

Cheap Talk or Credible Signals? Economic Interests and the Construction of a Single Pension Market in Europe

Alexandra Hennessy

Abstract

This paper asks why the EU member states were able to agree on a single market for pension funds in 2003 whereas they had failed to do so in several previous attempts (1991-2002). The main argument is that the single pension market was a desirable project before 2003, but bargaining inefficiencies prevented its realization. This is because bargaining over integration in this sector requires credible signaling between the political actors in the member states. More specifically, the coordination of divergent welfare and financial regimes depends on the ability of governments to send costly signals that only a limited range of outcomes are considered legitimate solutions at home. In turn, the capacity to signal and the costs of bluffing hinge on international pressure for pension reform (European Monetary Union) and the magnitude of changes governments have to make to their respective welfare-finance arrangements. The difficulty of reaching consensus on this EU directive was significant and the level of integration accomplished varies across issue areas. The knowledge of how it was done may shed light on the mechanisms supporting or inhibiting the coordination of divergent regulatory regimes more generally.

1 Introduction

Although European regulations increasingly influence national welfare and financial systems, the existing literature is only beginning to examine how EU decisions are affected by, and impact on, national institutional frameworks in the member states (Schmidt 2002; Marks and Steenbergen 2004; Ferrera 2005; Callaghan and Höpner 2005; Menz 2005; Perez and Westrup 2006). Is the creeping Europeanization of social and economic policies complementary or disruptive to national welfare states? How does the clash of Anglo-Saxon vs. social corporatist capitalism systems play out at the European level?¹ This paper attempts to shed light on these questions by analyzing feedback effects between national occupational pension regimes and recent pension policies the European Union has mandated. More specifically, it asks why the member states were able to agree on a European pension fund directive in 2003² whereas they had failed to do so in several previous attempts (1991-2002).

Occupational pension regimes in Europe have not been sufficiently explored by the existing literature, not least because of the limited comparability of occupational pension schemes across countries.³ Yet, due to unfavorable demographic developments, stretched budgets, and swelling non-wage labor costs it is impossible to deny the growing importance of employer sponsored pensions. Given that cutbacks of social security pensions tend to be politically toxic, governments in most European nations feel mounting pressure to improve access to second pillar pensions.

Another reason why occupational pensions increasingly move into the limelight is the mounting legislative activity by the European Union in this policy area, which may or may not be a good fit with national institutional settings (Scharpf 1999). Any transnational regulatory framework governing pension funds across borders requires a minimum harmonization of investment, social, and supervisory regulations. These, in turn, have a major domestic impact on economic interactions between governments, occupational pension plan sponsors, and beneficiaries (Bodie and Mitchell 1996; Davis 1999; Eijffinger and De Haan 2000; Ebbinghaus and Manow 2001; Estevez-Abe 2002).

At the national level, the political will to increase access to second pillar pensions is not in short supply. But because occupational pension regimes in Europe differ considerably in terms of regulatory supervision, financial design, and biometric risk coverage, European harmonization efforts represent a classic cooperation problem: converging on EU-wide rules is desirable in principle, but deep divisions exist over both objective

and means of harmonization. While the liberal bias of EU pension policies may fit well with institutions in countries featuring a mature pension fund culture, it is in many ways opposed to the institutional settings found in countries with an insurance culture. This makes any common policy hard to adopt. Thus, what explains the discrepancy between bargaining breakdown in 1991, when pension market integration was initially proposed, and negotiation success in 2003, when the pension fund directive was adopted? Were skeptical member states coerced, persuaded, bought off, or did they simply change their preferences?

We approach this question by developing an analytical framework that captures the interaction of governments and national varieties of capitalism to explain the shift from negotiation failure to a politically efficient agreement. The main argument proceeds as follows. Based on their peculiar systems of social protection, the European member states may be analytically divided into two opposite camps: pension fund cultures, found mostly in liberal market economies (LMEs); and insurance based cultures, which are more common in coordinated market economies (CMEs).⁴ Given their different institutional structures, any European framework governing pension portability across borders would inflict more adjustment costs on conservative states. These may be further divided into a “high cost” and a “low cost” type, accounting for variation in the ability to adjust to EU pension policies across conservative types. Governments have private information regarding their true cost type. Although the liberal states faced less adjustment costs and actively supported a European agreement, they were not willing to sign a directive at all costs. Their preference over an agreement is contingent upon their belief about the type of conservative government they are negotiating with. While the liberal states preferred to strike a deal with a low cost type, they were willing to accept a less favorable agreement when facing the high cost type. In 1991, uncertainty about each others’ beliefs and concomitant inability to distinguish between the two types resulted in bargaining breakdown.

The move to European Monetary Union (EMU), however, changed the cost parameters the conservative states attached to creating the single pension market. In this environment, failure to agree on integration threatened to cause further political and economic problems. Thus, the conservative states were able to send a costly signal, inducing their liberal counterparts to update their belief about which type they were dealing with. As a result, the member states managed to adopt a politically efficient – albeit economically incomplete – pension fund directive in June 2003, four years after the final stage of EMU had begun. The null hypothesis is that the conservative countries were never of the high cost, but of the low cost type. Thus, an empirical test showing that the conservative states were bluffing and could have implemented an EU

agreement with only marginal costs would undermine the argument advanced in this paper.

The remainder of this paper is organized as follows. The second section will review existing approaches that have been applied to decision making in the European Union. The third part analyzes why conservative governments faced higher costs of bargaining breakdown after EMU was implemented. In the fourth section, the basic problem of pension market integration is captured by a dynamic game of incomplete information. The fifth part builds an account of the preferences of governments and pension institutions, relying on insights available from the varieties of capitalism approach. The final section concludes with a summary of the main findings and suggestions for future research.

2 Decision-making in the European Union: bargaining and procedural approaches

In the majority of formal decision-making models, the reasons for and implications of negotiation breakdown are rarely explored. Proponents of procedural approaches, for example, have modeled the formal legal sequencing of the various EU decision making processes. Their goal is to assess whether agenda-setting, veto or gate keeping rights empower an institutional actor, such as the European Parliament or the EU Commission (Tsebelis 1996; Kreppel and Tsebelis 1999; Kreppel 2002; Majone 1994; Sbragia 2002).

The hidden assumption in those studies is that informal deliberations are unimportant compared to legal procedures. While not every legal rule is unequivocal, the clarity and traceability of legal procedures compares favorably to the obscure informality of pre-decision consultations. However, the outcomes of specific European decision processes are not only affected by formal institutional rules, but also by a variety of interacting factors, such as cognitive and normative orientations, which define the “game” that is being played (Blyth 2003; Hall 1993; McNamara 1998; Risse 2001; Sabatier 1998; Schmidt 2000).

While procedures set the boundaries within which action takes place, they do not determine behavior. Several studies have shown that deliberations prior to the legal steps of adopting rules is critical to political outcomes in the European Union, just as they are in every democratic decision making body around the world (Wallace 2000; Achen 2006, p. 124). These works demonstrate that the deliberations preceding the

formal decision making process are more consequential than the narrow legalities. My aim is in no way to diminish the importance of procedures and votes for policy outcomes or the contributions of such work to our understanding of how certain decisions come about. After all, any European directive, law, and regulation is shaped by the need to have it ratified at the legal decision making stage. But an exclusive focus on legalities cannot explain why governments sometimes fail to reach an agreement despite tangible benefits from cooperation. European Commissioners test the waters to gauge which proposals may have a chance of getting formally adopted. As Achen (2006) aptly points out, “[T]hey do not vote on various proposals until one alternative wends its way through a set of legal procedures and emerges as law. Instead, it is the prior exploration of feasible outcomes, bargaining, and political power that dominate” (Achen 2006, p. 126).

Thus, understanding the nature of decision making in the EU requires analysis of why informal negotiations sometimes result in deadlock, and sometimes in politically successful agreements. Although bargaining approaches have been successfully applied to address this question (Arregui, Stokman, and Thomson 2004; Bueno de Mesquita 2004; Thomson 2006), they are unsatisfactory for studying feedback effects between the international and domestic levels. As historical institutionalists have pointed out, domestic political parties, coalitions, and other modes of interest representation tend to be rather sticky. Therefore, we not only need to explore when and why politicians attempt to shift established policy patterns by brokering agreements at the European level, but also how EU directives might feed back on national elites and the public to sharpen certain cleavages and stifle others.

We argue that a domestic constraints model, framed as a signaling game, is better suited for capturing the dynamics underlying the deliberations to the single pension market than standard procedural or bargaining approaches, because the actor-centered perspective allows us to understand more precisely how EU integration is linked to domestic politics. Modeling contestation over the pension fund directive as a signaling game between European governments demonstrates how political success in one area of integration gives rise to success in another area. In contrast to simplistic “spill-over” arguments that are impossible to falsify (Haas 1958), we offer a testable argument about how functional necessities arising from integration in a particular policy field (European Monetary Union) influence negotiation processes in another policy area (pension market integration). In this respect, our theory is consistent with liberal institutionalist approaches (Keohane 1984; Keohane 1989), but it departs from these works by including an explanation of the concrete deliberations that are informed by domestic preferences (Brinegar, Jolly, and Kitschelt 2004; Moravcsik 1998). The

focus of our model is on informal bargaining taking place before the legislative proposals are adopted as laws.

3 Contestation over pension market integration: liberal pension fund cultures versus conservative insurance cultures

At first glance, the governance of pension funds across borders may seem like a simple target for EU harmonization efforts. The potential benefits seem sizeable: more integrated capital markets, lower barriers to labor mobility, and substantial savings in administrative costs for multinational businesses. However, a single European pension market required institutional changes that reflected the fact that cooperation was desired in issues over which preferences varied. Based on the insights of Thomas Schelling (1960) and Robert Putnam (1988), we hypothesize that the relative weight each government assigned to the costs and benefits of a single pensions market determined its “bargaining type” at the European negotiation table.

Governments can be of two kinds: those representing an insurance culture (i.e. Austria, Belgium, France, Germany, Italy, Spain, Portugal) and those representing a pension fund culture (i.e. Denmark, Britain, Ireland, Sweden and the Netherlands). A European-wide framework for pension portability affects the two types differently because of their distinctive welfare-capitalism arrangements. We label the first type “conservative”, because the regulatory regimes found in this group are more likely to face high costs of reform. Mature pension fund cultures, by contrast, fit better with EU pension policies and are therefore less likely to endure high adjustment costs. This latter group is referred to as “liberal” states.

Because the conservative states harbored occupational pension sponsors and beneficiaries most likely to suffer from integration, they found the creation of a European single pensions market politically more costly than the liberal countries. Pension funds in these countries are typically subject to heavy regulatory restrictions and investment limits, making it difficult for the pensions industry to attract the pension management skills it needs to be competitive (Estevez-Abe, Iversen, and Soskice 2001; Iversen and Soskice 2001; Deutsch 2002). Most pension schemes offer biometric risk coverage, which denotes relatively expensive social protection against disability, survivor dependence, and longevity. More importantly, many employers in conservative states offer corporate pensions that only exist on the books and are not funded.⁵ The method of internal financing is preferred by many employers because deferred taxation rules make these assets available for

financing current business activities (Ahrend 1996; Manow 2001; Schoden 2003). Furthermore, long waiting and vesting periods⁶ attached to book reserve pensions commit workers to the firm for a long period of time and therefore discourage poaching. As such, such pensions provide firms with an effective staff retention device. Any move towards an EU-regulated single pensions market posed a threat to this cheap source of capital, because the liberal states intended to introduce funding requirements for all pension schemes (including book reserve pensions). This is because funding is commonly thought of as vital for safeguarding corporate pension entitlements.⁷

However, there is variation in adjustment costs across conservative member states. Differences in institutional structures, such as the size of the service sector (Iversen and Wren 1998), the extent of public sector employment (Martin and Thelen 2007), state capacity to “impose” unpopular reform packages on social partners (Hassel and Ebbinghaus 2000; van Wijnbergen 2002), as well as past experiences with welfare spending on different age groups (Lynch 2006) all influence the precise costs of reform. While some states have successfully incurred short-term costs to introduce funded components to their pay-as-you-go (PAYG) pension systems, other governments may have refrained from doing so in order to establish, or maintain, a reputation as the guardian of the welfare state. Because the costliness of adjusting domestic pension systems to EU mandated regulations is not directly observable from outside, governments have an informational advantage concerning their true cost types. This is particularly true for a government’s readiness to honor or default on debt obligations, of which pension liabilities constitute the largest part. Although European-level negotiators meet in a variety of formal and informal settings and swap information about each other, they may have an incentive not to disclose their information fully or accurately. Furthermore, if there is no underlying consensus on the goals and design of the single pension market, member state representatives might disagree on the best alternative despite all of the relevant information being shared. Such systemic biases may induce negotiators not to fully disclose the severity of constraints they face at home (Austen-Smith and Feddersen 2006, p. 209). We therefore presume that the true cost of reform is private information of individual member states.

In contrast to their conservative counterparts, liberal governments faced lower costs of reform. This is because their countries feature comparatively mature corporate pension systems, an internationally competitive pensions industry, skilled asset-liability managers, and relatively liberal investment regulations.⁸ Occupational pension schemes rarely offer expensive biometric risk coverage (Blake 2003; Börsch-Supan and Miegel 2001; Daykin 1996; Davis 2000; Lynes 1997). While in conservative countries the top political priority

is pension security, pension policy in liberal states developed along different lines, with commercial and monetary interests dominating (Whiteside 2006, p. 44). Even though the private information assumption regarding the true costs of reform also holds for the liberal states, the congruence between European pension market integration and the mature pension fund cultures these governments represent attenuates differences in adjustment costs. Because variation in the benefits the liberal types secure from integration is sufficiently small, it is innocuous to assume a single type set for the liberal states.

Given the different pension cultures these governments represent, they envisaged radically different versions of a European-wide framework. While the liberal states preferred to implement the single pensions market based on high harmonization of investment regulations (the application of the so-called prudent man rule), high harmonization of funding requirements, and no harmonization of biometric risk coverage, their conservative counterparts envisioned the polar opposite: maintenance of quantitative investment limits, no harmonization of funding requirements, and high harmonization of biometric risk coverage. In short, the two types had different political ideal points corresponding to divergent levels of integration.

However, the literature underscoring the significance of constrained domestic win-sets for international bargaining leverage (Schelling 1960; Putnam 1988; Evans, Jacobson, and Putnam 1993) is unsatisfactory for explaining the discrepancy between negotiation failure in 1991 and negotiation success in 2003. This body of research would have predicted a policy outcome more favorable to the ideal points of the conservative states because the high costs of reform should have translated into a bargaining advantage. But this is contradicted by empirical evidence. The Commission's initiative in 1991 to tackle the restrictions inhibiting cross-border pension portability⁹ hit a brick wall of opposition from almost all EU countries (Deutsch 2002; Karas 2003; Observatoire des Retraites 1999; Rupperecht 2001).

Sir Leon Brittan, Commissioner for competition policy and financial services, first presented his vision for pension market integration in 1991, after it emerged that pension funds had been forgotten in Jacques Delors' White Paper (1985) on the single market. To create pan-European pension funds, Brittan proposed reforms in three critical areas: freedom of investment, freedom of management, and cross-border membership (EFRP 2001, p. 45). The member states' response to pension market integration was overwhelmingly negative. The conservative member states not only opposed all of Brittan's suggestions, but even tried to turn the draft proposal on its head. Although the Commission's goal was to liberalize freedom of capital across borders,

the conservative states attempted to use the directive proposal to enshrine tough investment regulations, which ultimately made it unattractive to the countries that had sought its adoption, in particular Britain, the Netherlands, and Ireland (Interview with Commission administrator, 23 June 2006).

Although investment restrictions were frequently justified with the need to protect investors against market risk, a more important reason for opposing the delegation of control over investment regulations to Brussels was the Commission's plan to include unfunded book reserve pensions under the scope of the directive. As previously mentioned, employers in conservative countries cherish book reserve pensions because they provide them with cheap company finance and an effective staff retention device (Estevez-Abe 2002; Hennessy 2007). EU-mandated investment and social regulations, however, would have forced firms to *fund* these pensions, thereby obliterating the long-term nature of capital flows and labor relations. Because the conservative governments realized that adoption of such sweeping regulatory changes was politically dangerous, they offered to create a single pension market that corresponded more closely to their own national institutional frameworks.¹⁰

Yet, despite ostensibly legitimate concerns over the impact of the directive on domestic employers, this counteroffer was quickly dismissed by the liberal member states. The reason is that the counteroffer was not interpreted as a *costly* signal and therefore eroded the credibility of the domestic constraints argument. Given that population aging and concomitant reform pressures weighed more heavily on PAYG pension systems than on mature pension fund cultures, the liberal states adopted a wait and see attitude, refusing to make any concessions to their conservative counterparts. As the Irish Association of Pension Funds remarked at the time, "The Irish, British and Dutch pension systems are far more developed than those existing in other EU countries and it is imperative that they be protected. It is better to have no directive than a bad directive."¹¹ As a result of this deadlock, the Commission withdrew its proposal. Subsequent attempts to come to an agreement were made in 1993 and again in 1999 when the original draft was amended, but these also failed and were eventually shelved when the Commission resigned in the wake of massive scandals in 1999.

This episode demonstrates that, contrary to what the "constrained win set" literature would predict, each camp – insurance versus pension fund countries – declined to reform its own welfare-finance arrangements and instead urged the other side to adjust. Neither side was able to translate the domestic constraint logic into a bargaining advantage. Thus, what we seek to contribute to this debate is an argument about the

conditions that make the “constrained win-set”-strategy a credible choice of governments.

As many scholars have demonstrated (Schneider and Cederman 1994; Bräuninger, Cornelius, König, and Schuster 2001; Hug and König 2002), it makes a difference whether domestic constraints are perceived as real or feigned. In 1991, failure to distinguish between cheap talk and credible signals contributed to the breakdown of negotiations over the pension fund directive. Since both liberal and conservative states had the same preferences – designing the single pensions market without reforming their own social and economic institutions – their signals could not be informative. Conservative governments did not have to fear immediate audience costs (Fearon 1995) resulting from negotiation breakdown, such as electoral punishment or loss of reputation. This is why each player tried to hold out for a better deal, and negotiations resembled a “war of attrition”.

In 2003, however, the single pension market was part of an overarching project – European Monetary Union – and several steps towards further financial market integration had already been taken. These measures include banking and stock-market regulation, as well as permission for banks, insurance and investment companies to operate EU-wide with a single license. Realizing their competitive disadvantage vis--vis insurance companies, pension funds, represented by the European Federation for Retirement Provision (EFRP), began to lobby for their own “single passport” (EFRP 2001). Thus, European pension policies are not the deliberate result of attempts to over-regulate the economy or to build a “social Europe”, but the unintended consequence of policies aimed at solving problems stemming from internal market integration.

We hypothesize that, once European Monetary Union was implemented, the economic and political costs of bargaining breakdown became much higher for governments retaining large unfunded pension obligations. This does not mean that the costs of complying with *any* European framework had diminished. While conservative governments still faced high economic costs of implementing the European pension fund directive, the political costs of bargaining failure, however, had become even higher. This is because failure to establish the single pension market threatened to do three things: 1) decrease sovereign credit ratings due to higher interest rates on government debt, 2) diminish the legitimacy of cutting back on social security pensions at home, and 3) confront governments with a highly unfavorable set of intertemporal policy choices. While the first point represents the source of higher economic costs, the second and third aspect embody the increased political costs associated with failure to reach agreement on the pension fund directive. Let us consider each

in turn.

First, EMU changed the level of conservative governments' implicit and explicit debt obligations and as such, may impact on the perception of their solvency (Fiess 2003, p. 4). By creating the European Central Bank, national governments lost the option of expanding the money supply to meet debt obligations, of which unfunded pension liabilities are the largest part (Eijffinger and De Haan 2000). Thus, an important effect of the single currency may be a shift of attention on the credit quality of European governments as if they were private sector companies. As Hamilton and Flavin (1986) show, intertemporal budget constraint models play an important role in assessing public sector solvency. Prior to EMU, the large credit rating agencies focused on the debt obligations of national governments according to a complex set of quantitative and qualitative criteria, such as political risks, fiscal flexibility, monetary stability, external liquidity, economic structure, and the like (Hamilton and Flavin 1986).

After the implementation of EMU, however, rating agencies have proposed to use new criteria, similar to the ones applied to large corporations (Financial Times 1991). Several studies (Daley 1984; Feldstein and Seligman 1981; Carroll and Niehaus 1998) have found that rating agencies do take unfunded pension liabilities of corporations into account when determining a firm's risk profile. According to this perspective, an underfunded pension plan represents a claim against future cash flows which decreases the security of other debtholders' claims, all else equal. Other scholars (Truglia 2002) argue that unfunded pension claims of governments play only a minor role in assessing sovereign credit risk. Although calculations of future pension liabilities provide a projection of a given scenario, Truglia does not expect this projection to actually materialize: "As a result (...) large future pension claims have not greatly influenced our ratings of government debt in the industrialized world, even where net present value calculations would indicate very substantial claims on government resources over a 20-30 year time horizon. We simply expect that the government will 'default' in the future on its pension promises as currently written in law in a way that will favor creditors" (Truglia 2002, p. 2-3).

This expectation implies, however, that the ratings of the affected countries could come under severe pressure unless appropriate reform steps are introduced. Lower ratings indicate a decrease in a country's readiness and willingness to meet debt obligations duly and may therefore deter potential investors. This, in turn, may decrease the number of investment funds which will buy government bonds, and increase the interest

rate on government debt. While some insurance based countries such as Germany, Austria, and France consistently received the highest scores, rating agencies strongly emphasize the need for structural reform. Standard and Poor's country report in 2002 mentioned that "[t]he ratings on Germany will be supported by a consistent long-term approach in addressing the challenges of eliminating structural budget deficits, increasing employment growth, and putting the increasingly overburdened health and pension systems on a more solid footing" (Standard and Poor's 2002). Other conservative states such as Belgium, Italy, and Portugal are rated lower.¹² The decisions of rating agencies also affect the borrowing costs for individual companies. For example, in February 2003 the German steel and engineering firm ThyssenKrupp was downgraded two weeks after Standard and Poor's expressed concern about ThyssenKrupp's unfunded pension liabilities.¹³

The increased costliness of negotiation failure in an EMU setting is furthermore connected to domestic perceptions of distributional and generational justice. Failure to strengthen pension portability at the European level imperiled the legitimacy of cutting back on social security pensions at home. As pension scholars never tire to point out, the trickiest question associated with reforming PAYG pension systems is how to avoid punishing one generation by requiring them to finance their parents' pensions and save for their own (Myles and Pierson 2001). Because young and highly educated employees are more likely to be mobile, they are more likely to benefit from a single pension market than elderly employees with obsolete or firm specific skills. This is because the prospect of owning occupational pension rights even in case of career changes or interruptions could be sold to domestic voters as a form of compensation: cuts in future social security pensions would be offset by better access to, and more efficient management of, existing occupational pension rights. Given that more than 60 percent of young Europeans consider the possibility of being able to work anywhere in the European Union as an important right (Eurobarometer 1997, p. 113), this outlook is no small enticement.

Thirdly, and most importantly, all EMU countries are signatories to the Growth and Stability Pact, which limits the build up of public sector deficits over time. Because governments face restrictions on the size of budget deficits and the overall build-up of public sector debt, their freedom of fiscal steering to offset these constraints is quite limited (Soskice and Iversen 1998). As a result, reforming pension schemes in the European Union has become even more urgent, especially in the member states with large PAYG pension systems (Eijffinger and De Haan 2000). This changed macroeconomic framework has altered the intertemporal policy choice set governments are subject to. Without the Growth and Stability Pact, governments had incentives to put off reforming their pension system into the future. Why incur costs in the present when the

benefits won't accrue until the distant future and might benefit the other guy? However, the Growth and Stability Pact altered political incumbents' time horizon: the longer European governments failed to reduce their future PAYG pension claims, the tougher the actual cuts required to live within the confines of the stability pact would have to be. Therefore, the longer the delay, the higher the likelihood that governments would need to cut entitlements of current beneficiaries (Truglia 2002, p. 4). The closer to the present the actual cuts in benefits are, the greater the risk that governments will suffer electoral punishment. In this respect, EMU-induced pressure may be seen as a way of overcoming the time inconsistency-problem political incumbents invariably confront, namely incurring costs in the present to realize a collective good – in this case, a reduced social security deficit – in the future (Pierson 1994; Jacobs 2004).

For these reasons, it was perhaps not overly surprising that it was the Spanish and Italian presidencies of the EU – two conservative states – to press forward with the pension fund directive. In 1993, newspapers had warned that “if agreement on the directive is not reached by the end of the Belgian presidency (31 December 1993), the next five presidencies – Greece, Germany, France, Spain and Italy – are unlikely to give this particular piece of EU legislation any priority, because these countries do not at present have large and active private pensions industries” (European Savings Markets, October 21, 1993).¹⁴ Yet, as the above discussion suggests, EMU substantially increased the political and economic costs of failing to realize the single pension market. As a result, signals by the conservative states that some accommodation at the EU level was necessary to ease the pain of domestic reforms were costly and hence credible. This prompted the liberal states to adopt an honest, accommodative position. The following section develops a formal model that captures the capacity of the European member states to send and receive signals, accounting for the discrepancy between bargaining inefficiencies in 1991 and informative exchanges in 2003.

4 Formal model

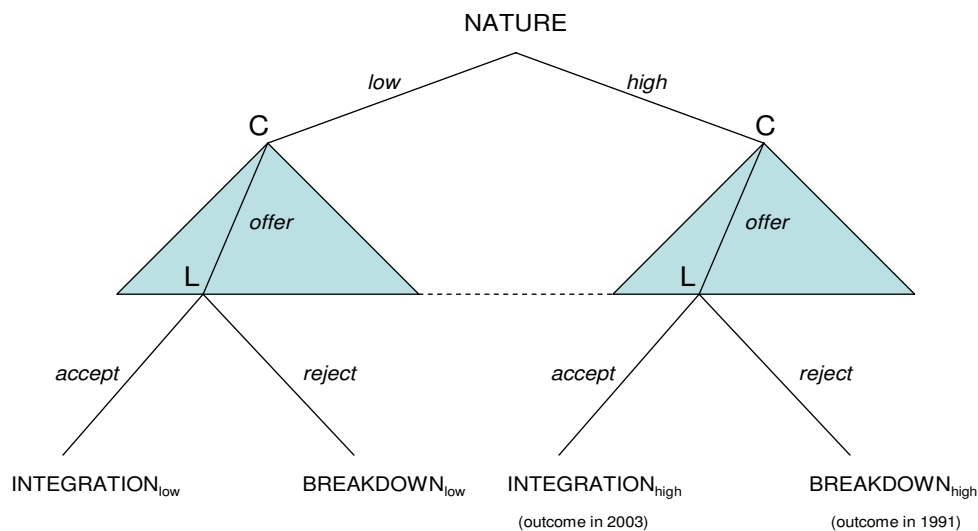
Consider a simple game of incomplete information played between a single conservative state C representing the insurance cultures and a single liberal state L representing the pension fund cultures in the European Union.¹⁵ Both are concerned with the extent to which they have to reform their own social and economic institutions following any agreement at the EU level. They bargain over a convex policy space defined by the closed interval $[0, 1]$. C 's ideal point lies at 0 and L 's ideal point lies at 1. The players are assumed to

have single peaked preferences. The utility functions are monotonically decreasing when moving away from their respective ideal points.

The player with private information (C) can be of the high cost type (C_H) or of the low cost type (C_L). The two types differ with respect to their utility for an EU agreement, with the high cost type incurring more adjustment costs resulting from integration. Only C knows his true cost type, whereas L needs to make inferences about C based on C 's actions.

4.1 Sequence of moves

As illustrated in the game tree, nature moves first and determines whether conservative state C is of the high cost or low cost type.



The conservative state moves next and offers a level of integration x , with $x \in [0, 1]$. The game is interesting because the liberal state does not know which type of C it is negotiating with. L prefers to deal with a low cost conservative state to implement a single pension market that mirrors its own market-based social and economic institutions, but if L believes with certainty that C is of the high cost type, L prefers to move further away from its ideal point to accommodate C . This means L accepts a less favorable point in the policy space to avoid the worst possible outcome (no integration, or maintenance of status quo). However,

L has a prior expectation $q \in [0, 1]$ about the distribution of types. Depending on the observed offer by C , the liberal state L updates his belief about C . The updated belief μ denotes the probability L attaches to C being of the low cost type. L takes the next step and decides whether to accept or reject C 's proposed point in the policy space. If L accepts, the game ends, and the payoffs resulting from an agreement are distributed. If L rejects, the negotiations collapse and the players receive the status quo utility minus a penalty, if any, for bargaining failure. The payoffs for INTEGRATION and bargaining BREAKDOWN are determined by the costs involved in implementing any negotiated agreement. They are as follows:

BREAKDOWN

$$U(C_H) = U(C_L) = 0,$$

$$U(L|H) = 0,$$

$$U(L|C) = -k.$$

INTEGRATION

$$U(C_H) = -r_L x + I^C,$$

$$U(C_L) = -r_H x + I^C,$$

$$U(L) = -s(1 - x) + I^L,$$

where $r_L < r_H$ and $r_L = 1$, $s = 1$, $I^C, I^L \in (0, 1)$, and $x \in [0, 1]$.

Notation: r_L and r_H denote the costs of reform C incurs to reach an agreement with L (r_L normalized to 1); $[0, 1]$ is the policy space both parties bargain over; I^C and I^L signify the respective benefits the conservative and liberal states derive from integration; and s represents L 's cost of accepting C 's offer (normalized to 1).

4.2 Equilibria

Recall that information about the true cost type is private information of the conservative government. This means the liberal state's decision about whether to accept or reject C 's integration offer is shaped by its evolving assessment of C 's true cost type. The appropriate solution concept in this game of incomplete information is Perfect Bayesian equilibrium (PBE).¹⁶ Note that no separating equilibrium exists. In other words, the liberal government knows that a low cost government always proposes a point in the policy space that is more favorable to L and a high cost government always proposes a point less favorable to L . Such a course

of action is not consistent with the incentives of a low cost conservative government, which always prefers to pretend to be of the high cost type in the first phase, inducing its preferred outcome, “low level of integration”.

An interesting equilibrium of the game is semi-pooling, in which both *BREAKDOWN* and *INTEGRATION* can occur. Consider the first case: If L observes a low integration offer it might mistake a high cost conservative government for a low cost government that is bluffing to get a more favorable deal. Although the liberal state knows it might be making this mistake, the probability of dealing with a low cost C conveying cheap talk may be perceived to be sufficiently high that the liberal state prefers to take its chances, reject the offer, and find out C 's true cost type. Under this outcome, L randomly challenges C , because claims about domestic constraints are cheap and thus cannot be informative. Since in this case L is trying to catch cheaters, bargaining breaks down.

In the second scenario, the outcome is *INTEGRATION*, because the liberal state received a costly and therefore credible signal, enabling it to distinguish cheap talk from genuinely high costs of reform. This induces L to update its belief about C and accept a lower integration offer to avoid perpetuation of the status quo, a worse outcome for L . The key to a separating equilibrium is that L wants to get it right and make the correct inference about C . Mistakes occur when the negotiators choose an outcome that would not have been chosen had all private information been revealed prior to the vote (Austen-Smith and Banks 1996; Austen-Smith and Feddersen 2006).

Although the liberal state prefers to deal with a low cost C to realize a European framework that is closer to its own ideal point, it clearly wants to avoid negotiation breakdown with a high cost type C . This is because bargaining collapse with a high cost conservative state would signify a big victory for all risk-averse groups in conservative states who are anxious to preserve the status quo, such as employers sponsoring book reserve pensions, risk-averse beneficiaries, or pension funds fearing foreign competition. It would make L look like a loser and considerably diminish the prospect of reaching an agreement in the future. Thus, if L knows for sure it is dealing with a high cost C , it will always prefer to accommodate C and move further away from its ideal point to avoid bargaining breakdown, a worse outcome for L . Yet, as the above discussion has shown, errors can be made when member states' signals are costless.

5 Domestic preferences over the 2003 pension fund directive: Germany and Britain

The previous section analyzed the conditions under which bargaining may break down or lead to a politically successful agreement. The following part will examine the sources of domestic political and economic actors' preferences over a single market for pension funds. Examining actors' policy positions is crucial, because domestic contestation over social and financial regulations is part of the signal states send and receive at the European level.

Since a study of domestic actors in all European member states would go beyond the scope of this paper, the following section will take a closer look at Germany and Britain. The reason for this selection is that the former represents the prototype of an insurance-based country, the latter the prototype of a pension fund country. We also exploit the fact that European member states belonging to an insurance culture tended to side with the claims articulated by Germany, while member states with a pension fund culture were more likely to support the British position.¹⁷ Both states are also central to the literature on “varieties of capitalism” (VOC) (Aoki 2001; Hall and Soskice 2001; Hall and Gingerich 2001; Coates 2005) and “social systems of production” (Granovetter 1985; Hollingsworth and Boyer 1997; Streeck 1992).

Through the lens of this research, Germany embodies a coordinated market economy, while Britain exemplifies a liberal market economy. In line with this work, I assume that both countries are interested in the maintenance of their respective regime type. This implies that national governments perceive costs and benefits of a single pensions market differently, depending on the magnitude of changes they have to make to their distinctive welfare-finance arrangements. According to the VOC literature, coordinated market economies are characterized by long-term relations between firm and workers, access to patient capital, generous biometric risk coverage, and a society lacking an equity culture. Long vesting periods reward loyal employees but punish frequent job changers, especially women who interrupt their careers for child-rearing or other family duties. Because the goals of the single pensions market (more efficient management of occupational pensions across borders, deeper capital market integration, and labor mobility) seem diametrically opposed to the coordinated market model, I expect governments representing this group of states to oppose the single pensions market.

Conversely, governments representing liberal market economies should embrace the Commission proposal,

because the goals corresponded to their comparative institutional advantage. The general discourse in these countries largely reflects citizens' acceptance that statutory pensions will not provide for old age. Because the basic pension is low and ungenerous, occupational pension schemes are well established and characterized by substantial funding and significant voluntary provision, both of which are facilitated by flexible investment rules (Bodie and Mitchell 1996; Davis 2000; Lynes 1997). Key features of asset managers in liberal market economies are a strong international orientation and specific expertise in equity investment. In contrast to CMEs, biometric risk coverage is rarely offered.

Given the significant consequences of social policy and investment choices for the future operation of the single pension market, I expect to find strong disagreements both among and within countries over its regulatory design. The basic problem is the tradeoff each government faces between creating the collective good of a single pensions market and maintaining its own supervisory, investment, and social regulations. Official communications, position statements, and minutes issued by various European institutions¹⁸ indicate that the politically most contested issues revolved around 1) investment regulations, 2) biometric risk coverage, and 3) unfunded book reserve pensions. The subsequent section explores the factors that influence the sensitivity of governments and pension institutions to these tradeoffs.

5.1 Investment rules

Cross-national variation in investment regulations essentially mirrors the tradeoff between a high risk/ high return strategy and a low risk/ low return approach. British and Dutch funds, for example, are free to invest more than 5 percent of the fund in any sponsoring company. German funds, however, have to meet no fewer than six separate limits: they cannot invest more than 30 percent in EU equities; not more than 25 percent in EU property; not more than 6 percent in non-EU equity; not more than 6 percent in non-EU bonds; and not more than 20 percent in overall foreign assets. In Denmark and Austria, pension funds may invest up to 40 percent of the funds they manage in equities; in France the limit is 25 percent (Deutsch 2002). A survey by aba, the German Occupational Pension Association, shows that many member states still discriminate against foreign investment funds. Together with onerous administrative requirements, such as registration obligations, this constitutes a major obstacle to a single pensions market (see aba-online.de).

Restrictive investment regulations are generally a reflection of a risk-averse society that lacks an equity

culture. They are routinely justified on the grounds that investors need protection against market risk, although the effectiveness of quantitative investment limits for reducing risk has been contested in the literature (Nürk and Schrader 1995). In Germany, such a risk-averse attitude is especially pronounced where pension providers are subject to codetermination. Joint control over pension assets essentially affects the composition of a company's executive board and implies that the investment behavior reflects the attitude of the insured. This is mirrored in the small proportion of shares in the monetary assets of German households. Thus, pension funds and their managers generally prefer steady profit development. Irregular developments would result in an irregular distribution of profits to the insured over time and is perceived as unfair (Deutsch 2002).

The British financial system, by contrast, imposes a relatively short-term horizon on companies, but at the same time allows high risk taking. Flexible investment rules fit with the comparative institutional advantage Britain enjoys in the areas of investment services, asset management, and financial product innovation. Such investment rules facilitate the substantial funding of pensions and the development of the pension industry as one of the largest in the world. Key features of the international expertise of British asset managers are a strong international orientation and specific expertise in equity investment (Bodie and Mitchell 1996; Davis 1999). As a result of the unique development of British financial system and the ungenerous first pillar pension, the pension industry is more mature than most of the continental counterparts. Because the City of London had a clear competitive advantage in the business of pension management vis--vis financial centers in conservative pension cultures, it stood to gain most from the liberalization of investment regulations (Talani 2000).

5.2 Biometric risk coverage and book reserve pensions

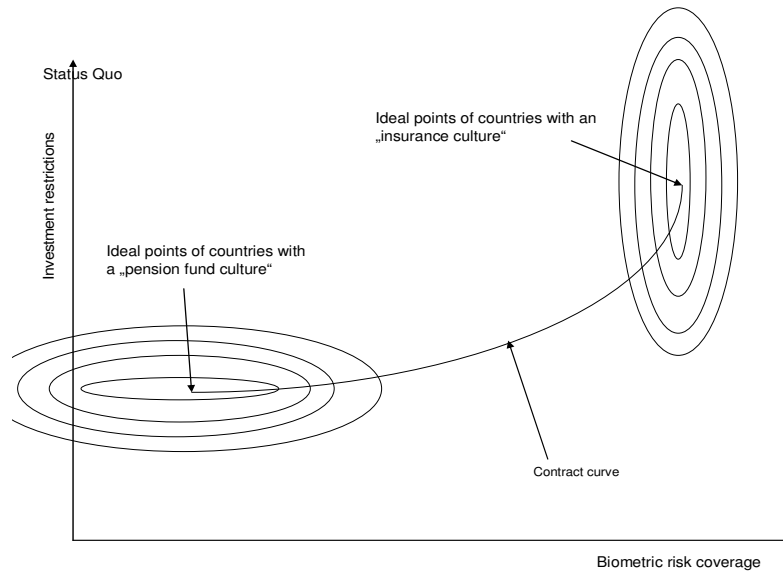
The second controversial issue surrounding the pension fund directive concerned the extent of biometric risk coverage, including protection against longevity, invalidity, and survivor insurance. The percentage of the population that has access to biometric risk benefits varies considerably across countries, and within the same country, across different pension schemes. While German pension plans routinely offer biometric risk coverage, British plan sponsors offer this coverage to a very limited extent, or not at all. What are the institutional benefits for firms to provide relatively expensive social risk protection? Swenson's (2002) research has demonstrated that the design of corporate benefits affects not only the labor market strategies of firms, but also the nature of competition in product markets (Swenson 2002). If firms want to engage in radical

innovation, they have to have easy access to risk-willing capital, they must be able to flexibly hire and fire workers on the external market, and they must be able to easily reorganize work (Hall and Soskice 2001). In Britain, social policies enter the utility of employers with a negative sign because they do not fit with the high return/ high risk strategy British companies pursue. Biometric risk coverage raises the labor costs of companies, decreasing overall profitability. Other economic analyses have pointed to social insurance as an impediment on the ability of firms to deploy their labor market resources flexibly and, thus, as a source of “welfare losses” for the firm. The limited supply of biometric risk insurance demonstrates that the costs of social policies usually outweigh the benefits of social policies to British employers.

In contrast to this, firms pursuing incremental innovation strategies need access to “patient” capital, a workforce with industry-specific skills, which in turn requires long-term relations between firm and workers, and a wage-setting system that prevents poaching of skilled workers by competing firms (Hall and Soskice 2001). Book reserve pensions constitute an important part of this type of capitalism. The reason for their popularity is that they provide companies with a cheap source of patient capital, independent of current profitability, while at the same time rewarding loyal core workers. Because such pensions belong to employees only after unusually long waiting and vesting periods, they provide an effective mechanism against poaching. Scholars of the German welfare state have demonstrated that important segments of the business community have on numerous occasions supported institutions of biometric risk coverage (Mares 2003).

5.3 Representation of preferences

The nature of welfare-finance arrangements in coordinated and liberal market economies allows us to map the preferences of conservative and liberal member states over this policy tradeoff in a two-dimensional policy space.



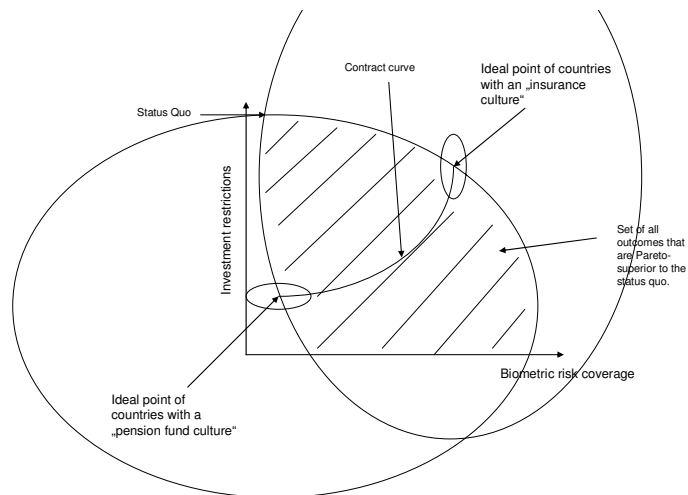
Given the significant consequences of social policy and investment choices for the future operation of a single pensions market, one expects to encounter strong conflict and disagreement among different countries over these details at EU level negotiations. This is based on the implicit assumption in the VOC literature that representatives of both conservative and liberal states have an interest in maintaining their respective regulatory systems. Therefore, one should expect both governments to push for policies favorable to their distinctive capitalism type. These considerations allow us to determine countries' ideal points regarding a European pension directive in the spatial model.

Germany's ideal point lies in the upper right corner of the "high biometric risk coverage/ high investment restriction" policy space. Such an outcome would compel the European financial industry to abide by restrictive investment rules and force them to offer a certain set of expensive pension products. Although the formal agreement on EU level cooperation of the supervisory authorities would have made cross-border pension activity legally possible, de facto it would have done little more than perpetuate the status quo. Most firms would have abstained from setting up pension schemes in other countries, because the costs of lacking a single pension market would have been merely replaced by the costs of navigating an overly restrictive one.

The British ideal point lies diametrically opposed to Germany's, in the lower left corner of the "low biometric risk coverage/ low investment restriction" policy space. This outcome would create the most flexible regulatory framework and therefore the most cross-border activity. The European financial industry would follow

the relatively liberal prudent man rule and offer only minimal amounts of biometric risk coverage, enticing many firms to join the lucrative pensions market and offer services in other countries. Because companies could manage all of their employees' pension entitlements in a single country, real savings in administrative costs would materialize. This version emphasizes the financial aspects of the single pension market and tones down the social concerns.

The status quo is represented on the high end of the vertical axis and signifies the absence of a European regulatory framework. The shaded area is the intersection of conservative and liberal indifference curves and represents the set of all outcomes that are Pareto-superior to the status quo. Thus, moving from outside the lens always leads to an improvement. The preferences of the two types on the issues of investment rules and biometric risk coverage are summarized by indifference contours centered about each one's respective ideal point.



Note that the indifference curves are not presented as concentric circles, but ellipses. This means that, if a country moves away from its ideal point, the direction matters. This reflects the assumption about countries' preference *intensity*. The preceding sections suggest that Germany felt more intensely about the issue of biometric risk coverage than investment rules, while the UK felt more strongly about investment rules than biometric risk coverage.

What factors affect the sensitivity of governments to biometric risk coverage? As mentioned earlier, important factors that influence the sign of the utility along these dimensions are countries' welfare-finance

arrangements. Empirical measures of the welfare-finance nexus include the size and generosity of first pillar statutory pensions, the strength of second pillar occupational pensions, and their different finance arrangements. The generosity of statutory pensions in conservative countries, the underdevelopment of externally funded pension schemes, and the importance of social policies for the employment practices of firms indicate that German negotiators should exhibit a strong preference for the inclusion of mandatory biometric risk coverage into the pension fund directive. Given the small size of statutory pensions in liberal states, the maturity of its second pillar pension system, and the fact that social policies do not play an important role in employment strategies of companies, we expect only a weak preference over biometric risk coverage.

What factors affect the sensitivity of governments to investment rules? Germany shows a pattern for risk averseness, the lack of an equity culture, and a preference for quantitative investment restrictions. However, since the majority of occupational pensions are provided in the form of book reserves and externally managed pension funds (Pensionskasse, support funds, and pension funds) play only a minor role in Germany, we expect only a weak preference over investment rules. By contrast, the long experience and international expertise of UK fund managers and consultants suggests that the British financial industry would gain disproportionately from a single pensions market. This implies that, for Britain, *any* move away from the status quo into the shaded area would be an improvement.

The contract curve in figures 2 and 3 represents all Pareto-optimal outcomes, where no side can deviate from its position without making the other side worse off. Due to the elliptical shape of the countries' indifference curves, the contract curve is actually a curve, instead of a straight line. Pareto-optimal outcomes on the contract curve include the two countries' ideal points as well as the universe of possible negotiated policy compromises between the two. The following section examines the level of integration – or point on the contract curve – that was chosen when the member states eventually agreed on the 2003 pension fund directive, and analyze the extent to which the liberal states accommodated their conservative counterparts after credible signaling took place.

5.4 The 2003 Pension Fund Directive: who wins and who loses

This section illustrates the ways in which the liberal states – although initially reluctant to compromise – departed from their ideal points to accommodate the preferences of the conservative states. To under-

stand how EU decisions translate into domestic policies, we use Schmidt's (2002) analytical framework, who distinguishes between different EU adjustment pressures (decisions accompanied by more or less highly specified rules for compliance, suggested rules, or no rules) and potential adjustment mechanisms (coercion to a greater or lesser degree, mimesis, or regulatory competition) to predict how EU regulations affect national policies (inertia, absorption, or transformation) (Schmidt 2002).

Applied to the pension fund directive, the member states agreed on coercion in the area of investment rules; on the principle of home country control regarding quantitative investment limits and provision of biometric risk coverage; and on the exclusion of certain occupational pension schemes from the purview of the directive. Pension institutions will be able to select investment managers established anywhere in the EU. They will also need to comply with the newly established supervisory authorities in Brussels, Frankfurt, and Paris. Thus, the result is a pension fund directive that strikes a careful balance between coercion, mimesis, and regulatory competition.

Article 18 (5) represents a sacrifice on part of the liberal states by allowing member states to "lay down more detailed rules, including quantitative rules", as long as they don't prevent institutions from investing 70 percent of assets in equity, 30 percent of assets in foreign currency, and investing in risk capital markets.¹⁹ The liberal states were initially opposed to this stipulation, because it provides pension funds in liberal countries with a disincentive to gain a foothold in those countries. The conservative member states insisted on its inclusion to make clear to their domestic constituents that they were protecting beneficiaries against market risk. The general risk averseness and lack of an equity culture in conservative member states demanded nothing less. "Now they can at least protect their own nationals against unsound investments." (Interview with EU Commission administrators, 21 June 2006 and 23 June 2006). Although the liberal states conceded the article on quantitative investment limits to grant their conservative counterparts a "safety net", the overall investment policy put forward by the directive indicates the liberalization of investment rules. In the spatial representation, this agreement denotes a point on the contract curve that is closer to the liberal states' ideal point.

However, paragraph 5 qualifies this ostensible victory for the liberal states by specifying that member states may apply more stringent investment rules in their respective home countries as long as they are prudentially justified.²⁰ By using the formulation "prudentially justified", this paragraph accommodates all member

states uncomfortable with the prudent man rule, which they perceive as too relaxed. “Since it is unclear even to Commission members involved in drafting the directive text what prudentially justified really means, it was relatively easy to agree on it.” (Interview with Commission administrator, 21 June 2006).²¹

While coercion was limited to investment regulations, the social aspects of the directive were defined by the principle of home country control. This is because the divergent welfare-finance arrangements in the member states militated against a one-size-fits-all solution. Although a majority of MEPs originally wanted to force pension institutions to offer biometric risk coverage if desired by employers or employees, the Council opposed any framework that would compel pension institutions to offer a certain product. Council representatives reasoned that, aside from restricting competition, this provision would also violate the principle of subsidiarity (Karas 2003).

Yet, where insurance against biometrical risks are provided, the directive requires pension institutions to have sufficient provisions to cover these benefits.²² Such pension schemes engaged in cross-border activity are also required to be fully funded at all times. This means that the conservative states were able to maintain their ideal point on biometric risk coverage. At the same time, the principle of home country control allowed the liberal states to retain their ideal point position on the same policy dimension, thus reflecting a Pareto improvement for both types of states.

Finally, the inclusion of article 2, section 2 (e) was very important to all conservative states where book reserve pensions play a prominent role. Germany in particular insisted on removing unfunded book reserve pensions from the purview of the directive. This is because book reserve pensions would directly conflict with article 18 (e) (“assets shall be properly diversified”). Although the liberal states countered that an exemption for book reserve pensions would give an unfair advantage to employers using them to finance current business activities, it soon became clear that no compromise would be reached if employers were forced to surrender their cherished source of cheap capital and means for staff retention (Interview with EU administrator, 21 June, 2006). The conservative states were able to credible signal that such far-reaching regulatory change would never be accepted by their domestic constituents. Consequently, only funded pension schemes will be subject to the definition of “institutions for occupational retirement provision”, while on-balance sheet pensions are exempt from the directive. This was acceptable to the conservative states since externally funded pension schemes play only a minor role compared to book reserve pensions.

The conservative states, on the other hand, reluctantly agreed to article 16, section 2, which specifies that member states may allow institutions “for a limited period of time, to have insufficient assets to cover the technical provisions.” This provision clearly reflects the position of the powerful British pension funds, trumping the concerns of the European insurance industry (Interview with EU Commission administrator, 23 June 2006).

5.5 Significance of the 2003 compromise

The nature of the compromise the European member states reached in 2003 regarding the contested issue areas of investment regulations, biometric risk coverage, and book reserve pensions reveals two things: the liberal states sacrificed more than their conservative counterparts, and the conservative states made concessions in areas they cared only marginally about. Although the overall regulatory approach to investment regulations was indeed “coercion”, the restrictions recorded in article 18(5) and paragraph 5 considerably softened the pain of liberalizing investment regulations for the conservative states. Furthermore, by agreeing on the principle of home country control regarding biometric risk coverage and permitting the exclusion of book reserve pensions from the purview of the directive, the liberal states allowed the conservative countries to maintain their ideal points in two crucial policy areas. This outcome supports our hypothesis that the 2003 directive is the result of credible signaling on part of the conservative states, while preferences over the design of the single pension market remained unchanged between 1991 and 2003.

Although the IORP directive constitutes a first step towards a single pension market, it is unlikely that there will be an upsurge in cross-border pension portability anytime soon. It remains to be seen whether individual member states will use the principle of home country control to increase or inhibit cross-border pension transfers. Furthermore, sensitive issue areas such as taxation of transferred pension claims have yet to be sorted out before we can speak of a truly integrated pension market. Nonetheless, given the manifold political and economic obstacles to integration, the 2003 compromise must be considered a bargaining success.

6 Conclusion

This paper was motivated by the question of how the European member states with their divergent welfare-finance regimes negotiate solutions to the problem of governing pension funds across borders. Even though governments in both conservative and liberal market economies stood to gain from integration in this sector, they could not reach an agreement when the EU Commission first drafted a pension fund directive in 1991. In 2003, however, the amended directive was passed by the Council of Ministers.

The central argument is that the success of EU harmonization efforts in the occupational pension sector depends on the ability of governments to credibly signal that their domestic win set is indeed constrained. We demonstrated that signals sent by conservative governments in a nontransparent, pre-EMU setting were less credible than signals sent in a transparent, post-EMU environment. Furthermore, this paper shows that the liberal states, although more enthusiastic about a single pension market, would not create it at all costs. In 1991, failure to distinguish between sincere conservative governments confronted with high adjustment costs and deceitful “low cost” governments trying to mimic the high cost type lead to negotiation breakdown. European Monetary Union, however, increased the costs of bargaining failure for the conservative governments. In this environment, requests for accommodation at the EU level were interpreted by the liberal states as costly and could be met with an honest, separating response. As a result, the EU member states adopted a pension fund directive authorizing high harmonization of investment regulations, low harmonization of funding requirements, and no harmonization of biometric risk coverage. Although skeptics have rightly criticized the directive as a deficient legislative bricolage, the fact that fifteen member states with radically different occupational pension systems were able to develop and adopt a pension fund directive makes it a negotiation success.

We do not, however, pretend that the model presented here is an accurate or exhaustive depiction of deliberations between member state representatives. The purpose of the signaling game is to provide a baseline model highlighting the role of information and informal signaling between the member states, an often overlooked aspect in the literature that has predominantly focused on formal decision-making processes. Scholars working on formal procedures may be guided by the baseline model, because it is important to understand the structure underlying information flows and the mechanisms that make signaling possible.

[word count: 10,734]

Appendix

Equilibrium Characterization

A Perfect Bayesian Equilibrium consists of the players' optimal actions, given the other players' equilibrium actions and beliefs about types. To simplify construction of the equilibrium, assume C_H has a dominant strategy of always offering $x = 0$.

Let x^* be the offer for which L is indifferent between accepting and rejecting, i.e. x^* satisfies

$$-(1 - x) + I^L \geq 0 \Rightarrow x^* = 1 - I^L.$$

Next, we define off-equilibrium path beliefs. For any $x \in (0, 1]$, let L believe it faces C_L , i.e. it sets its posterior belief to $\mu = 1$. This assumption has intuitive appeal, since C_H has a dominant strategy of always offering $x = 0$, and thus not stands to gain from deviating to $x > 0$.

With these off-equilibrium path beliefs (and with beliefs on the equilibrium path obtained by Bayesian updating), optimal strategies in a mixing equilibrium (corresponding to BREAKDOWN) are given by the probability that C_L offers $x_0 = 0$,

$$p = \frac{(\pi - 1)(I^L + k - 1)}{\pi(I^L - 1)},$$

where π is L 's prior belief about C 's type, and the probability that L rejects an offer x_0 ,

$$q = \frac{x^*}{I^C} = \frac{1 - I^L}{I^C},$$

such that (existence conditions)

$$k > \frac{I^L - 1}{\pi - 1} \text{ and } I^L + I^C > 1.$$

Proof of existence (omitted) follows directly from the construction of the equilibrium.

How do changes in the valuation of agreement affect the probability of bargaining breakdown?

The probability of bargaining breakdown is given by

$$q((1 - \pi) + \pi p).$$

Substituting in for q and p , and taking the first derivative with respect to I^C gives

$$-x^* \left(1 - \pi + \frac{(\pi - 1)(I^L + k - 1)}{I^L - 1} \right) \leq 0.$$

In order to ensure that higher valuations of agreement lead to a lower probability of bargaining breakdown, this expression must be less or equal to 0. Rearranging and simplifying gives

$$\frac{(\pi - 1)k}{I^L - 1} > 0.$$

Since $\pi, I^L < 1$, this condition is always met.

Notes

¹Callaghan and Höpner (2005) ask the same question in their article on takeover liberalization in the EU.

²(European Parliament/ Council Directive 2003/41/EC of 3 June 2003) The deadline for transposing the directive was 23 September 2005.

³Throughout the text, we use the terms corporate pensions, occupational pensions, employer sponsored pensions, and second pillar pensions interchangeably. Such pensions can take on a variety of institutional forms. Some pension claims are externally managed by insurance companies or trust funds, others only exist on the books and are not funded. Some corporate pensions are exclusively controlled by the sponsoring firm, others are jointly managed by employer and labor unions. The criterion that distinguishes occupational pensions from state sponsored or private pension schemes is that they are provided by individual employers or sectoral umbrella organizations.

⁴The terms liberal market economies (LMEs) and coordinated market economies (CMEs) were coined by Hall and Soskice (2001).

⁵Such pensions are also referred to as on-balance sheet pensions. In Germany, where unfunded book reserve pensions make up two thirds of all occupational pensions, the solvency of any not fully funded pension scheme has to be guaranteed by membership in the solvency insurance scheme *Pensionssicherungsverein* (PSV a.G.)

⁶The waiting period is the elapsed time before an employee earns the right to a corporate pension claim. The vesting period denotes the time from acquiring corporate pension contributions until the benefits are actually owned by the employee.

⁷There is no consensus in the literature on whether book reserve pensions or funded pensions are the safer option. See Jacobs (2004) for an overview of this discussion.

⁸British pension schemes account for 42 percent of all EU pension assets, and the Danish and Dutch schemes add another 26 percent on top of that. See International and Social Security Association (ISSA) and International Network of Pension Regulators and Supervisors (INPRS), 2002: complementary and private pensions database. CD-ROM.

⁹SEC (91) 1332 final, OJ C 312, 3.12.1991. This proposal was withdrawn in 1994.

¹⁰This counteroffer included the maintenance of quantitative investment restrictions, compulsory biometric risk coverage, and the limitation of the directive to off-balance sheet pensions.

¹¹The Financial Times, April 15, 2002.

¹²According to Standard and Poor's rating of March 31, 2006, Belgium is currently rated AA+, Italy AA-, and Portugal AA-. Spain only recently received the highest rating, AAA. See <http://www.standardandpoors.com>.

¹³The firm was downgraded from BBB to BB+ (Financial Times, August 8, 2006)

¹⁴Each member state, on taking up the presidency, has tended to give emphasis to the directives that most closely affect its own nationals.

¹⁵The formal model may be criticized for not including the role of the Council president or EU Commission as information transmitters and honest brokers who mediate between the member states (Sbragia 1993; Sbragia 2002). Several empirical analyses of various EU negotiations have detailed how the EU presidency can isolate or form alliances with certain member states to unlock incompatible negotiating positions (Bjurulf and Elgström 2004; Stubb 2002; Tallberg 2004). While we do not wish to challenge these important contributions, we assume for the sake of this paper that the Commission or Council president did not have privileged access to information in this game. Without this assumption, we would not be able to explain bargaining failure in 1991. The reason is that, with superior knowledge of member states' true reform costs, presumably the Commission

would not have put forward the 1991 proposal in the first place. Instead, we portray the Commission and Council presidency as a focal point (Schelling 1960) around which member states cooperated after credible signaling took place.

¹⁶See appendix. For an overview of Perfect Bayesian Equilibria, see for example, (Gibbons 1992) or (Ordeshook 1986).

¹⁷This is documented in the European Parliamentary Debates (1999-2004) and in the minutes of the European Parliamentary Financial Services Forum (2000-2004).

¹⁸(European Council 1999–2004; European Parliament 1999–2004; European Parliamentary Financial Services Forum 1999–2004)

¹⁹Directive 2003/41/EC, article 18 (5)

²⁰“Paragraph 5 shall not preclude the right for member states to require the application to institutions located in their territory of more stringent investment rules also on an individual basis provided they are prudentially justified, in particular in the light of the liabilities entered into by the institution.” (Directive 2003/41/EC, paragraph 5).

²¹Eventually, the European Court of Justice will have to interpret the precise meaning of vague stipulations, thereby creating policy. Yet it is not clear why the member states would ever delegate policy making to the ECJ. Because a satisfactory answer to this question would go beyond the scope of this paper, it is not addressed here.

²²Directive 2003/41/EC, paragraph 30; article 15 (2); and article 17 (1)

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