bear some firm-specific risks. The tenure profiles can then be seen as a compensation for the firm-specific risks.

however, regular elections undermine the ability of politicians to commit to policies that yield long-term gains. If voters were forward-looking and well informed about the future consequences of current actions, they would be more inclined to accept short-run losses in favour of the long-term benefits of abundant job creation. However, even then, children and future generations may not vote. Hence, politicians still face a strong incentive to promote policies that yield only short-run gains, and to ignore the long-run costs for future generations who are not included in today's electorate. If politicians support the claim of incumbent workers on the excess profits of the firm, then incumbent workers will see their pay go up, while the costs of reduced future employment prospects and lower wages for marginal workers hired tomorrow are ignored. Whereas politics can play useful role in coordinating the action to bring us closer to Utopia, the incentives of politicians are such that their first temptation is to carry us further away.

Employment Protection Legislation (EPL) is a perfect example of policy that caters to this temptation. It protects insiders, while it does little to help outsiders to find a job. In terms of the model laid out in Section 3, the effect of EPL can be undone by shifting part of the cost of firm-specific investment from the firm to the worker. Then, EPL is a form of *ex post* compensation by the firm of the cost of investment borne by the worker at the start of the employment relation. From this perspective, the critical question is whether the amount of EPL does not stretch too far the ability of shifting the cost of investment from the firm to the worker, and does not imply that the worker bears an excessive amount of firm-specific risk. Many countries have introduced some form of EPL. The form and degree of EPL differs between countries and over time. Lay-offs may require costly legal procedures or advance-notice periods; sometimes, laid-off workers are entitled to financial compensation, which usually varies according to age and tenure. Of the three prototypical countries, Denmark and the United States feature almost no EPL, while Portugal has quite a lot (see Deelen, Jongen and Visser, 2006, for an overview).

Although we were quick to claim that EPL is merely an instrument in the hands of politicians to transfer surplus from outsiders to insiders (just as the introduction of seniority profiles in wages), we must also ask whether EPL can play a role in insuring firm-specific risks. In Utopia, the answer to this question is negative. Workers are paid the market wage and firms bear all the risks on firm-specific investments. Hence, losing your job is not much of a loss, since you will easily find another job at the same market wage. Accordingly, EPL is not needed in our Utopia. This is, in fact, close to the situation in Denmark.

We now turn to Portugal, which exhibits a steep seniority profile, with a 0.2% wage increase for every 10% increase in seniority. A senior worker thus has a lot to lose if she would be laid off. Hence, from the perspective of the insurance of expected life-time labour income, EPL as financial compensation for being laid off seems a logical policy instrument indeed. Usually, this financial compensation is related to the last-earned wage of the worker. This system reduces downward flexibility in wages because the worker gives up part of her EPL entitlement if she accepts a wage cut. Moreover, EPL strengthens the bargaining position of workers; if the bargaining process breaks down and the worker is laid off, she can collect EPL at the expense of the firm. This raises the wages of incumbent workers. The only way to counteract the upward pressure on wages is a high unemployment rate exerting downward pressure on wages (see Blanchard and Portugal, 2001). Indeed, those who are unemployed are likely to remain so for a long period of time in view of slow job creation. Hence, EPL may raise in an indirect way individual-specific risks facing younger generations.

The United States is a remarkable case. It features a steep tenure profile, but has almost no EPL. Tenure profiles expose workers to more firm-specific risks: when they are laid off because their firm is bankrupt, they usually do not receive much financial compensation. Senior workers who are laid off lose a lot of their lifetime income. Topel

(1992) shows that more senior workers lose on average 25% of their pre-displacement earnings in the first couple of years after displacement. The explanation for this paradox of low EPL going hand in hand with steep tenure profiles is likely to be the strong countervailing power in the American political system (see Persson, Roland and Tabellini, 2000). This greatly restrains the ability of politicians both to impose EPL and to facilitate central coordination in wage bargaining, which protects workers against taking firm-specific risks.

The great accomplishment of Denmark is to have been able to sail between Scylla and Charibdis. On the one hand, it has generated enough collective action for setting up institutions providing collective norms for wage bargaining such that workers do not capture much of firm's excess profits. On the other hand, it has succeeded in restraining politicians from introducing EPL. This outcome yields a low unemployment rate and flat seniority profiles in wages, which takes away a major argument for introducing EPL in the first place. In other words, strong collective norms eliminate the temptation to introduce EPL.

EPL thus gives rise to a paradox. EPL is meant to act as social insurance for income loss and possible psychological losses related to job loss. At the same time, however, it generates its demand by providing a mechanism that raises the demand for insurance by pushing up the return to seniority. The net effect is an increase in uncertainty in that workers bear more firm-specific risk via their return to seniority and, when they get unemployed, also more individual-specific risk, since the lower rate of job creation reduces their chances to find a new job. Those who manage to rise in the seniority hierarchy do well. Those who do not, in contrast, end up bumping back and forth between unemployment and the lower strata of the seniority hierarchies, and with some bad luck, never get out of bad jobs. Indeed, Clark and Postel-Vinay (2006) show that workers feel most insecure about their job in countries with the most extensive EPL. The paradox of EPL is that it creates exactly the sentiment of job insecurity that it is meant to cure. Indeed, the ease with which it is possible to find a new job, rather than the difficulty of being laid off from the current job, appears to determine the sentiment of security. To illustrate, the flexible Danish system, in which you are easily laid off but where finding a new job is as easy, provides more security than the Portuguese system, with steep seniority profiles and strong EPL.

6 Corporate governance legislation

The argument put forward in this paper suggests that firms should maximize long-run shareholder value. However, the results discussed in Section 4 suggest that in economies that embrace the principle of shareholder value most wholeheartedly this outcome is not realized easily. Denmark is closer to the Utopian outcome than the United States. Apparently, the legal framework for corporate governance is not the only thing that matters. How can this paradox be explained?

The relationships between the firm's management and its workers involve an incompletely specified contract. What type of effort workers should deliver is hard to determine *ex ante*, and if it could be determined, it would be hard to specify in a legally enforceable contract. The incompleteness of this contract demands that the management builds up a reputation of reliability *vis a vis* its workers. Only the management's reputation can provide the workers a guarantee that management will stand up to its promises. This is also one of the most important roles of the firm: it is a nexus of implicit contracts held together by the reputation of management. Reputations require long time horizons. In many cases, a takeover is just a means to get rid of some of the firms' obligations *vis a vis* its workforce. The replacement of management implies that the commitments and promises of the previous management are eliminated, giving a new management the opportunity to

conclude new deals. Sheifer and Summers (1988) claim that a large share of the gain in stock market value when a firm is taken over are (quasi) rents extracted from other stakeholders. A typical example is the airline industry, where a takeover was a means for the airline to get rid of incompletely specified defined-benefit pension obligation towards the airline's retired workers. Similarly, takeovers are often used to reduce wages.

The takeover mechanism thus makes it more difficult for management to commit to implicit contracts with workers and other stakeholders. In particular, the threat of a future takeover, followed by a replacement of the current management, undermines the management's ability to come to an agreement on an implicit contract with its workers because workers realize that management can be replaced at any future date by the shareholders. This mechanism might explain why there is no unequivocal road from legal structure of corporate governance to the ability of management to come to an agreement with its workers to leave most of the (quasi) rent in the hands of shareholders and to pay most investments in firm-specific capital. Without such a commitment mechanism, the various stakeholders may pursue short-run goals at the cost of pursuing the joint interest of maximizing the long-run value of the firm.

Another related issue that often comes up in this context is a possible conflict between the long-run interest of the firm and the short-run orientation of shareholders. In principle, holding equity in a firm gives an investor an interest in the long-run prospects of the firm, since the value of that equity is equal to the net discounted future cash flow of the firm. However, shareholders have less information than the firm's management. If this management lacks confidence in the eyes of shareholders, they do not have the credibility to pursue long-run investment projects that are hard to verify by shareholders. Hence, management lacking shareholder-confidence may be tempted to postpone long-run investments with hard-to-verify returns and instead pursue policies that generate immediate cash flows that are easily verifiable.

There are two solutions to this problem. First, the management should protect its reputation by keeping long-run promises to shareholders. Second, firms may want to attract shareholders that hold a substantial stake in the firm's equity for a longer period of time, so that these shareholders can invest in the collection of information about long-run investment projects. In view of their substantial capital, institutional investors like pension funds, are obvious candidates for playing this role.

Another problem with the shareholder model is that shareholders' limited liability gives them an incentive for excessive risk taking. They enjoy the upside, but their limited liability protects shareholders against large downsides. This downside risk is shifted to the other stakeholders, in general, and to debt holders, in particular. Writing more complete debt contracts is the remedy for this problem

Since Thatcher, the United Kingdom has legislation that gives shareholders the strongest formal power, including the right to appoint board members, and also the right to fire them. In the United States, shareholders have fewer means to fire board members, but the law provides the board with a single and transparent goal: maximize shareholder value. Shareholders can go to court and put liability claims against managers who fail to do so. This might be an effective combination: the single goal makes managers accountable, while the protection of management against intervention by shareholders provides them the credibility to negotiate implicit contracts with the workers.

The Rhineland principle of equal treatment of the interests of all stakeholders strengthens the moral legitimacy of the claims of workers on the surplus of a firm. According to Bertrand and Mullanaithan (2003), workers enjoy a greater share in the surplus, superfluous workers are less easily laid off, and new activities are set up at a lower rate than in other firms in U.S. firms that are protected from takeovers by all kinds of legal protection. Hence, the

Rhineland idea of firewalls against takeovers gives workers a greater share in any firm-specific surplus.⁹ Legislation based on the stakeholder model thus gives moral legitimacy to the claim of insiders on the surplus of the firm, thereby exposing workers to firm-specific risks and worsening the hold-up problem.

Although giving up the moral claim on the surplus of the firm is in the long-run interests of workers, it gives rise to difficult transitional issues. Currently older workers with high seniority benefit from the Rhineland system. They are thus understandably concerned about a take over by hedge funds and private equity because they are likely to lose a claim on the surplus if such a take over would occur. Indeed, the Rhineland principles no longer offer much protection to workers. The incomplete contract gives rise only to ambiguous property rights. In this way, workers are saddled with even more firm-specific risk. Hence, it is a better to move to a model in which workers do not derive their security from the financial stability of their firm but from the value of their own human capital. In such a world, free international trade in corporate control is more legitimate. Countries that provide this new form of security enjoy a competitive advantage on the world capital market.

One way to address the transitional issue would be to replace the implicit transfers from junior outsiders to more senior insiders by temporary, explicit transfers to the latter group. For example, the reduction of the return to seniority and EPL could go hand in hand with temporary in-work tax benefits for elderly. These in-work benefits should be gradually reduced, as younger cohorts anticipate a flatter seniority profile and save more. The flattening of seniority wage profiles is a cultural change involving collective norms. These processes are painful and time-consuming. In the mean time, the political rhetoric and ideology should not give legitimacy to new claims of workers on the surplus of the firm.

7 Conclusions

In our Utopia, workers would not bear any firm-specific risk, since this risk can be well diversified on capital markets. Diversification of this risk on the capital market is an efficient form of social insurance. With shareholders bearing firm-specific risks, these shareholders are the residual claimants on the full surplus of the firm; the ultimate goal of the firm is thus to maximize shareholder value. The other stakeholders collect only their outside option and are thus not exposed to firm-specific risks. The principle of maximization of shareholder value being the ultimate goal of the firm is at odds with the Rhineland philosophy of a balanced treatment of the interests of all stakeholders.

We have uncovered three paradoxes. First, workers' relinquishing claims on the surplus of the firm does not conflict with the interests of workers as a whole. This is because capturing part of the firm's surplus raises the cost of capital for investment in new jobs. For workers as a group, the adverse effect of less job creation on wages more than outweighs the positive effect of capturing part of the firm's profits. Workers thus face a commitment problem. When entering the labour market as an outsider, they would like to promise that they are giving up future claims on the firm's surplus. After having secured their position as a senior insider, however, their interest is to claim the surplus after all. The interests of insiders thus diverge those of outsiders. In open economies facing an elastic supply of capital, the associated conflict between outsiders and insiders is more serious than the traditional conflict between capital and labour.

⁹ In addition, one might wonder why stakeholders who are protected by separate legislation (such as EPL for workers, and Anti-trust and Competition Legislation for customers and suppliers against the abuse of market power) should receive additional protection during takeovers. These laws provide a more complete formulation of stakeholder rights than CGL does.

The second paradox is that Anglo Saxon countries like the United States are not the closest approximation of the Utopian world of complete diversification of firm-specific risk in the capital market. A wealth of empirical evidence suggests that decentralized bargaining over wages allows workers to capture a substantial part of the firm's surplus. Of the three countries discussed in this paper, Denmark appears to be much closer to Utopia than is the United States. Some shared norms on what is proper compensation and some coordination in wage bargaining help to sustain the Utopian outcome and appear to be more important than corporate governance legislation. Since institutions such as coordination in wage bargaining and social norms play an important role in getting to Utopia, collective action has an important role to play. By actively supporting the rights of outsiders and by denying insiders a share in the firm's surplus, a country can get close to Utopia, as Denmark shows. Politicians, however, face the temptation to please voters and incumbent workers with short-run gains at the expense of the surplus of future workers. Hence, while politics has an important role to play, it can be a mixed blessing.

The third paradox is that, while globalisation of capital markets has greatly increased the scope for diversification of firm-specific risk, it has also eroded the incentives for politicians to play their role properly. Globalisation has reduced the political support for protecting the claims of shareholders on the firm's surplus, since the majority of shareholders are foreigners. Hence, politicians may find it more difficult to convince voters that the claims of shareholders should be protected. However, the increased mobility of capital may help in this respect -- in that high wage claims may convince corporations at an earlier stage to move their factories abroad. In this way, the short-run labour-demand elasticity may get closer to the corresponding long-run elasticity. In any case, a more equal distribution of capital income (through e.g. pension saving of the middle class) may help to legitimise wage restraint of incumbent workers. The transition to Utopia is fraught with difficulties. Indeed, the problem is analogous to the transition from a pay-as-you-go to a funded pension system: one generation has to pay twice. While society reaps long-run gains in efficiency, in the short run a generation of insiders will have to give up their rights without benefiting from increased job creation and higher starting wages: being insiders, they already have a job while having paid their dues in the past in terms of a low starting wage. Whereas the claims of older workers on the surplus of a firm may thus have some legitimacy, younger cohorts should be denied such moral claims. These problems require extreme political skill to solve.

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