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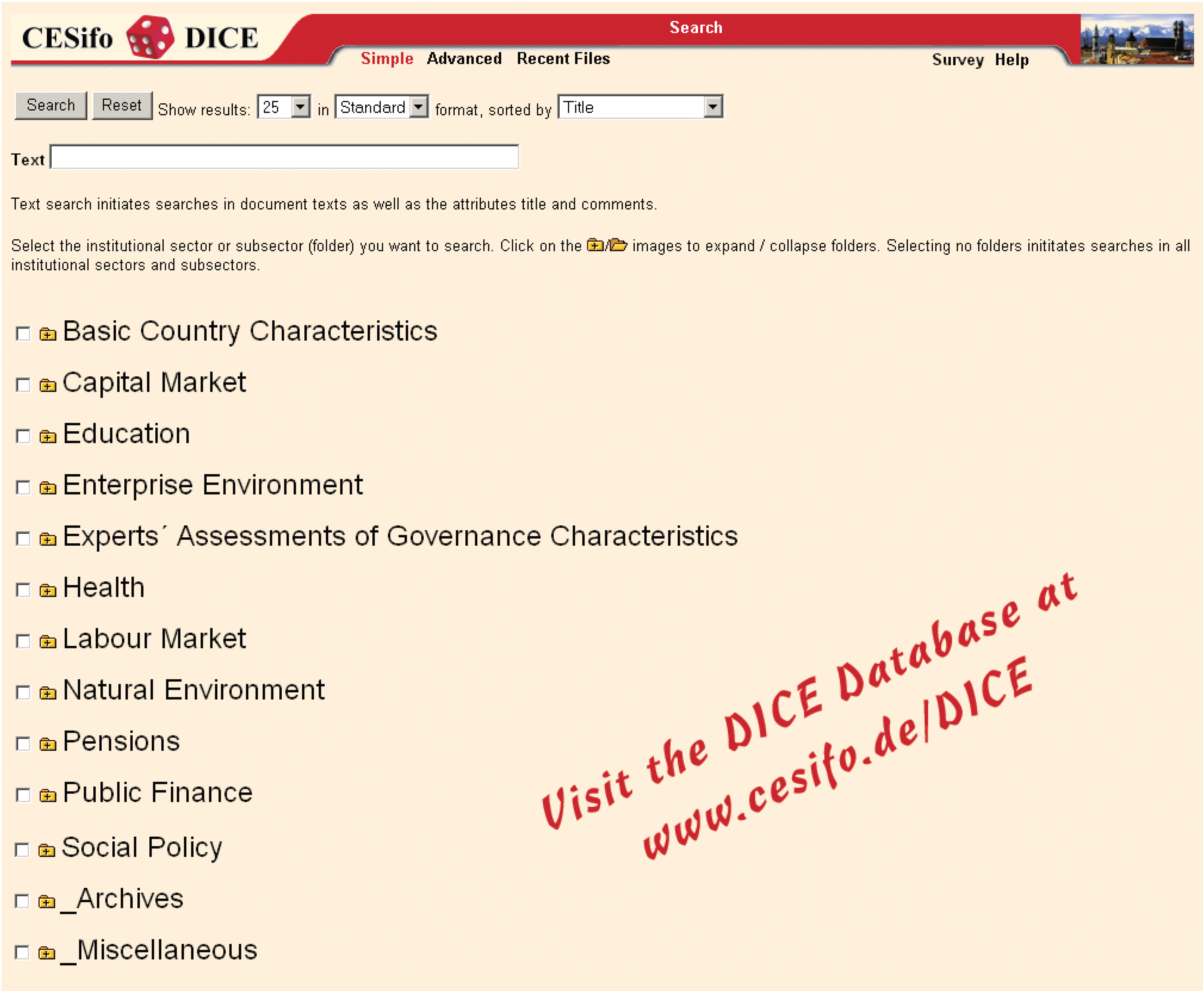

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Forum

Choice of Constitutions and Electoral Systems

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The Choice of Institutions*

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Economics and political institutions

The "classical" economists, Adam Smith, David Ricardo and Karl Marx clearly thought that socio-political forces were important determinants of economic development and change. In contrast, the "neoclassical", school starting with Jevons and Walras, developed their economic theories in an institution-free environment. Institution-free economic theory has been the dominant school of thought at least until the 1990s. There were, however, a few exceptions.

While the Anglo-Saxon School developed optimal taxation theory in an institution free world, the *Italian Public Finance School* of the late nineteenth century embedded fiscal policy discussion and fiscal theories into political considerations.

The *classical constitutional theory* of Hayek, set out in his 1960 *Constitution of Liberty* and by Buchanan and Tullock (*The Calculus of Consent,* 1960), provide a major normative pillar which greatly helps our thinking today about the choice of institutions and constitutions. The emphasis on the risks associated with the tyranny of the majority remains one of their major contributions.

The *Public Choice School* developed around the work of Buchanan and associates. The key idea of this school of thought is that politicians maximize self interest fairly narrowly defined. The government is viewed as a Leviathan to be restrained because its goal is to "steal" from the private sector extracting taxes, rents and bribes.

Unfortunately, the Public Choice School remained largely outside the mainstream of post-war economic theory. Both sides are responsible for lack of communication. Mainstream economists had a tendency to underestimate the importance of institutions, and they were quite narrow- minded in their approach to modelling policy making, refusing to understand the importance of politicians' motivations and constraints in choosing policy. Or if they did, they felt that it was not the economist's role to incorporate them in models of policymaking. Public Choice theorists refused to embrace the methodological innovations in economic theory, such as a new way of thinking about expectations, new developments in game theory and more generally the mathematical and statistical rigor that was becoming the norm in the field.

In the meantime the field of political science developed an area that was later known as the *Rational Choice approach,* in which researchers applied mathematical tools borrowed from economics to analyze voting behaviour and various issues of political institutions. This field owes a lot to Arrow's paper of 1951 on the impossibility theorem (in *Social Choice and Individual Values*). In fact the initial impetus from the field was to overcome the "negative" result by Arrow. Thus, models have been developed in which voting could be understood in a predictive manner.

William Nordhaus formalized the idea of an electoral business cycle in a traditional Phillips curve model with a stable trade-off between inflation and unemployment (*The Political Business Cycle,* 1975). Immediately after this contribution macroeconomic theory moved to rational expectations, and his contribution remained a bit on the sidelines of the field.

Gary Becker offered, in his path-breaking paper in 1983 (*A Theory of Competition Among Pressure Groups for Political Influence*), an approach to modelling lobbying pressure to buy policy from policymakers. This approach was widely applied to international trade and protectionist policies.

* This is a revised version of the CESifo Munich Lecture, held by the author at 14 November 2006 in Munich.
** I thank Professors Hans-Werner Sinn and Raji Jayaraman for their exceptionally kind hospitality in Munich, Guido Tabellini for comments, and Carlo Prato and Maria Teresa Trenntinaglia for research assistantship in the preparation of the lecture (alesina@fas.harvard.edu).

The New Political Economics

In the late 1980s a new line of research emerged, sometimes referred to as "New Political Economics". Contrary to the previous experience of the Public Choice School, this area of research became immediately fully integrated within the field of economics and adopted the same methodological tools of the latter. This approach quickly developed applications in virtually every field in economics: macroeconomics, development, international trade and finance, economic growth, public finance, etc.

Perhaps the timing is not surprising. The 1980s were a decade of great turmoil and transformation in the American economy. President Reagan was at the centre of this "revolution". There were large budget deficits, taxes were being cut and the economy deregulated. In contrast continental Europe was entering a long period of sclerosis, some countries in Europe (but not all) were accumulating debts that were rising to almost war time levels. The need for structural reforms and liberalization in Europe was evident, but they were delayed. A dozen European countries were moving towards uncharted territories of monetary and some sort of political union. Latin America was in the middle of a huge debt crisis and of a "lost decade" with very high or even hyperinflations, foreign debt defaults and large budget deficits. Unavoidable policy reforms were delayed increasing the economic costs and leading to crisis. The Soviet Bloc was about to collapse and when it did, it opened a Pandora's box of politico-economic questions.

It was increasingly difficult to fit all of the above complexities and varieties of experience into traditional models of economic policy in which benevolent social planners maximize the utility of a representative individual. Therefore the New Political Economics acknowledged as a starting point that economic policy should not be modelled as if it were chosen by institutional-free social planners. If one wants to understand how policymaking actually occurs and how to move towards optimality, one needs to acknowledge that, instead, economic policies are chosen by politicians, facing elections in democracies or with other political constraints in non-democracies. More specifically, and this brings us closer to my specific topic: different electoral systems may lead to different strategic interactions amongst political agents, such as elected representatives, the voters, or party organizations.

Electoral rules and economic policy

One of the topics that has received much interest – including in a previous CESifo Munich Lecture by Guido Tabellini and in the book that followed by Torsten Persson and Guido Tabellini (2003) – is the effect of electoral institutions on economics outcomes.

Electoral systems vary a great deal across countries, from a first-past-the-post majoritarian systems of Britain to an almost fully proportional system in Sweden and to proportionality with thresholds like Germany. In a proportional system the fraction of votes cast by the citizens for a party translates more or less exactly to the same fraction of seats in the legislation. In majoritarian systems this is not generally the case, and there is a prize for winning the majority in a district or plurality, depending on the system. Some of the implications of these differences are clear: in a proportional system without thresholds even very small parties can gain representation,[1] while with thresholds very small parties are not viable but it is still possible to have a multitude of parties if they overcome the threshold. In general, in majoritarian systems (and there are various types), parties have an incentive to form blocs. Thus, majoritarian systems tend to produce blocs of two parties or at least of two coalitions, the so-called Duverger's law. Whether or not such coalitions or blocs remain stable or squabble after the election varies across countries. We also have presidential systems in which presidents are elected by the people, as in the US and France, and hold substantial executive power, while in other countries the president is elected by parliament and holds either a purely ceremonial role or some executive and procedural power.

The key question is: Do different electoral systems and various voting rules have different effects on economic policy in general and fiscal policy in particular?

In the literature we can find a few answers, not all in agreement with each other. According to the *Chicago School*, electoral laws really do not matter that much. Lobbying pressure will determine policies regardless of the details of electoral laws. What

[1] How small depends on details of the system such as the size of districts, etc.

matters is lobbies' abilities to gain voice in the political arena and this has very little to do with the details of the electoral law.[2]

According to the line of thought of the *Cultural-Social Capital School*, what really matters is not the institutions of the polity per se but deeper variables like different cultures, various anthropological variables, measures of social capital and trust. Economists are (re)discovering the importance of culture in explaining attitudes towards the economy and economic policy. While I am not aware of a paper that directly tests the superiority of "culture" versus "electoral institutions", the argument is "in the air" so to speak.[3]

For the *Institutionalist School,* electoral laws matter because they affect the political equilibrium, the nature and structure of party systems and therefore it has profound effects on policies. A vast literature in political science – the extensive work by Persson and Tabellini (e.g. 2003), the work by Milesi-Ferretti, Perotti and Rostagno (2001) and many others in economics – holds this view.

My view is somewhere in between. It is true that lobbies can manoeuvre around the intricacies of electoral laws to buy favours. It is also true that deeper cultural and social variables are critical. However, electoral rules are relevant. But the question is how to disentangle their specific effect.

How can electoral rules matter?

Electoral rules affect the nature of party systems, the composition of legislature and the relationship between the executive and the legislature. Thus rules can have an impact on economic policy through their effect on the structure of parties. Here are a few examples discussed in the literature:

i) Proportional electoral systems with large coalition governments produce larger budget deficits and have difficulties in promoting fiscal stabilization.
ii) In proportional electoral systems social spending is higher and the welfare systems more generous because of more diffuse representation of various groups.
iii) Presidential systems are more pro-active; they stabilize sooner and spend less in social expenditures.
iv) In US cities different voting rules for electing representatives affect racial minority representation and policies in that respect.

These are only a few examples of the effects of electoral rules on policy outcomes, but there are many others. The critical question, however, is the following: how can electoral institutions be considered explanatory variables, i.e. "exogenous" variables in economic jargon? After all they are chosen by individuals in different societies, they are not randomly assigned. So why do different societies choose different rules?

Let me begin by reviewing the arguments in favour of treating electoral rules as "primitive", exogenous courses of economic polities.

Electoral laws are costly and complicated to change

This is correct, and this consideration would make it reasonable to use electoral rules as explanatory variables (predetermined or exogenous) as an explanation for economic policies and outcomes. However, the original introduction of the electoral law may reflect stable historical characteristics of a society that may be correlated with what one wants to explain with the electoral law. For example, we will discuss below how differences in social policies in the US and continental Europe stem from deeper variables ingrained in history than from different electoral rules, or to put it differently: the choice of electoral rules depends on those variables.

In other words, even though electoral rules may be relatively stable over time, they may still be correlated with other stable characteristics of a society, and the latter may be the true explanatory variable. Stability of electoral rules is not a completely valid explanation for regarding them as exogenous.

In addition, electoral laws are not always so stable. In the first half of the nineteenth century and with the extension of the franchise, they changed frequently. But even after this turbulent period, electoral rules were not cast in stone. In fact, in some cases electoral laws changed frequently. France after World War I, Italy after 1990, and Eastern Europe after democratization are some examples. Many former communist countries started with very proportional systems and then adjusted them in a more majoritarian direction. Countries where

[2] For a recent example of this argument, see C. Mulligan and X. Sole I Martin (2004).
[3] See however G. Tabellini (2005).

Communist parties were still dominant stayed with majoritarian systems and then slowly moved towards proportionality. In Latin America there were several movements back and forth from dictatorships to democracies. Often the electoral laws that are chosen depend upon the nature of the previous dictatorship. For instance, stringent term limits in that region stem from the fear of a return of a one-person dictatorial rule common in Latin America in the fairly recent past.

France underwent 12 reforms of electoral laws from 1870 to 1988. Virtually all of the reforms can be tied to the desire of whoever was holding power to increase its expected electoral benefits – at least the perceived benefits. Here are a few examples. In 1945 a proportional system was adopted for fear of too much concentration of power. Christian Democrats and Conservatives were afraid of a Communist victory. In 1951 there were some modifications introduced to favour the parties then in office. In 1958 a constitutional reform towards presidentialism instigated by de Gaulle tried to avoid the problems of political deadlock caused by proportional representation and too many parties. In 1985 the Socialists realized that the chances of maintaining power in the National Assembly were low so they returned to presidential rule to limit the size of the defeat.

In fact, electoral laws do not change that often, but a higher frequency of changes increases future frequency of changes. Why? There are two reasons. One is that if a constitution makes it too easy to change electoral laws then it is relatively easy for a government to change the rules in its favour. The second reason is that the longer rules remain unchanged, the more they acquire a status of "focal point" and of "tradition" so that the reputational costs of a government trying to strategically manipulate them may become quite high.

Risk aversion and unpredictability of results of changes

For a ruling group to change laws one has to be sure about the outcome. A high degree of uncertainty about the effect of a rule change might lead to a status quo bias and low frequency of change. Even when the institutional costs of changing the laws are relatively low, risk aversion about not knowing what the result would be may lead parties to keep the law unchanged. An example is Germany in 1947. After the war and after the Nazi period there was much uncertainty about the distribution of preferences across the population, with considerable uncertainty about which party would have benefited from alternative rules. The result of this uncertainty was proportionality, corrected with a relatively high threshold to avoid the Weimar problems of excess fragmentation. A majoritarian system would have produced a clear winner and a clear looser; risk aversion coupled with a large uncertainty made this prospect too risky for everyone.

Thus risk aversion may increase the stability of rules, but as we discussed above stability is not a synonym for being exogenous.

Role of former colonizers

Former colonies often adopted the electoral rules of former colonizers. For example, India adopted a majoritarian system and never moved to full proportionality despite the fact that a religiously fractionalized society may be prone to adopt more proportionality. In this case then to some extent electoral rules are exogenous to the country in question because they are imposed from above.

Obviously however, not all countries were colonies, and in fact much of the work on the effect of electoral rules on economic outcomes is on OECD countries that have never been colonies.

Who chooses electoral laws?

Let us assume that electoral laws matter in the sense that they seem to be correlated with different political equilibria and party structure. The next is the chicken or the egg question: what causes what? Let me explain with an example. Duverger's law suggests that in a first-past-the-post system only two parties emerge in equilibrium. But perhaps in systems where we only have two dominant parties they choose a first-past-the-post system because such choice is in their interest to reduce the competition of smaller parties. Conversely, proportionality of electoral rules creates many parties and a system that is sometimes accused of not being capable of delivering fast and pro-active legislation because of the veto power of even small parties in ruling coalitions. But perhaps multiparty fragmented systems reflect fragmentation of society, and proportional systems are chosen precisely because it is the only way to grant representation to all groups and avoid social conflict.

In a narrow sense one may argue that electoral systems derive from the desire of ruling elites and ruling parties to maintain their power. So electoral rules change if the ruling elites are threatened by changes of conditions that require a change in electoral rules to maintain power. An obvious example of changes in conditions is the introduction of universal suffrage. As we discuss below the introduction of universal suffrage often leads to a move towards proportionality if the ruling elites feel that they cannot control growing socialist parties and believe that maintaining a majoritarian system might lead to a socialist victory. On the other hand sometimes proportional electoral systems are in the interests of the socialists and they obtain them as a result of strikes and street revolts despite the opposition of ruling elites.

In general, history, distribution of power within society of various ethnic and religious groups, distribution of income and culture are determinants of electoral rules. All of these variables also determine policy preferences. Therefore the correlation between electoral rules and policy outcome may be overstated or simply be the result of third factors. Also the initial level of income inequality may affect the choice of electoral systems. Even culture may matter. Certain cultures may have a preference for broad participation rather than delegation, proportionality versus majoritarianism.

Normative versus positive models

Extensive work on normative models of constitutions considers the question of how constitutions should be written behind a Rawlsian veil of ignorance. But in reality constitutions and electoral reforms are not chosen behind a veil of ignorance. Those who change the rules generally know who will benefit or at least they can form expectations. In this case electoral rules are chosen strategically to benefit (or at least attempt to benefit) the ruling coalition. There are of course some more or less egregious examples. In Italy in 2005, a reform of the electoral law was introduced immediately before the election, allegedly to make the system more proportional and, by doing so, minimizing the expected loss of the ruling majority. The ruling coalition did indeed lose, by a handful of votes, and because of some technicalities, even though they were well behind in the polls. A case in the opposite direction was New Zealand in 1997, which witnessed a move toward proportionality (a German type model) as a result of the recommendation of a technical, non-partisan commission that ruled against the stated interests of the two major parties.

These two examples suggest that one can certainly not assume that changes in the electoral rule are dictated by a welfare-maximizing social planner, nor can they be thought of as being chosen behind a veil of ignorance. But often ruling majorities do not have a completely free hand in choosing the rules that maximize their narrow interests. In fact in some countries electoral rule can be changed only with qualified majorities, which is a good check against excessive manipulation by narrow-minded ruling majorities.

Summing up and two examples

Electoral laws are not irrelevant as determinants of political equilibria and economic policy, but treating them simply as given, not changeable and exogenous, can lead to seriously misleading results. Especially if one is interested in long-run phenomena like the size of the welfare state, the evolution of minority protection in voting rights and the structure of groups of society's representation in the polity, one has to keep the endogeneity of electoral laws in mind.

So what is left for the student of electoral laws and economic policy? Unfortunately what is left is a difficult task that cannot simply be to look at electoral rules as exogenous and look at the correlation between such rules and economic policy. One has to go deeper. Here are two examples.

Example 1: The choice of proportionality and the effects of proportionality on welfare spending

Solid empirical evidence suggests a strong correlation between proportionality of electoral systems and the level of social spending. This is one of the major themes of the book by Persson and Tabellini (2003).

There is indeed a strong correlation between the generosity of welfare systems and the level of social spending as a fraction of GDP. However, in many countries the introduction of proportionality has a lot to do with the strength of Socialists and Communist parties, which, of course, were also in favour of generous welfare states. So proportionality of the electoral system may be only an intermediate variable, not the original cause

A prime example of this relationship is a comparison between the United States and Western continental Europe, an issue addressed in a book by Ed Glaeser and myself (2004). In Europe proportionality was introduced as a result of the increase in the power of Marxist parties after World War I and II. Two forces were at play. First growing socialist and communist parties demanded representation in post-World War I. Before the war only Belgium, Finland, Portugal and Sweden had some form of proportional representation. Between 1917 and 1920 Austria, Denmark, France, Germany, Italy and the Netherlands adopted various forms of proportional representation, often in the aftermath of leftist insurgencies. In some cases the leftist movements were peaceful (Switzerland, Netherlands, Sweden in 1907), in others violent (Belgium, Italy, Germany). In the latter case conservative forces had to acquiesce to the demands of the leftists who dominated the streets. That is, from the point of view of maximization of electoral advantages, ruling elites would have preferred a majoritarian system but the pressure from the protesters and the weakened armies after World War I made it impossible for the ruling elites not to concede proportionality to semi-insurgent movements. Second, when Marxist parties were very strong it was even in the interest of ruling parties to introduce proportionality to avoid defeat. This was the case, for example, in Italy and France in the aftermath of World War II. In Sweden in 1909 at the time of the extension of the franchise, the conservative party, being afraid of losing against radical and socialist parties, changed the laws to create a proportional system.

Thus, the reason why the US did not adopt a proportional representation system is because of the lack of pressure from a socialist movement in this country, contrary to most countries in continental Western Europe. In the US, communist parties were weak and could not impose on ruling elites the choice of proportional representation. It was indeed debated, and in some cases adopted. The state of Illinois adopted proportional representation in 1860. In the first thirty years of the twentieth century several cities, especially in Ohio, did the same. But it did not catch on because with the extension of the franchise it became clear that proportional representation would have allowed the election of blacks and representatives of the small Socialist or even Communist parties. In the south not only proportional representation was not adopted after the abolition of slavery but a variety of measures were introduced to disenfranchise blacks.

Why didn't the US have a strong communist party as in European countries? This is a question that already received attention by Engels, and later by Sombart in the early twentieth century. In my book with Ed Glaeser, mentioned above, we discuss in detail several reasons. First is the role of racial fragmentation of the American working class. As already recognized by Engels and Sombart, ethnic diversity made it more difficult to develop a unified and cohesive, working class sentiment in the US, more so than in continental Europe and this made it more difficult for communist organizers in the US. The open frontier to the west allowed some respite from the social tension in eastern US cities and the countryside. The low density and high distances between cities made it more difficult for communist movements to organize. Finally, much of the communist uprising in Europe came after the devastation of World Wars I and II. The US did not suffer such devastation.

The bottom line is that the effect of proportional representation on welfare policies needs to be understood in the context of the deeper historical and sociological variables that led at the same time to the choice of proportional representation and, amongst others, the preferences of society for welfare policies achieved by the strength of socialist movements.

Example 2: Fragmentation of society and fragmentation of party systems

Multiparty systems (the result of proportional electoral rules) may make policymaking more difficult because of veto power, weak and unstable coalition governments, etc. In particular, a large amount of evidence shows that coalition governments have more trouble reacting quickly to budget deficits and often allow them to grow too much. A good example stems from a comparison of the United Kingdom and Italy in the 1970s and 1980s. Both countries went through difficulties. But in the UK, despite the period of decline until the early 1980s, there were never budget deficits of great significance. In Italy, with its at the time strict proportional system and multiparty coalition governments, deficits accumulated such that in the early 1990s the public debt to GDP ratio was more than 120 percent.

Are multiparty systems thus responsible for budget deficits? Perhaps, but multiparty systems may be the results of fragmented societies, so it is really social fragmentation that causes difficulties in policy making not the fragmentation of party systems per se.

Should we expect more diverse societies (ethnically, linguistically, religiously) to have more parties? This is the message of work carried out on OECD countries by political scientists like Lijphart (1977). In fact, if we imagine a constitutional assembly whose goal is to have representation of all societal groups, more fragmentation of the population will lead to a choice of party structures that enables many groups to feel represented and to the choice of an electoral rule that allows many parties to be represented, i.e. proportional rule. Therefore, multiparty systems and electoral rules that allow the existence of many parties are not the cause of policy inefficiencies; they merely reflect the cleavages of society. In fragmented societies it is difficult to make polices, regardless of the nature of party systems.

Therefore it would be incorrect to conclude that proportional representation and multiparty systems are responsible for the breakdown of policy making, delays in reforms, etc. Multiparty systems may be the product of fragmented societies. This fragmentation is what ultimately determines the policy failures discussed above. In fact, one may make an even stronger argument: proportional representation and a multiparty system may be the only feasible plan for a fragmented and diverse society. Alternative rules that do not allow broad representation in these types of societies may be even worse, leading to social conflict, tension, even violence.

Whether or not multiethnic societies generate more parties and more participation of various groups depends on the nature of who writes the constitution and determines the distribution of power. If a group (be it religious, ethnic or linguistic) is dominant at the constitutional table, it may choose rules that allow it to rule the country without opposition, in the extreme eliminating democracy, in less extreme cases choosing systems that do not allow the non-ruling opposition to interfere. Aghion, Alesina and Trebbi (2004) show that in a vast sample including all countries in the world, less protection of minority rights can be observed in societies with greater ethnic fragmentation, another indication that constitutions are not chosen behind a veil of ignorance. There is then a difference between advanced democracies and autocracies. In the former more diversity in society leads to more proportionality, in the latter more diversity may lead to one group seeking power at the expense of the others.

Conclusions

The study of the effect of electoral law on party formation and policy outcomes is complicated because electoral laws are endogenous, i.e. they respond to socio-political economic forces. Especially in a long-run perspective and for cross-country comparisons, seeing electoral laws as predetermined or exogenous may lead to misleading results, and it is essential that the evolution of laws is carefully considered. The same applies to institutions more generally, not only electoral laws.

Do institutions in general and electoral institutions in particular evolve towards optimality? Douglass North (1990) argues that they do, since an evolutionary principle, namely only wealth or utility-maximizing institutions, survives. However, he then argued that transaction costs (which are often not well-specified) may interfere with the move towards optimality of institutional design. The arguments developed here serve as a clarification of what these transaction costs are. They are due to the fact that institutions are chosen endogenously by groups of society that have power and intend to keep it. These groups are not maximizing optimality for society as a whole but operate in their own self-interest.

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An Economic Theory of Constitutional Choice

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There is now a wide consensus among economists, political scientists and policy makers that institutions play a role in fiscal policy outcomes and economic growth. What is still unclear, or there is less consensus about, is which institutions or cluster of institutions matter most and how. Also partly unanswered, in light of the recognition that institutions are not "neutral" in terms of their economic consequences, is why societies that are remarkably similar in terms of many economic and political fundamentals (e.g. advanced industrial democracy) choose very different political institutions, including electoral laws and forms of government. In the following, we discuss why and how economic variables can affect the choice of political institutions and, in particular, the choice of a democratic constitution.

Our approach is innovative relative to the political science literature, which has traditionally treated political institutions as exogenous and predetermined by historical and cultural factors. But our emphasis on the endogeneity of constitutions is also relatively unusual for the political economy of public finance. In recent years, scholars working in this field have made a large effort in trying to quantify the effects of various political institutions on economic variables, but usually relying on the implicit or explicit premise of regarding institutions as exogenously given.

Classifying democratic constitutions

Democratic constitutions differ in many different dimensions, and there are numerous features that are important in shaping economic outcomes. A classification of democracies that has received a large consensus in the political science literature and that we have adopted in our research is the one introduced by Arend Lijphart (Lijphart 1977), who distinguishes between majoritarian and consensual democracies. The model of majoritarian democracy, or the Westminster model, is characterized by the fact that political power tends to be concentrated in the hands of a limited number of individuals. In consensual democracies, political power is instead widely shared and dispersed. There are various institutional characteristics distinguishing the two democratic models, but the most important difference is probably the electoral system. This is majoritarian (plurality rule or first-past-the-post) in majoritarian democracies and proportional in consensual democracies. There are two other important features that distinguish these democratic systems and that are related to the electoral law. One is the executive-legislative relation. In majoritarian democracies, there is the dominance of the executive over the legislative power, while the power of these two political bodies is more balanced in the consensual model. The other feature has to do with the composition of government. Majoritarian electoral rules generally lead to the formation of a two-party system and the leader of the largest party is also the prime minister. In consensual democracies, by contrast, the proportional electoral law favors the formation of a multi-party system, and governments are generally the expression of coalitions between more parties with the consequence that a greater variety of interests is represented. Among developed countries, the UK is probably the most representative example of majoritarian democracy, while the consensual model of democracy is best represented by some Scandinavian and Northern European countries. Many important institutional elements of the consensual model are also shared by several other countries of Continental Europe however.

There are three points that are worth emphasizing. First, we need to clarify that the electoral rules are generally not part of the written constitution. Nevertheless, as we can also see from the title of this

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"Forum", it is common (or natural) in the academic debate to consider the electoral system part of the constitution of a country. The reason for this is well explained by Myerson (1999, 672), who argues that "Although many countries establish the electoral systems by organic law outside their formal written constitution, we consider the electoral system here to be part of the constitutional structure, because it is an essential element in the rules of the political game that politicians must play to win power."

Second, there are various elements that characterize an electoral system. The literature has emphasized three dimensions that are particularly important: the district magnitude, the electoral formula and the ballot structure. The *district magnitude* determines the fraction of the legislature elected in a typical voting district. The *electoral formula* defines how votes are translated into seats. Under proportional representation (PR) the number of seats obtained by a party is proportional to the total votes in each voting district, while under majoritarian rule the elected representative in each district is the one that has obtained the largest share of votes. The *ballot structure* defines how voters cast their ballot in the range from single individuals to party lists. While these characteristics are theoretically distinct, they are highly correlated in practice. Majoritarian electoral systems generally have voting for individual candidates in single-member districts. Proportional electoral rules are instead characterized by a system of party lists in large districts.

Third, another key feature of the constitution is the form of government that, similarly to the electoral system, is characterized by various dimensions. The distinction is generally made between parliamentary and presidential regimes. In parliamentary systems, the government is appointed by the elected assembly and can therefore be dismissed by a vote of nonconfidence. In presidential regimes, the president is elected directly by citizens and he chooses the executive that do not need the confidence of the parliament. Lijphart (1999) and Linz (1994) argue that presidential governments as such are inherently an expression of majoritarian democracy as presidential elections are winner-takes-all in nature and all the executive power is concentrated in the hands of one single person. This is a point that we will discuss at greater length below.

The effects of electoral rules and other constitutional features on fiscal policy outcomes have been studied extensively in the economic and political science literature. Some examples include, among many others, Lijphart (1977, 1999), Austen-Smith and Banks (1988), Myerson (1993, 1999), Persson and Tabellini (1999, 2000), Persson, Roland and Tabellini (1997, 2000), Austen-Smith (2000), Lizzeri and Persico (2001) and Milesi-Ferretti, Perotti and Rostagno (2002). These papers find that proportional electoral systems should be associated with the provision of more public goods, larger and more universalistic welfare programs, and a larger overall size of government. The results are similar for presidential regimes that should have less provision of public goods and a smaller size of government than parliamentary systems.

The analysis of the economic effects of constitutions has taken the constitution as *given*. But if constitutional provisions affect fiscal policy outcomes, and therefore the welfare of citizens, then citizens will have preferences over these institutions and will vote accordingly when the constitution is chosen. In other words, constitutions should be regarded as *endogenous*. Our research presented in the paper "Endogenous Constitutions" (2005a, first draft in 2002), makes exactly this point by linking the constitutional choice to the distribution of income of the society. Our argument can be summarized as follows. As we said, the theoretical and empirical literature finds that various constitutional features shape fiscal policies. We know that fiscal policies in turn affect, over time, the distribution of income. This implies that the constitution is an important determinant of income inequality. But then, should not we expect that income inequality itself affects the selection of the constitution? In our paper, we pose and address precisely this question, and show why and how income inequality can be a determinant of the constitution adopted. In particular, the main result of our economic theory of constitutional choice is that a majoritarian constitution is more likely to be chosen when the degree of income inequality is relatively high, while consensual democracy is more likely to be adopted by relatively more homogeneous societies.

A new approach for explaining constitutional choice

In Ticchi and Vindigni (2005a), we present a model with three groups of individuals that differ in their pre-tax income level and that we define as the rich, the middle class and the poor. There are three group-specific public goods, i.e. each class has its own preferred public good and does not derive utility from the public good preferred by the other classes. The public goods are provided by the government that finances them with a flat tax rate. This allows the group(s) in power to target the redistribution to its (their) advantage. Individuals in each class are perfectly homogenous, no one group has an absolute majority and the middle class is the largest group. We have also used the citizen-candidate framework, where politicians cannot make a credible commitment to implement policies different from their preferred one once elected.

We model majoritarian democracy as a system where fiscal policy is chosen by a leader elected directly by the people from a list of citizen-candidates participating in the election with a majoritarian electoral system. We think this model accurately represents parliamentary systems with a majoritarian electoral rule as well as presidential regimes characterized by relatively powerful presidents. In the first case, assuming the existence of a parliament whose members are elected in single-candidate districts, as in the UK, this would lead to the same political equilibrium as long as the distribution of agents across districts is similar to that of the whole country. In the case of presidential regimes, there are two possibilities. One is where the legislative assembly is elected with a majoritarian electoral law as in the US. Given that president and assembly are elected with the same electoral rule, they should be expected to have similar fiscal policy preferences. Therefore, independently of the relative power of the two bodies, these democracies are clearly majoritarian. If instead the legislative assembly is elected with a proportional electoral system, then understanding the powers of the president becomes important for classifying the democracy as majoritarian or consensual. The typical example of presidential regimes with PR are the Latin American countries. These countries are generally characterized by a relatively powerful president that plays a very important role in the legislative process, and that is often also in a dominant position with respect to the legislature. In this case, as argued by Lijphart and Linz, these countries are examples of majoritarian democracies. In an extension of our model (Ticchi and Vindigni 2005b), we show that the equilibrium obtained in our model of majoritarian democracy is very close to one generated by an institutional framework where fiscal policy is the outcome of bargaining between a president and an assembly elected with PR. In other words, our finding is that what matters for fiscal policy outcomes in presidential regimes with PR is the (majoritarian) electoral law employed in the presidential election.

The result of our model of majoritarian democracy is that the winner is a rich citizen-candidate and, therefore, that the fiscal policy implemented is relatively conservative. The idea behind this result is that each candidate will implement her preferred policy once elected, as there is no possibility of making credible commitments. The rich, have an advantage over the other two groups, and will get elected, because their optimal fiscal policy is characterized by the lowest taxation. This makes possible that in two-candidate contests between the rich and another group, the rich always win. In other words, in a majoritarian democracy the rich enjoy an advantage over the other classes as a result of the interaction of their relative fiscal conservatism and the majoritarian electoral law.

As mentioned above, consensual democracies are characterized by coalition governments that are the outcome of a legislative bargaining process among the members of a parliament appointed with a proportional electoral law. In our model, we obtain the result that government coalitions depend on the distribution of income. If income inequality is low, the government will be composed of a coalition between the middle class and the poor (center-left) while the coalition will be between the middle class and the rich (center-right) when income inequality is relatively high. The explanation for this result is that when inequality is high and there are a lot of poor people, they are relatively strong, and the middle class will have to develop a policy that favors the poor if it wants this class to accept a coalition government offer. Hence, the middle class will prefer a coalition with the rich who are "cheaper to buy" because they are weaker and fear that the poor will gain more power. The opposite occurs when income inequality is low.

We also obtain the result that a government coalition between the middle class and the poor taxes and redistributes more than a coalition between the middle class and the rich, which in turn sets higher taxes than a government comprising the rich only (i.e. the tax rate set in majoritarian democracy). These results are in line with the findings of the empirical literature and with the results of other theoretical models. The mechanism leading to this conclusion is completely new, however. In the traditional literature, consensual democracies tax and spend more than majoritarian ones because of the common pool problem that characterizes coalition governments. In our work, there is no common pool and, other things being equal, a government coalition should tax and spend *less* than a single party government. The reason is that the higher the number of parties in the government the lower is the amount for each unit of taxation that each party appropriates through the provision of the group-specific public good. However, in our model there is another effect moving in the opposite direction. The classes in power in a consensual democracy (middle class-poor or middle class-rich) are on average poorer than the class (rich) in power in majoritarian democracy. A minimum degree of income inequality is enough for this latter effect to dominate over the former.

When individuals choose the constitution, they will consider their welfare under the two different constitutional frameworks and will vote accordingly. Notice that we assume that individuals do not choose institutions behind a Rawlsian veil of ignorance, but are fully informed of both their preferences and their economic status. We regard this assumption as much more plausible, since in practice the framers of constitutions are always concrete individuals who are well aware of their own status and interests. The result we obtain is that a society with a relatively high income inequality prefers a majoritarian constitution, while consensual democracy is chosen when there is less inequality. In fact, the rich always prefer the majoritarian system because they are always in power, and the middle class always prefers the consensual model because they are always part of the government coalition and the poor end up being the swing voters. When there is a low level of inequality in income distribution, they prefer a consensual democracy because they will be part of the government coalition. When inequality is higher, the poor prefer the majoritarian system as they know that in consensual democracy they would not be part of the ruling coalition, and this means that they would pay higher taxes without receiving their preferred public good.

Our economic theory of constitutional choice has also three interesting results. First, it helps explain the *persistency* of constitutions. High inequality leads to the choice of a majoritarian constitution which limits the amount of income redistribution. This leaves inequality high and the society will continue to prefer a majoritarian institutional setting. The opposite happens when income inequality is low. Second, there is a *selection bias* in the composition of the government coalitions. Consensual democracies should be expected to be ruled more often by center-left coalitions, more willing to tax and redistribute income, while the more fiscally conservative right should have an advantage under majoritarian constitutions. Third, the relationship between income inequality and redistribution obtained by our theory is not as positive as suggested by the median voter theorem. In particular, this can be absent or negative as inequality not only affects fiscal policy in a nonlinear way for a given constitution, but it also influences the choice of the constitution itself with more inequality favoring the choice of the constitution (the majoritarian one) that leads to lower income redistribution. This result is consistent with the existing empirical evidence (e.g., Perotti 1996) that, contrary to what is predicted by the median voter theorem, finds a negative or no relationship between income redistribution and income inequality.

Empirical tests

The predictions of our theory of constitutional choice regarding fiscal policy outcomes are consistent with the theoretical and empirical findings in the literature. However, the main and new result of our model is that constitutions are endogenous and that more income inequality should favor the adoption of a majoritarian constitution. But, is there evidence supporting our theory? To answer this question, we have addressed the problem from an econometric and a historical point of view.[1]

The main problem in an econometric analysis that tries to estimate the effect of income inequality on the probability of adopting a certain constitution is that inequality is endogenous, as it depends on the constitution itself. The endogeneity issue is also problematic because there does not seem to be (at least we were not able to find one!) a valid instrument for the inequality of income distribution in our framework. To avoid problems of endogeneity, we have therefore tested our theory by analyzing the relationship between the type of constitution adopted and the income inequality of the country *at the time, or before, the adoption of the current constitution*. This test was performed through a cross-sectional analysis because, as predicted by our model, constitutional reforms are rare events, and there are not enough changes in constitutions to allow us to perform a panel data analysis.[2]

[1] For reasons of brevity, we do not discuss the historical evidence; the reader may find it in Ticchi and Vindigni (2005a).
[2] This problem becomes even more severe when the availability of income inequality data is taken into account.

We have constructed our dataset starting from that one compiled by Persson and Tabellini (2003) to analyze the economic effects of constitutions. This dataset contains 85 countries selected on the base that they can be classified as free or partly free democracies for the period 1990–98. As a measure of income inequality, we have used the Gini index extracted from the dataset compiled by Deininger and Squire (1996).

Finally we have obtained a sample of 57 democracies and a sub-sample of 31 parliamentary democracies. In the sample of parliamentary democracies, majoritarian systems have an average inequality of 10 points higher than consensual ones and this difference is statistically significant at the 1 percent level.[3] The unconditional correlation between the Gini coefficient and a majoritarian electoral system is 0.485. The results of logit regressions, where we condition the relationship between income inequality and the type of constitution for different variables that may potentially affect the choice of the constitution, show that an increase of one point in the Gini coefficient increases the probability of adopting a majoritarian system by 3 percent. The results are similar when we consider the whole sample. The obtained estimates are large numbers, suggesting that the impact of income inequality on the choice of constitution has not only the sign predicted by our theory but it is also quantitatively important.

Summary and open questions

In sum the conclusion of our theoretical and empirical work is that income inequality is a determinant of the constitution of a country. This has important implications for any empirical analysis that aims at estimating the effect of constitutional features on economic outcomes. In fact, most works that attempt to do this (based on cross-country analysis because, as we said before, constitutional reforms are rare) do not take into consideration that the selection of a certain constitution is not random (as our theory shows). Countries with a different constitution also differ in many other characteristics (e.g. income inequality) that affect fiscal policy outcomes. Therefore, an empirical work that does not tackle this issue obtains estimates that cannot be interpreted as the causal effect of the constitution on fiscal policy.

Persson and Tabellini (2003, 2004) is, to best of our knowledge, the only work that attempts to cope with the endogeneity issue in order to estimate causal effects of constitutional provisions, such as the electoral rules and the form of government, on fiscal policy outcomes.[4] They perform an IV estimate, using as instruments for the constitution selection, three constitutional dating variables, two language indicators and latitude, while controlling for other cultural and geographic variables as ethno-linguistic fractionalization.[5] They obtain that the effect of the electoral rules and the form of government is important and in line with the findings of the empirical and theoretical literature. Acemoglu (2005) argues, however, that there are various reasons why Persson and Tabellini's identification strategy is unconvincing and concludes that their estimates can only represent robust correlations between the form of government and electoral system with various measures of economic and fiscal policy outcomes. Therefore, the effect of constitutions on economic outcomes is still an open issue.

Future research in this field will therefore have to find a way to measure the causal effects of constitutional features on economic outcomes. Our theory of constitutional choice is a contribution to this strand of literature suggesting the existence of economic fundamentals (such as income inequality) that affect fiscal policy outcomes directly, as well as indirectly through the effect on the type of constitution adopted and that, at the same time, are affected by the fiscal policies implemented. This kind of endogeneity makes the empirical analysis particularly challenging, especially because we can rely only on few cases where the constitution has been changed, but this is an effort that, we think is worth pursuing.

[3] The Gini coefficient is measured on a scale from 0 to 100.
[4] The literature that takes into consideration the endogeneity of political institutions in the empirical analysis about the effect of institutions on fiscal and economic outcomes is instead abundant.
[5] See Aghion, Alesina and Trebbi (2004) for the effects of ethnic fractionalization on political institutions.

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Storable Votes: Giving Voice to Minority Preferences without Sacrificing Efficiency*

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The principle of majority rule is the foundation of democratic constitutions, but provides an immediate and fundamental challenge to the legitimacy of any government that the constitution empowers: the risk of excluding minority groups from representation. At least since Madison, Mill, and Tocqueville, political thinkers have argued that a necessary condition for the legitimacy of a democratic system is for no group with socially acceptable goals to be disenfranchised. In the history of constitutional law, ensuring fair representation to each group is seen as the crucial second step in the evolution of democratic institutions, after granting the franchise: once all individuals are guaranteed the right to participate in the political process, the problem remains how to assign appropriate weights to each group's political interest. The core of the difficulty is that the two goals seem inherently contradictory.

One remedy is recourse to the judiciary system: basic rights can be guaranteed in the fundamental laws of the country, and the courts can be appealed to when such rights are imperiled. But protecting a political minority when its rights are threatened does not address the subtler problem of ensuring that its preferences are sufficiently represented. For this, the correct design of political institutions is required. In our work, we approach the problem from the perspective of voting theory, and propose a simple voting mechanism that, without violating the basic principle of "one-person one-vote", allows the minority to win occasionally. The mechanism is not based on supermajorities, avoiding the costs of inertia and inefficiency they can entail, nor on geographical partitions, with the inevitable arbitrariness and instability of redistricting. In addition, although the mechanism's main property is its ability to protect minorities, and thus to increase fairness and legitimacy, it does so without sacrificing efficiency.

A simple example will make our words more transparent, but precision is important and we must begin with some definitions. We define a *minority* as a clearly identifiable group characterized by two features: first, a small relative size; second, preferences that are systematically different from the preferences of the majority. Thus, a minority in our discussion is a *political* minority, which may, but need not, correspond to a minority according to racial, ethnic, religious or other types of non-political group identity. In terms of political decisions, what matters are the coherent and idiosyncratic policy preferences of the group, independent of the source of its identity. Consider then the following example.

A polity comprised of 100 citizens has two (political) groups, with 55 members in Group A and 45 in group B. Three proposals are being considered. All citizens in group A have identical preferences and strictly prefer to pass all proposals; all citizens in group B have identical preferences and strictly prefer the status quo on all three issues. Thus, group B fits our definition of a minority. Suppose that the utility each citizen receives from each alternative is as given in Table 1, with the utility of the less preferred option normalized to 0.

Table 1

Issue	U_A(pass)	U_A(sq)	U_B(pass)	U_B(sq)
1	3	0	0	1
2	2	0	0	2
3	1	0	0	3

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Note that the intensity of preferences varies across the issues. That is, some issues are "more important" to one group than to the other group – issue 1 is important to group A but not to group B, and issue 3 is important to group B but not to group A.

Now consider what would happen with simple majority rule when issues are decided independently: since group A has a majority, all three proposals pass. Indeed, as long as preferences are perfectly correlated within groups, then even if there were a million different issues, group A would always have a majority on all issues, so the B citizens are effectively disenfranchised – the outcome is exactly the same as it would be in a political system where only A citizens were allowed to vote.

Why is this situation undesirable? First, a formally open franchise is meaningless if the outcomes are equivalent to what would arise if political access were denied to one of the groups. If one considers outcomes as well as process, then equity considerations demand that political minorities be able to win on at least some issues. Moreover, from a purely utilitarian standpoint, the outcomes described above are socially inefficient according to widely accepted welfare criteria. In our example, if each individual is treated equally and decisions are evaluated ex ante, before membership into the groups is known, the status quo should prevail on issue 3. Thus letting the majority prevail on all issues has costs both in terms of equity and in terms of ex ante efficiency: the equity problem stems from the existence of a smaller group whose members' preferences are *systematically opposed* to the members of the larger group; the efficiency problem stems from differences in the *intensity* of preferences of the two groups. This failure of simple majority rule is often referred to as "the tyranny of the majority".[1]

How can the failure be avoided, or at least mitigated? An immediate answer may be that, in practice, vote trading and logrolling schemes produce outcomes responsive to different intensities of preferences and thereby improve efficiency: members of one group could trade their vote on one issue in exchange for votes on other issues. But in our simple example, vote trading and logrolling by itself will not change the outcomes: citizens in group A already win on all issues, so B members have nothing to trade. An explicit institution "re-enfranchising" the minority is necessary.

But note that this institution cannot be a supermajority or unanimity requirement for passing any proposal: it would result in maintaining the status quo in all issues, an outcome that is worse than simple majority voting on both equity and efficiency grounds. Any solution must deviate from issue-by-issue simple majority voting.

Consider then endowing every voter with an initial stock of votes, and rather than requiring voters to cast exactly one vote on each issue, allowing them to lump their votes together, casting "heavier" votes on some issues and "lighter" votes on other issues. It is this voting mechanism, called *storable votes*, that we study in our work. If decisions are made according to the majority of *votes* cast (as opposed to the majority of *voters*), storable votes allow the minority to win some of the time, and in particular, to win when its preferences are most intense. And because the majority generally holds more votes, it is in a position to overrule the minority if it cares to do so: the minority can win only those issues over which its strength of preferences is high and, at the same time, the majority's preference intensity is weak. But these are exactly the issues where the minority "should" win from an efficiency viewpoint: *the equity gains resulting from the possibility of occasional minority's victory need not come at a cost to aggregate efficiency.* Nor does the representation of minority's preferences come at the expense of the equal treatment of all voters: all individuals are granted the same number of votes and all votes count equally.[2] Thus the scheme need not be redesigned if the size, or the very existence, of the minority changes.

In fact, even without systematically opposed preferences, the use of storable votes can increase efficiency in symmetrical voting environments, where no systematic minority exists.[3] When a voter bunches his votes on his highest intensity issues, the probability of obtaining his desired outcome shifts away from decisions that matter little to that voter and towards decisions that matter more, with positive welfare consequences. The value of a storable votes mecha-

[1] Nothing fundamental depends on all citizens in a group having the same intensity of preferences on every issue, or even on the direction of preferences within the group being perfectly correlated. The same problem exists with imperfect correlation and heterogeneity of intensities within groups.

[2] Many variations that we have not studied are also possible, including the granting of different numbers of votes to different individuals.

[3] Casella (2005).

nism in the presences of minorities is even more compelling because, in addition to the efficiency gains, it addresses fundamental considerations of equity and legitimacy.

An existing voting system that resembles storable votes is cumulative voting, a mechanism used in multi-candidate elections. It grants each voter a budget of votes, with the proviso that the votes can be spread or concentrated on as many or as few of the candidates as the voter wishes. The winner is the candidate who receives the most votes. In the United States, cumulative voting is used commonly in corporate elections, with the explicit goal of making it possible for minority shareholders to elect members to the board of directors (Williams 1951). In political elections, cumulative voting was used from 1870 to 1980 to elect representatives to the state House in Illinois; has been advocated more generally for the protection of minority rights (Guinier 1994) and has been imposed by the courts to redress violations of fair representation in local elections (Issacharoff, Karlan and Pildes 2002). There is evidence – theoretical (Cox 1990), experimental (Gerber, Morton and Rietz 1998), and empirical (Pildes and Donoghue 1995, Bowler, Donovan and Brockington 2003) – that cumulative voting does indeed help minorities.[4] The storable votes mechanism differs from cumulative voting because it applies to a collection of independent binary decisions – a series of proposals, each of which can pass or fail – as opposed to a single multi-candidate election, but the motivation is similar.

Experimental evidence

The desirable properties of storable votes are features of the equilibrium of the resulting voting game: they emerge if every voter chooses the correct number of votes, given what he rationally expects others to do. But could the outcome be much worse if voters made mistakes? This is an appropriate concern here because the storable votes game is quite complex: voters need to trade-off the different probabilities of casting the pivotal vote along the full logical tree of possible scenarios, a task further complicated by coordination problems within the two groups, and multiple equilibria. If actual voters were confronted with the problem, what type of decisions would they make?

To answer this question, in 2004 and 2005 we ran a number of laboratory experiments at Caltech, UCLA and Princeton University where subjects recruited from campus were asked to vote over a sequence of elections in five-person committees, with storable votes. In each experimental session, a committee faced two consecutive proposals. Three members of the committee (the *majority* group) earned a monetary reward whenever a proposal failed; two others (the *minority* group) if it passed. The composition of the two groups was constant over the two proposals, mimicking a systematic minority that would always lose with simple majority voting.

Immediately before each proposal was voted on, each voter was assigned a random value between 1 and 100 which translated directly into the monetary reward, inducing a voter's intensity of preference, as in the theoretical model.[5] Although group membership was known to everyone in the group, the intensities were private information. We considered two treatments regarding the distribution of preference intensity within a group, representing stronger or weaker group cohesion.

In the first case, as in the example in Table 1, all members of a group had identical intensity and agreed not only on the preferred direction of the proposal, but also on priorities across the two proposals. We called this treatment *C*, as in "correlated intensities". In the second case, intensities were drawn independently, and members of a group agreed on the direction of preferences but not necessarily on the strength of their preferences. We called this treatment *B*, the "base" treatment. In both cases, intensities were independent across groups, so members of one group were uncertain about the intensities in the other group. Everyone was always informed of the statistical process by which intensities were assigned.

Each subject had one standard vote to cast over each proposal and a total of two bonus votes to spend as desired, either dividing them over the two proposals or cumulating both over a single proposal. The outcome was determined by majority rule, with ties broken randomly. After each round of two proposals, another round started with two new proposals and a new endowment of bonus votes, and intensities were reassigned. This was repeated for

[4] There is even a blog on cumulative voting: http://www.fairvote.org.

[5] See Smith (1976) for an explanation of induced value theory.

15 to 30 rounds. We ran 11 experimental sessions with a total of 167 students.[6]

In both treatments, theory predicts that minority members should always cumulate their bonus votes on a single proposal: on the first proposal if the intensity attached to it is at least 50, and on the second otherwise. The threshold is 50 because 50 is the expected intensity over the second proposal. The same is true for a majority member in treatment B. However, in treatment C the equilibrium has the majority collectively casting 5 votes on the first proposal if its intensity is below 50, and 7 otherwise. Since neither 5 nor 7 is divisible by 3, there is no simple symmetric individual strategy that produces this total: different majority voters must use different strategies, a difficult coordination problem. To see whether the coordination problem affected the results, we designed two variations of the C treatment: in one we allowed subjects to chat electronically with other members of their own group; in the second, we let a single subject represent an entire group, and thus rephrased the game as taking place between two voters only, with asymmetrical voting power and preferences.

The key intuitive property of rational voting behavior with storable votes is evident: the number of votes cast on a proposal increases monotonically in intensity. This applies to each individual voter in case B of our experiment, and to the group as a whole in case C. As we said earlier, this property is quite general and is the main reason why storable votes have good efficiency properties: by casting more votes when they care more, voters are more likely to have their way when it matters most.

Table 2 reports the equilibrium outcomes predicted by theory with the parameterization we used in the experiment. The first two rows report the equilibrium expected frequency of minority victories, and the fully efficient frequency, respectively. The third and fourth rows give the expected share of payoffs for minority versus majority members, in equilibrium and with full efficiency respectively.[7] The last two rows describe theoretical gain from storable votes over simply majority rule.[8]

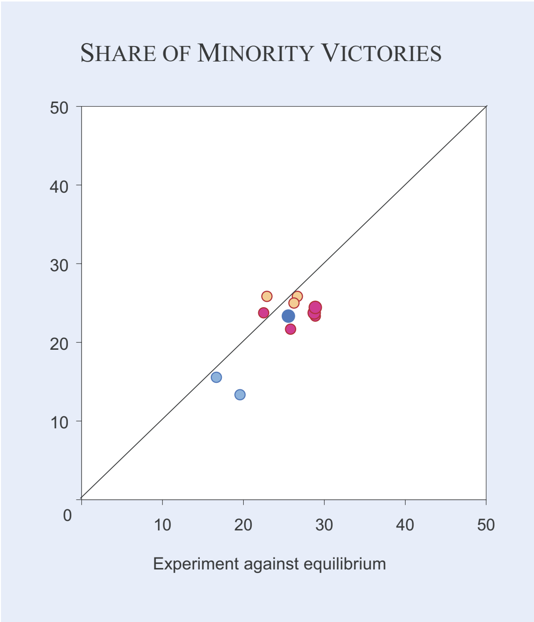
Table 2

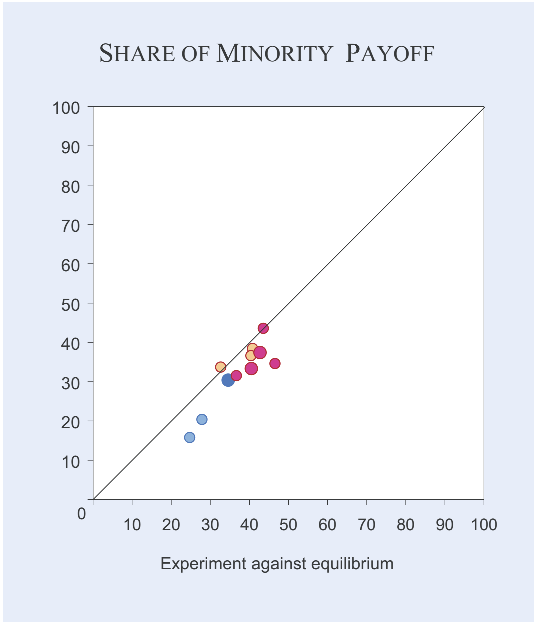
Treatment	C	B
% min wins, sv	25	19
% min wins, efficiency	33	22
% (min/maj) payoff, sv	38	26
% (min/maj) payoff, efficiency	52	35
% surplus sv	60	71
% surplus majority voting	53	75

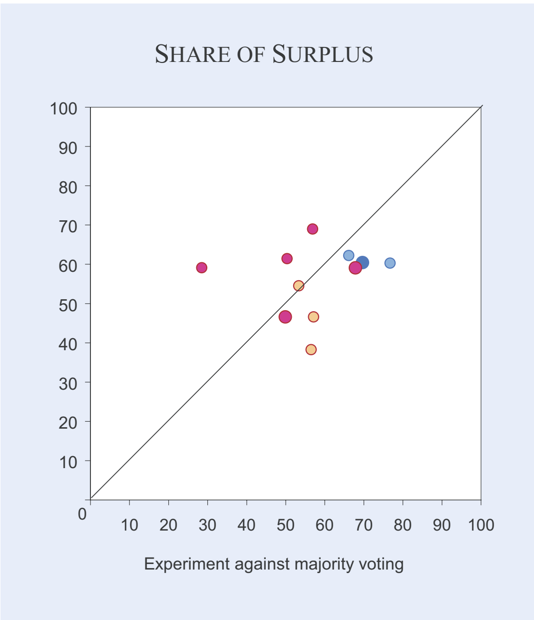
In treatment C in equilibrium the minority is expected to win one quarter of the time; this is less than efficiency recommends, but obviously much more than with simple majority voting (when, by definition, the minority always loses). Similarly, again in treatment C, in equilibrium a minority member is expected to have a payoff that is just below 40 percent of a majority member's payoff; efficiency recommends a larger share (just above 50 percent), but again, the payoff is zero with majority voting. In treatment C, storable votes are not only more responsive to minorities but sensibly more efficient; in treatment B, storable votes may come with some efficiency losses, as they do in this case, but the losses are small in magnitude.

How closely did laboratory behavior conform to these theoretical predictions? The following figure summarizes the results. The three panels match the rows in Table 2. The left panel reports the realized share of minority victories in the experiments (vertical axis), against the share that would have been observed, given the experimental intensity draws, if all subjects had played equilibrium strategies (horizontal axis). Each point corresponds to an experimental session; the light blue points refer to treatment B; the smaller purple points to treatment C, the larger purple points to treatment C with intra-group communication, and the yellow points to treatment C when a single subject represented an entire group. If all points were on the 45 degree line, observed outcomes would match the theory perfectly; distance from the 45 degree line represents deviations from the theory. The exact coordinates of the different points allow us to evaluate the results quantitatively, relative to Table 2, and to identify any treatment effects. The center panel reports the share of the aggregate minority payoff to the aggregate majority payoff, again plotting the laboratory outcomes (vertical axis) against equilibrium predictions (horizontal axis). The right panel graphs the total payoff in each experimental session against the total payoff under simple majority rule (i.e., when majority group

[6] In each session, multiple committees were run in parallel, with random rematching of subjects into committees after each 2-proposal round.
[7] Full efficiency is defined here as deciding in favor of the group with higher total intensity. It guarantees to the committee as a whole the maximum aggregate payoff the committee could achieve.
[8] The percentage surplus measures are normalized so that full efficiency is 100 and the surplus from random committee decisions is 0.







always wins), both expressed as percentage of potential surplus.[9]

The main conclusions from the experiment are clear. First, observed outcomes were close to equilibrium predictions: although not to the full extent predicted by theory, the minority nevertheless wins a substantial fraction of the times and a substantial share of the payoff.[10] The experiment confirms the potential of storable votes to empower minorities. Second, the results reflected treatment effects consistent with theory: in particular, the two light blue circles are below the other points in the diagrams, suggesting that cohesive minorities with correlated intensities will benefit the most from storable votes. Similarly, efficiency relative to majority voting rose in the simple C treatments (the three purple dots above the 45 degree line in the third panel), and fell slightly in the B treatments (light blue). Third, contrary to our expectations, efficiency fell in the two modifications of the C treatment that we had designed to improve coordination, the yellow dots and the two large purple dots.

Finally, an examination of individual voting behavior reveals that voters did use responsive strategies, casting more votes when intensity was higher.[11] While bonus-vote choices were generally monotonic in intensity, observed behavior was not perfectly consistent with the equilibrium strategies: minority members did not always respect the threshold of 50, and occasionally split their bonus votes over the two proposals for intermediate intensities; majority members were particularly likely to split their votes, even in treatment B, and predictably found the group equilibrium strategy in treatment C very difficult. Nevertheless, the monotonicity of voting behavior was sufficient to produce committee outcomes very similar to equilibrium outcomes. Other experiments with storable votes in symmetric environments (Casella, Gelman and Palfrey 2006) corroborate this finding, indicating a robustness to small departures from equilibrium behavior that we

[9] The point denoted by a darker and larger blue circle refers to a session of the B treatment run, as a robustness check, with nine voters, with group sizes 5 and 4. As theory predicts, the observed minority win rate and the relative minority payoff were greater than in the 3–2 committees.

[10] The points in the first two panels are disproportionately below the 45 degree line, probably because strategic mistakes are much more costly for the minority than the majority.

[11] A full discussion of subjects' strategies can be found in Casella, Palfrey and Riezman (2007).

see as an encouraging sign of the practical viability of the mechanism.

Conclusion

Our theoretical work suggests that storable votes can be an effective and reasonably efficient way to enfranchise minority voters. Laboratory experiments confirm that the mechanism works in practice. Many questions remain open about the applicability of the mechanism to less stylized environments, but at this stage the idea appears promising.

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Some Reflections on the Efficiency and Effectiveness of Multi-jurisdictional Antitrust Enforcement in Europe

Patrick Van Cayseele*

One of the least questioned areas of government intervention is undoubtedly competition policy.[1] Going back to the Sherman Act in 1890 in the US and the European Economic Community Treaty nearly 50 years ago, competition policies have a long-standing tradition in economic life on both sides of the Atlantic. But in Europe recent decades have led to an even larger deployment of resources in the area of antitrust enforcement as a result of the devolution of some of the activity from the European Community to the level of the member states. In this period, the so-called "national competition authorities" (NCAs) were either started or have increased their effectiveness, whereas the above-mentioned devolution did not reduce the scope of the European competition authority. Overall, this has lead to an increase in resources devoted to antitrust monitoring.

This brings up a different but related issue: even if the welfare-enhancing effects of optimal competition policies are understood and accepted, the question now is whether the resources allocated to these policies are deployed in an effective and efficient manner. Especially on the European scene, with its fragmented multi-jurisdictional enforcement, it is possible that several impediments to an optimal organization of competition policies exist. If that is the case, it is conceivable that real world competition policies in Europe do not deliver the welfare improvements that their blueprint design intended.

This contribution explores how effective and efficient some of the national competition authorities operate by reporting on recent research that has focused on particular aspects of this general question. Needless to say, given the absence of relevant research findings some aspects that are possibly problematic for the effectiveness and efficiency of policy will not be elaborated in detail. Also the coverage of countries in which effectiveness and efficiency could be investigated has been limited. Instead, we focus on small open economies, in particular Belgium and The Netherlands, for a variety of reasons such as the closeness to actual policy-making as a member of the authority, the research done on these countries and recent availability of official audit reports on both the Belgian and Dutch antitrust authorities.

Multi-jurisdictional antitrust enforcement

The challenges to a multi-jurisdictional organization of competition policy are many, and outnumber the obvious advantages. In the area of merger review, it is immediately clear that a cross-border operation not handled by the EU has to be cleared by at least two competition authorities. This leads to:

- duplication of administrative costs, both for the companies involved and society as a whole;
- too strict enforcement of merger regulation and errors of type II.[2]

Both points deserve further explanation. It is not hard to see that preparing a file for two competition authorities requires more effort than for one. The additional red tape costs for the company are probably somewhat less than double when preparing the file for the second authority.[3] But the administrative cost for government is not less, since it is simply not possible to rely on decisions taken by a foreign authority, given the difference in the objective function.[4]

In small open economies such as Belgium and the Netherlands, this has led to the criticism that it is not

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[1] An opposing view is given in Crandell and Winston (2003). This viewpoint is contested in turn, by Connor (2004) and others.
[2] These include the disapproval of a merger that is welfare-enhancing, as opposed to errors of type I, which occur when a merger that reduces welfare is not blocked by the authority. This point was already raised by Evenett (2006).
[3] One could say there are economies of scale in reducing additional authorities, given that a substantial element of costs is data gathering. See, however, Van Cayseele (1989) for an early contribution on subadditivity of cost functions for dealing with government agencies in the case of pharmaceutical companies registering prescription drugs.
[4] Smets and Van Cayseele (1991) even show how to a large extent the objective functions are antagonistic when they constitute the traditional sum of producer and consumer surplus, and the merged entity repatriates profits, post-merger. Even when the NCAs look at consumer surplus (a less accepted criterion), the situation in both countries can be quite different, and each agency will need to engage in a full review of the submitted merger file.

entirely clear what the contribution of the agency is. Furthermore, it is felt that this authority merely triggers government spending to enforce a goal that is perfectly executed by the market, given the openness of the economy. The next section will investigate this argument in detail, presenting empirical evidence on the matter.

The second point raised involves a too strict attitude vis-à-vis cross-border mergers. Since both jurisdictions need to clear the operation, the review process works like the Sah-Stiglitz hierarchy (see Van Cayseele (2004), especially in the context of bank merger approvals). The upshot is that when each of the agencies has its own objective function, the slightest incompatibility will imply a blocking of the operation. This is easy to see in the case of bank mergers when the merged entity acquires market power but also takes more precautions against liquidity shocks. When both the NCA and the Central Bank need to approve of merger, it will never pass, since the NCA (in the absence of pronounced efficiency gains that allow a decrease in the loan interest rates) will not applaud the consequences of increased market power, although the Central Bank is better off as a result of the increased precaution taken against liquidity shocks. A similar effect is in play when cross-border mergers are involved: it is sufficient that the operation cannot be tolerated by one single agency, because, for example, the loss of consumer surplus in that country is substantial, resulting in the operation being blocked even if it is welfare-improving in many other countries.

Less documented, if not entirely absent in the discussion on multi-jurisdictional antitrust enforcement is the fact that widely different regulations can create distortions in the pattern of industry evolution. The issue here is not the cost of cross-border mergers but the costs and possibilities of within-border mergers. It is well-known among industrial organisation and antitrust experts that the toughness of competition policy may have a strong impact on the long-run outcome of an industry. Taking a historical perspective, Bittlingmayer (1985) was the first to document how antitrust policy in itself could have been an explanation for a particular merger wave. Perhaps the best illustration in this respect was documented by John Sutton (1998) in what he has called “the fate of Ilford”.

A few decades ago, the market for photographic paper and film was dominated by a few players, Agfa-Gevaert (Belgo-German), Kodak (US) and Ilford (US). Today, lagger Fuji has taken over first place, although all these companies are struggling to survive in a world where the process of making pictures has largely shifted from a chemical to an electronic one. But Ilford began to flounder much earlier, as British authorities opposed the possibility of growth via consolidation in the UK. The final result is a company which for more than three decades has no longer been active on the international scene and which has specialized in a particular niche. Agfa-Gevaert and Kodak did not face this particular constraint and succeeded in positioning themselves on the global market.

Therefore, the different enforcement of antitrust laws by different jurisdictions in the end implies a different evolution of industry. Below, we illustrate some differences in the various merger review processes. It is still too early to test empirically whether the documented differences have a role in explaining variations from industry to industry. But the differences are sometimes so remarkable that it is hard to believe that they have no consequences.

Competition policy in a small open economy

Critics of competition policy, and in particular merger review, have argued that the open character of the Belgian and Dutch economies is sufficient to ensure that a merger will not lead to the creation of market power. To use economics terminology, markets in small open economies are contestable. Imports (or the threat of imports) are a perfect substitute for competition policy.

Econometric analysis of price-cost margins indicates that the picture is less clear-cut. Konings, Van Cayseele and Warzynski (2001) estimate price-cost margins and explain them by investigating the effect of increased import penetration or competition policy enforcement. This is done using a panel data set of over 20 industries in Belgium and the Netherlands. The results show very mixed findings.

For Belgium, downward pressure on price-cost margins doesn’t seem to come from competition policy at all, but import penetration is an effective disciplining device. For the Netherlands the exact opposite is true: imports hardly have an effect, whereas with the enforcement of the 1999 competition law, most industries have entered a period of decreased margins. How can this be explained?

There are several possible explanations. The first merely says that the Belgian anti-trust authority was not a very effective one. This might be a quite plausible explanation: at one point in time the Belgian authority even went on strike to point out the tremendous lack of manpower to deal with all cases properly. Other explanations are equally plausible, however. The starting position between the two countries could be different. In Belgium, competition policy replaced an elaborate system of price controls. As economists, we immediately question the effectiveness and efficiency of those controls and we do so for good reasons. But they could have had an effect, especially in a relative sense, as compared to the Netherlands where such price controls had been abolished much earlier. To some Dutch economists, the Netherlands in the previous low-competition era was called even "a cartel paradise". So it could have indeed been the case that due to anti-competitive behaviour, the initial mark-ups were higher in the Netherlands, and especially the fear of getting caught and fined led Dutch industry into a period of more moderate margins.

This however still does not explain the different effect imports have. Here again we only can put forward plausible arguments, without the pretension of offering a final answer. One element that certainly plays an important role is the composition of the outputs that are aggregated in one and the same industry. Belgium tends to be more specialised in the manufacturing of bulk goods and semi-finished components (Drèze 1960). The Netherlands manufacture more finished goods, sold under their own brand names. In more modern terminology, Belgium is more into B2B and the Netherlands in B2C.

This implies that Belgian manufactured goods are sold on markets where the model of price competition in homogeneous goods (the Bertrand model) prevails. Dutch manufacturing then sells more in niches, where important elements of non-price competition also operate, or the market works along the lines of models of product differentiation.

Increased imports of these goods to Belgian territory then indeed imply that buyers located further inland in Europe have a choice: they can buy the commodity manufactured in Belgium, or the same good imported through Belgium.

This does not necessarily hold to the same degree for the Netherlands, given the differentiated nature of the goods. The Netherlands, in addition, are more active in trading, where imports do not necessarily lead to more competition with their own manufactured output. On the contrary, the imported component could provide a welcome complement that makes the bundle, including both the domestically manufactured and imported goods, a more attractive one.

Regardless of the explanation for the findings, the facts remain. And these facts are that even for small open economies neither import substitution nor competition policy need to be effective in improving allocative efficiency. It all depends on which factor is (most) effective. In fact, they appear to be complements because our initial findings indicate that where import penetration works better, antitrust enforcement has less impact, and vice versa.

Are there really 50 different ways to implement competition policy

The previous section illustrates that one cannot immediately dismiss competition policy, not even for small open economies. But shouldn't these policies be similar at least to some extent?

It is common knowledge that even conceptually there are major differences regarding the approach followed in setting up an antitrust policy (Borrell 2005). Some countries rely on ex ante merger review, while others control ex post whether competition has been restrained. Some rely on administrative actions, others on the judiciary regime. Additionally, there is a discussion in Europe on whether one should rely exclusively on public enforcement or on public and private enforcement.

Not long ago, some economists maintained that within Europe the differences in antitrust policies where not that great, given that all the national regimes were copies of the articles in the EEC Treaty. They were clearly misguided. In a qualitative survey of the institutional features of antitrust policies in European member states (Belgium, Germany, Italy and the Netherlands), Van Cayseele, Sabbatini and Van Meerbeeck (2000) showed that even within systems that heavily rely on an administrative, exclusively public and ex ante system there are pronounced differences.

And even if the regimes are basically the same, the practical implementations might be very different.

To show this, De Loecker, Konings and Van Cayseele (2007) have focused on ex ante merger review in a number of European countries. The differences are striking, since to start with not all competition laws use the same criteria to determine whether a merger should be notified. In some countries, two criteria are used, for instance individual and combined domestic sales. Other countries introduce combined worldwide sales. Still other countries add criteria, such as market shares or total assets.

Furthermore, even when two countries use the same set of criteria, like individual domestic and combined worldwide sales, the thresholds vary substantially. Compared to France, the Netherlands has twice the level of domestic sales as a threshold. But it already triggers review at 75 percent of the level of worldwide sales. So the Netherlands favours larger players on the home market and is stricter in its handling of export champions, at least in comparison to France.

Perhaps the most astonishing fact for an industrial economist is that in all countries the criteria are the same for each and every industry. But industries vary widely in respect of the prevailing scale economies, volume of sales, etc. Hence, it becomes possible that in certain sectors, each and every company individually exceeds the threshold for merger review, but at the same time, there still are many players around given the size of the market. The implication nevertheless will be that every conceivable merger will need to be reviewed, no matter how unlikely it is to create market power. Conversely, it is easily conceivable that in another industry, where only 2 players are left, a merger creating a monopoly does not need to be reviewed by the authority because the individual companies do not exceed the sales thresholds.

The findings this leads to are surprising. Using an algorithm that tests how many mergers need to be reviewed, starting from all conceivable merger operations, wide differences appear across industries within one and the same country and between countries within one and the same industry. The latter finding is probably the most troublesome, recalling the "fate of Ilford" described above. To give but a few examples, in the manufacturing of chemicals and chemical products (NACE 24), in France in 1999, only 2.55 percent of all conceivable merger operations needed review by the competition authority. In the same year and industry, 19.23 percent of all conceivable operations in Belgium needed to be reviewed by the competition authority. And in the Czech Republic, this was 24.95 percent. For the manufacturing of pulp, paper and paper products (NACE 21), in France only 0.79 percent of conceivable merger candidates needed to pass review. In Belgium it was 8.24 percent and in the Czech Republic 31.88 percent.

Of course, what matters in the end is how many mergers get blocked by the authority. So although in Belgium more operations needed to be reviewed than in France, it could well be that as many operations as in France are admitted. In terms of the rejection percentage, France would then look much "tougher", since it grants permission for mergers for the same number of cases as Belgium, but in Belgium more operations need to be reviewed. But at the same time, companies in Belgium will less likely find a partner that allows for mergers without review, and hence will be more often confronted with the costs of filing. For a "large" operation, a recent study indicates that these costs might run into a figure of 100,000 euros for the companies involved. In addition to those, there are the costs of administration. Hence, widely differing thresholds, that do not take into account the size of the country and the presence of scale economics particular to each and every industry, will impose large differences in the transaction costs in the market for corporate control.

Conclusion

The previous sections show in part how multi-jurisdictional competition policies may create distortions. On all aspects, further research is necessary before conclusive policy advice can be given. That is of course always the case, and decision-makers often have to act before everything is known. Viewing it more positively, we are fortunate to know at least some aspects of the usefulness of competition policy in small open economies, on the nature of the distortions that can result, etc.

Unfortunately, there are issues just as important that are not only unresolved but where research has not even started. The highest research priority must be given to these issues.

One such example is to be found in the various leniency programs that have been adopted by nearly all of the NCAs. Two years after its inception, in Belgium 16 cartels had already applied for leniency. Undoubtedly some of these also operate on the

Dutch market, given the interwoven economic structure of Belgium and the Netherlands. What then happens when companies apply for leniency in one country but not in the other? Is the information they provide to the authorities secret, or will one authority pass it on to the other? At first sight, this might seem an entirely academic question, as companies who apply for leniency probably do so at the same time in all countries in which they operated, presuming information is exchanged between NCAs. But then, since the leniency programmes are different in terms of the reduction in fines, what is the overall impact on leniency of having many and different "tariff reductions"? For example, if in country A, the fine reduction is 100 percent for the first firm, while in country B this is only 40 percent, companies still need to calculate in a fine of 60 percent of the fine in country B. Clearly, if fining uses rules of thumb based on sales, and country B is relatively large compared to country A, this might still be a substantial amount. And hence the company might decide not to apply for leniency and leave the cartel unaffected. The harsh treatment in country B, together with information exchange between the NCAs, then renders country A's leniency policy completely ineffective.

Judging from the 100 percent fine reduction, one could argue that country A relies a lot on its leniency policy to detect cartels, maybe because the NCA lacks the skills necessary to find out about price fixing practices, or because institutional factors favour the formation and stability of cartels.

By a similar argument, country B only grants 40 percent because it is well-equipped to fight cartels in the absence of cooperating conspirators. But by doing so, it interferes with its weaker colleague.

In summary, we started by noting that multi-jurisdictional competition policies make a lot of sense, even in the smaller open economies of the European economy. But the widespread differences in how these policies are implemented create pronounced distortions that probably affect the level playing field of competition in the EU. This apparently calls for more coordination among the member states, which is probably the case in the area of thresholds for merger review. But in the end, it may even be that coordinated behaviour, as with the exchange of information in leniency programmes, is not the best thing to do. This implies that for each and every aspect of competition policy, a precise answer can only be given after careful research has been conducted. Given the increased level of resources allocated to competition policies, such benchmarking against both academic research and international best practice really has become a priority.

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Corporate Governance: Relationship of State-owned Enterprises with other Shareholders

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On average around 40 percent of state-owned enterprises (SOE) involve other shareholders. In approximately a half of these the state is a majority shareholder. Not all these firms involve public investors since only some 10 percent are listed, although they are usually among the largest enterprises.

The relationship between the state as a controlling or significant shareholder and the minority shareholders is particularly delicate in SOEs, and especially in those commercial companies that are listed. As a dominant shareholder, the state may be in a position to abuse minority shareholders as it is able to make decisions in general shareholder meetings (GSM) without the approval of minority shareholders. It is also usually in a position to control the board's composition. Moreover, the state is likely to have other political and policy objectives which might be implemented at a cost to the minority shareholders.

It is in the state's own interest that other shareholders do not perceive it as an opaque and unpredictable owner, and feel that they are treated equitably. The state's track record in terms of respecting minority rights has a significant impact on the shares' value and the future capacity of the company to raise further funds on the market. Finally, having other shareholders introduces market pressures and may become an important means of monitoring SOE management.

In most OECD countries where part of SOEs' capital is held by private shareholders, minority shareholders' rights are recognised and in some case specifically protected. The ownership entity often "ties its own hands" and takes clear measures or adopts general policies that will prevent an abuse of minority and other non-controlling shareholders. These declared rights concern above all representation of minority shareholders on the board of directors, decision making power at the meetings of shareholders and rights to information about the company's situation.

These rights may be defined in the general legal framework concerning companies, i.e. the commercial company code, the Company Law, or corporate governance codes. They may be also more specifically defined or referred to in the charter of a SOE, or in specific founding laws where they exist. Finally, the equitable treatment of other shareholders may be a general principle adopted by the ownership entity or the government vis-à-vis SOEs. This is the case, for example, in *Norway* where the first of the government's ten principles of good corporate governance for SOEs is that all shareholders shall be treated equally.[1]

Reference to the general legal framework

In most OECD countries, minority shareholders in SOEs have no more rights than they usually have in privately owned companies. Almost all countries assert that SOEs follow the regulatory provisions fixed in their commercial company code, Company Law, listing requirements or in the corporate governance principles/codes. Their respective legal frameworks are deemed to ensure fair and equitable treatment among all shareholders, and no special protection or provision is made for shareholders other than the state in SOEs. Most countries do refer to the general legal framework as, for example, the following:

- In *Australia*, the Commonwealth Authorities and Companies Act 1997 (CAC Act), which applies to all SOEs, seeks to replicate requirements of the Corporations Act 2001 and in some areas apply more stringent requirements. SOEs that are incorporated are also subject to the Corporations Act 2001 as any other company would be. When listed, SOEs are subject to the Australian Stock Exchange Listing Rules. No further rules are provided to protect minority shareholders.
- In *Austria*, beyond the listing rules and the Company Law, the "Austrian Code on Corporate

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[1] Ministry of Trade and Industry, Norway (2003), p. 11.

Governance" also applies to all SOEs and no further provision aims at protecting minority shareholders rights in SOEs.

- In *Finland, Germany, Sweden* and the *UK*, the general Company Law applies and is deemed to protect adequately minority shareholders rights, even in SOEs; this is the case also in *Switzerland*, where the provisions of Company Law related to the protection of minority shareholders rights applies to special status SOEs (such as Swisscom and CFF) as well as SOEs subject to normal Company Law (RUAG).
- In *Italy*, except for the cumulative voting-type system (see below), SOE's minority shareholders do not enjoy any specific rights beyond what is mandated in the Company Law.
- In *Korea*, minority shareholders are not granted special protection rights in SOEs or special treatment in the appointment of their board members. There are no specific disclosure requirements or approval procedures for special transactions aimed at protecting minority shareholders rights. All SOEs follow the Commercial Law and the Securities and Exchange Act regarding minority shareholders' rights.[2]
- In *Belgium*, minority shareholders are not granted specific representation rights in boards as the state and private shareholders have proportionate representations in boards.
- In *New Zealand*, minority shareholders are protected by provisions in general securities-related legislation. These provisions apply irrespective of state ownership.
- In *Norway*, the joint stock Company Law in some instances grants protection and special rights to minority shareholders against misuse by majority shareholders (misappropriation of money, withholding of dividends, gifts and/or decisions favouring only one of the shareholders, etc.).

In some countries, such as the *UK,* when the state has sold some, but not all, of its equity interest, the other shareholders have a majority of voting shares. This ceding of voting control alleviates the potential of abuse by the state as a majority shareholder and ensures that the partially state-owned enterprises benefits from the experience and discipline of the private sector shareholders.

[2] According to Article 31 of the Framework Act for GOCs (government-owned companies) and the Article 17 of the Special Act on Privatisation for some GICs (companies with government investment) respectively (Korean response to the OECD Questionnaire on Corporate Governance of State-Owned Assets, p. 8).

Strengthened decision making powers within GSMs or boards

There are a few exceptions where minority shareholders in SOEs are granted a higher level of control and more decision making power than in the case of other companies. Indeed, minority shareholders in SOEs may be particularly concerned about the actual decisions being made outside of the company's GSM or board, or prior to meetings of the former which can become a mere rubber stamp. Thus SOE minority shareholders are in some countries granted access to the decision making process, often through stronger representation on the board.

In a few OECD countries and for some SOEs, minority shareholders are actively encouraged to participate in general shareholder meetings. This is usually done by the adoption of specific mechanisms at the company level, including facilitating voting in absentia or developing the use of electronic means as a way to reduce participation costs. These mechanisms often also include facilitating employee-shareholder participation or a system facilitating the collection of proxy votes from employee-shareholders, as employees in many countries are the most numerous individual shareholders in partially privatised enterprises.

In a few countries, a specific regulation applies to all SOEs and grants minority shareholders additional rights, mainly with regard to their representation on boards. Cumulative voting may be allowed, according to the general Company Law or following specific SOE by-laws. This allows minority shareholders to concentrate their voting rights what may help in rebalancing the dominant state position by a stronger influence of private minority shareholders. Other ways to grant stronger representation to minority shareholders in SOE board have been adopted in a series of OECD countries:

- In *Denmark* and *Spain*, SOEs' minority shareholders are granted board representation.
- In the *Slovak Republic*, in SOEs which are more than 51 percent state-owned, the state enters into a shareholders' contract granting minority shareholders majority representation on the board of directors.
- In *Italy*, minority shareholders of all listed SOEs are granted special rights through the election system of the board: a cumulative voting-type system – "voto di lista" – assigns disproportional voting rights to the minority shareholders (cf. Box).

- In *Norway*, minority shareholders are represented in the selection committee appointed to nominate board members.
- In *Sweden*, for listed companies, a nomination committee comprising the four or five largest shareholders discusses board nomination and remuneration.
- Similarly, in *Finland*, the nomination of board members of listed SOEs is drafted in co-operation with the largest shareholders. For non-listed companies in which it has a share, the state has concluded shareholders agreements with the other owners in order to grant them representation on the board.
- In *Greece*, SOE statutes may contain a provision regarding the participation of minority shareholders on the Board.
- In *Turkey*, for SOEs' subsidiaries, if private shareholders collectively hold a share of capital greater than 20 percent, they have the right to nominate/appoint one member for each 20 percent share, but at most two members of the board in total.

Ex ante rights

Granting minority shareholders specific ex ante rights may also be quite useful in some circumstances, and in most cases these rights are granted by the general legal framework and are not specific to minority shareholders in SOEs:

- In a number of OECD countries, pre-emptive rights under the general company legal framework serve to protect minority shareholders.
- Qualified majorities for certain shareholder decisions may also be useful and are granted according to the general Company Law in many OECD countries, or by specific SOE by-laws. In *Austria*, for example, minority shareholders enjoy significant rights at GSMs via threshold arrangements. In the *Slovak Republic* and for votes on fundamental matters, the approval of two third of shareholders is required, and it is possible to extend further this requirement to more than two third of present shareholders.

Box

The election system in Italian listed SOEs (Voto di lista)

According to this election system, directors are appointed as follows:

- Board members are elected by a shareholders' meeting on the basis of lists presented by the shareholders.
- Only those shareholders who, alone or together with other shareholders, represent at least 1% of the shares with voting rights at ordinary shareholders' meetings shall be entitled to present lists. All those entitled to vote can vote for only one list.
- Each shareholder can present or participate in presenting only one list and a candidate can only appear on one list or will be ruled ineligible.
- The outgoing Board of Directors can present a list of its own.
- Within each list, candidates must be ranked progressively.
- The lists presented by the shareholders must be lodged at the registered office and published at least ten days before the first meeting date. The procedure for electing the Directors is:

a) The list obtaining a majority of votes will elect a certain percentage of the Directors. The bylaw of the SOE sets up this percentage which, however, cannot be higher than four fifth by law (to this purpose any fraction – i.e. 6½ directors – is rounded down). The people elected are determined by their position on the list.

b) The remaining Directors will be drawn from the other lists; for this purpose, the votes obtained by these lists will be divided successively by one, two, three and so forth according to the progressive numbers of the Directors remaining to be elected. The quotient obtained in this way will be attributed to the candidates of such lists in the order in which they rank in the list. The numbers thus attributed to the candidates of the various lists will be arranged in decreasing order in a single ranking. The candidates who obtain the highest numbers will become Directors.

In the event that more than one candidate from different lists has obtained the same number of allocated votes , the candidate of the list that has not yet elected a Director or that has elected the fewest Directors will be appointed.

In the event that no Director has been elected from any of these lists or that the same number of Directors has been elected from each list, the candidate of the list that has obtained the most votes will be appointed. If there is a tie in terms of both numbers of assigned directors and votes obtained by each list, the entire shareholders' meeting will vote again and the candidate who obtains a simple majority of the votes will be appointed.

Source: Italian answer to the OECD Questionnaire on Corporate Governance of State-Owned Assets.

- Finally, qualified majorities for some board decisions might also be made mandatory in the case of some SOEs. This is the case in *Belgium*, where special majorities have been stipulated in shareholders' agreements in the decision making powers of the boards of the telecommunications and airport companies, where a significant part of the shares is held by private investors. Similarly, in *Spain*, specific requirements or procedures for specific transactions are set out in the Public Limited Companies Act.

In other countries, specific provisions protecting minority shareholders concern only a part of SOEs, usually through individual by-laws or by the possibility given by the law to adopt exceptional provisions:

- In *Denmark*, the state promotes provisions allowing for additional minority rights in the individual SOE by-laws.
- In *Greece*, the Company Law allows the statutes of the companies to contain provisions regarding minority shareholders' rights. In a number of listed companies there is a "general assembly of minority shareholders" to which all shareholders (except the state) may take part.

Information rights

A crucial condition for protecting minority shareholders is to guarantee a high degree of transparency.[3] However, few countries document the provisions taken, if any, to ensure that the ownership entity does not make any potentially abusive use of the information it receives as a controlling shareholder.

- In the case of listed SOEs, listing requirements and regulatory authorities oversee SOEs and shareholding entities in this regard. In *Italy*, it is specifically required that listed SOEs do not give any information to the ownership entity that it does not also give to minority shareholders, in order to fulfil the *Consob*[4] requirements regarding equal treatment of shareholders.
- For non-listed SOEs, specific mechanisms and procedures would need to be put in place by the ownership entity and at the SOE level. It is not clear whether such mechanisms exist in many OECD countries, and if they are effective, in ensuring easy and equitable access to information by minority shareholders of SOEs.

Very few countries report examples of SOEs having developed an active policy of communication and consultation with minority and other shareholders. When it is the case, it often derives from the characteristics and objectives of the partial privatisation of these SOEs, which aimed at developing the capital market and equity culture, mainly through sales to employees. When they have an active policy in this matter, SOEs identify their minority shareholders and keep them duly informed in a timely and systematic fashion.

Some SOEs may also in some cases organise active consultation with minority shareholders for specific issues. This aims at avoiding decisions that would be unwelcome or badly perceived, and minimize the risk that decisions may be challenged in courts.

Right of redress

Regarding right of redress, minority shareholders do enjoy in most OECD countries the same rights in SOEs as in other companies, based on the general company legal framework. In *Poland*, for example, on the basis of the Commercial Companies Code (CCC), every shareholder who voted against a resolution that was adopted by the GSM, and who holds even only one share can challenge this resolution in the courts. He/she can sue the company for an annulment of a resolution which contravenes the statutes or good practices, harms the interests of the company or is aimed at harming a shareholder. A shareholder will have also the same right if, without a valid reason, they were not allowed to participate in the GSM, if he/she was not present at the GSM, if the GSM was wrongly convened, or if the questioned resolution was not included on the agenda. Beyond that, a shareholder who has been refused the necessary information during the GSM and who raised an objection, recorded in the minutes, may file an application with the registry court requesting that the management board be obliged to provide the information.

The state as a minority but dominant shareholder: the case of "golden shares"

A key issue in many countries concerns where the state maintains a veto over corporate decisions,

[3] More detailed information is provided in chapter 5 ("Transparency and disclosure") of OECD (2005) and in annotations to OECD (2004), p. 50.
[4] Consob: Commissione Nazionale per la Società e la Borsa.

especially in strategically "sensitive" sectors, by holding on to a "special rights". These are special in the sense that they go beyond the rights associated with a normal shareholding. One instrument to install such "special rights" is a "golden share" in the narrow sense, i.e. a preferred stock holding in a company that a public authority retains after privatisation. But, by and by, the term "golden share" has become a generic term for "special rights" in general, whether those rights are associated with a state shareholding or not.

Special rights have usually been introduced in the context of privatisation: they allow the state to divest itself of national flagships but without relinquishing its control over them. Whilst from the financial benefits of privatisation, the state retains specific powers over the future ownership, control, or strategic conduct of a private company. As such, they can significantly affect the wealth of the private shareholders in an unpredictable manner.

Such "special rights" come in all shapes and sizes: in some instances, they are stipulated in overall Framework Laws underpinning the governments' privatisation programmes, with specific decrees for individual companies. In others, they consist of special shares directly inserted in the Articles of Association of a privatised company. The beneficiaries vary, since special rights can be attributed to the government directly or to any other entity of public authority. They may grant those public authorities a bevy of exceptional privileges, e.g. the right to oppose investments beyond a certain threshold, vetoes of mergers and acquisitions, prior approval of other strategic management decisions or simply enhanced voting power by limiting other investors' voting rights.

In several landmark decisions of 2002 and 2003 against *Portugal, France* and *Belgium* as well as the *UK* and *Spain*, the European Court of Justice struck down diverse special rights mechanisms and established as a general principle that legislation liable to deter potential direct investment restricts the EC Treaty freedoms of capital movement and establishment. These case have far reaching implications for the creation of an Internal Market for corporate control, since member States can no longer count on golden shares as a reliable policy tool. With respect to residual special rights cases in a number of old and new member States, the European Commission continues to take a constructive approach towards member States, pursuing infringement procedures where necessary (current cases regard e.g. the *Netherlands, Italy, Spain* and *Luxembourg*). Thus, partially as a result of these rulings by the European Court, the scope of special rights, including golden shares per se, is now limited (see Grundmann and Möslein, 2002). They have been abolished in *Korea, Norway* and *Greece*, while there is only one remaining SOE with a golden share in *France*.

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Learning from Other Economies – for example from Somewhere Down Under

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Should economists pay much attention to the economies of small far-away countries, or should we focus largely on the big fish in the global economy – the US, the EU, Germany within the EU, Japan – and the coming big fish of China and India? Aside from Ruritanians, why should an economist care about what happens in little old Ruritania?

I first began to ponder this question with respect to Australia when I was asked to contribute to the "Bobfest" retirement party in honor of Australia's leading economist, Robert Gregory. Australia was a fine place to see Kangaroos and Coral Reefs or to party … but why should anyone besides an Australian or a Kangaroo care about this the farthest reaches of the world? Major American and European economics journals rarely publish articles about Australia or other far-away countries, suggesting that we have not much to learn from them.

Characteristics of models studied by biologists – and economists

Biologists see small far-away creatures differently. Biologists specialize in *model organisms* – slugs, bacteria, flies, yeast, squid, zebra fish, mustard plants, mice, etc. They spend years studying these creatures not because of any weird fetish for creepy crawlies but because the species provides exceptional insight into fundamental biological issues. Mendel's peas, for example, opened the door to the genetics of inheritance that no other organism could have done. By analogy, could the same held true for Australia or other small economies? Are there general lessons about economic behaviour that we can learn from far-off economies in which we have no intrinsic interest? Should we think of potential *model economies* in the way that biologists think of slugs, bacteria, mustard plants — as models that could teach us broad lessons?

To guide my thinking, I examined what determines whether a species becomes a model organism, studied by hundreds or thousands of biologists, or lives a life of quiet obscurity?

One factor is the tractability of researching the species, which depends on accessibility and the ease and cost of experimenting with extant laboratory technology. The parallel in economics is the *availability of reliable data on economic behaviour.* In modern research this means micro files on individuals and firms, longitudinal matched employer-employee files; time budget studies; matched files linking health and biological markers to outcomes; measures of workplace practices and productivity; and so on. The French and Scandinavians have been good in developing matched longitudinal employee-employer data files. The Scandinavians have good data relating biological measures, such as birth weight, to outcomes. The UK has the Workplace Employment Relation Surveys on labour practices at workplaces.

What about the Australians? Australia also has excellent statistics. Its labour market data include cross-section surveys , longitudinal surveys, a unique longitudinal survey of immigrants, workplace surveys, time use surveys, regular Censuses, input-output tables, the Household Income and Labour Dynamics in Australia.[1] But, unlike most major US data sets such as the Census of Population, Current Populations Survey, PSID, these data files are not readily downloadable on the Web, which makes them more difficult to access.

A model species in biology invariably has some distinct feature that allows researchers to make progress in a significant line of inquiry. The equivalent for a model economy would be *variation in some economic factor* that allows us to draw inferences about economic behaviour in general. The variation could be a policy change – a new tariff law, imposition of new labour laws, development of an independent central bank, rapid expansion of the supply of schooling; etc. Or it could be some global shock – a sudden rise in natural resource prices, collapse of a trading partner, the advent of China and India to the

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[1] For details on these surveys see the references in Freeman (2006).

global economy, the development of IT– that induces economic response from workers, firms, and even the government.

Third, a model species must be sufficiently linked to other creatures, particularly to humans, to allow the scientist to generalize the findings.[2] Generalizing in biology rests on the similarity of cellular processes across living creatures due to universal scientific laws and evolutionary heritage.[3] We share 96 percent of our DNA sequence with chimpanzees and are closely related to worms, flies, dingos and kangaroos, for that matter. Medical scientists work with mice because mice have immune systems similar to ours, so that finding ways to treat diseases in mice could generalize to humans. Still, there are sufficient differences among organisms that doctors invariably do human trials to see if it works on humans.

Using the biology analogy, the responses of individuals to incentives would seem similar to cellular processes, which should be comparable across economies. By contrast, interactions of people in organizations or markets or entire economies would be closer to the behavior of whole organisms. This suggests that phenomenon where independent responses by people are critical– say demand responses to price incentives – would generalize better across economies than phenomenon involving interactions among organized groups. It further suggests that there is more learned from economies that share broad similarities in institutions and history than among economies with very different modes of operating and traditions. As an advanced economy with a legal system and culture derived from Britain, Australian experiences should be relevant to economies with similar backgrounds, such as the US, UK, Canada, Ireland, and New Zealand (Freeman, Boxall, Haynes 2007), and potentially to other advanced OECD countries as well.

The fourth factor that contributes to a species becoming a model is a cumulated body of knowledge about it that helps experimenters design and interpret experiments. The social science equivalent is the strength of a country's research community. Researchers with knowledge about how things work in an economy can be critical in assessing data and behavior, particularly relating to broad-ranging institutions and practices, which outsiders may misinterpret. Australia has a strong research community that is sufficiently confident and forthright to let transient economists know when they get matters wrong.

Australia as a model economy

In sum, an economy that combines good information with natural experimental variation in practices/policies relating to economic behaviour broadly is a viable candidate for model economy in the areas in which it offers distinct experiences. Since Australia has good data, a strong research community and close links to other Anglo-American economies, the critical question, it is a good candidate model economy. The key issue is where Australia has made unique innovations in policy/practice or had distinctive economic experiences whose findings could generalize to economics broadly. As a labour specialist, I latched onto three: the country's changing mode of labour relations; use of market mechanisms to deliver public services in higher education and employment services; and reliance on immigration and natural resources as sources of growth.

Labour relations

"Australia needs a workplace system geared to the future, not to the past" (Australian Prime Minister John Howard 2005).

When I first learned that Australia used an awards system to determine wages, I reacted as early settlers to Oz must have reacted on seeing the platypus or emu – utter disbelief. Markets are supposed to set wages, not judges on industrial tribunal court proceedings. Judges aside, the Australian systems of awards resemble European mandatory extension systems of determining pay, by guaranteeing that collective bargaining covers workers outside the organized sector as well as those in it. This contrasts with countries like the UK or US where collective bargaining covers only those in the bargaining unit.

By extending institutionally determined wages to most workers, the awards systems lower the dispersion of wage. From one perspective, it does what the Invisible Hand seemingly fails to do in the job market: establish a single price for a given type of labour. From another perspective, it risks reducing incen-

[2] A model organism "must not only be convenient to work on, but it also has to be related to other things that are useful" (John Sulston,www.welcome.ac.uk/en/genome/genesandbody/hg05f003.html, p. 2).
[3] Nature did not "completely reinvent the wheel and come up with a new set of molecular rules for each phylum". (Thomas Carew, specialist in Aplysia californica, cited by D. Steinberg, 2003).

Percentage of workers with wages set by different mechanisms, 2004

Mode of wage-setting	Percentage covered
Awards	20
Collective bargaining	41
Individual	34
Proprietors	5

Source: Australian Bureau of Statistics (May 2004, cat no 6306.0).

tives and depressing the employment of low wage workers. The Australian awards system helped make the country's equal pay legislation more successful than similar legislation in the US (Gregory 1999).

In the 1990s–2000s, led by the trade unions, Australia shifted to more enterprise level bargaining. The Labour Party's 1993 Industrial Relations Reform Act strengthened enterprise bargaining. The Howard government's 1996 Workplace Relations Act encouraged individual arrangements, ended union shop agreements, and limited the authority of Industrial Relations Commission to make awards. Many firms and workers preferred the status quo of collective contracts and awards to the alternative of individual contracts. The Table shows that 61 percent of employees had their pay institutionally determined as of 2004.

In November 2005 the government enacted legislation to privilege individual contracts over collective contracts and weaken labour market protections for workers further. The new legislation allowed firms to require that employees sign an individual contract and give up the right to be covered by a collective agreement as a condition of employment. Enterprise agreements could not override individual contracts. The "no disadvantage test" that required that contracts give workers pay and conditions at least as good as the relevant award was weakened. The law excused firms with less than 100 employees from unfair dismissal laws; narrowed the Industrial Relations Commission's role in labour relations; and established a new commission to set minimum awards over a smaller domain of issues. Finally, the new law made it more difficult for unions to strike while allowing management freedom to lockout workers. To impose the law throughout the country, the federal government claimed the right to override state labour laws which the Australian Supreme Court declared constitutional in 2006.

The government's "Work Choice" program is the most radical anti-union policies enacted by an advanced democracy. The changes go beyond anything conservative governments in the UK or US ever proposed, or that New Zealand enacted in the 1990s. A comparable change in corporate law would be to privilege private equity over publicly owned corporations by removing the limited liability protection given to shareholders. The changes are also remarkable in that government has proposed them in a period when the Australian labour market and economy are functioning well, with low unemployment and accelerated productivity growth. Australia is not in Great Britain's 1980s Winter of Discontent nor the US air traffic controllers 1981 illegal strike against the Federal Government.

Given the weakened state of Australian unions, the new legislation could be the death knell to collective labour arrangements. Or it could produce sufficient backlash from unions and workers to overturn the government at the next election. Public reaction to reports of unfair practices by employers under the new rules has been so negative that in 2007 the government withdrew the Work Choices brand name under which it publicized the new law.

Whatever happens what is critical for this essay is that the new legislation provides a "natural experiment" that makes Australia the model economy for assessing collectivism in the labour market. What more could a social scientist ask for than an extreme change in law with no apparent motivation beyond the government's ideological vision of "the workplace of the future"?

Market mechanisms for public services

In 1989 Australia developed the world's first income contingent mode of funding much of higher education – the Higher Education Contribution Scheme (HECS; Chapman 2001). The HECS differentiates tuition by field, gives students the option for paying fees up-front or through deductions from future earnings; offers a more equitable way of funding student education than taxing citizens; is less risky for students than loans; and gives greater autonomy to universities to determine the student contribution amount within the specified ranges.

Shifting the cost of higher education from the state to students has helped Australia increase university enrollments while reducing state funding of higher education relative to GDP. In addition, it induced

Australian universities to raise revenues by selling undergraduate education to the citizens of other countries. It has not discouraged low income Australian students from going to universities or reduced the overall rate of university attendance. If detailed data on the system were readily available on a web site, analysts in other countries would download the information and perform the types of studies that would fit their country's concerns, and thus spread this innovation.

Australia has also marketized government-funded employment services. In most countries, the state aids job seekers through state agencies. Until recently, some European countries restricted private employment agencies so that the state monopolized employment services. In 1998 Australia chose a different route. It privatized or outsourced employment services to non-profit and profit-seeking agencies, as well as to competing public agencies – 'a radical transformation of employment service delivery ... without parallel in OECD countries' (OECD 2001, 15). By opening the market for employment services to competitive bids, Australia sought to unleash the forces of competition on what had been an administrative function of the government. The result was a large drop in the cost of employment services, with no apparent loss in quality, which won laudits from the OECD. Independent researchers have, however, been more skeptical, withholding judgment until data from providers of services are open to public scrutiny (Webster and Harding 2001). Australia's outsourcing of public employment offers a unique opportunity to examine the success of different government, private and community agencies in delivering a traditional government service.

Growing Oz: Immigration and natural resources

As a "settler economy" Australia has grown through immigration and the application of modern technology to natural resources and to agriculture. Since not all settler economies have been economic successes – Argentina is often viewed as Australia's errant twin economy in this respect – and since natural resources have proven to be a curse to many economies – Australia's success as an immigrant-receiving and natural resource dependent economy merits attention.

On the immigration side, in 2000 approximately one fourth of the Australian population were immigrants – twice the proportion in the US, making Australia a model economy for understanding the impact of immigration on macro-economic outcomes and economic growth. Immigrants appear to have had little adverse effects on the wages or employment of natives (Addison and Worswick 2002) while contributing to growth. An immigration policy based on points for skills arguably contributed to this effect. Until the early 1970s, Australia subsidized passage for Europeans from some countries. Since then it has used the point system to encourage immigration of skilled workers (Miller 1999). It gives points to persons who attend Australian universities, which presumably both attract students to Australian universities and encourages their immigration.

On the natural resources side, Australia has developed despite being highly dependent on minerals/fuels and agriculture for the bulk of its exports. The country fell from near the top of the GDP per capita league tables – 5th in the OECD in 1950 to a much lower position – 15th in 1990, but rebounded in the 1990s to reach 7th spot in 2005, in part due to the boom in natural resources. In the 1990's the mineral share of exports rose to 40 percent of Australia's exports. But the country surmounted the "Dutch Disease" (known as "Gregory curse" in Australia) problem in which a booming resource sector boosts the real exchange rate and erodes the competitive position of manufacturing. If China keeps demanding natural resources as it grows rapidly, more countries will find that natural resources are critical to economic growth, and should look to the Australian experience here.

Make your economy a model economy

The argument that economics has much to learn from behaviour in *model economies* just as biology learns from model species directs attention at the experience of economies regardless of location or size. The requirements for a model economy are adequate data; interesting variation in policies/practices; sufficient similarity to other economies to allow findings to be generalized; and a knowledgeable set of home grown economists.

Australia's policies and practices and accessible data make it a model for illuminating labour relations, market provision of public services, and development via immigration and natural resource. If the country's political leaders create additional extreme policy experiments, there will be a lot for the rest of us to learn from Australian experience.

Finally, while I have made Australia my prime model of a model economy, you do not need Kangaroos to serve as a model economy. Data, variation in policies/practices, some similarity with other economies, and a base of knowledge. Fellow economists, if you determine the areas where your economy is a good model and follow the lesson from biology to study those areas, perhaps we can accelerate our rate of progress as biology has done.

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A Chinese Recipe for Curbing the Evasion of Commodity Taxes?

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Tax evasion is a widespread phenomenon. Indirect anecdotal evidence is provided by the latest public economics textbooks, which regularly include chapters on tax evasion; this would have been unusual just ten years ago. A recent textbook on public economics (Hindriks and Myles 2006) states that the hidden economy (which forms the primary basis for tax evasion) has reached at least 10 percent of GDP in advanced countries and it can grow to much higher levels (sometimes topping 70 percent) in developing countries. Moreover, the trend shows no sign of stopping.

Standard economic models focus on two basic means of discouraging tax evasion. One is the probability of audit and the other is the steepness of sanctions to those who are caught. The specific effectiveness of these tools is confirmed both by common sense and by many of the tests used by scholars (experiments, surveys, econometric studies; Marchese 2004). Nevertheless, they do not offer a complete solution, because their reliance on clear-cut antagonism between the state and the individual tax evader leads to a cat and mouse problem.[1] Thus, they are best accompanied by a combination of other strategies. Since tax evasion involves a sizeable share of the population that wields a certain social and political weight, it should be possible to design policies that in some way target the collective nature of such a phenomenon.

As long as tax evasion is pervasive, it will give rise to positive externalities among evaders, who create a network that makes incomes and sales easier to hide. In this context, it becomes far less likely for those who infringe the law to be caught and punished. As tax evasion grows more common, the tax administration undergoes increasing pressure to be lenient or to accept bribes; political backing for dissuasive policies may also wane. Hence it seems important to devise policies that will weaken the confidence evaders have in the social acceptability of their conduct. Ideally, these policies should bolster political support for policies aimed at reducing tax evasion.

One common strategy for weakening ties among potential evaders is to introduce various forms of conflicting interests. For example, VAT is designed to give rise to a chain of conflicting interests by encouraging each firm to procure invoices for its inputs in order to reduce tax outlays for its outputs. Of course, the results often fall short of the potential benefits, since VAT evasion is generally extensive and there are cases in which even stronger networks arise in order to hide a full chain of transactions. Yet one can also consider the glass to be half full rather than half empty. A recent appraisal of VAT (International Tax Dialogue VAT Conference, 15–16 March 2005, Rome) revealed a major increase over the last 20 years in the number of countries applying VAT (with the US and the Middle East being the main exceptions), with proceeds accounting for a rise in percent of GDP.[2] As M. Keen puts it (2005): "More fundamentally, however, in many transition and developing countries ... [VAT] … is a catalyst for modernization" as it fosters "voluntary compliance based on self-assessment (meaning that taxpayers calculate and pay tax due with minimal intervention by authorities, but subject to audit and penalty) shifting tax administration from a system based on direct and often face-to-face assessment to one based on self-assessment."

The presence of conflicting interests, which is just one of the many characteristics of VAT, undoubtedly contributes to reinforcement of a voluntary compliance system. One can thus infer from experience with VAT that the conflicting interests approach merits at least some consideration in the design of tax systems.

Empirical evidence concerning rewards to consumers

One problem noted by practitioners and in the press is that the chain of conflicting interests created by VAT is interrupted when the consumer comes into play. In one sense, this is an unavoidable consequence of the fact that it is the consumer who must

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[1] See, for example, Cowell (2004).

[2] VAT in fact has been attacked since it would be a too easy way for governments to raise money. For this point, see Keen (2007).

bear the brunt of VAT. One can wonder, however, if introducing partial forms of conflicting interests during this final step might improve the working of either VAT or sales taxes, and also more generally help prevent evasion of other taxes, such as the income tax owed on the same economic activity. This approach inevitably implies a cost (since government revenues are reduced if consumers who resort to legal transactions are rewarded). It is therefore necessary to ascertain the cost effectiveness of such a policy in comparison with other forms of intervention. To assess the pros and cons of the method, it is useful to examine cases in which it has already been applied.

Tax receipt lotteries

Positive reports have recently come from China, where a novel system of controlling sales tax evasion was introduced on an on-going experimental basis in 1989.[3] To encourage customers to request official receipts as proof of payment in the service and retail commerce sectors, local tax authorities in many provinces now issue a special type of receipt that doubles as a lottery ticket. To prevent forging of receipts, businesses must purchase special, patented machines for printing them. Records of the printed receipts are automatically transmitted to the tax authorities and are used to calculate the taxes payable on sales. Clearly the lottery should ease the adoption of secure cash registers apt at enriching the information available for the tax administration. The receipts can be used as scratch cards to win small amounts of cash, but they also serve as lottery tickets for winning larger amounts. A similar system is in use in Taiwan and has been used in other countries in Asia and in Latin America.

The Chinese tax lottery experiment has gradually been extended to include about 8 percent of districts or cities. It has grown to include not only restaurants, beauty salons and real estate agencies but a number of other services and retail stores as well. The experiment has been widely reported on in the Chinese media. More recently the municipality of Beijing decided to tax prizes of above 800 yuan (just short of 80 euros). While this move will reduce the rewards to consumers, it is a good indicator of the increasing popularity of the system, for such a tax would only make sense with a sizeable tax base. According to Wan (2006) and to the sources quoted therein, the lottery has had a positive impact upon business tax[4] revenue and upon the growth of total tax revenue. The lottery approach is of course just one of the many tools used in China for fighting tax evasion. The list also includes some which are much less acceptable from a European point of view, such as the death penalty.

Systems of rewards for consumers in the form of coupons, monetary or in-kind prizes, etc., are often used in the commercial sector. Lotteries are also used as a marketing device, sometimes on a systematic basis. For example, banks in Latin America offer lottery-linked deposit accounts. Those who keep an account for a given period are entered into lotteries for small and large prizes. According to Gillén and Tschoegl (2001) these accounts are a cheaper source of funds for banks than other accounts. Lotteries are particularly appealing for low income agents, and behave as inferior goods.

Monetary subsidies

Another popular means of rewarding consumers for combating tax evasion is to offer them monetary subsidies. In the fight against VAT tax evasion, some developing countries have introduced a far-reaching refund system for consumers who collect official receipts. Berhan and Jenkins (2005) studied how this system works in Northern Cyprus and in Bolivia. The scheme in Northern Cyprus has been in use since 1996, and resembles the system in use in Turkey. It offered a refund of 5 percent of taxable purchases until 2000 and 2.5 percent thereafter, in contrast to the standard VAT rate, which is 13 percent. The limit on purchases claimed is given by the monthly salary for employees. Employers collect the receipts for their employees and claim refunds on their behalf.

In Bolivia, a withholding tax on wages, salaries and pensions (the so-called complementary tax), was introduced in 1986 with the aim of improving the efficiency of VAT. Consumers are allowed to deduct the VAT paid on purchases of goods and services, so the withholding tax has zero expected net revenue.

Berhan and Jenkins (2005) found that these systems are burdened with very large administration and

[3] For a description of this system and an evaluation of its effects, see Wan (2006).

[4] This is a turnover tax paid on gross revenue from sales.

compliance costs, compared both to the VAT proceeds and to the corresponding costs of other taxes in the two countries. The process of collecting and verifying claims is extremely time-consuming, and the net benefit for taxpayers is low. Moreover, the method is vulnerable to illicit practices. In Northern Cyprus this mainly consists in the collection of receipts issued to foreigners, students, etc., who cannot claim their own refunds. In Bolivia, instead, there is a black market where false receipts are also sold, at a price of around 1 percent of their face value. The Bolivian system seems to work badly overall, yet abolishing it would damage some groups and therefore does not seem politically viable. Past attempts at abolishing the refund system, and at transforming the withholding tax into a revenue producing tax (while giving up the potential benefits in terms of VAT), have resulted in riots.

Overall, it thus seems that the main obstacle to an effective system of monetary rewards to consumers in developing countries is the cost associated with preventing illegitimate claims. Recently, the IMF recommended that the Turkish government eliminate its refund system and replace it with other instruments, such as a fixed deduction from income (IMF 2007, 16–17). From this point of view, the approach based on in-kind transfers, and specifically on lottery tickets, represents a clear cut potential improvement upon monetary subsidies, since far fewer claims must be verified by the tax administration.

Monetary subsidies to consumption are also often granted in developed countries for a variety of purposes, not least of which is fighting tax evasion. One form of subsidies is introduced by allowing deduction of a fixed percent of expenses for specific items from the income tax. In Italy, expenditures for home improvements have been partially deductible from income tax for the past ten years. The main purpose of this provision was to improve tax compliance by firms in the housing sector. New regulations in this sector have recently been introduced with the specific aim of cracking down on moonlighting. Under the 2007 financial law, those who claim the home improvement deduction must supply an invoice from the building contractor, including specification of the expenditure for labor input.

The results in terms of the reduction of tax evasion have been mixed. The bulk of claims for the subsidy[5] come from Northern Italy, which is commonly considered as less prone to tax evasion to begin with. While there are some cases of illegitimate claims under investigation there is no black market for receipts; fraud seems to arise mainly through falsified invoices furnished by firms to unsuspecting consumers. While econometric studies of this experience are not available, raw data show an increase in reported income and in the number of firms and official workers. However, taxable income in the sector is still growing at a slower rate than gross income as measured by national accounts.

[5] See Di Lorenzo et al. (2006). Data refer to the period 1998–2006.

The economics of rewards

Can monetary subsidies constitute an effective incentive for consumers to request compliance with sales taxes? Do they represent a more cost effective solution than other strategies with the same aim? One argument in favor of the reward system is that consumers have an informative advantage over tax auditors, given they are necessarily in frequent contact with suppliers. Subsidies may therefore operate as a type of sanction on firms resorting to tax evasion, so long as the consumers involved ask for compensation. Moreover, subsidies are welcomed by those entitled to claim them, and are thus more politically viable than sanctions applied to consumers participating in illegal transactions.

While these arguments are reasonable, one must also factor in the costs and the many possible undesired effects stemming from this approach. When the system works smoothly, it is likely to give rise to some kind of "market revenge" through an increase in prices. In fact, rewards represent an expansionary policy; they therefore create an opportunity for some backward shifting of benefits to the producers. Hence, the net gain of consumers is likely to be smaller than the subsidy, and one might construct extreme scenarios in which an increase in prices, net of the subsidy, may actually arise. In these cases, firms would be able to neutralize the system to a large extent. Nevertheless, the cost of hiding sales and thereby evading the tax is likely to increase somewhat, as long as the expansionary effect either on quantity or on price implies greater visibility of the activity for the tax auditor. In fact, many economic models assume that the cost of concealment increases as the value of sales rises.

Consumer reaction also plays an important role. When tax evasion is extremely common, taxpayers are likely to experience high transaction and psychological costs in resorting to tax auditors to enforce the issuing of receipts. However, if consumers bear the brunt of costs for reporting violations to the authorities, subsidies may nevertheless induce them to seek out vendors willing to offer legal transactions. Yet these efforts are also costly. Whenever a firm chooses to evade, it originates a positive externality for the whole set of suppliers by causing an increase in the search costs for the customers, i.e., it becomes increasingly difficult to find a vendor willing to engage in legal transactions. When alternatives become difficult to find, the compensation requested for accepting an illegal transaction falls. As typically happens in these cases, once a critical mass of tax evasion is reached, it can jump to much larger values. This process might also explain why, although many reward systems have proven successful at the beginning, their benefits quickly fade. As Richard Bird puts it, "Unless the public perceives a significantly improved tax administration that will actually utilize such information and enforce taxes and unless this perception is soon reinforced by action, any initial illusory effect seems likely to erode quickly, leaving the administration buried in a sea of unused (and probably often falsified) VAT receipts" (Bird 1992).

Can lotteries work?

The resort to in-kind transfers[6] seems to have one main advantage over monetary transfers. This is because at least some consumers are likely to have a large demand price for the good chosen for the in-kind transfer, even larger than its marginal cost. Thus each firm's decision to evade entails a negative externality, as it contributes to depletion of the pool of agents not so interested in the good and who are willing to accept an illegal deal for low compensation. In-kind transfers are therefore more cost effective than monetary ones as long as those who receive them value the transferred good more than its marginal production cost. A price above the marginal cost is generally seen as a source of inefficiency by economists. However, this is not necessarily the case with lotteries. Since gambling produces negative externalities, it is everywhere routinely regulated and taxed all over the world. Lotteries offer the further advantage of low administrative costs.

[6] Lottery tickets can be considered as a form of in-kind transfer.

While for an amoral taxpayer tax evasion may be seen as a form of gambling whose prize is the unpaid tax, rewards to consumers in the form of lottery tickets aim at creating a symmetrical wager, in which the prize is a share of the paid tax. This leads inevitably to smaller prizes than the tax evasion, so long as a share of the tax is kept as revenue by the state. However, the tax receipt targets agents for whom its legal character and concomitant lack of shame or stigma, potential social approval, emphasized by the media, for performing a meritorious task and an appeal to those who like gambling might contribute to its effectiveness. A further critical factor for success is the competitive nature of the market in which the system is introduced. In particular, a large number of smaller suppliers makes it more difficult to coordinate efforts to internalize the externalities. Epidemics of tax evasion are obviously still possible, unless other standard forms of intervention such as controls and sanctions can guarantee a large enough basis of compliance to make it worthwhile to seek vendors willing to trade legally.

From the point of view of equity, so long as lotteries are inferior goods they should give rise to transfers that have a larger value for the poor who receive them. On the other hand, one of the drawbacks to the lottery scheme is the possible substitution effect upon the demand for other forms of gambling supplied by the government. A more general caveat relating to both monetary transfers and lotteries concerns the potential for crowding-out effects in the realm of intrinsic (moral) motivations for paying taxes and obeying fiscal laws. This is a matter for concern, since, in a certain sense, compliance becomes conditional on some form of compensation.

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Accrual Accounting in the Public Sector

Accrual accounting is the standard accounting system in private business enterprises, while cash accounting is mainly practiced in the public sector as well as often in small businesses. A cash accounting system records income when it is received and expenditure when it is paid out, while under accrual accounting both items are recorded when they are due. Cash accounting, generally, does not report on assets, depreciation, liabilities, public debt, future benefits of assets, inter-generational flows of resources or even costs in the sense of resource use, whereas accrual-based accounting, at least in principle, does.

For some time, however, public sector accrual accounting has been gaining ground (see Table). It is an important element of the wider concept of the so-called New Public Management, which aims at increased transparency, efficiency and responsibility ("accountability") of the public sector vis-à-vis the citizens. The adoption of private business accounting standards in the public sector dates back at least to the 1850s when many major British municipalities applied accrual accounting systems (Wynne). In the

Public sector accrual accounting

Country	Introduction of accrual accounting in the public sector
Austria	Accrual accounting only partly introduced: assets are recognized, but no depreciation; stocks and provisions are not recognized, but income and expenditure are on an accrual basis.
Belgium	No or not known.
Czech Republic	Accrual accounting for fixed assets and stocks but not for tax revenues.
Denmark	During the 2000s.
Estonia	During the 2000s.
Finland	During the 1990s on central and sub-central level.
France	During the 1990s on local level; 2007 on central level.
Germany	After 2000 on local level; around 2005 in some federal states (Berlin, Bremen, Hamburg); no present consideration for the central level.
Hungary	Pure cash accounting on all levels of government.
Italy	After 2000 on local level; no present consideration for the central level.
Latvia	During the 2000s.
Lithuania	Accrual accounting for fixed assets and stocks but not for tax revenues.
Luxembourg	No or not known.
Malta	Under consideration.
Netherlands	During the 1980s on local level; planned introduction on the central level postponed.
Portugal	No or not known.
Romania	2007.
Slovenia	No or not known.
Spain	During the 1990s on central and sub-central level.
Sweden	During the 1970s on local level; during the 1990s on central level.
United Kingdom	In the early nineteenth century, accrual accounting in most major municipalities; shift to cash accounting in 1866. During the 1990s shift back to accrual accounting on central and sub-central level. The reform started in the early 1990s with the introduction of accrual accounting in the British National Health Service.
EU Commission	2005.
Switzerland	In some Cantons in the 1940s; all Cantons agreed to accrual accounting in 1977; after 2008 on national level.
Australia	1997, but only on the central level; on the local level the change is currently under way.
Canada	2001.
Chile	1973 during the economic reforms under Pinochet.
New Zealand	1990; at present on of the most advanced accrual accounting countries.
USA	1997, but only on the central level; on the local level the change is currently under way.

Sources: The table has been compiled from: FEE (2007); Tiron-Tudor and Mutiu (2005); Wynne (2003).

twentieth century, some Swiss Cantons were the first to introduce this accounting standard (during the 1940s). Chile, in the radical economic reform phase of the Pinochet era, seems to be the first country in the world to introduce accrual accounting on a central government level (1973). New Zealand was the next country to follow (1990), employing at present accrual accounting in a most extensive and elaborate way. Since 2000, in some cases even earlier, there was a wave of European countries turning to public sector accrual accounting: The Northern European countries Denmark, Finland and Sweden, the Baltic countries Estonia, Latvia and Lithuania, some Central Eastern European countries, but also France, Spain and the United Kingdom. Outside Europe, Australia, Canada and the United States adopted central government accrual accounting before the turn of the millennium. Some countries started the reform on the local, some on the central government level. The European Commission, well ahead of its own introduction of accrual accounting (which happened finally in 2005), had surged the entry candidates to adopt the new system (with success).

Accrual accounting may come in quite different formats. At present, only a minority of countries follows the norms of the International Public Sector Accounting Standards (IPSAS) of the International Federation of Accountants/Public Sector Committee. Competing standards are offered, e.g., by the OECD and by Comparative International Accounting Research (CIGAR). The Box lists some of the many aspects under which accrual accounting may be differently applied.

Box

Possible differences in public sector accrual accounting

- Comprehensive application: for all or only for some government entities
- Full application: statements of financial position, of financial performance, cash flow statements plus link between the three statements
- Application for budgeting and/or for accounting
- Consolidation: for the whole government sector or for central government entities only
- Authorization by the legislature: for cash expenditures or costs and/or obligations
- Valuation of assets: at historical costs or current value
- Range of assets recognised: land, infrastructure, buildings, military assets, assets under construction, stocks
- Treatment of depreciation and maintenance costs
- Valuation of liabilities
- Range of liabilities recognised: e.g., state pensions
- The generally accepted classification: is applied to fixed and current assets, liabilities; equity as a balancing item
- Provisions: recognised or not

Sources: The box has been compiled from: FEE (2007) and Dees and Neelissen (2004).

The fundamental debate, however, whether it is useful – and worthwhile – to shift public accounting to an accrual basis, is evidently not over. Some countries have resisted changing their cash-based accounting, at least with regard to the central level. This is the case, for example, in Hungary, Germany and Italy. The Netherlands have postponed a decision about an adoption of accrual accounting on the central level for some years.

The main points of principal concern seem to be the following: First, is it really adequate to use an accounting system in the public (not for profit) sector that has been developed for the private (for profit) sector? While accrual accounting may render relevant information for actual and potential shareholders, this may be different for the public sector, where the stakeholders are the electorate. For the latter, solid information about the tax system may be more relevant than an accrual-based public balance sheet. Second, transparency on resource use and comparability of performance are enhanced by accrual accounting, but this may come at the expense of reduced transparency and monitoring of (cash) expenditures. Third, accrual accounting may provide better insight into highly relevant features of public actions, but only to those persons able to read the statements of accrual budgeting, while cash accounting statements are more easily to understand for the general public. Fourth, in principle – as well as in practice – it is possible to supplement cash-based financial statements by additional information regarded as relevant, e.g. on assets, pensions and the change in value of such items. However, the logical link may be lacking. Fifth, accrual-based accounting does not necessarily and automatically reveal all important information it, in principle, contains. Wynne, for example, reports on the backlog of maintenance in the British National Health Service which was not reported and detected with the introduction of accrual accounting in this sector. Finally, accrual accounting is costly. The introduction alone is a long process.

Moreover, to run the system many more qualified accountants are necessary than before.

R.O.

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Environmental Taxes

Environmental taxes are designed to change behaviour and to reduce environmental externalities. They deliver a first dividend in terms of an improved environment. At the same time environmental taxes raise public revenues. These revenues can be used to cut labour taxes. If we can assume that direct taxes on labour affect employment negatively, environmental taxes can generate a "double dividend": better environmental protection and higher employment.

Whereas all OECD member countries have introduced environmental taxes to a certain degree, only some countries have implemented more comprehensive environmental tax reforms since the beginning of the 1990s. Denmark, Finland, Germany, the Netherlands, Norway, Sweden and the United Kingdom are these countries (Table). Their reforms are aimed at increasing environmental taxes on the one hand, and cutting labour taxes on the other. The tax cuts have focused especially on employers' social security contributions and on personal income taxes. The tax shifts undertaken have as a rule been relatively small, ranging from 0.1 percent of total tax revenues in the United Kingdom to 0.5 percent in the Netherlands. Major shifts have taken place only in Germany (1.8 percent of total tax revenues), Sweden (2.4 percent) and Denmark (6 percent). As ex post evaluations of the environmental tax reforms are scarce, their indirect effects on employment are not known exactly (OECD 2007).

In 2004 environmental taxes represented on average about 2.5 percent of GDP in OECD countries (OECD/European Energy Agency database on instruments used for environmental policy). To increase environmental tax revenues, emphasis could be put on the industrial consumption of energy. Compared to household consumption industrial energy consumption is in many cases taxed less, and heavy polluters often obtain exemptions.

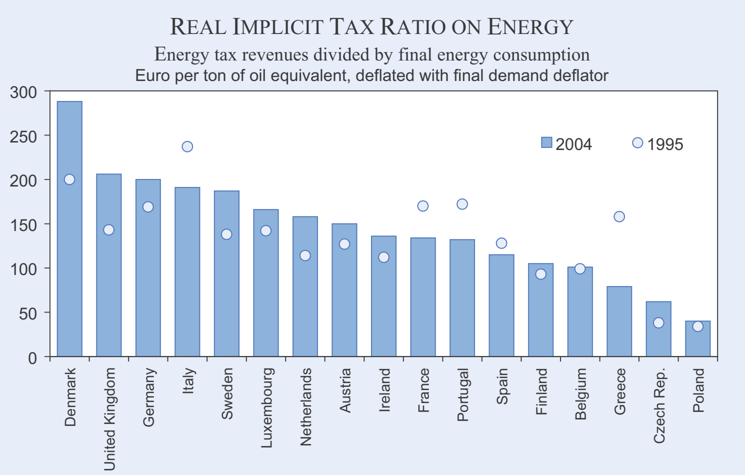
According to the European Commission there are barriers limiting the increase of environmental tax revenues that could be used for cutting labour taxes. Some of the revenue is often earmarked to compensate polluters from the costs associated with the tax. Furthermore it is assumed that environmental taxes would harm the competitiveness of energy-intensive industries. In addition, the assumption that there is a long-term trend of higher oil prices is used as an argument not to increase environmental taxes at the same time. And finally the growing popularity of non-fiscal instruments, such as emissions trading, has led to the reduction in additional environmental taxation (European Commission and Eurostat 2006). In the European Union, the implicit tax rate calculated for energy (in euros per ton of oil equivalent) shows that taxation has been declining on average since

Green tax reforms

	Start year	Taxes raised on	Tax cut	Magnitude
Denmark	1994	Various[a)] CO_2 SO_2	Personal income tax Social security contributions Capital income	Around 3% of GDP by 2002, or over 6% of total tax revenue
Germany	1999	Petroleum products	Social security contributions	Around 1% of total tax revenue in 1999 and 1.8% in 2002
Netherlands	1996	CO_2	Corporation tax Personal income tax Social security contributions	0.3% of GDP in 1996, or around 0.5% of total tax revenues in 1999
Norway	1999	CO_2 SO_2 Diesel oil	Personal income tax	0.2% of total revenue in 1999
Sweden	1990	CO_2 SO_2 Various	Personal income tax Energy taxes on agriculture Continuous education	2.4% of total tax revenue
United Kingdom	1996	Landfill	Social security contributions	Around 0.1% of total tax revenues in 1999
	2001	Energy (for industry)	Social security contributions	0.2% of total tax revenues in 2002 for the climate change levy

[a)] Gasoline, electricity, water, waste and cars.

Source: OECD (2007), p. 190.



Source: Eurostat (2006), Structures of the Taxation Systems in the European Union - Data 1995–2004, Luxembourg.

1995 and especially since 1999, due to a decrease in Italy, France, Portugal, Spain and Greece that has offset increases in the majority of other countries (Figure). This tendency may change, however, if the growing prominence of the climate change debate translates into action.

W.O.

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Monetary Policy Implementation

While the ultimate goals of monetary policy – price level stability and a contribution to economic growth – are since long undisputed, the way of realising these goals has undergone considerable changes. Until the 1980s, influenced first by Keynes and later by Milton Friedman, the view dominated that a central bank should try to steer some reserve aggregates of the banking sector. Via the money (or credit) multiplier, the change of the reserves would influence various (non-reserve) monetary aggregates and, finally, impact on the ultimate goals of central bank policy. Instead of this "reserve doctrine position" of monetary policy, today it is a generally accepted view that a central bank has to steer short-term interest rates in order to meet its goals. This change of the general orientation of central bank policy means a revival of what major central banks, like the Bank of England or the German Reichsbank, did prior to 1914, namely controlling the short-term interest rates.

In a recent article Bindseil and Nyborg (2007) consider nine important central bank systems and analyse similarities and differences of their monetary policy implementation (see Table). Typically for the new view, the operational target is a short-term interest rate which is often the overnight interbank interest rate. In several cases, this target is, however, only an implicit one, while the explicit target is the rate for repo operations (repurchase – sale and purchase – of securities). But there are some exceptions. One is Switzerland where the three month Libor for Swiss francs is targeted. Another exception is Russia where the operational target is the change (or no change) of the real exchange rate.

The target is controlled by certain instruments which make up the operational framework of monetary policy. This framework again typically consists of

Characteristics of monetary policy implementation

Central Bank system	Operational target	Frequency of repo operations	Borrowing and deposit facility, at penalty level?	Reserve requirements
Euro area	Minimum bid rate in weekly repos	Weekly	Both facilities existing, at penalty level	2% of deposits and debt securities with maturities up to two years
Denmark	Discount rate	Two weekly operations in parallel: one liquidity absorbing, one providing	No borrowing facility; light penalty	n.a.
Norway	Deposit rate	No standard frequency	Both facilities existing, penalty only on borrowing fac.	n.a.
Sweden	Rate of weekly fixed rate repo operations	Weekly	Both facilities existing, at penalty level	n.a.
Switzerland	Target rate for the three months Libor	Daily	No deposit facility	2.5% of liabilities with a maturity of 90 days
UK	Rate of fixed rate repo operations	Weekly	Both facilities existing, at penalty level	Banks choose themselves their reserve requirements up to a certain maximum
Belarus	Refinancing rate being an administrative rate adopted by the financial sector	Weekly	Both facilities existing, at penalty level	5% of local currency deposits from households; 10% of local currency deposits from firms; 10% of foreign exchange deposits
Russia	Rate of change of real exchange rate	Overnight repo: twice a day; 3 month repo: once a month; 1 or 2 week repo: once a week	Both facilities existing, at penalty level	2% for liabilities to non-residents; 3.5% for all other
US	Overnight interest rate	Almost daily	No deposit facility	Different levels; maximum 10% of transactions deposits

Note: In their article the authors provide much more information on the conduct of monetary policy than is compiled in this table.

Source: Compiled from: Bindseil and Nyborg (2007).

open market operations, standing facilities and reserve requirements. In order to use these instruments effectively, it is important to employ considerable resources to forecast the development of factors not under control of the central bank, like banknotes in circulation, foreign exchange reserves or government current accounts.

Open market operations are primarily conducted through repos (and less often through the outright holding of securities). The frequency of such operations differs between one per day and one per week. While the initiative for repo operations rests with the central bank, standing facilities are under the initiative of the commercial banks. In most cases, the standing facility consists of a borrowing (liquidity creating) and a deposit (liquidity absorbing) facility and there is a penalty to be paid for the use of both facilities. The standing facility is one factor which permits the central bank not to be daily active on the open market. Another factor in this respect is the reserve requirements that are imposed by most central banks. In contrast to the earlier treatment of reserves, today they are often remunerated at market rates. The Bank of England, which had long since not imposed reserve requirements, is now introducing reserves on a voluntary basis.

R.O.

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Referral to Active Labour Market Programmes

Over the past few years the "activation" of the unemployed has become part of the employment strategy in many countries. A variety of instruments are used to "activate" jobseekers. The OECD has collected information on these instruments by sending a questionnaire on "Interventions in the Unemployment Spell" to member states. Here we want to present the results concerning obligatory or voluntary entry into Active Labour Market Programmes (ALMPs). These results are shown in more detail in OECD (2007).

The Table (column 1) shows that countries with obligatory programmes are Australia (after an

Participation in active labour market programmes (ALMPs)

	Compulsory participation after some set unemployment duration (Yes/after how many months/No)	Compulsory when referred by Public Employment Service (Yes/No)	Continuing job-search requirement (R) and verification (V) during participation in ALMPs
Australia	Yes, six months for all aged 18 to 49	Yes	R, V
Austria	No	Yes	No
Belgium	No	Yes	R, V (VDAB)
Canada	No	No	No
Czech Republic	No	No	R, V
Denmark	Yes, six months for unemployed under 30 and over 60; nine months for all others	Yes	R
Finland	No	Yes, if a measure is contained in an individual action plan	R
France	No	Yes	No
Germany	No, but unemployment assistance (UBII) recipients below age 25 can be referred immediately	Yes	Variable requirements
Greece	No	Participation »strongly encouraged«	No
Hungary	No	Yes	No
Ireland	No	Yes	No
Italy	No	Yes	No
Japan	No	No	No
Korea	No	No	No
Luxembourg	No	Yes	No
Netherlands	Yes, one month/six months (start of »reintegration trajectory«)	Yes	No reply
New Zealand	No	Yes, if a measure is contained in an individual action plan	Variable requirements
Norway	No	Yes	No
Poland	No	Yes	No
Portugal	No	Yes	No
Slovak Republic	No	No	R, V
Spain	No	Yes	No
Sweden	Yes, at 28 months at the latest	Yes	R, V
Switzerland	No	Yes	R, V
Turkey	No	No	No
United Kingdom	Yes, ten months for youths, 22 months for adults 25–49	Yes	No
United States	No	No	R and possibly V in some states

Source: Compendium of national replies to the OECD Secretariat questionnaire on »Interventions in the Unemployment Spell«.

employment spell of six months for ages 18 to 49), Denmark (nine months for ages 30 to 60 and six months for youths), Sweden (28 months for all) and the United Kingdom (22 months for ages 25 to 49 and ten months for youth). In Germany "unemployment benefit II" recipients below the age of 25 are immediately referred to an ALMP if no jobs are available for them. In the Netherlands unemployed persons, judged to be at some distance to the labour market, are contracted out to private and community providers.

Finland indicates that offers usually start at 12 months for adults and three months for youth, and they tend to be obligatory when the respective activity is contained in the client's individual action plan (which is often the case). Thirteen other countries (Austria, Belgium, France, Hungary, Ireland, Italy, Luxembourg, New Zealand, Norway, Poland, Portugal, Spain, Switzerland) note that, while there is no general obligation to enter programmes at a certain stage in the unemployment spell, benefit recipients nevertheless need to comply with a referral to an ALMP by a Public Employment Service counsellor. Seven countries indicate that participation in ALMPs is not compulsory (Table, column 2).

Little information is available on the percentage of unemployed reaching the month when an obligation to participate in an ALMP takes effect. In the United Kingdom, only 11 percent of the inflow reaches the New Deal "gateway" period. In the Netherlands, about one third of the Centres for Work and Income inflow is categorised in "phases" (profiling groups), two to four that are soon transferred to an external provider. For the other countries, rough estimates were about 15 percent in Sweden and as high as a quarter or more in Australia, Denmark and Finland.

According to the experience with ALMPs it is advisable to leave participants time for continuing job search, and for the Public Employment Service to verify that job search. In the third column of the Table there are answers to the question as to the extent to which participants in training and job creation programmes still have to prove continuing independent job search or attend interviews with the Public Employment Service. Sixteen countries indicate that such persons were exempt from job-search obligations. In seven countries (Australia, Belgium, the Czech Republic, Slovakia, Sweden, Switzerland and some US states) job-search requirements and verification continue. In Denmark and Finland the principle of job search is upheld, but no regular reporting to the Public Employment Service seems to be required. In Germany and New Zealand the requirements are variable.

W.O.

Reference

OECD (2007), Employment Outlook, Paris, 229–31.
For more information on "Interventions in the Unemployment Spell", see CESifo DICE database.

International Recruitment of Health Professionals

In all OECD countries there is a high demand for health professionals. In recent years the demand is increasing and because of the ageing population this demand will continue to rise. Due to this fact, the "International Migration Outlook" of the OECD analyses the migration policies in OECD countries, especially the international recruitment of health professionals.

In 2000 11 percent of the employed nurses and 18 percent of the employed doctors in OECD countries were foreign born. The percentage of foreign-born doctors ranges from less than 5 percent in Japan and Finland to more than 30 percent in Australia, Canada, Ireland, New Zealand and the United Kingdom. The medical care in these countries depends strongly on foreign health professionals. The entry of foreign professionals into the national labour markets is often regulated within the scope of general immigration policies.

Very few countries, however, have special migration policies for health professionals. Those countries are Australia, New Zealand, the United States (with the H-1B visa, which governs the temporary immigration of doctors and other skilled professionals), the United Kingdom and Italy (Table 1, columns 1 and 2). Australia allows foreign medical practitioners to work there for a maximum of four years; the stay has to be sponsored by an employer. Australia and New Zealand grant special points for health professionals as part of their general immigration policy. In addition Australia has special programmes for attracting foreign health professionals (e.g. foreign-trained doctors) to areas with a workforce shortage in this field.

As mentioned above in the United States doctors can immigrate with an H-1B visa. Apart from this possibility, foreign medical graduates can complete their graduate medical education in the US under a J-1 visa. Afterwards they normally have to return home. At the request of a State or Federal agency they can, however, stay if they agree to practice as a physician in an underserved area for at least three years. In Canada there are special immigration programmes for the provinces and territories.

In the United Kingdom all doctors from outside the European Union require a work permit. In September 2006 the Medical Training Initiatives (MTI) was introduced, which allows foreign-trained doctors to undertake continuing training within the National Health Service (NHS).

In many countries work permits are generally granted for a limited period and conditioned on a labour market test (i.e., in Europe, checks that there are no EU residents available to fill the position). There are, however, countries where the labour market test may be waived. This is the case in Belgium, Denmark, Ireland, the Netherlands, Spain and the United Kingdom for occupations on the shortage list. In all these countries health professionals are included in the shortage lists (Table 1, column 3). Furthermore, no labour market test is necessary for highly skilled workers in Belgium,

Table 1

Migration programmes for foreign health professionals (HP)

	Specific migration programmes for HP or specific conditions may apply	Specific migration programmes for HP in underserved areas or specific conditions in regional migration programmes	HP are included in labour shortage lists
Belgium			Yes
Denmark			Yes
Ireland			Yes
Italy	Yes		
Netherlands			Yes
Portugal			Yes
Spain			Yes
United Kingdom	Yes		Yes
Australia	Yes	Yes	Yes
Canada		Yes	Yes
New Zealand	Yes		Yes
United States	Yes	Yes	
For the recognition of foreign qualifications in Austria, Belgium, Canada, Czech Republic, Denmark, Ireland, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland and United Kingdom: Exams and if necessary a supervision period or additional training are required. In Finland, France, Germany, Greece, Italy, Luxembourg, Turkey, Japan and United States condition on nationality, national qualifications required or other types of stringent conditions apply. In Australia and the Netherlands conditional/limited registration may be possible under simplified procedures.			

Source: OECD, International Migration Outlook, SOPEMI 2007, Paris 2007, p. 191.

Table 2

Bilateral agreements for the recruitment of health professionals

	Bilateral agreements relevant for the recruitment of health professionals
France	Bilateral agreement to recruit Spanish nurses started in 2002 was ended in December 2004 (1,364 have been recruited in this framework).
Germany	Recruitment of foreign nursing aids is organised within bilateral agreements (no labour market test). In 2005, such agreements were signed with Croatia, Ukraine as well as Poland, Slovenia, the Czech Republic and the Slovak Republic, Bulgaria and Romania.
Ireland	No, formal agreement but close links have been established with the Philippines for nurses.
Italy	Yes, some Italian regions have signed bilateral agreements notably with Romanian provinces (e.g. Parma with that of Cluj-Napoca or Veneto with Timis County). There are also semi-formal links with Spain to recruit Spanish nurses.
Spain	Spain and the Philippines have agreed to develop a pilot project to recruit personnel for nursing homes (no nurses or doctors). Spain has also signed agreements with other EU countries (UK, FRA…) to send Spanish nurses abroad.
United Kingdom	Recruitment agreements with China, Spain and India. Memorandum of understanding with the Philippines. Agreement with South Africa for reciprocal education exchange of health workers.
Switzerland	Bilateral agreement with the EU Agreement Protocol with Canada to facilitate migration notably of Canadians in the health sector.
Turkey	No, however, within the context of EU accession (free movement of workers, recognition of qualifications and diplomas) preparatory work has been started.
Australia	No, except with New Zealand (Trans-Tasman Mutual Recognition Arrangement).
Canada	North American Free Trade Agreement (NAFTA).
Japan	Japan-Philippines Economic Partnership Agreement (JPEPA): nurses with 3 years experience and a contract with a hospital can stay for 3 years to obtain a Japanese qualification, including pursuing a language course and following a supervised training.
New Zealand	No, except with Australia (Trans-Tasman Mutual Recognition Arrangement).
United States	No, except with Canada and Mexico with the North American Free Trade Agreement (NAFTA).
No bilateral agreements except within the EU for Austria, Belgium, Czech Republic, Denmark, Finland, Greece, Luxembourg, Netherlands, Poland, Portugal, Slovak Republic, Sweden and Norway. Denmark, Finland, Norway and Sweden have an additional agreement on a Common Nordic Labour Market.	

Source*:* OECD, International Migration Outlook, SOPEMI 2007, Paris 2007, pp. 218–28.

Denmark, France, Germany and the Netherlands if the wage is above a certain threshold.

Bilateral agreements for the international recruitment of health professionals are less important. Only few countries use this instrument. Canada and Switzerland have signed an agreement protocol to support the mobility between the two countries. Because of its surplus of nurses Spain has signed bilateral agreements with France and the United Kingdom to offer nurse aid. Especially for the recruitment of foreign nurses Germany has signed agreements with several central and eastern European countries, with Italian regions, with Romanian regions and with Japan and the Philippines. The United Kingdom has signed bilateral agreements with China, India and Spain to recruit health professionals, a memorandum of understanding with the Philippines and an agreement with South Africa for mutual education exchange of health workers. Australia and New Zealand agreed upon the mutual recognition of medical qualifications (Table 2).

N.H.

Reference

OECD (2007), International Migration Outlook, SOPEMI, Paris, 162, 190–94, 218–28.

Anti-Discrimination Regulation

Anti-discrimination principles are, on the face of it, a good thing: the idea that all men are created equal leads naturally to the notion that no one ought to be discriminated against on any grounds at all. Politically and morally, such a stance is unassailable, and so, unsurprisingly, equality before the law features under various formulations in the political charters of all OECD countries. And yet, many countries have felt compelled over the years to regulate this area with a wide-ranging array of special anti-discrimination rules. How has anti-discrimination legislation evolved through time in OECD countries, and what are the economic effects of such initiatives?

The table below gives an overview of the development of anti-discrimination legislation in some OECD countries over the past 50 years. Anti-discrimination concepts were first introduced – understandably from a historical point of view – in the once-strictly segregated US and in class-ridden UK, starting in the 1960s and 1970s, beating by a generation welfare-state Europe. The US Civil Rights Act of 1964, enacted almost exactly one century after the American Constitution set its famous "All Men are created equal" precept in stone, forbade discrimination "on the ground of race, colour or national origin in voting, enjoyment of the goods, services, facilities and privileges, advantages and accommodations of any place of public accommodation, education, [and] employment opportunity". Canada and the UK followed in the 1970s. Continental Europe, by contrast, waited until this past decade to introduce a wave of initiatives for anti-discrimination legislation.[1] The wave was triggered by two EU directives, one forbidding racial or ethnic discrimination in every walk of life and the other setting an array of criteria (namely gender, disability, age, racial or ethnic origin, religion or belief, sexual orientation) according to which no one can be discriminated against, in particular in the labour market.[2] Both guidelines have meanwhile – albeit under various formulations – been enacted by the member countries.

The ethical and political motivation behind such legislation is, as already stated, obvious: discrimination is not reconcilable with our sense of justice. But what are the economic implications of such legislation? In particular, are across-the-board principles always economically sensible? There are some grounds for doubt on this.

Discrimination can indeed lead to economic inefficiencies, justifying the introduction of regulation to deal with it. Take the example of gender-based discrimination. A gender-based division of labour, norms and customs determining kinds of work women or men may or may not perform, and labour laws initially created to protect women from harmful forms of work can often result in rigidities in the allocation of labour that lead to inefficiencies and lower output. A study of 11 Latin American and Caribbean countries, for example, suggests that the segregation of the labour market by gender reduces women's wages moderately to substantially while boosting men's wages very little (Tzannatos 1999; World Bank 2001). That implies that a less segregated labour market would increase total output. Gender inequality in education – given that boys and girls have a similar distribution of innate abilities – means that the average ability of those who get educated is lower than it would be without such a gender bias, leading to a waste of human capital. This, in turn, has a negative effect on economic growth that has been empirically demonstrated to be substantial (Klasen 1999).

Hence anti-discrimination regulation can improve efficiency, but it needs to be formulated carefully if it is not to achieve the opposite. Even when introduced for the best of reasons, it can have quite problematic consequences from the economic point of view. This applies especially to very generalised principles. One example of such a very generalised norm is the anti-discrimination regulation as formulated in the current version of the European Draft Constitution.[3] The Constitution draft, as well as the not yet binding Charter of Fundamental Rights of the European Union, contains a wide-reaching formulation on anti-discrimination regulation:

[1] The Treaty of Amsterdam transferred to the EU extended faculties in the area of anti-discrimination regulation, granting thereby the discrimination topic much higher relevance. The corresponding guidelines for the implementation of these competencies were enacted by the EU in 2000.

[2] EU-Directive 2000/43/EC of 29 June 2000, implementing the principle of equal treatment between persons irrespective of racial or ethnic origin and EU-Directive 2000/78/EC of 27 November 2000 establishing a general framework for equal treatment in employment and occupation.

[3] This draft was approved at the European Council in Brussels and signed in Rome in 2004 by all 25 member states. The constitutional treaty opened a period of ratification to be finished by October 2006, but after the rejection of the text by French and Dutch citizens, the member states agreed on allowing a , which in effect meant that the deadline for ratifying the treaty was prolonged indefinitely. Hence the text is not (yet) legally binding.

Anti-discrimination legislation in selected OECD countries[a)]

	Anti-discrimination was already anchored in the Constitution																Specific anti-discrimination regulation (Year: Title of the law: Criteria)
	General	Sex	Disability	Health	Age	Nationality	Ethnic origin	Race	Origin	Belief/ Religion	Political opinions	Education	Wealth/ Ec.Status	Societal Status	Language	„Other“	
EU																	**2000: Directive 2000/43/EC (Racial Equality Directive):** equal treatment irrespective of racial or ethnic origin **2000: Directive 2000/78/EC (Employment Framework Directive):** equal treatment in employment and training irrespective of religion or belief, disability, age or sexual orientation in employment, training and membership and involvement in organisations of workers and employers. Allows for limited exceptions to the principle of equal treatment.
Austria	✓	✓	✓							✓				✓			**2004: 66. Federal Law (Gleichbehandlungsgesetz):** equal treatment in employment irrespective sex, ethnic origin, religion, beliefs, age, sexual orientation; equal treatment in all areas of social life irrespective ethnic origin.
Belgium	✓																**2003:** disability, age
Bulgaria	✓					✓	✓	✓			✓		✓	✓			**2004: Anti-discrimination law:** sex, race, nationality, ethnic origin, citizenship, origin, religion or belief, education, opinions, political belonging, personal or public status, disability, age, sexual orientation, marital status, property status
Denmark									✓	✓	✓						**2003: Act No. 374 (on Ethnic Equal Treatment):** race **2005: Act No. 31**: age and disability discrimination at labour market
Estonia	✓	✓				✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	**1992, 1999-2004: Employment Contracts Act:** sex, racial origin, age, ethnic origin, level of language proficiency, disability, sexual orientation, duty to serve in defence forces, marital or family status, family-related duties, social status, representation the interests of employees or membership in workers' associations, political opinions or membership in a political party or religious or other beliefs.
Finland	✓	✓	✓	✓	✓				✓	✓	✓				✓	✓	**2004: Equality Act (L21 2004):** age, ethnic or national origin, language, religion, beliefs, opinions, health, disability and sexual orientation. The Act applies to education as well as to the labour market
France	✓							✓	✓	✓							**2001:** race, religion or belief, disability, age or sexual orientation in employment, training and membership and involvement in organisations of workers and employers **Law No. 2005/102:** disabilities **Law No. 2001-1066**: fighting discrimination in employment **Law No. 2002-73:** law on social modernisation
Germany	✓	✓	✓					✓	✓	✓	✓				✓		**2006: General law on equal treatment (Allgemeines Gleichbehandlungsgesetz):** race, ethnic origin, sex, religion, belief, disability, age, sexual orientation
Greece	✓	✓				✓	✓	✓		✓	✓				✓		**2005: Act 3304:** race, ethnic origin, religion or belief, disability, age or sexual orientation
Hungary	✓	✓				✓		✓	✓	✓	✓		✓			✓	**2003: Act CXXV/2003 on Equal Treatment and Promotion of Equal Opportunities:** sex, racial origin, colour, nationality, origin of national or ethnic minority, mother tongue, disability, state of health, religious or ideological conviction, political or other opinion, family status, motherhood (pregnancy) or fatherhood, sexual orientation, sexual identity, age, social origin, financial status,

(Table continued 1)

	Anti-discrimination was already anchored in the Constitution																Specific anti-discrimination regulation (Year: Title of the law: Criteria)
	General	Sex	Disability	Health	Age	Nationality	Ethnic origin	Race	Origin	Belief/ Religion	Political opinions	Education	Wealth/ Ec.Status	Societal Status	Language	„Other“	
Hungary continued																	part-time nature or definite term of the employment relationship or other relationship aimed at work, membership in an organisation representing employees' interests, any other status, characteristic feature or attribute
Ireland	✓																**1998: Employment Equality Act** **2000: Equal Status Act; 2004**: Equality Act: transpose EU's the Racial Equality Directive & Employment Framework Directive
Italy	✓	✓						✓		✓	✓			✓	✓		**2003: Government decrees No. 215, No. 216:** transpose EU's the Racial Equality Directive & Employment Framework Directive
Latvia	✓																**2001-2006: Labour code:** race, skin colour, gender, age, disability, religious, political or other conviction, ethnic or social origin, property or marital status or other circumstances
Lithuania	✓	✓				✓		✓	✓	✓	✓			✓	✓		**2005: Law on equal treatment:** age, sexual orientation, disability, race, ethnic origin, religion or beliefs
Luxembourg	✓																**2006:** Legislation transposing EU's the Racial Equality Directive & Employment Framework Directive
Netherlands	✓	✓						✓		✓	✓					✓	**2004: Equal Treatment Act as amended by the EC Implementation Law:** religion, belief, political orientation, race, gender, nationality, sexual orientation, civil status, disability or chronic illness, age, duration of employment relation (fulltime or part-time), temporary or permanent employment contract)
Poland	✓	✓															**2000: Dyrektywy 2000/43/WE; dyrektywy 2000/78/WE:** transpose EU's the Racial Equality Directive & Employment Framework Directive
Portugal	✓	✓						✓	✓	✓	✓	✓	✓	✓	✓		**1999: Law 134 and 2004: Law 18:** race **2003: Law 99 and 2004: Law 35:** legislation implementing both EU-Directives in the employment related field
Romania	✓																**2002: Law No. 48/2002:** proclaims the principle of equality between all citizens and the prohibition of all discrimination, notably those based on gender **2003: Law No. 53** (Labour Code)
Slovak Republic	✓	✓				✓	✓	✓		✓	✓		✓	✓	✓		**2001-2006: Labour Code (collection of laws):** sex, marital status and family status, race, colour of skin, language, age, state of health, belief and religion, political or other conviction, trade union activity, national or social origin, national or ethnic group affiliation, property, lineage or other status
Slovenia	✓	✓				✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	**2002-2004:** Legislation implementing EU's Racial Equality and the Employment Framework Directives though: 2002: The Employment Relations Act (42/2002) 2004: Implementation of the Principle of Equal Treatment Act 2004: The Vocational Rehabilitation and Employment of Disabled Persons Act

(Table continued 2)

	Anti-discrimination was already anchored in the Constitution																Specific anti-discrimination regulation (Year: Title of the law: Criteria)
	General	Sex	Disability	Health	Age	Nationality	Ethnic origin	Race	Origin	Belief/ Religion	Political opinions	Education	Wealth/ Ec.Status	Societal Status	Language	„Other“	
Spain	✓	✓						✓	✓	✓	✓			✓	✓	✓	**2003: Law 62/2003** (Legislation implementing EU's Racial Equality and the Employment Framework Directives on fiscal, administrative and social measures)
Sweden		✓					✓			✓							**2002: Law of 12 May 2002:** ethnic origin, religion, belief, gender, disability, sexual orientation **2003: Swedish Racial Equality Directive:** race or ethnic or national origins
United Kingdom																	**1976, 2003: The Race Relations Act 1976; Amendment Regulations in 2003:** race, ethnic or national origins **2003: The Employment Equality (Sexual Orientation) Regulations 2003:** sexual orientation **2003: The Employment Equality (Religion or Belief) Regulations 2003:** religion, belief **1995: Disability Discrimination Act; Amendment Regulations in 2003:** disability **1998: Human Rights Act; Art. 14, Prohibition of Discrimination:** The enjoyment of the rights and freedoms set forth in this Convention shall be secured without discrimination on any ground such as sex, race, colour, language, religion, political or other opinion, national or social origin, association with a national minority, property, birth or other status. **2006: The Employment Equality (Age) Regulations 2006:** age
Canada	✓	✓	✓		✓	✓	✓	✓		✓							**1976-77; 2005: Canadian Human Rights Act:** race, national or ethnic origin, colour, religion, age, sex, sexual orientation, marital status, family status, disability or conviction for an offence for which a pardon has been granted. **1995: Employment Equity Act:** achieve equality in the workplace, correct the conditions of disadvantage in employment experienced by women, aboriginal peoples, persons with disabilities and members of visible minorities
United States	✓																**1963: Equal Pay Act:** Gender equality of payment for equal work in the same establishment **1964: Civil Rights Act:** race, colour or national origin in voting; enjoyment of the goods, services, facilities, and privileges, advantages, and accommodations of any place of public accommodation; education; employment opportunity **1965: Executive Order 11246:** race, colour, religion, sex, or national origin in government employment and in employment by government contractors and subcontractors **1972: Title IX, of the Education Amendments:** gender under education program or activity receiving Federal financial assistance 1973: Rehabilitation Act: disabilities **2002-2005: Affirmative Action Program Regulations:** Special Disabled Veterans and Veterans of the Vietnam Era and Individuals with Disabilities **2004: Age Discrimination in Employment Act:** age **2004: Americans with Disabilities Act:** disabilities

[a] All information on anti-discrimination regulation given in the table will be available shortly – in more detail – on the DICE website.

Source: Compilation by the author. For detailed source information please refer to the DICE Database

Non-discrimination (current Draft of the European Constitution, Annex 1, Article 21 (2))

1. Any discrimination based on any ground such as sex, race, colour, ethnic or social origin, genetic features, language, religion or belief, political or any other opinion, membership of a national minority, property, birth, disability, age or sexual orientation shall be prohibited.
2. Within the scope of application of the Constitution and without prejudice to any of its specific provisions, any discrimination on grounds of nationality shall be prohibited.[4]

This wording is far more generalised than the EU's anti-discrimination regulation currently in force, and the strict implementation of this article could bring about severe economic problems.

A general prohibition of gender discrimination – without differentiating according to the concrete context – would for instance pose tremendous difficulties for the . It is an empirical fact that life expectancy of women is significantly higher than that of men. Forbidding one side of the market – namely the insurance companies – to make use of this information, which is available for both sides of the market, in their optimisation algorithms creates a market with adverse selection and can thus lead to market failure (Akerlof 1970). For the same reason, prohibiting any discrimination based on age or disabilities would be problematic. The functioning principle of the entire health insurance industry would be placed in jeopardy, as it is based upon the unequal distribution of age or health condition. To ban discrimination on the basis of national origin could also cause severe distortions: in the current situation of large income differentials between old and new EU member states it could bring about unrestricted migration into the social welfare systems of the wealthier members.

The upshot is that the introduction of anti-discrimination legislation calls for a prior careful analysis of its possible consequences in the economic arena, resisting the temptation of applying blanket-wise rhetorically flawless general principles whose practical consequences have not been duly examined. This makes anti-discrimination regulation a highly topical subject.

J. A.; N. H.

[4] Draft of the EU Constitution, Annex 1, Article 21 (2). Official Journal of the European Union, 2004/C 310/01 Treaty establishing a Constitution for Europe C 310, Volume 47, 16 December 200. http://europa.eu.int/eur-lex/lex/JOHtml.do?uri=OJ:C:310:SOM:EN:HTML, accessed on 21 September 2007.

All information on anti-discrimination regulation given in the table will be available shortly – in more detail – on the DICE website.

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New at DICE Database

In the third quarter of 2007 about 80 additions of new or updated tables on different topics have been made to the institutions database DICE. (*D*atabase for *I*nstitutional *C*omparisons in *E*urope; free access: www.cesifo.de/DICE). Examples of new country-comparative information include the following subjects (in table format):

- *Labour market:* Relative minimum wage levels, 2000 – 2005; Average net replacement rates for unemployed; Coverage, source of funds and qualifying conditions for unemployment benefit; Average annual hours actually worked; Activating the unemployed: Registration procedures, benefit entitlement and confirmation of status.
- *Pensions:* Evolution of the size of pension funds; structure of assets of pension funds; standard statutory age of entitlement to public old-age pensions.
- *Public finances:* General degree of decentralization; function-specific decentralization ratios; Board composition, board functions in state-owned enterprises;
- *Social policy:* Duration of the poverty spell; Gini coefficient; Total transfers received by households.
- *Enterprise environment:* Board and leadership structure; Bankruptcy regulations: Initiators and priority of claims, Role of creditors and managers, Handling and parties of the bankruptcy procedure.
- *Health:* Average length of stay for acute care; Health situation: life style; Overweight or obese population; Absenteeism from work due to illness;

Forthcoming Conferences

Do We Need National or European Champions?
16–17 November 2007, in Munich

EU countries are deeply divided about the role of industrial policy, with preferences ranging from neo-liberal approaches to strong government support for national champions. Does this facilitate the sell-out of national economies with hands-off governments, or do interventionist governments hurt themselves because they create huge and inefficient corporations? Is economic patriotism legitimate? Should other EU members counter by adopting similar national policies? Do we need a common industrial policy that supports European champions? What is the best way of unleashing Europe's innovation potential? These questions are central to the future position of the European market in the international division of labour and yet, the views about the relative role of the various government levels concerning these questions of competition supervision, regulation and industrial support vary strongly.
Scientific organisers: Christian Gollier,
Ludger Woessmann

Second Workshop on Macroeconomics and Business Cycle
22–23 November 2007, in Dresden

The two-day workshop is jointly organised by the Dresden Branch of the Ifo Institute and the Helmut-Schmidt-University Hamburg and takes place in Dresden. The aim of the workshop is to bring together researchers with macroeconomic and business cycle interest and to present current research results. Studies in all areas of macroeconomics are welcome, in particular business cycle research, empirical papers and those with a focus on Germany and Europe. Participation without own contribution is also possible.
Scientific organisers: Beate Schirwitz,
Michael Berlemann

5th Norwegian German Seminar on Public Economics
23–24 November 2007, in Garmisch-Partenkirchen

On November 23–24, 2007, CESifo and the Norwegian School of Economics and Business Administration will organise the 5th Norwegian-German Seminar on Public Economics, to be held at Garmisch-Partenkirchen near Munich. The seminar will be arranged within the framework of the Ruhrgas Scholarship Scheme under the auspices of The Research Council of Norway and Stifterverband für die Deutsche Wissenschaft. The conference invites the submission of papers from all fields of public finance. Both theoretical and empirical papers are welcome. Within the conference programme there will be thematic focus on public finance aspects of education economics.
Scientific organisers: Guttorm Schjelderup,
Marko Koethenbuerger

Political Economy
30 November–1 December 2007, in Dresden

The workshop is jointly organised by the Dresden Branch of the Ifo Institute and the Technical

University of Dresden. The two-day workshop will serve as a forum to present current research results in political economy and public choice and will give researchers in these areas the opportunity to network. Both theoretical and empirical studies are welcome.
Scientific organiser: Marcel Thum

Regulation of Financial Markets in Europe
18–19 January 2008, in Munich

Organised by the CESifo Research Area on Macro, Money and International Finance, this conference is part of the CESifo programme on "How to Construct Europe", supported by the Leibniz Foundation. The aim of the conference is to bring together researchers, with an economic policy interest in the European economy, from the different disciplines and to discuss the important topic of financial market regulation in Europe from various perspectives.
Scientific organisers: Paul De Grauwe,
Frank Westermann

Ethics and Economics
8–9 February 2008, in Munich

The Enron scandal shook the world, intensifying the discussion about business ethics. The issue of corporate social responsibility has gained further importance with the globalisation process. However, the issues of responsibility, justice and fairness are more general problems. They point to the interlink between us as homo oeconomicus and homo moralis, vividly analysed by our forerunner Adam Smith. The relationship between ethics and economics seems highly relevant when judging the behavior of human beings in business, politics and private life.
Scientific organiser: Vesa Kanniainen

Economic Incentives: Do They Work in Education? Insights and Findings from Behavioral Research
16–17 May 2008, in Munich

To explore the use of economic incentives in education, CESifo Munich and the Program on Education Policy and Governance (PEPG) of Harvard University are hosting jointly a conference in Munich, Germany, on 16–17 May 2008. Building on the success of a previous joint conference whose proceedings are just published by MIT Press, the scientific organizers, Paul E. Peterson (Harvard) and Ludger Woessmann (Munich), hope to again bring scholarly perspectives together from both sides of the Atlantic.
Scientific organiser: Ludger Woessmann

New Books on Institutions

Regulatory Impact Assessment
Colin Kirkpatrick and David Parker
Edward Elgar, 2007

Globalisation of Accounting Standards
Jane M. Godfrey and Karyn Chalmers (eds.)
Edward Elgar, 2007

Law and Economics
Wolfgang Weigel
Routledge, 2007

European Corporate Governance
Thomas Clarke and Jean-Francois Chanlat (eds.)
Routledge, 2007

Voraussetzungen für grundlegende institutionelle Reformen
(Preconditions for fundamental institutional reforms)
Thomas Eger (ed.)
Duncker& Humblot, 2006

Handbook on the Economics of Discrimination
William M. Rogers III (ed.)
Edward Elgar, 2006

DICE

Database for Institutional Comparisons in Europe

www.cesifo.de/DICE

The database DICE was created to stimulate the political and academic discussion on institutional and economic policy reforms. For this purpose, DICE provides country-comparative information on institutions, regulations and the conduct of economic policy.

To date, the following main topics are covered: Labour Market, Public Finances, Social Policy, Pensions, Health, Business Environment, Natural Environment, Capital Market and Education. Recently a chapter on Experts' Assessments of Governance Characteristics has been added. Information about Basic Macro Indicators is provided for the convenience of the user.

The information of the database comes mainly in the form of tables – with countries as the first column – but DICE contains also several graphs and short reports. In most tables, all 25 EU and some important non-EU countries are covered.

DICE consists primarily of information which is – in principle – also available elsewhere but often not easily attainable. We provide a very convenient access for the user, the presentation is systematic and the main focus is truly on institutions, regulations and economic policy conduct. Some tables are based on empirical institutional research by Ifo and CESifo colleagues as well as the DICE staff.

DICE is a free access database.

Critical remarks and recommendations are always welcome.
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