

On the cutting edge between policy and academia: challenges for (public) economists

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1. Introduction

The edge

This lecture is about an edge — the edge between policy and academia. I've always felt that the art of policy and the science of economics should feed on each other. Without the inspiration provided by policy problems, economic science becomes sterile and stale. Without the discipline of excellent scientific thinking, the art of policymaking becomes vulnerable to being captured by special interests at the expense of the general interest. Indeed, the challenge facing the economic profession is to combine excellence and relevance: to employ excellent economic reasoning to shed light on the pressing policy problems our societies face. Indeed, I've always been on the edge myself. I found that when I started leaning too much to one side, the grass always started looking greener on the other side. I would then be forced to restore my equilibrium. Indeed, although I'm not at the Tinbergen Institute myself, I should stress here in Rotterdam that I'm actually quite proud of the Tinbergen tradition of striving to combine excellence with relevance.

Policy and academia in the Netherlands

The relationship between economic policy and the profession of economics in the Netherlands has undergone some important changes over the last fifty years or so. In the Tinbergen tradition, policymaking and the economic profession were traditionally closely linked in the Netherlands. This changed about twenty-five years ago. At that time, Dutch economists started to publish more in the international literature and became more involved in international networks. This in itself was a desirable development; it considerably enhanced the quality of Dutch academic research by exposing it to the high standards of the international research community. Moreover, Dutch researchers more easily absorbed the important insights contained in the international literature. However, this exposure to the international literature also had a downside— at least in the short run: more and more academic economists distanced themselves from the immediate concerns of the practitioners. Indeed, the gap between, on the one hand, applied economists who are interested in national institutions and national policy problems and, on the other hand, those pursuing more fundamental research and taking more active roles in international networks became rather wide.

The coming home of academia

We are now, I believe, standing on the brink of breaking this trend of a widening gap between academics and practitioners. After having invested in international networks and excellence, many academics are using the insights that they have drawn from the international literature to shed light on important policy problems at home. We observe this development not only in the Netherlands, but

in Europe as a whole. Many researchers are recognizing the arbitrage possibilities between fascinating and relevant European policy questions, on the one hand, and a growing body of important economic theory, on the other hand.

The main purpose of my talk is to further strengthen this promising trend. I'll do this by showing that recent developments in the international academic literature can indeed help shed light on important policy problems. I hope to convince you that there are indeed plenty of intellectual arbitrage opportunities out there.

NAKE as a forum

The NAKE lecture series offers an excellent opportunity to further this purpose. Since it was founded, NAKE has acted as an important forum for bringing practitioners, economists and econometricians together. Especially by bringing economists and econometricians together, NAKE has been instrumental in helping undo the unfortunate dichotomy between economists and econometricians in the Netherlands — a dichotomy that has certainly contributed to the widening gap between academics and practitioners.

My lecture can also be seen as being part of a tradition — albeit a young one. Last year, in the second NAKE lecture ever, Eric van Damme started to pave the road between applied problems and fundamental research (see van Damme (1998)). As he expressed it nicely, he guided the practitioners dealing with micro-economic issues of regulatory reform “to some clear fountains in economic theory”. I would like to pave this road a bit further by identifying still other fountains.

Public economics

Let me turn now to the subtitle: ‘challenges for (public) economists.’ Why did I put the word ‘public’ between parenthesis? The reason is that most of the challenges I'll identify involve general economic theory. Indeed, public economists typically draw on several specialized fields of economics to shed light on public policy issues. They are so-called ‘applied theorists’ — interested in economic theory as a tool for better understanding important issues in public policy. Indeed, public economists tend to be generalists rather than specialists; they like to integrate developments in various fields.

I hope, therefore, that my talk will be of interest to economists more generally. One group I may have to disappoint — the econometricians. I'll focus on applied theory rather than empirical issues, although the policy issues are of course very much informed by empirical phenomena. The field of public economics is actually currently being transformed by the increasing use of micro data to explore the response of individuals to public policy. I will not say anything about this trend today. For that, my apologies to our econometric friends.

Outline

How will my presentation be structured? I'll start by exploring two important policy issues: first, private versus public governance, and, second, the design of social insurance. After describing the policy issue, I'll turn to recent developments in the academic literature that are relevant to the policy issue. In doing so, I'll identify two major trade-offs — each one corresponding to one of the two main policy issues. The trade-off that applies mainly to the issue of private versus public governance is flexibility versus commitment. The other trade-off, which bedevils especially the design of social insurance, is that between moral hazard and adverse selection. After describing the link between the policy issue and the theory, I'll address some unresolved issues. These are your challenges! Subsequently, I'll deal with two more general challenges that involve both policy issues, and in fact economics more generally: first, bounded rationality and, second, the importance of non-government, non-commercial institutions in facilitating social coordination.

Problem finding versus problem solving

I've already had to disappoint the econometricians. Next in line for a let down are the hard-core theorists. I'm not going to do any formal modelling on this late afternoon. Indeed, I'll ask more questions than I'll answer. Console yourselves with the thought that problem finding may be more important than problem solving (see also van Dalen (1999)). The sociologist Robert Merton notes that Nobel laureates “uniformly express the conviction that what matters most in their work is a developing sense of taste, of judgement, in seizing upon the problems that are of fundamental importance.”

2. Public versus private governance

2.1 The policy issue

Coase's fundamental question

Coase is the prime example of someone who knew how to find the fundamental problems by formulating the right questions. Already in 1937, he posed the question, “what determines the boundaries of the firm?” (see Coase (1937)). Since then, this question has occupied the minds of many great theorists. They have tried to formalize Coase's intuition that the size of the firm is determined by the relative transaction costs of producing goods and services within the firm and buying these goods and services from other firms on the market.

What is the core business of the public sector?

Coase's question can be reformulated for the public sector. Which activities should the public sector perform itself, and which activities can be contracted out to the private sector? Which activities can be privatized, and which cannot? In other words, what is the core business of the government? What are the borders of the public sector? Should the public sector 'make' or 'buy'?

The traditional answer: the advantages of public provision

How has this question been answered in practice? Politicians often prefer the 'make' option over the 'buy' option. By producing goods and services within the public sector, politicians have the option to directly correct developments they do not like, with no lengthy and costly bargaining with private firms. Moreover, if activities occur in the public sector, politicians are not compelled to clearly define the desired outcome of these activities in advance; they retain the power to adjust these objectives when necessary. Finally, the authority that politicians exert over production in the public sector allows them to use it for other goals, such as winning the next election.

The disadvantages of public provision

Recent experience, however, has begun to reveal the drawbacks of keeping activities within the public sector. The political process has often struggled to determine what the main objectives of public production should be. This lack of clear objectives has often led to a lack of innovation and entrepreneurial spirit within government bureaucracies. Politicians sometimes also find it difficult to effectively control the public bureaucracy.

In search of a new mix of government and market

In part as a result of these observations, governments are increasingly exploring the possibilities of privatizing activities that have traditionally been part of the public sector. These activities include energy production and distribution, telecommunication, education, health care, and social insurance. In making the transition, the government has had to rely on alternative instruments than public ownership of productive activities to correct market failures. These instruments include regulation, contracts with the private sector, taxes and subsidies, competition and legislation constraining the behaviour of private agents.

Society is thus looking for a new mix between the government and market as coordination mechanisms. In this learning process, the government increasingly divests itself of its production activities, which are left to specialists in the private sector. In this way, the government specializes in its core business: the identification and correction of market failures and the policing of contracts with the private sector. This process of more clearly identifying the core business of the public sector is closely related to similar developments in the private sector. Also there, private firms are

increasingly focussing on their core competences while contracting out activities not directly related to their core business.

2.2 Economic theory

Neutrality propositions

The theoretical literature has had a hard time to identify the merits of privatization and the contracting out of the provision of public goods. In fact, it has derived various neutrality propositions about various governance structures. These neutrality propositions, which are in fact closely related to the celebrated Modigliani-Miller theorem about the neutrality of debt finance, state that private and public governance are equivalent (see Sappington and Stiglitz (1987)).

More generally, the literature has had an especially hard time identifying the limits to centralization of decision power. Williamson (1985) restated this issue as the well-known Williamson puzzle: Why is the entire economy not organized as one single firm? The central decision maker can always promise to intervene only when this is efficient. In the context of the public sector, one can similarly ask why the public sector would ever delegate decision power to the private sector? The welfare-maximizing government could selectively intervene in the decisions of lower hierarchy levels whenever this increased welfare.

Incomplete contracts

The so-called property rights approach has identified the vices of centralized ownership and the benefits of delegation of power (see Grossman and Hart (1986) and Hart (1995)). The lack of complete contracts is the main cornerstone of this approach. Agents cannot commit to contracts that are contingent on all relevant contingencies that are jointly observed by the contracting parties. Contracts are thus incomplete. Incomplete contracts have gaps: they do not specify what should happen in every contingency.

Property rights

The property right is the right to decide what happens in contingencies that are not included in the incomplete contract. This is the so-called residual decision power, which is the power that remains within the limits set by the contract and general legislation and regulation.² If activities occur in public ownership, the government has residual decision-making power in circumstances that the contract does not cover. If the government contracts out activities to the private sector, in contrast, the private

² More generally, the governance structure sets the framework in which the decisions are made that fill in the gaps in incomplete contracts.

sector holds the residual power. In the latter case, the public sector has to employ other instruments than residual decision rights (i.e. discretionary power) to affect the behaviour of producers.

Specific investments

This property right is valuable if parties carry out non-contractible investments that are specific to their relationship. If the costs and benefits of specific investments are non-contractible (i.e. they can not be specified in a fully state-contingent contract), there is a missing market for these investments. The lack of contracts on these investments implies that the Coase theorem no longer holds; not all externalities can be bargained away through bargaining ex ante (i.e. before the specific investment occurs). The implicit transaction costs in the lack of complete contracts block mutually advantageous trade.

Institutions matter if specific investments are non-contractible

In the presence of a missing market for specific investments due to incomplete contracts, institutions, such as property rights and other governance structures, matter. These institutions determine the bargaining power ex post (i.e. after investments have been sunk), and therefore affect the way the quasi rents from the specific investments are shared. In this way, property rights may act as a substitute for a complete contract in protecting specific investments against the so-called hold-up problem. By making the investor residual claimant, other parties can not tax away (appropriate) some of the rewards of the investments.

Property rights protect investing party against hold up

Property rights, in fact, serve as a commitment of the other parties not to hold up the investing party. They therefore protect the incentives to invest in the relationship ex ante; specific investments are not held up. The relationship thus becomes most valuable if the property rights are allocated to the party that carries out the most important, non-contractible investments.³ Property rights thus solve the coordination problem of bringing in line the interests of the various parties. They alleviate transaction costs by allowing parties to engage in mutually advantageous trade ex ante.

Incomplete contracts and public policy

³ Allocating ex-post bargaining power to the party that carries out important non-contractible investments is an important principle for enhancing efficiency by facilitating mutually advantageous trade. To illustrate, the well-known Hosios condition in search models of the labor market (see Hosios (1990) and Moen (1997)) can be interpreted this way. To ensure (ex-ante) efficiency, most ex-post bargaining power should be allocated to the party whose non-contractible search activity is most important for concluding a match.

The application of the incomplete contracting paradigm to public policy issues is relatively new.⁴ This is a promising avenue for further research because politics is fundamentally incomplete. The government faces a fundamental problem in making credible commitments.⁵ In a democracy, governments cannot really bind future governments. The electorate, and politicians as their representatives, can always change their mind. Governments thus face a fundamental credibility problem when making promises.

Institutions generate commitment

Credibility-enhancing institutions such as the delegation of decision power and the allocation of property rights to the private sector are important institutions facilitating commitment. Indeed, also within the public sector, decision making is moved further from the political scene by delegating certain tasks to independent agencies. A well-known example is the delegation of monetary policy to independent central banks. Delegating decisions to lower levels of government according to the so-called subsidiarity principle is another way to enhance commitment.⁶

Privatization generates commitment...

One can view privatization and the contracting out of public services as a commitment device not to interfere with production decisions. The associated harder budget constraint improves the incentives of producers to innovate and invest in cost reduction. It makes the producers residual claimants by de-politicizing the administration of public objectives. Delegating decisions to the private sector is especially attractive if the activities of the producers are non-contractible and important for the quality of the public services.

This is the paradox of political power. By tying their hands and giving up power, benevolent politicians are better able to serve the general interest. Benevolent politicians should thus recognize that power can be counterproductive. Their strength can be their weakness, and their weakness can be their strength. The reason for delegating power is a typical second-best argument; by delegating decisions to an agent with a different objective function, the government corrects the distortions due to a lack of commitment.

⁴ See, however, Tirole (1994) and Dixit (1996).

⁵ As the monopolists on the use of force, governments have always faced a commitment problem. Who can guard the guardian of private contracts? For an overview of historical institutional innovations to allow governments to make commitments, see Bovenberg and Teulings (1999b).

⁶ For applications of the incomplete contracting paradigm to fiscal federalism, see Besley and Coate (1998) and Lulfesmann (1999).

...but reduces flexibility

The delegation of power is not without costs, however. By keeping residual decision power, the government can ensure ex-post efficiency because it can adjust its objectives to changing circumstances. This flexibility is particularly important if the government cannot anticipate important external effects and thus can not fully specify ex ante what it wants from the administering party.⁷ In that case, the execution of a public goal can not be separated from the formulation of that goal in complete contracts. In that case, public provision may be preferable.

The trade-off between commitment and flexibility

The lack of complete contracts thus produces a trade-off that cannot be fully eliminated by the allocation of property rights. This trade-off can be viewed as one between ex-ante efficiency (by delegating decision power) and ex-post efficiency (by keeping decision power). Alternatively, it can be seen as a trade-off between commitment and flexibility.⁸

This trade-off, which originates in the absence of complete contracts, is rather fundamental in economics (see CPB (1997, chapter 2)). Institutions on the labour and financial markets, corporate governance, science policy, pensions, competition policy, social insurance and macroeconomic policy all face this trade-off (see CPB (1997)). The trade-off between flexibility and commitment can provide important insights also into the fundamental differences between institutional settings that stress commitment (Rhenish economies) and flexibility (Anglo-Saxon economies). It also sheds light on the strengths and weaknesses of these institutions (see Boone and Smulders (1999)).

This trade-off between flexibility and commitment is also implicit in the well-known paper by Hart et al. (1997). This paper shows that public provision is preferable if the government cannot employ contracts (or competition) to prevent a private provider from reducing quality. This can be interpreted as the case in which the government needs to retain flexibility to redefine its objectives (i.e. the quality) at each point in time to ensure that the producer delivers the commodities that society wants. In a sense, the government's non-contractible activities, namely defining the desired quality of the demanded commodity, are most important for enhancing the value of the relationships between the contracting parties by guaranteeing allocative efficiency. Contracting out is to be preferred, however, if innovations of the administering party are important. In that case, the non-contractible activities of the latter party are most important in generating the highest value for society by guaranteeing productive efficiency.

⁷ The option value of waiting further increases the value of flexibility.

⁸ In the context of monetary policy, Cuckierman (1992) has rephrased this trade-off as one between credibility and flexibility. Indeed, this trade-off is implicit in the classical debate on rules versus discretion in monetary policy.

2.3 Unresolved issues

Although the literature on incomplete contracts has identified the vices of centralized decision making and the virtues of the delegation of power, it still faces a number of important unresolved issues. In my view, it is one of the most promising areas of research in public economics at the moment.

Commitment assumptions

The first weakness of the literature on incomplete contracting as applied to governments is that it relies on rather strong and often arbitrary commitment assumptions. Why can the government commit to respect property rights but not to contracts? A government can always retract on its decision to delegate power. Indeed, even in private firms, the government can intervene through taxes, subsidies, legislation and regulation. Subsidies to private enterprises are not necessarily more difficult or infrequent than those to state enterprises. Indeed, the government can also bail out bankrupt private firms, thereby softening their budget constraint and harming incentives. In non-competitive industries, the government can use its regulatory powers to intervene, thus leaving little residual decision power to the managers of the firms.

Constraints on incentive contracts

A second weakness of the property rights literature is that it often imposes exogenous constraints on the incentive contracts that can be offered to public servants. These restrictions are not derived from first principles. To illustrate, Hart et al. (1997) assume that, in contrast to a private manager-owner, a public manager cannot be made the residual claimant for cost savings. Why doesn't the government offer a better contract to a public manager?

Implicit contracts, repeated interaction and reputation

Another weakness of the property rights literature is that it typically ignores implicit contracts. Implicit contracts are self-enforcing through the reputation mechanism. Since these contracts do not have to be enforced by the courts, they can be based on non-verifiable information. This is a major advantage of implicit contracts over explicit contracts enforced by the juridical system. These latter contracts can be based only on information that can be verified by the courts. Indeed, the courts must be able to determine who is responsible for a breach in the contract. In modern complex societies with an increasing amount of specialization and rapidly changing circumstances, more and more information is becoming non verifiable. As a result, most contracts in our modern societies are implicit (and therefore self enforcing) rather than explicit (and enforced by the courts). Indeed, firms are increasingly concerned about the reputations of their brands as well as their own reputations. Indeed, firms are important carriers of reputation (see Cremer (1986) and Holmstrom and Tirole

(1989)).

The reputation mechanism requires repeated interaction to resolve the prisoners dilemma implicit in the hold-up problem.⁹ It also requires a certain amount of competition; the government must be able to switch to another producer if one producer breaches the implicit contract. Thus, sunk investments that constrain competition must not be very important. Without these sunk investments, the case for contracting out services to the private sector becomes very strong. In this way, the government can benefit from the information-generating features of competition (see also Hart et al. (1997)). Moreover, the government does not have to rely on explicit contracts enforced by the courts to discipline private providers.

The reputation mechanism may also enable the government to commit itself if it faces competition from other governments. Indeed, international integration exposes governments more to the pressures of international policy competition. When economic agents can vote with their feet, it becomes easier for governments to commit. To illustrate, as firms are able to move to another country, the promise of the government not to tax capital ex post becomes more credible. In this way, tax competition becomes a commitment device. Similarly, Greif, Milgrom and Weingast (1994) show how the emergence of guilds allowed governments to make credible promises. The reputation mechanism also plays a role in political competition for voters. Just like brand names in the private sector, political parties are important carriers of reputation. The reputations of these parties make the promises of politicians to voters more credible.

Also the literature on implicit contracts and reputation faces unresolved issues. It is still unclear, for example, how reputation is transferred from one generation to another in a firm or in a political party (see, however, Tadelis (1999)).

Separation between ownership and control in private firms

A related problem is that Hart et al. (1997) assume that the manager in the private firm is also owner. In most private firms, however, ownership and control are separated. Moreover, in both the public and private sectors, managers delegate many decisions to their employees. Hence, in both the private and public sectors, managers and owners (i.e. the tax payers in the public sector and the stockholders in the private sector) face serious agency problems. Why are these agency problems more severe in the public sector? Part of the answer to this question may be related to the next issue.

Costless ex-post bargaining and hold out

The literature on incomplete contracts generally ignores the transaction costs in (ex-post) bargaining about the missing clauses in their incomplete contracts. All ex-post inefficiencies are eliminated

⁹ It is well known that a repeated prisoners dilemma can yield the cooperative equilibrium.

through costless Coasian bargaining. Many papers in this tradition subscribe to the so-called helping-hand view of government. The democratic process works well, so that governments are benevolent. In practice, however, the bargaining inefficiencies in the public sector are likely to be high, due to free-rider problems.¹⁰ Moreover, imperfect information about bargaining positions may result in a stalemate. Asymmetric information results in a lack of political trade. Hence, the *hold-out* problem may be particularly serious; resources are wasted while the bargaining problem is resolved in a long drawn-out political process. The costs of the democratic decision-making process is an important reason why public governance is often inefficient.¹¹

An imperfect political process and the grabbing hand

The costs of political bargaining explain why governments are often not benevolent. Well organized decision-making groups can easily distort political decision making at the expense of disorganized tax payers. Indeed, politicians often cater to special interest groups, such as labour unions, to win elections. In private enterprises, owners possessing a non-trivial part of the overall cash flow are easier to organize than the many taxpayers. Moreover, owners of private firms share the objective of raising the value of the firm. Thus, the managers of the firm can be given clear and unambiguous objectives. The ultimate “owners” of public enterprises (i.e. the taxpayers), in contrast, feature many different objectives. Hence, it is difficult to formulate clear objectives for the managers of public enterprises. The separation of ownership and control is thus more serious in the public sector (see Bennesen (1999)).

Recognizing the weaknesses of the democratic process in disciplining politicians and bureaucrats, the public choice school subscribes to the so-called *grabbing hand* model of government (see Shleifer and Vishny (1999)). This view of government contrasts with the so-called *helping hand* view of government, which assumes that Coasian bargaining works perfectly in the public sector so that politicians are pursuing the objectives of the electorate. The proponents of the grabbing hand view of government distrust the political process. They maintain that the political process disciplining politicians and civil servants is flawed. They view privatization as an alternative to the democratic process in disciplining self-interested bureaucrats and politicians.¹² Hence, they view privatization

¹⁰ The state addresses free-rider problems in the provision of public goods. The political process can be viewed as Coasian bargaining aimed at internalizing externalities.

¹¹ The rigidity of the political process may explain why privatization acts as a commitment device. Once the government has given up residual power, it is very difficult to reclaim it. In this way, the *hold-out* problem alleviates the *hold-up* problem.

¹² Certain legal principles (such as legal security and equality before the law) complement the imperfect democratic process in disciplining governments. The courts can enforce these legal

not so much as a commitment device for benevolent politicians, but more as a way to prevent malevolent politicians and bureaucrats from serving their own objectives at the expense of the population at large.

The literature that takes the grabbing-hand model as point of departure suffers from two weaknesses. First, it does not explicitly model the political process. Whereas the helping-hand view of government assumes that the political process is perfect and thus does not imply any transaction costs, the grabbing-hand view of government assumes that democracy fails altogether. It simply posits political objectives that are not derived from those of the electorate. Both approaches are extreme. The challenge is to explicitly model the imperfections in political bargaining from first principles.

The second weakness of the public choice literature is that it has to resort to rather arbitrary constraints on trade to arrive at the result that privatization matters. Without these constraints, Coasian bargaining implies that institutions do not matter, so that privatization fails to depoliticize firms. To illustrate, to ensure that privatization draws a line between politicians and production, Boyko, Shleifer and Vishny (1996) have to assume that subsidies to private firms are costlier than foregone profits of state-owned enterprises. Similarly, Shleifer and Vishny (1994) impose the so-called ‘decency’ constraint, which limits subsidies to profitable private firms with rich private shareholders. Shapiro and Willig (1990) postulate that privatization erects an information barrier between the government and the firm, but they do not explain how privatization changes the information available to politicians.¹³ This information barrier prevents malevolent politicians from pursuing their self-serving objectives. Also this is a typical second-best result; an additional distortion in the form of an information barrier corrects distortions in the political bargaining process.

Bounded rationality

One of the most fundamental weaknesses of the incomplete contract paradigm involves its theoretical foundations. The literature often relies on rather arbitrary assumptions about which activities are contractible and which are not. In a complex, rapidly changing world, it is difficult to write complete

principles, however, only on the basis of verifiable information. By relying on the reputation mechanism, competitive markets, in contrast, can also use non-verifiable information to discipline suppliers. Hence, compared to an imperfect voting system complemented by the juridical system enforcing legal principles, the market mechanism is able to enforce a richer set of contracts (see Bovenberg and Teulings (1999b)).

¹³ Schmidt (1996) adopts a similar assumption within a model featuring a benevolent government. In his model, the information barriers acts as a commitment device. Hence, whereas privatization harms *ex-post* efficiency, it benefits *ex-ante* efficiency by alleviating the hold-up problem due to the lack of complete contracts. Also this is a typical second-best result. Distorting *ex-post* allocation helps to correct *ex-ante* distortions.

contracts that fully describe the duties and rights of each contract party in each contingency. The theory of incomplete contracts thus most fundamentally requires a theory of bounded rationality.¹⁴ Indeed, the incomplete nature of contracts originates in the imperfections of man. Section 4 addresses the issue of bounded rationality in more depth.

3. Social insurance

3.1 The policy issue

Social insurance and assistance

A second important policy issue in public economics is the institutional design of social insurance and assistance. Social insurance covers specific contingencies such as sickness, disability, old age and unemployment. Social assistance, which acts as insurance of last resort, guarantees a minimum standard of living in the form of means-tested benefits. The design of social insurance is likely to remain a key policy issue in the years to come. The share of spending on social insurance and assistance in national income has declined in recent years in the Netherlands. The number of recipients of social insurance benefits, however, remains high. This holds true also in other European countries.

Trends boost demand for social insurance

Several trends are likely to increase the demand for social insurance in the future. The first important development is the aging of the population. This trend will tend to raise not only old-age benefits, but also disability benefits, because an older labour force is more vulnerable to disability and unemployment. Indeed, disability rates of the Dutch labour force are increasing again. Aging is also likely to increase the political demand for social insurance because the elderly tend to be more risk adverse; they can adapt less easily to unanticipated shocks, in part because they feature a short time horizon. Other trends raising the demand for social insurance include a more volatile economic environment associated with rapid structural change and a weakening of other risk-sharing arrangements such as the family and the firm. Also, low-skilled workers with a weak position on the labour market will continue to put a heavy burden on the social security system. The disparities in labour productivity within the labour force may well widen as a consequences of internationalization

¹⁴ Bounded rationality gives rise to non-verifiable information. If contract partners cannot specify ex ante what they want, they cannot, of course, verify ex post whether the other contract partners have met their obligations. The theoretical foundations of incomplete contracts are still controversial. Some argue that incomplete contracts can be consistent with the rationality postulate. For a survey of the debate, see Tirole (1999).

and technological and organizational developments favouring skilled labour with multiple skills (see e.g. Snower (1996)).

Dutch reforms not completed

The Dutch system of social insurance has been subject to major reforms over the last two decades. In the beginning of this reform process, replacement rates were cut. Later on, more fundamental reforms affecting the organizational design of social insurance were implemented. In particular, sickness insurance was privatized and premium differentiation was introduced in disability insurance (see Bovenberg (2000)). The reform process, however, has not been completed. CPB (1997) describes a substantial unfinished agenda. Moreover, Teulings (1999) argues that the reform of the governance structure in social security leaves a lot to be desired and has been largely unsuccessful. Indeed, CPB (1999) indicates that the reforms in disability insurance have not been sufficient to substantially stem the invalidity rates in disability insurance.

3.2 Economic theory

Private capital markets facilitate insurance

Competition and private insurance companies may play an increasingly important role in social insurance.¹⁵ Modern financial markets expand the possibilities for private unemployment insurance through improved investment and risk-sharing arrangements (see Teulings (1999)). The globalization of capital markets allows insurance companies to spread risks across larger and better diversified pools. In this way, private capital markets may facilitate economic stabilization more generally, and reduce the burden on macroeconomic policies to stabilize the economy (see Bovenberg (1999a)). Capital markets also allow for more consumption-smoothing during the life cycle, thereby facilitating self insurance against unemployment risks (see Feldstein and Altman (1998) and Orszag and Snower (1997)). Furthermore, new financial instruments, such as indexed bonds, may enhance private pension insurance (see Bovenberg (1993)). In all these ways, the process of international integration and financial innovation may aid social insurance.

Smaller insurance pools combat moral hazard.. .

An important way to increase efficiency in social insurance by combatting moral hazard is to reduce the size of the pools within which risks are shared. This can be done through premium differentiation based on experience rating across (groups of) firms and/or allowing firms to take out private

¹⁵ Making companies liable for job-related risks of their employees is another way to increase the importance of the private sector in social insurance.

insurance. Smaller insurance pools discourage free-rider behaviour, as decision makers find it more difficult to shift the costs of their behaviour onto a collective pool. In particular, as insurance premiums more closely match actuarial risks, employers, private insurers and public administrators face more incentives to send benefit recipients back to work. Furthermore, innovation is stimulated as competition between the various pools yields information about efficient cost levels in benefit administration. Organizations that are most successful in reducing the claims on social insurance without reducing the level of insurance offered gain a competitive advantage; the reputation mechanism ensures that pools compete not only on costs but also on the quality of the insurance offered. By thus relying on the discipline of the market, society draws on the ingenuity, entrepreneurship and tailor-made solutions of decentralized agencies.

...but produces adverse selection

Introducing more competition in social insurance, however, does not allow us to escape the fundamental trade-off in social insurance — that between moral hazard and adverse selection. This dilemma originates in private information about the features and efforts of individual agents. Hidden features give rise to adverse selection. This may cause free insurance markets to break down altogether. Moreover, driven by competitive forces, the insurer may engage in costly screening procedures to attract only the good risks (so-called cream skimming). Similarly, those wanting to be insured may engage in costly signalling activities to convince the insurer that they are good risks.

Mandatory pooling of risks in large pools combats adverse selection and costly efforts to uncover and disseminate information about features of individuals. However, a larger, more anonymous, pool tends to exacerbate the problem of moral hazard, i.e. a lack of incentives to exert efforts to reduce claims on a collective risk-sharing pool by reducing the likelihood that the insured event may happen. Hidden actions thus render large mandatory pooling of risks vulnerable to moral hazard. Accordingly, whereas mandatory pooling may prevent excessive efforts to uncover information about hidden *features*,¹⁶ it may not uncover enough information about hidden *actions*. In other words, small pools do not produce enough insurance, as excessive, destructive competition causes the insurance market to break down. Large pools, in contrast, produce excessive insurance due to lack of competition.

Trade-off between incentives and solidarity

Selection hurts not only efficiency but also equity. Indeed, the trade-off between moral hazard

¹⁶ Adverse selection can be viewed as excessive competition on account of the so-called business-stealing effect.

selection is closely related to the well-known dilemma between incentives¹⁷ and solidarity.¹⁸ Introducing competition by reducing the size of the risk-sharing pools increases the incentives for these smaller pools to skim off the cream of the good risks, thereby not only raising search and transaction costs, but also weakening the position of vulnerable groups. Whereas solidarity requires cross subsidies within a large pool, incentives to cut claims on social insurance require small pools.¹⁹ This equity dimension to selection explains why selection is such a sensitive political issue. Politicians are often more interested in distribution than efficiency. In other words, they care more about redistribution of rectangles than the elimination of Harberger triangles.

Selection through the lifting of Rawls' veil of ignorance

Selection may well become a more serious problem as individuals become more heterogeneous. Organizational developments, which allow employers to better assess individual productivity of workers, increasingly select out individuals with low productivity. Also medical technology is likely to reveal more of the actual features and risk characteristics of individuals. Accordingly, both organizational and technological developments increasingly lift Rawls' veil of ignorance. Once this veil has been lifted, vulnerable groups can no longer insure themselves on the market against low earning capabilities. Hence, society can rely less on voluntary insurance to ensure solidarity between individuals with different levels of human capital. Protecting individuals with few marketable skills and high-risk characteristics thus requires more explicit redistribution through compulsory mechanisms.

The core business of government in preventing selection

¹⁷ This dilemma, in turn, can be viewed as a trade-off between incentives and risk-sharing. Indeed, what is insurance *ex ante* becomes solidarity *ex post*. When a risk-averse individual does not yet know the outcome of an event and is thus behind the so-called veil of ignorance, he or she can conclude an insurance contract to reduce risk. After the information has become available, the insurance company redistributes resources from the lucky to the unlucky individuals. Solidarity can thus be viewed as enforcing an insurance contract that was concluded when we were still behind the veil of ignorance about our position in society.

¹⁸ Just as the trade-off between commitment and flexibility (which originates in the lack of complete contracts), also the trade-off between incentives and solidarity (which originates in a missing market for effort because of private information about these actions) represents a fundamental dilemma in modern economics. See CPB (1997).

¹⁹ Another reason why cross subsidies to vulnerable individuals require a large pool is that mobility between large pools tends to be smaller than that between small pools. Mobility erodes solidarity, as good risks can move to other pools.

By enforcing compulsory redistribution, the government will have to play a crucial role in social insurance. This does not necessarily imply, however, that the government must provide the insurance itself. It can leave the insurance task to private insurance companies and pools formed by social partners (e.g., collective labour agreements, see Bovenberg and Teulings (1999b)). In this way, the government can focus on its core business to implement regulation aimed at preventing selection. The key is to find regulation (e.g. prescribing a minimum size for pools and ensuring that insurance companies do not use information about clients to engage in “cream skimming”) to ensure that pools compete on obtaining more information on hidden actions rather than on hidden features. Resources should be used to uncover the risk features for which individuals are responsible (i.e. hidden actions), rather than those for which individuals are not responsible (i.e. hidden features). Indeed, solidarity through mandatory pooling is more appropriate if individuals cannot affect risk features, i.e. if hidden actions are not important. If individuals can influence these features (i.e. if they can be held responsible for them), however, collective insurance of these features through mandatory pooling becomes less attractive.

3.3. Unresolved issues

A key challenge for public economists is to facilitate further institutional innovation in social insurance by exploring the strengths and weaknesses of various governance structures and the associated trade-offs originating in the fundamental dilemma between moral hazard and selection.

The optimal mix of redistributive instruments

Exploiting the substantial literature on the optimal design of incentives under asymmetric information, public economists should extend the classical Mirrlees (1971) contribution on the optimal design of a non-linear income tax (see also Stiglitz (1982)). An important, largely unresolved, question is how the government can employ more information than reported income to reduce the trade-off between incentives and solidarity. Addressing this important issue requires both a careful exploration of actual institutions and exploitation of the rich theoretical literature on the optimal design of incentives under asymmetric information. Indeed, the government has in fact many other tools at its disposal in addition to the income tax to dispose of its core business of maintaining social cohesion by ensuring solidarity. A key insight from public finance is that the costs of redistributive instruments generally rise more than proportionally with the size of these instruments. Hence, a mix of instruments is often optimal.²⁰ A major challenge for public economists is to investigate the factors that determine the

²⁰ There is, however, an important exception to this rule. To ensure that insurers internalize the cost of moral hazard, an event should be insured at only one insurer (see Pauly (1974)). Indeed,

weight of the various instruments and the various types of information in such a mix and the interdependencies between those various instruments. Policies are often complementary in the sense that the effect of each policy is greater when it is implemented together with other policies than when it is introduced in isolation (see Coe and Snower (1997)).

Which instruments can be part of such an optimal package of redistributive instruments aimed at circumventing as much as possible the information constraints that bedevil redistribution? As noted above, a particularly important instrument is the regulation of social insurance aimed at preventing “cream skimming”, e.g. by prescribing a minimum size for insurance pools.

Other instruments aimed at strengthening the position of groups who are particularly vulnerable to selection are special insurance policies (for e.g. the early handicapped) financed by taxes on other groups and subsidies for employers who employ members of these vulnerable groups. In this connection, finding ‘tags’ to identify groups that are particularly vulnerable to “cream skimming” is essential.²¹ Ideal tags are not only correlated with neediness, but should also be difficult to affect by the individuals. In other words, individuals should not be responsible for them. In addition to income, important tags are the number of children, health status, household status, unemployment status, and age.

Social assistance

The design of social assistance — ‘the insurer of last resort’ is particularly important in enhancing the efficiency of redistribution and reducing the burden on other redistributive instruments such as the income tax. To improve targeting efficiency, the use of non-income information (such as household status) to determine eligibility for social assistance is essential. Conditional transfers based on the transaction principle (i.e. balancing the carrot of the benefit with the stick of certain obligations) may help to identify the needy (see Besley and Coate (1992, 1995)) and combat moral hazard (see Hansen and Traaen (1999)). In this respect, “workfare”, strictly enforcing working requirements, and active labour market policies are likely to be helpful in alleviating the poverty trap.²² Moreover, in-kind

insurers typically demand that the insured is not also insured elsewhere, realizing that this would reduce the incentives of the insured to prevent the insured event. Similarly, the government should realize that the combination of public insurance and supplementary private insurance gives rise to over insurance; private insurers fail to fully internalize the adverse effects of higher benefits on moral hazard, as the public scheme pays part of the additional benefits.

²¹ Determining individual eligibility on the basis of non-income information has been called ‘tagging’ by Akerlof (1978). See also Diamond and Sheshinski (1995) and Parsons (1996).

²² In particular, without enforcing these requirements, social assistance benefits become a basic income. A basic income either requires very high marginal income rates or allows only a low

transfers can link financial support to activities (such as training) that encourage rather than discourage entry into employment. Indeed, in the face of structural unemployment and long-term dependency, active interventionist policies relying on conditional and in-kind benefits (e.g. training and other investments in human capital) seem essential. By enhancing the employability and earning capabilities of vulnerable individuals with few marketable skills, social assistance addresses social exclusion at the root.²³

Although the administrative costs of various systems are often the key determinant in selecting a particular system, this issue is largely ignored by applied theorists.²⁴ A shift towards more active policies involving conditional and in-kind benefits requires the decentralization of the benefit administration with superior information about the behaviour and features of benefit claimants. However, the information advantage of the decentralized administration confronts the central government with an agency problem, as the objectives of the central government are likely to differ from the decentralized benefit administrations. This agency problem contributes to the costs of administering welfare systems. It also yields a trade-off between moral hazard and selection. To illustrate, to combat moral hazard in administering welfare benefits, the budget responsibility can be delegated to decentralized agencies. This, however, may encourage “cream skimming” behaviour of the decentralized agencies and unequal treatment of similar benefit applicants. Accordingly, just as in social insurance, financial incentives must be complemented by other instruments protecting vulnerable groups.

Redistribution and market imperfections

Another challenge for public economists is to explore the interaction between redistribution and various market imperfections on the labour market that give rise to involuntary unemployment. The literature has identified various types of labour-market imperfections. Some models focus on commitment problems (and associated hold-up problems) due to the lack of contracts on search efforts (see Pissarides (1990), Hosios (1990), and Moen (1997)) and other investments (see Cabellero

benefit (see Bovenberg and van der Ploeg (1996)). The increased use of in-work tax benefits can be seen as a shift towards the basic income.

²³ This points to the importance of education and training in alleviating incentive constraints. Blomquist and Christiansen (1995) and Boadway and Marchand (1995) show how public provision of private goods such as education and training can alleviate incentive constraints.

²⁴ Using the techniques of optimal non-linear income taxation, Boadway, Marceau and Sato (1999), however, explore the optimal combination of tax and welfare systems and the optimal payment and monitoring of social workers.

and Hammour (1996)). Efficiency wage models, in contrast, emphasize the missing market for effort due to private information of workers. Accordingly, informational rents for insiders are required to sustain implicit contracts. The second-best interactions between redistribution and these market imperfections may greatly affect the costs of redistributive policies.

Government intervention in the second best

This is, in fact, part of a much broader research agenda. Indeed, whereas in a first-best world the distortionary costs of small government interventions are close to zero, this is no longer true in a second-best world in which these interventions can exacerbate or alleviate other distortions. This is the major lesson from the literature on the double dividend of environmental taxation, which explores the interaction between environmental externalities and tax distortions. This literature shows that the welfare effects of environmental policies aimed at internalizing environmental externalities depends crucially on the interaction with other distortions ('wedges') in the economy (see Bovenberg (1999b)). This can be good and bad news. The good news is that government intervention can help to offset market failures. The bad news is that it can also exacerbate market imperfections; Harberger triangles can become trapezoids.

The interaction between tax policy and imperfections in financial markets is a relatively unexplored research area. A particularly relevant issue is how tax privileges for debt financing affect the distortions due to moral hazard in debt financing, to bounded rationality giving rise to bubbles, and to the perceptions of lenders that the government will bail them out (e.g. through inflation). This may be a particularly important element in the discussion about tax reform in the Netherlands and, in particular, about the tax treatment of owner-occupied housing.

4. Bounded rationality

Limitations of human capacity to process information yield bounded rationality

This section explores the first of two more general challenges facing public economists, namely the issue of bounded rationality. Economists have traditionally assumed that people do not incur costs when they process available information to maximize stable preferences. As a rational utility maximiser, man pursues his self interest in a single-minded way. This assumption has proved extremely useful in economic theory. Indeed, the assumption of rationality greatly helps to formalize how people deal with scarcity. Indeed, the shortcut of this simplifying assumption is often a helpful simplification. At the same time, psychologists, sociologists and experimental economists have shown that the assumption of rationality does not fit the facts. Indeed, experiments reveal that people have a difficult time dealing with risk and uncertainty, especially if a long time horizon and low-probability

events are involved. Also behavioural economics suggests that people make systematic mistakes. These mistakes originate in the scarcity of human cognition (see Conlisk (1996)). Indeed, as I happen to verify every day, man has only a limited capacity to process information. Hence, people economize on deliberation costs by employing “rules of thumb” and other short-cuts in making decisions. This is in fact rational behaviour in the face of the limited human capacity to process information.

By recognizing the weaknesses and limitations of man, economics returns to its founder Adam Smith. Smith puts little confidence in human reason. Man’s perceptions are heavily distorted by self-deceit and basic instincts. Coase (1976) writes about Smith; “he thinks of man as he actually is — dominated, it is true, by self -love but not without some concern for others, able to reason but not necessarily in such a way as to reach the right conclusion, seeing the outcomes of his actions but through a veil of self-delusion.”

Hold on to formalization, but learn from other sciences

The great challenge facing the economics profession is to develop a more realistic view of man. In this connection, economists should hold on to their habit of formalizing social phenomena. Formalization has made economics the queen of the social sciences. At the same time, economics should broaden its frontiers by relaxing traditional assumptions of stable preferences and rational behaviour.²⁵In this connection, it can learn from other sciences, like sociology and psychology. Psychology explores how addictions form. Sociology shows that individual preferences are often greatly influenced by the social interaction. Also experimental economics holds great promise in shedding light on how real people improve their heuristics by learning through trial and error.

Bounded rationality and the case for government intervention

The implications of bounded rationality for the case for government intervention are not immediately clear. On the one hand, bounded rationality creates room for paternalism in the public sector. In some sense, bounded rationality implies implicit tax wedges in an intra-personal basis.²⁶ Government intervention may help to correct these distortions. Indeed, the concept of merit good is well known in public economics. Social insurance is such a merit good. Henry Aaron, a world-wide authority on

²⁵ Becker (1993) allows for endogenous preferences, while Akerlof (1991) and O’Donoghue and Rabin (1999) allow also for systematic mistakes in individual decision making.

²⁶ Similarly, time-inconsistent preferences due to so-called hyperbolic discounting cause commitment problems on an intra-personal basis. See Laibson (1997). The interaction between time-inconsistent preferences and bounded rationality is explored in Akerlof (1991) and O’Donoghue and Rabin (1999). Thus, the hold-up problem may occur not only on an interpersonal basis, but also on an intra-personal basis.

questions of social insurance, writes: ‘The case for social insurance rests on the belief that many people would fail to make decisions in their own self interest if left alone,’ and, ‘Let me be clear. I come to praise paternalism, not to bury it. Standard economic analysis rests on assumptions that undermine any basis for paternalism, but these assumptions are false, whatever their value in advancing economic analysis. Paternalism reflects an accurate judgement that private decisions sometimes produce consequences that no compassionate society is willing to tolerate.’ (See Aaron (1999)).

Bounded rationality, however, can also make us distrust government intervention. Also politicians and government bureaucrats are imperfect and can cause much more damage than individuals. In its recent survey of the 20th century, the *Economist* (1999) states that the liberal presumption in favour of the market rests on humility about the intellectual capabilities of man: ‘The liberal presumption in favour of the market, of capitalism and indeed of freedom itself, is driven by intellectual humility: the acceptance that the process of constant experimentation, involving the freely expressed views and actions of millions of people, is likely to produce a better, more adaptable outcome than one involving a committee of economists, politicians, bureaucrats or even journalists, drawing up a grand blueprint.’

Bounded rationality in politics

Bounded rationality plays an especially important role in politics. Political rhetoric is difficult to reconcile with complicated arguments. Politicians need to keep it simple when communicating with the electorate. Most voters lack the training and time to understand complicated arguments. A key role of politicians is to communicate the reasons for political decisions, which may be based on complicated arguments, in a simple manner to the electorate.

Framing effects in politics

Experiments have shown that decisions vary depending on how they are framed. In the experiment reported by Ross and Ward (1996), two identical prisoners dilemma games were played. One was called the ‘Wall Street game’ and the other ‘the Community game.’ Whereas the majority cooperated in the community game, the majority defected in the Wall Street game. Especially in politics, framing is crucial. ‘Cutting public debt’ sounds quite different from ‘building up a fund to save social security.’ Similarly, ‘cutting the link between wages and social insurance benefits’ sounds less attractive to many voters than ‘making work more attractive by raising in-work benefits.’

Framing effects may help to explain why privatization succeeds in de-politicizing production. In particular, it explains why explicit subsidies to profit-making firms are more costly to politicians than giving up profits from state-owned enterprises. In the same vein, recipients of implicit cross subsidies tend to oppose making these subsidies explicit (for example in the form of vouchers). They

fear that, by making subsidies transparent, they are likely to become more vulnerable in the political process. Hence, the commitment to these benefits weakens.

5. Non-government, non-commercial institutions

This section explores the importance of non-government, non-commercial institutions in correcting market failures. We do not live by the market, the firm and the parliamentary democracy alone. Also other institutions are important means to coordinate behaviour, thereby facilitating mutually advantageous trade. Public economists should thus look not only to the government for correcting market failures.

5.1. Norms

Norms as beliefs

The first non-government institution I want to deal with are norms. Norms can be formalized in at least two ways. The first way is as beliefs concerning the out-of-equilibrium strategies of others. Greif (1994) calls them cultural beliefs or cultural norms. These beliefs can help society to select the cooperative equilibrium in repeated games by coordinating expectations. Most importantly, the anticipation of others adhering to the norm makes people adhere to a particular code of conduct. In other words, norms are self-fulfilling prophecies; they make the implicit contract sustaining the cooperative equilibrium self enforcing.²⁷

To illustrate, in Greif (1994), people correctly anticipate that they will be punished by others if they breach the implicit contract to trade honestly. Other traders will punish dishonest traders by not engaging in further trade with those who have lost their reputation of being an honest trader. It is rational for these other traders to carry out this collective punishment by refusing to trade with those who have lost their reputations. The reason is that they know that traders who have lost their reputations will have less of an incentive to be honest because these traders no longer have a reputation to maintain. Only a good reputation keeps people honest because they have more to lose. The threat of collective punishment is thus credible. In this way, neither the government nor the courts have to sanction those who are dishonest.

Norms thus act as a substitute for complete, formal contracts and government intervention. These informal institutions may in fact be more important than the formal institutions (such as courts

²⁷ Also Binmore (1998) models norms as a device to select an equilibrium in repeated games, which tend to feature multiple equilibria.

enforcing complete contracts and legislation) because they are self enforcing. This may be even more true as society becomes increasingly complex and dynamic, thereby making legislation and complete contracts increasingly costly and difficult to enforce.

Norms as moral sentiments

The collective punishment mechanism identified by Greif works -- even if people do not directly care about what others think of them. In other words, the social reputation of an individual does not enter the utility function of that individual. Adam Smith, however, emphasized another mechanism through which social reputations matter, namely moral sentiments. In Smith' view, people are actually quite sensitive to what others think about them. We constantly put ourselves in the shoes of others and imagine how they must see us. People thus conform to social codes because they want to be admired by others. Adam Smith recognized also the importance of the conscience. When we judge our own behaviour through the eyes of an impartial spectator, we want to appear admirable -- not only in the eyes of others, but also in our own eyes.

The second way in which norms can be formalized is more in line with how Adam Smith viewed norms, namely as moral preferences, which value behaviour. These moral sentiments determine which behaviour is respected by others and by individuals themselves. By adhering to these moral norms (or social codes of conduct), people gain self respect and the approval of others (see also Bovenberg and van de Klundert (1999)).

Norms and contract enforcement

This moral mechanism emphasized by Adam Smith strengthens the enforcement mechanism stressed by Greif (1994). People adhere to implicit contracts because of three reasons: they gain self respect; they derive utility from being admired by others; and they know that they will be punished in tangible ways if they will lose their reputation of being a reliable trading partner. The latter two ways imply that behaviour is heavily influenced by social interaction (i.e. by what others in a society believe and respect). Sociology documents this again and again. Indeed, even preferences appear to be strongly affected by the social environment. Through these social mechanisms, norms facilitate social coordination.²⁸

By providing a focal point in renegotiations, norms in the form of beliefs about the out-of-equilibrium strategies of others enforce implicit contracts, such as those proposed by MacLeod and Malcomson (1993), which combine the advantage of rigidity (namely resolving the hold-up problem

²⁸ Other social mechanisms, such as the desire to “keep up with the Joneses” and conspicuous consumption, in contrast, may be socially wasteful by causing negative externalities. Cultural beliefs may also lead a society to select an inferior equilibrium in repeated games.

by providing commitment) with that of flexibility (namely adjusting the contract to new circumstances). Hartog and Teulings (1998) point out that these implicit contracts resolve the hold-up problem only if specific beliefs about the out-of-equilibrium behaviour of others are in place; parties need to believe that others will stick to the implicit contract during the renegotiation process.

These observations about the importance of the social context in determining individual behaviour explain why institutions and behaviour can differ substantially between countries. They shed light also on why institutions are path dependent and thus on why history and culture matters. Individual preferences and technology do not necessarily yield a deterministic path of economic development. Cultural beliefs and moral preferences, which are fundamentally social phenomena, may be as important.²⁹ These norms can be viewed as the stock of social capital in a society.

Norms and bounded rationality

Until now I have stressed the importance of norms in facilitating social coordination. However, norms as moral preferences can also correct the distortions due to bounded rationality (see Bovenberg and van de Klundert (1999)). Social norms can be viewed as the accumulated wisdom of previous generations — the outcome of a long collective learning process. This social capital may be as valuable as the stock of ideas and technological knowledge. By adhering to these norms as a rule of thumb, boundedly rational man benefits from the learning process of previous generations. In this way, he avoids mistakes and saves on his own learning expenses.

5.2 Civil society

Civil society transmits information....

An important prerequisite for the collective punishment to work is that information is transmitted about reputations (see Greif (1994)). Information transmission and thus openness and transparency

²⁹ Norms thus become driving forces in economic development, just as expectations can be these driving forces in models with multiple equilibria (e.g. models of financial markets with bubbles). Hence, norms and expectations can play an independent role in explaining economic development. This is in contrast with many rational expectations models in which expectations are uniquely determined by the structure of the economy.

are essential.³⁰ In this connection, private non-commercial organizations, also known as the civil society, play a crucial role in gathering information that is necessary to enforce collective punishment of those who breach implicit contracts. Moral sentiments strengthen these mechanisms. The same holds true for a free press.

Non-governmental organizations illustrate the importance of institutions facilitating the transmission of information. They ensure that multinational corporations meet certain codes of behaviour by providing information about the behaviour of these corporations. A corporation is keen to maintain its reputation for being a good citizen. Without that reputation, its competitive position on the commodity and labour market may weaken because clients and employees will demand lower prices and higher wages.

....balances powers.....

Here we once again encounter the paradox of power. Corporations benefit from the checks and balances provided by others because the system gives them the ability to commit to implicit contracts. In the same vein, Greif, Milgrom and Weingast (1994) show how merchant guilds, by organizing collective punishment against transgressors, enabled rulers to commit themselves to their promise to protect the security of alien traders. In this way, parties benefit from a strong countervailing power. Checks and balances help parties to trust each other and engage in cooperative exchange.³¹

...bears reputation and enforces implicit contracts....

Private, non-commercial organizations typically bear reputations, just like firms do. Since this reputation is essential for an organization's effectiveness, it will strive to maintain it — the more so because an organization typically has a longer life than do individuals. As an example, as modern guilds, professional organizations maintain their reputations by enforcing professional standards. Being professionals themselves, these guilds are best able to judge whether their members meet professional norms. In order to protect the (public good of a) good reputation of the profession, the professional organizations face a strong incentive to discipline the members that violate professional norms (which thereby harm the reputation of the profession as a whole). In this way, these modern

³⁰ This is the crucial difference with the well-known efficiency wage model of Shapiro and Stiglitz (1994). Here, agents are kept honest only by the threat of losing their job. Hence, only the trader who is cheated punishes the dishonest agent. In the Greif model, in contrast, collective punishment implies a second stick, namely the reduced access to trade with others in the future if one loses one's reputation as an honest trader.

³¹ Cabellero and Hammour (1996) formalize the importance of the balance of power. They show that the hold-up problem can be alleviated by balancing specificity.

guilds ensure that professionals adhere to the implicit contract with their clients by not abusing their information advantage for short-run gain. By thus enforcing professional norms, society can benefit from the expertise of these professions.

Also corporatist organizations in industrial relations, such as trade unions and employer organizations, carry reputation. This facilitates mutually advantageous trade between workers and employers by strengthening the reputation mechanism for enforcing agreements. To illustrate, by delegating decisions to these organizations, individual firms or workers can benefit from the commitment that goes with these reputations. Hence, they can make credible promises. In this way, commitment and flexibility are reconciled, so that hold-up problems are alleviated (see Hartog and Teulings (1998)).

..and alleviate hold out problems, adverse selection and moral hazard.

Moreover, by providing and gathering information about each other, corporatist organizations build trust. In this way, they also alleviate hold-out problems in political bargaining that originate in private information about bargaining positions (see also section 6 below). By gathering information and forming pools within which to share risks (like the collective labour agreements), they also weaken the trade-off between moral hazard and adverse selection. Indeed, collective labour agreements apply to groups of employees that can be used as an ideal insurance pool, which optimizes the trade-off between adverse selection and moral hazard (see Teulings (1999)).

Transparency required

In all these ways, these governance structures help in coordinating behaviour, thereby reducing transaction costs. An important precondition for the socially beneficial effects of civil society to be realized is that these organizations are themselves open to the rest of society. If they are not, these organizations acts as cartels — facilitating the collusion of these groups at the expense of society at large. The free press plays an important role in avoiding such a scenario. Indeed, also civil society needs countervailing powers.

5.3 The family

The family is another important institution facilitating social coordination. Norms and values are transferred from one generation to another, (moral) preferences are shaped, and risks are shared.

Intergenerational transfer of norms

In the family, social capital is transferred from one generation to another. Rearing children involves the shaping of norms (in the form of both moral preferences and cultural beliefs). Relying on norms to enforce implicit contracts requires the learning of these rules early in life. Moreover, in the early years of a person's life, the conscience is shaped.

The social pay-offs of successfully raising kids are large; learning norms and building a conscience later in life is costly. The same holds true for building basic social skills. Without these skills, individuals lack access to the labour market and are able to neither build stable relationships nor successfully raise kids themselves. By teaching their children these abilities and building the moral preferences of their children, parents prevent social exclusion, structural unemployment and family instability in the future. Families thus reduce the burden on the welfare state and facilitate social coordination. Indeed, the socialization of children confers important positive external effects.

Moral sentiments

Adam Smith recognized the importance of moral sentiments and benevolence in the raising of kids and the training of the young. While benevolence plays only a small role in anonymous relationships, it plays an important role in personal relationships. Within the small group of the family in which people interact repeatedly, moral sentiments play a key role, for example in the form of parental devotion.³² In Adam Smith' view, raising children can not be fully contracted out to the market or the government because it requires benevolent feelings that require repeated and frequent interaction to be maintained and cultivated. Accordingly, the family is an ideal institution for the intergenerational transfer of basic skills and social capital.

Risk sharing

Also as an institution facilitating risk sharing, the family relieves the burden on the welfare state. The architects of the modern welfare state were keenly aware that the welfare state can be sustained only in the presence of not only a well functioning labour market (which yields a high level of employment) but also successful families. Rather than the welfare state, work and the family should be the primary institutions for providing support of living (see OECD (1997)).

Partners in durable relationships insure each other against income losses. The improved labour-market position of women, which has been facilitated by better educational opportunities and cultural trends, further increases the risk-sharing function of family relationships. The specific features of the family weaken the trade-off between moral hazard and adverse selection. In particular, moral sentiments prevent good risks from leaving the family pool, thereby avoiding selection. Moreover,

³² Becker (1993), in contrast, abstracts from benevolence altogether in modeling the incentives of parents to endogenously shape the preferences of their kids.

family members can easily monitor each other, thereby preventing moral hazard.³³ Through efficient risk sharing, the family reduces the claims on social assistance. Indeed, single parents and single-person households, who do not benefit from risk-sharing arrangements between partners, are particularly vulnerable to poverty and run the risk of being dependent on welfare. Indeed, the break up of relationships is the major source for poverty and claims on social assistance. Durable relationships are thus socially beneficial.

5.4 Unresolved issues

Household status as a tag

The government faces a dilemma in adopting household status as a tag for neediness. Employing the size of the household and the absence of a partner earning labour income as such a tag relieves poverty in the short run, but may at the same time encourage the break up of relationships in the long run. This illustrates the importance of using tags that are not only correlated with poverty but also can not be affected by individuals. Moreover, by helping single-person households only, the political support from two-adult households for the welfare state may decline (see OECD (1997)). How to address this dilemma is an important research question.

Interaction between institutions

This previous research question is in fact part of a broader research agenda studying the endogenous formation of the various institutions, in general, and the mutual relationship between them, in particular (see also van de Klundert (1999)). Do they mutually support each other, or are there crowding-out effects?³⁴ Frey (1998), for example, argues that the market may erode moral sentiments. Also Bowles (1998) maintains that perfecting the ideal of the market may erode non-market solutions to problems of social coordination. Others have argued, in contrast, that the market helps to maintain and build these sentiments. Hirschman (1982) provides a useful survey of the various contrasting views.

In this connection, the mutual relationship between social and cultural developments, on the one hand, and economic developments, on the other, is still unclear. Do social developments, such as a more heterogenous population and individualization, drive economic developments, such as the increased use of the market mechanisms, or does the causality run the other way around?

³³ Indeed, governments typically use the absence or presence of a partner with other income sources as the main non-income information to determine eligibility for welfare benefits.

³⁴ Baker, Gibbons, and Murphy (1994) explore the relationship between explicit contracts enforced by the courts and implicit contracts enforced by reputation.

The dynamics of norms

Further exploring the strengths and weakness of the institutions is important as well. In this connection, the process of social innovation should be studied. How do societies adjust to new circumstances? When adjusting norms to new circumstances, society faces a dilemma between commitment and flexibility. On the one hand, norms should be sufficiently rigid to provide guidance to new generations and enforce long-term contracts. On the other hand, the specific interpretation of norms should adjust to new circumstances in order to remain efficient coordination mechanisms. Especially dynamic modern societies face this tension. The faster the environment changes, the more important the fixed point of norms becomes. At the same time, however, norms need to be continuously interpreted in a fresh way.

Health economics

Health economics may be the most challenging field of economics for exploring these issues. Here, contracts are fundamentally incomplete because of the rapid development of technology. Moreover, agency problems between insurers, health providers, and patients are important due to serious information problems. Furthermore, people tend to suffer from bounded rationality — especially when they are in need of medical care. Also moral sentiments play an important role in this sector. Finding the proper mix between private and public governance in addressing the trade-offs between commitment and flexibility -- and especially that between moral hazard and adverse selection ³⁵ -- is a major challenge indeed.

6. Conclusions

Imperfections and trade offs

This lecture has stressed imperfections — imperfections in contracts, imperfections in information provision, and imperfections in man. These imperfections give rise to a number of trade-offs in the coordination of economic activities. In particular, the lack of complete contracts, together with bounded rationality, produces a dilemma between flexibility and commitment. Private information about hidden actions and features gives rise to a trade-off between moral hazard and selection. All institutions confront the same imperfections and thus the same fundamental trade-offs.

Institutional economics integrates various specialized fields...

By stressing these imperfections and trying to formalize them, the so-called new institutional

³⁵ For this trade-off in health economics, see Newhouse (1996).

economics has made three distinct contributions to economics. First, it provides a unified way for investigating institutions and their strengths and weaknesses. Market failures and government failures originate in the same imperfections and can thus be analysed together. Whereas specialization may have fragmented our discipline, the new institutional economics has helped to integrate and unify various sub-disciplines.

...broadens scope of economics to non-government, non commercial institutions...

A second contribution is that it has broadened the scope of economics to other institutions besides the market and the government (such as norms, family, civil society, the judiciary) and to other governance structures than the parliamentary democracy and the firm. Society is an intricate web of institutions and governance structures facilitating social cooperation.

...and facilitates communication with other sciences

A final contribution is that it has questioned the traditional view of man as a rational utility maximiser. As a result of these three contributions, economics has become more whole. In the process, economics is returning to its great founder Adam Smith, who integrated politics, ethics, and economics in the discipline of political economy. The lost son has come home. This homecoming has also facilitated the communication with other social and human sciences, such as sociology, psychology, political science and law.

Hold on to formalization while learning from other sciences about man

The homecoming of the economic profession does not imply that it has not made great strides since Adam Smith. Especially formalization has turned out to be extremely productive for making progress. Formalization is a very helpful tool for imperfect man, who has only a limited capability to process information. I'm very much in favour of more contact with other social sciences because we can learn a lot from them about how man actually behaves. Indeed, we have been isolated from the other social sciences for too long.

The challenge is to combine sensitivity to the insights of others with sufficient spine to hold on to our core business. This is indeed another trade-off between flexibility (to learn from others) and commitment (to our core values). On the one hand, therefore, we should be humble in order to learn as much as possible from these other sciences. On the other hand, though, we should be self-confident, tightly holding on to our core competence. In addition to our powerful language of thinking in terms of choices and trade-offs, this core competence is formalization. Formalization has made economics the queen of the social sciences. In this sense, we should indeed be imperialistic and not be afraid to take over parts of other social sciences, such as political science and law.

The polder model

This brings me on the Dutch ‘polder model’ — or as some have called it — the ‘delta’ model. The polder model is an example of an intricate web of complementary institutions and governance mechanisms. This Dutch ‘polder model’ is currently quite successful in combining commitment and flexibility and in combining efficiency and equity. This success should be attributed not only to government policy and deregulation of markets, but also to the unique Dutch culture and various other informal and informal institutions facilitating the enforcement of implicit contracts. Indeed, the delta can be seen as the product of three main political rivers, the Socialists stressing the role of the state, the Liberals emphasizing the role of the market, and the Christian-democrats focussing on the importance of norms, the family and civil society. These three rivers together have given our delta its distinct character.

The challenge for this polder model is social innovation, the search for new mixes of institutions. Here the polder faces its own tension between flexibility and commitment. On the one hand, we should be conservative by protecting successful institutions, which often have been formed over generations but which also can be damaged quickly. On the other hand, globalization and rapid technological change may call for social innovation, resulting in a new combination of the various institutions.

Economists in the polder...

What is our own role as professional economists in the polder? Being on the edge between policy and theory, I see two distinct roles. The first role, which corresponds more to the academic side of the edge, is to analyse the polder model. How does it really work? How do the various institutions interact?

The second role, which is closer to the policy side of the edge, is to facilitate the functioning of the polder model. Economists can reduce transaction costs in facilitating mutually advantageous trade and seeking political consensus. In this way, we help to establish Pareto-welfare improvements. Indeed, politics is not a zero-sum game. This role is more in line with the Tinbergen tradition to serve society by making economics relevant.

...should invite Coase by making political bargaining more transparent..

In this connection, I see our main role as providing information over the effects of policies, thereby facilitating the transmission of information in the political process and bargaining between other groups (e.g. between unions and employers’ organizations). This helps to reduce political transaction costs. In particular, by providing more information, we can help alleviate the hold-out problem in political bargaining (as happened in the late seventies when a stalemate in Dutch politics contributed to a deep economic crisis). This facilitates Coasian bargaining. Indeed, Stiglitz (1998) talks in this

connection of ‘bringing Coase to the public sector.’ In the Dutch context, we may add to that: ‘bringing Coase to the SER (i.e. to the social partners) or to the polder (i.e. to the unique mix of groups).

...facilitate political trade by mitigating adverse selection...

Moreover, by reducing the importance of inside information, we build trust between bargaining partners; parties do not have to worry that they are paying an excessive political price because the other party is exploiting private information about the effects of certain policies. By thus reducing problems of adverse selection (see Akerlof (1970)), economists can facilitate political trade. Accordingly, I believe in the role of the economist as a facilitator of consensus.³⁶ By providing information about the effects of policies, the economist allows the political debate to focus on different political priorities, rather than on differences of opinion about the effects of policies. In this connection, Stiglitz (1998), on the basis of his experience as chairman of economic advisors, remarks:

‘in politics, there is often a generalized skepticism about proposals offered by an adversary that leads politicians to think that anytime an adversary makes a proposal, it must involve the adversary benefiting at their own expense. This skepticism derives not just from the standard asymmetric information assumption in economic models, but also from the fact that many people lack the training or patience to understand the consequences of policies.’

...teach the public while respecting the simplicity constraint...

This again suggests the importance of bounded rationality. We as economists can play a role in alleviating the distortions associated with bounded rationality. In educating voters and politicians, we must learn to respect the so-called simplicity constraint. This is difficult for us. In our profession, we often fall prey to the temptation to make our arguments subtle. However, keeping things simple and trying to bring our complicated arguments back to the basics, is a valuable discipline. The art of communicating with non-economists is an important tool for protecting the reputation of our profession as being helpful in addressing important problems. Economists who are able to do so provide an important service to the profession.

Bringing complicated arguments back to their core is key in communicating not only with those outside our profession but also within our academic profession. Only if we are able to bring a complicated argument back to its essentials have we really understood it and can we judge whether

³⁶ Others, in contrast, see the role of the economist more as a lawyer, seeking to hide weaknesses in its case (see Theeuwes (1997)). The strength of the adversarial processes is the encouragement of experimentation, and discussion and debate. For an economic analysis of the strengths and weaknesses of adversarial and consensus systems, see Dewatripont and Tirole (1999).

it actually makes sense and is important. As co-editor of the *Journal of Public Economics*, I have been struck by how many economists can make rather simple things difficult. Instead of making complicated things simple, we make simple things difficult. In the same vein, economists often go for methodological overkill instead of methodological simplicity. We seem to think that by making simple things difficult and employing difficult techniques, we increase our chances of having our papers accepted by a journal. My experience is that it is just the other way around. Spending a lot of time on making your arguments and models as transparent and simple as possible pays off in more publications. Indeed, also in academics, the framing of our arguments is often more important than the arguments themselves. This, by the way, is the single most important lesson I feel I can give Ph.D. students: spend a lot of time on framing your arguments in the simplest and most transparent way.

....and strengthen the reputation mechanism by providing information

Another way we can help the political process is by keeping politicians honest. By generating information about misleading statements and breaching of (implicit and explicit) promises, we allow politicians and interest groups to commit to implicit contracts with voters and the public at large through the reputation mechanism.

In the Netherlands, CPB Netherlands Bureau for Economic Policy Analysis is playing a major role in building trust and consensus within the polder model. We as economists can complement that role by critically following their analysis. Indeed, to maintain academic quality, CPB has subjected itself to a peer review in 1997. It thus realizes that its credibility and reputation depends in part on the economic profession keeping them on their toes.

Our own guild protects our reputation...

More generally, we should guard our reputation by not giving in to enticements of political power. We should not abuse our professional reputation for short-term ideological gain. Our strength is that of the idea. And that is stronger than we realize. Keynes said it well: ‘Politicians are often the slaves of defunct economists.’

Indeed, as members of the guild of professional economists, we should protect the public good of the reputation of our own profession. The emerging trend of academics who are using the insights they gleaned from the international literature to shed light on important policy problems will help to protect and build up this reputation. It will make our profession more sensitive to the pressing concerns of others, including those of practitioners. The same holds true for the homecoming of economics to the more interdisciplinary approach of Adam Smith. This will certainly help our communication with other sciences.

... transfers our values to the next generation...

In this connection, the influence of academic economists on public policy is more indirect than we often think. In particular, I believe that the most powerful effect of our profession on policy is through the education of students. Our students will populate the ministries and the interest groups in the future. As we teach them, we shape their views and values. By instilling the values of our guild in them, we transfer our cultural and scientific heritage to younger generations.

...and strengthens these values

I hope this lecture has contributed to further shaping and strengthening the social values within our profession. Crucial, in particular, is the norm within our profession of utilizing the important insights of economic theory for the benefit of society at large. Only if we hold on to that norm will we live by the implicit contract the society concluded with our profession, namely to combine excellence and relevance. As a result, the discipline of economics will be richer and more exciting, our profession will attract more students, and the world may even end up being a somewhat better place to live in.

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