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Forum

International Financial Architecture

International Financial Architecture

How to Draw up a Credible International Rule System for Financial Stability

Horst Siebert†*

The current international crisis has many faces: a severe disruption of the financial industry and a stark recession. For the long run, we need a reliable and credible institutional arrangement that will prevent us from facing similar financial distress again. In the short run, we have to move out of the present recession.

It has long been a tradition of Germany's Freiburg School that a market economy needs rules. A major example is a rule system guaranteeing competition against endogenous market tendencies to form monopolies if these tendencies are uncontrolled.

Institutional arrangements, including norms of behavior, laws and other rules, draw from negative historical human experience, primarily from historical disasters (Siebert 2009). Rules evolve in order to prevent human hardship and misery. Some rules came into existence after the Thirty Years War on the European Continent in 1648 and after other wars and internal turmoil. Without rules, life would indeed be "solitary, poore, nasty, brutish and short", in the words of Thomas Hobbes.

On a global scale, rules refer to the institutional arrangements among states. In specific areas and to a certain extent, sovereign states cede sovereignty. This leads to the establishment of a multilateral rule system, binding sovereign states and their citizens. In the economic sphere, we have accumulated experience with an institutional set-up that affects all aspects of the international division of labor, primarily in the World Trade Organization. We now are in the process of finding new rules for global environmental scarcity.

Our negative experience with the current financial crisis requires an answer to the question: What are the essential elements of a rule system for financial stability? Here are some crucial aspects:

Inflation and hyperinflation can be avoided by setting up an adequate institutional arrangement for the central banks and adapting an adequate monetary policy. A basic rule is that public budget deficits must not be financed by printing money. The independence of the central bank is of utmost importance. The position of the central bank must be strong enough to resist political pressure for an easy money policy and for simply financing the public budget.

In order to study rules for a sound financial system, one needs to look at the tasks that the financial system has to perform: allocate savings to investment; finance transactions, investment and infrastructure; transfer, reduce and manage risks; perform maturity transformation within reasonable limits; and send reliable signals through prices. These tasks should be performed without causing financial disturbances.

Balance sheet truth is essential. The Enron case in the US in 2001 has made clear that stock markets cannot successfully intermediate between savings and investment if the balance sheets of firms are false. Under such conditions, share prices are distorted; when the fraud is revealed, stocks are depreciated, stock owners are betrayed, and the reputation and credibility of the financial market – a crucial precondition for market economies – are devastated. Financial markets cannot function correctly if they do not provide reliable information.

Balance sheet truth also applies to the banking sector. Bank balances should reflect risks adequately. Risks should be incorporated in the balance sheet. In securization, the originator of a loan should retain part of the original risk, say 10 or 20 percent.

* Horst Siebert passed away on 2 June. He was Heinz Nixdorf Professor, Bologna Center, John Hopkins University, Italy, and president-emeritus of the Kiel Institute for the World Economy, Germany.

The bank's risk management has to ensure the sustainability of the institution: it has to anticipate how the bank's environment will change, including the probability distribution of risks. It has to be aware of risks in the tails of a probability distribution with low probability, but large damage, the "black swans". Capital adequacy requirements, i.e., a bank's capital in terms of shareholders' equity and retained earnings as a percentage of its risk weighted credit exposure, must take into account the long-run sustainability of a financial institution; a value of 10 percent seems appropriate.

Such requirements have to adjust to adverse situations in the business cycle and to the interconnectedness of risk positions within the financial industry. They also have to be set higher for riskier activities. Levers between debt to own equity should be limited; they should not exceed 12:1, a ratio in force in the US before 2004.

Bubbles are part of our historical experience. When in a financial bubble the herd begins to run, those in charge have to stay outside the turmoil and remind everyone of the equilibrium that will be sustainable in the long-run. In other words, the intertemporal fix point or the transversality condition known from intertemporal optimization models has to be respected. Such an intertemporal fix point would have prevented such bubbles as the tulip mania in Holland in the 17th century; and it could have avoided the financial exuberance in the US housing bubble (which was similar to the Dutch tulip mania).

While risk transformation and consumption smoothing are important aspects of the banking industry and the capital market, institutional arrangements should not artificially favor overconsumption, which can be the cause of yet another financial crisis. Overconsumption in real estate in the US did not have a basis in savings; in that sense, it was artificial. The housing bubble led people to expect that the mortgage could be financed through the increases in wealth from rising house prices. Many factors contributed to the bubble, such as the low interest rate of one percent for several years, a result of the Fed's expansionary policy. Of course, politicians were happy that their voters could realize the American dream of owning their home. In a way, people were lured into taking out mortgages; predatory lending prevailed. These false incentives were exacerbated by Fannie Mae and Freddie Mac, government-sponsored organizations.

Prudent supervision has to become more effective. Supervision must be able to avert systemic risks by implementing the necessary instruments, for instance stress tests. Ratings have to be improved. At the same time, regulators should not rely automatically on ratings. All in all, the financial sector should not distance itself too much from the real economy.

Regulation failed in the US and in Europe. The regulatory regime for Fannie Mae and Freddie Mac established by Congress proved to be inefficient. The institutional arrangement for Fannie Mae and Freddie Mac was flawed from its beginning in 1968; their accounting scandals in 2003 and 2004 were covered up by Congress. In Europe, regulators did not recognize that banks contracted the disease by taking on the bad loans from US banks.

The subprime crisis shows that regulation per se is not a guarantee that financial crises can be prevented. On the contrary, since regulations set incentives, they may well set the wrong incentives and cause moral hazard. An example is the failure of the 747 savings and loan associations in the US in the 1980s and 1990s; the origin was a government regulation providing special protection to risky loans made by these institutions. This was actually an incentive to go into more risky lending. The failure of US regulators to detect the fraud at Enron is a further case. The failure of regulation in Germany to notice the problems at Industrie Kredit Bank and Hypo Real Estate and to act accordingly is another example.

One major reason why regulation often fails is that the regulator does not have the appropriate information. This is the issue of asymmetric information at a given moment in time. It is also the Hayekian problem that the regulator cannot possibly have all the necessary information on future economic conditions; most specifically he cannot have all the information on the industry's product innovation. Another major reason for regulation failure is regulatory capture, i.e., that the interest of the regulated bodies seizes the institutional arrangements and dominates the interest of the public. That is why I am skeptical of the Stiglitz proposal to include those affected by financial products into a regulatory body. The body then may well be "captured" by its members and politics.

After all, we should not forget the positive experience we have had with de-politicizing institutional arrangements, for instance in the realm of central banks.

New regulations, introduced with the best intentions, may have hidden incentive effects that represent new moral hazards so that the institutional arrangement is not improved. Moreover, time inconsistency of political decision-making with shifting preferences is an important factor affecting the regulatory framework and causing its instability.

Yet another important aspect of a financial rules system is that international spillovers are typical for the financial industry. Co-ordination among national regulatory authorities is needed just as among competing authorities. This can be done under the umbrella of the Financial Stability Forum, which should attempt to open membership to emerging countries to ensure that the Financial Stability Forum is not a rich men's club. Especially cross-border banks require some form of co-operation among regulators, for instance within regulatory colleges. The Bank for International Settlement can play the role of a standard setter. Standards should refer to the economic situation and the structure of the banking industry. They do not have to be completely uniform across countries.

In some countries of Europe there has also been a call for an increased role of the IMF in establishing financial stability. Of course, the IMF's surveillance can monitor financial stability and the situation of the financial sector; its Financial Sector Assessment Program, up to 2008 voluntary, should become mandatory for its members. However, the IMF has no sanctions at its disposal to stop national banking systems from running into trouble. Ceding sovereignty to an international body in the area of prudential supervision, including concrete sanctions against a financial "polluter", is unlikely to happen. It would mean giving a crucial policy instrument out of the nation's hand. Countries are reluctant to cede sovereignty to the IMF in light of the IMF's approach to the Asian currency crisis. Moreover, the IMF is not in a position to apply the polluter-pays-principle when a country starts a financial bubble that artificially leads to national overconsumption and overinvestment. Another crucial aspect is that any bail-out will have to be backed by national tax money; states are unwilling to cede sovereignty in this realm. The French proposal to endow the IMF with more instruments and to turn it into an economic policy machine or an "economic government" faces the counterargument that the IMF has been a political institution, having been under US influence in the past. Political "capture" by other states would not represent an institutional improvement. The objections against an "economic government" in the euro area also apply to the IMF. Thus, the IMF cannot play the role of the world's economy chief regulator. For the same reason, it cannot be the world's central bank.

In view of national political rescue plans and the ensuing enthusiasm for anti-recession programs in the autumn of 2008 and early 2009, central banks must be vigilant that these activities do not erode their position of independence which they have gained from politics in the past. It would indeed be a historic irony of rule setting if the financial crisis served to politicize the money-supply process again.

A major systematic problem for an institutional arrangement for financial stability is whether the rules are credible. This issue can be analyzed in terms of principle-agent theory. Governments write the rules for agents, but it is difficult to observe the extent to which the banks follow the rules. Information between the principal and the agent is asymmetric. In order to solve the problem of credibility and crack the systematic problem, an institutional arrangement should be introduced in which the government credibly commits itself not to bail out financial institutions in the worst case scenario. An important element of such a rule is that in case of failure the owners of the bank will lose their capital and that its managers will be replaced by the regulator. This means introducing a bankruptcy procedure for financial institutions. Due to the pervasive impact of a bank failure on the general public, however, it will be extremely difficult to give credibility to such a no-bail-out rule. Without such a credible rule, banks can expect to be bailed out. Thus, in ten or twenty years from now, governments will be in the same position as they found themselves when the financial crisis erupted in 2008. In any case, central banks and governments should be aware that without such a credible no bail-out rule, commercial banks can view the massive injections of liquidity and the immense fiscal support packages by national governments as a strategic game in which they can determine the responses so that they make the best out of the crisis. In order to prevent such a cat and mouse game, governments must write a sustainable principle-agent contract. Regulation must be made efficient.

Another issue of an international rules system consists in preventing national rules systems from being instrumentalized by the national political process, i.e., the financial system being used for political goals. Last but not least, international rules for the financial sector should prevent a bubble from arising that allows artificial financing of overspending (overconsumption; overinvestment) and that has no basis in real savings (as in the case of the US housing market).

Solving the international banking crisis is a precondition for moving out of the recession since otherwise the uncertainty of the financial crisis will continue to affect the real economy. In fighting the recession in the real economies of the major countries of the world, including the US, we should remind ourselves that automatic stabilizers contribute to the capacity of the economy to produce a turnaround, even if some central banks fear the spectre of deflation. The decline of the oil price is not part of deflation. It is normal for prices, for instance, wage income and the price of other inputs to decline in a recession. Some economies in Europe have adjusted their labor markets to make the economy more robust; moreover, some characteristics of the social security systems in some European economies allow for the automatic stabilizers to play out their effects.

Central banks must be cautious to ensure that their massive injections of liquidity and their interventions to get bad loans out of the system do not raise inflationary expectations and give rise to additional uncertainty. Not much would be gained if part of the actual uncertainty is substituted by even more uncertainty. Along the same lines, the national rescue plans and anti-recession programs on both sides of the Atlantic are likely to increase public debt. All these programs must face the risk that they perpetuate a situation that has arisen from aggregate demand not being supported by savings, i.e., by a condition (in the US) that was unsustainable and had the characteristics of a bubble. It would be an illusion to assume that the bubble can continue. Consequently, crisis management should ensure that it does not perpetuate overconsumption.

Reference

Siebert, H. (2009), *Rules for the Global Economy,* Princeton University Press, Princeton, in press.

Optimal Structures for Financial Regulation and Supervision

David G. Mayes*

Introduction

The present financial crisis has led to a rethink of optimal structures for regulation and supervision. It has not been simply that deficiencies in both supervision and regulation have contributed to the crisis but that the structure of how international financial institutions are regulated and supervised by various groups of national authorities makes it more difficult both to reduce the chance of financial problems and to handle them when they occur. None of this has come as a surprise, but until the recent difficulties the problem had to a large extent been theoretical and not, fortunately, demonstrated in practice. Now it has been. This article therefore explores how it might be possible to improve the framework, particularly in Europe. An opportunity now exists for changes to be implemented as there is a political will to take action to avoid getting into the same difficulties again.

The problem at the national level

As illustrated by the recent de Larosière Group Report (2009), current thinking is that two main activities are needed to try to ensure the continued maintenance of financial stability. The first is try to ensure that individual financial institutions are prudentially run and second to try to establish where the threats to the stability of the financial system lie and how they can best be addressed. The present crisis has shown that both activities had important deficiencies, such as inadequate attention to leverage, liquidity and the procyclicality of capital requirements but the concern here is whether the structure of how these activities were organised was a contributor to the problem.

However an integral part of the problem of effective supervision and regulation is the ability to handle problems when they occur. This has also been seen to be weak and, while acknowledging it, neither the de Larosière report nor the Turner Review (2009) has come up with clear proposals for action. If financial institutions can expect to be bailed out if they encounter severe difficulties – especially if they are large or many banks face the same problem at the same time, it will be more difficult to persuade them to manage their risks as carefully as they might if shareholders' funds and directors' jobs were fully exposed. Thus if what happens in problem times is not addressed, setting up new structures to handle normal ("good") times may not be very effective. The institutions responsible for resolving problems and for ensuring that the safety net operates swiftly and effectively need to have objectives, responsibilities and an incentive structure that is compatible with prudence practised by financial institutions in normal times, not one that runs in the opposite direction as is frequently the case at present (Eisenbeis 2004). Having just bailed out several banks, as in previous crises, it will be even more difficult for the authorities to establish a believable regime that will make it clear that next time will be different and those responsible for taking the risks must absorb them, not the taxpayer.

Macro- and micro-supervisory structures

Despite the massive size of the crisis it is not clear that major changes are required to the structure of national regulation and supervision in good times but rather to how the supervision is carried out. Mayes et al. (2009) contains a wide range of suggestions, for example. It is clear that in some countries supervisors were too weak compared to those that they supervised and that there was a degree of regulatory capture. There have been clear problems in the United States with inadequate supervision outside the realm of traditional banking, indicating that the range of supervision needs to be extended. However, the complexity of the US system has been largely a facet of

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history and is not repeated in most other OECD countries. It is a very clear lesson to the EU countries in their approach to a single financial market that they too should not create a complex structure as they move steadily towards a single financial market and the continuing removal of barriers to integration. This would be all too easy, as existing authorities quite naturally do not want to give up their powers, and hence new organisations will have inevitable overlap and opportunities for conflict.

Moreover, much of the difficulty has been a collective international one, with Basel Committee standards proving to be inadequate. Therefore, although the crisis may have been centred in the US, there is still a need for all countries to address the failings in supervisory and regulatory standards. It is not surprising therefore that the G-20 has decided to try to improve the international framework, strengthening the Financial Stability Forum to form the Financial Stability Board. Nevertheless it is still the responsibility of each country to improve its own institutions, even though international advice and assistance will be of considerable value.

While the existing national individual organisations can be improved and responsibilities realigned among them to reflect the recent experience, it will always be difficult to recruit the best staff because of the salary differential with those who are being supervised. Regulatory and supervisory structures therefore have to reflect the realities and not be based on the belief that the authorities can always be one step ahead of the financial system. They will tend to be one step behind and an attempt to change this is only likely to be successful if it clearly inhibits innovation and the growth of the industry. Hence there has to be a balance between trying to avoid problems and clearing up those that occur swiftly with little harm to financial stability.

There has been a general tendency towards two structures for supervision and regulation, one being a responsibility for overall financial stability assigned to the central bank and the other a unifying of responsibility for supervision of the financial sector. Both trends are a reflection of experience and a reaction to developments in the market, where the main financial institutions are involved in most sectors. These trends make the organisations for both macro-prudential and micro-prudential supervision stronger and more expert. However, there is no universal recipe and it is clear that the size of the country matters. Small countries in particular find it difficult to support a number of organisations and it is argued that separating supervision from the central bank in Iceland was one of the contributory factors to their problems (Jännäri 2009).

There is a long-standing argument about whether central banks should be involved in supervision but it is clear from the present crisis that central banks need to be well informed about the health and activities of the individual institutions that comprise the financial system. Solutions such as those applied in Finland and Estonia, for example, involving a very close relationship between the two organisations and with extensive common facilities may well prove satisfactory if full integration is rejected.

Two main arguments are advanced for separation at the operational level. The first is that the needs of monetary policy aimed at price stability and financial stability may not coincide. The second is that it is not clear that the central bank is likely to be the obvious repository for skills in conduct of business regulation. Countries therefore have in general chosen either to set up an independent supervisor that combines prudential and conduct of business regulation or to concentrate prudential supervision in the central bank (Masciandaro and Quintyn 2007)

In some respects neither of these arguments remains very persuasive. The crisis has emphasised that price stability and financial stability are closely intertwined. A major failing in the previous arrangement has been that those responsible for overall financial stability have lacked much in the way of powers to do anything about it. The various Financial Stability Reviews (Cihak 2006), while well constructed, had largely an advisory role. Many of the problems of risk in the system had been identified but neither the responsibilities nor the powers for tackling them had been properly assigned. If macro-prudential regulation is to mean anything, those responsible need tools to achieve it. It is not clear for example how far implementing the de Larosière report would go beyond seeing that the European authorities were better informed. The Eurosystem would need new powers to act on this information.

The drawback to each country addressing the problems as it thinks fit and developing its choice of organisational structures for supervision and regulation is that the different bodies may not fit together well internationally. The three level 3 committees (CEBS, CESR and CEIOPS) are already large in order to cope with responsibilities spread across a number of national agencies.

Structures for the resolution of problems

The major structural deficiencies, however, have been shown to lie in the field of problem correction. Once problems have struck, countries have found it difficult to respond in the way they wanted. The UK has probably illustrated both the problem and its solution most vividly with respect to large banks. But problems with resolving small banks, such as Custodia in Sweden (Riksbank 2006), have revealed that having a smooth process that allows an institution to close before losses mount is much more difficult than was expected. After the financial crisis of the early 1990s Sweden carried out a thorough review of its legislation and institutions and in 2000 produced proposals to tackle this deficiency. It has taken the present crisis to take action and implement these proposals. This is an important lesson in present circumstances: authorities can readily conclude that because they were able to get through a crisis, albeit with difficulty, they are adequately set up for the future – aided no doubt by the feeling that they have learnt the lessons and will not make the same mistakes again.

For such a regime to work well it must be possible for the authorities to act early at the first sign of difficulty and have a strictly time-bound approach that forces them to implement a resolution before shareholder value is totally eroded. The US, Canada and Mexico inter alia have such a regime, labelled SEIR (Structured Early Intervention and Resolution), whereby it is the duty of the resolution authority to achieve a resolution at minimum cost to itself. Since in each case the resolution authority is the deposit insurer, which will be among the first to be exposed to loss once shareholder capital has been exhausted, this provides a clear incentive structure for Prompt Corrective Action. In the US case a series of increasingly tough measures are mandated with the FDIC ultimately having to intervene once the leverage ratio falls to 2 percent.

The UK Banking Act 2009 has identified what it must be possible to do with a troubled bank (sect 1(3)):

- Transfer to a private sector purchaser
- Transfer to a bridge bank
- Transfer to temporary public ownership.

This entails having powers to transfer shares and to transfer property, rights and liabilities, by acting early while the bank still has positive value but is not viable without resolution.[1] All these can be achieved without triggering close out clauses or other ex ante ring fencing provisions. This requirement is key to a viable system. Ordinary insolvency will result in the interruption of many of the troubled bank's vital functions, which will of itself prevent a smooth resolution. US law specifically precludes any triggering during the day that the reorganisation takes place so there is no break in services. Furthermore, as the Custodia and Fortis examples show, it must not be possible for the shareholders to challenge the authorities' actions or the new arrangements will not work and counterparties will withdraw. Proper independently assessed compensation is obviously needed to ensure there is no expropriation.

What is more contentious is the institutional structure to achieve this. If the supervisor is responsible for resolution there is a danger of a conflict of interest. If a supervisor is not responsible then there is a problem of ensuring that the resolution agency is properly informed. In the US, the resolution agency, the FDIC, is also a supervisor. In Canada, the equivalent organisation, the CDIC, is not a supervisor but has a close relationship with the Office of the Superintendent of Financial Institutions from whom it can demand heightened supervision. In the UK, the Bank of England is the resolution agency, with its intervention triggered by the supervisor, the FSA. Nevertheless it is clear that the resolution agency needs to be involved at the outset of the process as soon as there is any concern that the subject bank may have a problem. The Bank of England has found that it takes around two months to get a smooth resolution in place. Finding possible buyers takes time even if due diligence processes are truncated with the aid of guarantees against hidden problems.

There are multiple objectives for the Special Resolution Regime in the UK:

- To protect and enhance the stability of the financial system of the UK
- To protect and enhance public confidence in the stability of the banking systems in the UK
- To protect depositors
- To protect public funds

[1] The UK FSA's phrase is that the bank does not meet the "threshold conditions" for continuing registration.

- To avoid interfering with property rights in contravention of the European Convention of Human Rights.

These objectives have no ordering and hence no requirement simply to maximise the value of the insolvency estate or minimise the direct or indirect cost to the taxpayer. This makes the prior assessment of what will be done in any future case much less predictable. While some argue that such ambiguity is constructive, the less people believe there will be a taxpayer bailout the lower the moral hazard.

The nature of the cross-border problem

The same two issues have to be addressed for cross-border financial institutions:

- First, to establish how national authorities in different jurisdictions can work together to ensure that large international financial organisations can be regulated and supervised efficiently and effectively in order to reduce the chance of financial problems
- Second, to improve how these national authorities can work together to resolve any problems that do occur.

A third issue is to ask how such joint work can be organised.

Most attention has been placed on the first of these issues and there have been a number of proposals already on how to proceed, the foremost of which in Europe is the report of the de Larosière Group (2009), which suggests a strengthening of the existing arrangements at two levels: first the creation of clear arrangements for improved macro-prudential supervision led by the ECB (a European Systemic Risk Council) and second improved co-ordination of micro-prudential supervision through each of the three "level 3" committees, CEBS, CESR and CEIOPS, which would be turned into authorities with increased powers:

- Legally binding mediation between national supervisors
- Adoption of binding supervisory standards
- Adoption of binding technical decisions applicable to individual institutions
- Oversight and co-ordination of colleges of supervisors
- Licensing and supervision of specific EU-wide institutions (e.g., credit rating agencies and post-trading infrastructure)
- Binding co-operation with the European Systemic Risk Council over macro-prudential supervision
- Strong co-ordinating role in crisis situations.

Enhancing macro-prudential oversight is likely to be non-contentious as it improves information for all those involved. The ESCB is the obvious route for such co-ordination since the principal players are the central banks although at the national level the effectiveness of the arrangements will depend on the powers assigned.

However, at the micro-prudential level there is some dispute (Turner 2009, for example) over whether it is best to treat the three sectors of banks, securities markets and insurance separately, when the trend in many countries has been to amalgamate financial supervision into a single authority. Turner (2009) also has a much milder view of the powers that should be assigned to a European level authority, making it an advisory rather than an executive agency.

While greater harmonisation of regulation and greater co-ordination among national supervisors will obviously help in improved cross-border arrangements it is not clear that this is tackling the problem head on and may be requiring substantial convergence of regulation where it is not essential. The large majority of banks round the world are national and likely to remain so. They can therefore be adequately dealt with by national arrangements reformed in the manner described in the earlier sections of this article. The number of cross-border banks that are of systemic importance outside their home country in Europe is quite small: 30-50 depending upon the definition used (Schoenmaker and Oosterloo 2007). Their supervision and regulation could indeed be dealt with through enhanced co-operation on an individual basis through supervisory colleges led by the home country. Although this will not cover the international banks that are not primarily European in character – wider international arrangements will still be needed.

An alternative solution, which has considerable attractions, is to have a European level approach. One approach is to have a European regulatory standard that would be applied directly (Cihak and Decressin 2007), thus avoiding the need for national authorities to change their own regulation. Nevertheless, having such a European standard might lead to extensive convergence of national regulation as has been observed in the US.

However, co-operation and co-ordination in good times is the easier problem. Acting swiftly in a crisis has proved much more difficult. The experience with the three main Icelandic banks exposes some of the problems. First of all, the home authority must have both the power and the resources to address problems in the parent group and its branches. The Icelandic authorities simply could not manage to pay-out all insured depositors. This does not require a change in structures of supervision and regulation but a firmer decision on what structures of financial institutions are acceptable across Europe. Within individual countries more thought should be given to the monopoly (anti-trust) concerns to ensure that all financial institutions are capable of being resolved in a crisis (Stern and Feldman 2004).

Second the lead authority must be able to compel rapid action among the authorities in the group. Here, however there is a clear problem of mismatch between authorities. It is resolution authorities that are involved in resolving problems, and they may not be the same as the supervisors. For a structure to work well in a hurry it must be simple. Thus if one wanted a European level or international body, one responsible for resolution might be the best place to start rather than one for supervision.

The BIS (2008) is making a good start on identifying the main problems amd what needs to be done. National authorities would not simply need similar powers so that prompt corrective action and early resolution could be applied to a group but they would have to be able to act in the interests of the group as a whole, taking account of the systemic consequences of disorderly action, particularly in small countries dominated by foreign-owned banks. The objectives under the new UK Banking Act 2009 relate entirely to the UK and would therefore be at variance if another country in the group had a greater problem. The relationship between New Zealand and Australia illustrates how a workable system can be designed. All the main banks in New Zealand are Australian owned, but to enable New Zealand to act to maintain financial stability in a crisis they do not merely have to have the appropriate legal structure – to be properly capitalised subsidiaries – they also have to be capable of operating on their own, within a day, in the event of a problem. Thus if national authorities have a structure where they can each act to safeguard their financial stability, the cross-border system will work, as has been illustrated in the crisis by the case of Fortis. Operating a genuinely cross-border system without a division of responsibilities on national lines presents much greater problems.

The European Commission has recognised that the best way to tackle problems in financial institutions is to detect them early and act rapidly, and is preparing a White Paper on the topic to be published in the middle of 2009. However, the initial lists of differences in powers and tools collected by CEBS (2009) is daunting. To this must be added the further differences in a wider international context, including accounting rules and major aspects of insolvency such as the application of territoriality rather than universality that is applied to groups in the EU.

In a national environment it is possible to specify quite simply what the objective should be in organising a resolution and how conflicts should be resolved. This is no longer true in a cross-border context as those with countries with greater problems deserve a greater focus. It is thus difficult to provide an ex ante agreement but agreements at the time may be too difficult to organise in the limited time available.

It would be nice to be optimistic but history is not promising. It is well worth noting the remarks of the sceptics and seeking to make sure that their views prove mistaken. Kay (2009) provides an excellent example: "The likely outcome of present discussions is that everyone will agree they will regulate better and that there should be more co-operation between national regulators. This might prevent anything like the Icelandic problem occurring again. It is more likely that the tooth fairy will agree to provide compensation for future bank failures."

References

BIS (2008), *Interim Report of the Cross-Border Bank Resolution Group,* Basel, December.

CEBS (2009), "Mapping of Supervisory Objectives and Powers, Including Early Intervention Measures and Sanctioning Powers", no. 47, March.

Cihák, M. (2006), "How do Central Banks Write on Financial Stability?", *IMF Working Paper* 06/163.

Cihák, M. and J. Decressin (2007), "The Case for a European Banking License", *IMF Working Paper* 06/73.

De Larosière, J., L. Balcerowicz, O. Issing, R. Masera, C. McCarthy, L. Nyberg, J. Pérez and O. Ruding (2009), "Report of the High-Level Expert Group on Financial Supervision in the EU", European Commission, Brussels.

Eisenbeis, R. A. (2004), "Agency Problems and Goal Conflicts", *Federal Reserve Bank of Atlanta Working Paper* no. 24.

Jännäri, K. (2009), *Report on Banking Regulation and Supervision in Iceland: Past, Present and Future,* Prime Minister's Office, Reykjavik.

Kay, J. (2009), "Do Not Rely on Otherland to Apply the Rules", *Financial Times,* 7 April.

Masciandaro, D. and M. Quintyn (2007), *Designing Financial Supervision Institutions,* Edward Elgar, Cheltenham.

Mayes, D.G., R. Pringle and M. Taylor (2009), *Towards a New Framework for Financial Stability,* Central Banking, London.

Riksbank (2006), "Can Swedish Authorities Handle Distressed Institutions?", *Financial Stability Report* no. 2, 55–69.

Schoenmaker, D. and S. Oosterloo (2007), "Cross-border Issues in European Financial Supervision", in D. Mayes and G. Wood, eds., *The Structure of Financial Regulation,* Routledge, Abingdon, 264–91.

Stern, G. and R. Feldman (2004), *Too Big to Fail: The Hazards of Big Bank Bailouts,* Brookings Institution, Washington DC.

Turner, A. (2009), *A Regulatory Response to the Global Banking Crisis,* Financial Services Authority, London.

Multinational Banking and Regulatory Challenges: Lessons from the US Experience with AIG

Robert A. Eisenbeis*

Introduction

The financial crisis of 2007–09 quickly spread from financial markets and institutions in the US to those in many parts of the rest of the world, and in particular to institutions in the UK and continental Europe. Many of the largest institutions in the US, UK and the rest of the European Union have required substantial injections of public funds, in part because of the lack of easily invoked resolution methods to recapitalize or reorganize institutions without evoking costly general bankruptcy procedures that would entail long delays and possibly lead to severe negative externalities that would endanger the function of the financial system as a whole or individual markets.

The problems the US has experienced in dealing with the resolution of the financial difficulties of American International Group (AIG) serve as a case study of the issues that arise in attempting to deal with financial distress in a large international financial institution, be it a bank or other form of financial conglomerate. Already, the U.S. government has committed more than $180 billion in financial support to AIG, which exceeds the estimated cost of the Savings and Loan crisis of the 1980s. The lessons learned from this experience should play an important role in shaping future financial reforms applicable to the US as well as many other countries. This paper reviews the issues and points to possible needed reforms to deal with the failures and financial distress of large multi-national financial institutions.

Background on AIG

AIG was a large, complex insurance conglomerate with three main lines of insurance activities. These included property and casualty insurance; life and health insurance and retirement products; and asset management and financial services.[1] The company had about $1 trillion in consolidated assets and most relevant for the issues under consideration here, it operated in about 140 countries. It had more than 71 insurance companies based in the US and over 175 other insurance and financial services companies chartered in the US and in other countries. Much attention has been given to one segment of its operations – the activities of AIG Financial Products that created most of AIG's credit default swaps and ran its securities lending program. While as a US chartered entity its headquarters were located in the US, most of its activities were based in London and were conducted through the London branch of AIGFP's French chartered bank subsidiary, Banque AIG (Eisenbeis 2009a). This structure clearly was a complicating factor for US authorities in assessing consequences of AIG's possible demise, not to mention the impacts on its insurance activities.

There was no one insurance regulator or a consolidated federal insurance regulator responsible for AIG's insurance activities. US law (the McCarran-Ferguson Act) provides that insurance activities, like those of AIG, are regulated by the individual states in which insurance companies are licensed to operate.[2] Many of AIG's other activities were in affiliates or subsidiaries that were either technically unregulated or were subject to oversight by non-US authorities.

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[1] It also had an airplane leasing business.

[2] For example, the NY State Insurance Department representative's testimony specifically indicated that he was responsible only for AIG's insurance activities, which accounted for only about 10 of AIG's 71 US insurance companies, and that he was not responsible for AIG's other activities, especially AIG Financial Products (AIGFP).

However, AIG became a Savings and Loan Holding Company in 1999 and owned three federal savings banks. As such, AIG was subject to consolidated federal supervision by the Office of Thrift Supervision (OTS), and this oversight extended to AIG's Financial Products Group (AIGFP), the activities of which many believe were responsible for AIG's financial difficulties. Hence, while some of AIG's activities and/or subsidiaries and affiliates technically may have been *unregulated*, this did not mean that they were *unsupervised* nor subject to federal oversight.[3]

On the heels of the failure of Lehman Brothers on 16 September 2008 and the merger of Merrill-Lynch with the Bank of America, the immediate catalyst for the extreme actions taken by the Federal Reserve and US Treasury to bail out AIG was the recognition that AIG's need for capital might force it to declare immediate bankruptcy. The continued decline in AIG's stock price was indicative of questions in the market about its ability to continue to access short term capital markets and its need for an estimated USD 80 billion or so in additional capital because of the deterioration of its real estate securities.

Why did the government step in and rescue AIG?

In justifying their intervention with AIG, policy makers argued that they were concerned about systemic risk and the negative effects that a disorderly wind down of the institution would have on financial markets, both domestic and international. But the exact nature of the risks, how they would materialize or how they might affect the financial markets have yet to be clearly spelled out. In fact, the reasons given vary depending upon who is opining on the AIG case. For example, the following quotation from Chairman Bernanke (2009b) illustrates the broad view taken by the Fed and Treasury about the nature of the systemic risk posed by AIG without specifically making any attempt to define or flesh out the factors that might identify a systemically important institution: "In the case of AIG, the Federal Reserve and the Treasury judged that a disorderly failure would have severely threatened global financial stability and the performance of the US economy."

These comments do not mention the nature of AIG's business nor concerns about the interconnected aspects of its relationships. Rather they focus on the unspecified and amorphous likely costs of its demise. Chairman Bernanke (2009a) put a bit more flesh on his view of the concept: "In a crisis, the authorities have strong incentives to prevent the failure of a large, highly interconnected financial firm, because of the risks such a failure would pose to the financial system and the broader economy."

The implication is that the size of a firm and the nature of its business are important in identifying a systemically important institution. However, Vice Chairman Kohn (2009) quickly offered quite a different view in his testimony before the Senate Committee on Banking, Housing and Urban Affairs, in a verbal response to a question about systemic risk, how the Fed viewed AIG and why it intervened: "Let me be clear… Our actions were not aimed at AIG or its counterparties. Our actions were aimed at the US financial system and the knock-on effects of imposing losses on counterparties. Would those counterparties be willing to do business with other systemically important US institutions that might someday end up in the government's hands?"

This view states that the Fed acted because of the possible reactions of the counterparties of other unidentified US institutions that might be taken over by the government at some unspecified time in the future. This contradicts the rationale offered by Chairman Bernanke (2009b) in a subsequent speech on 14 April 2009:

> Many other serious consequences would have followed from a default by AIG: Insurance policyholders would have faced considerable uncertainty about the status of their policies; state and local governments, which had lent more than $10 billion to AIG, would have suffered losses; workers whose 401(k) plans had purchased $40 billion of insurance from AIG against the risk of loss would have seen that insurance disappear; and holders of AIG's substantial quantities of commercial paper would have also borne serious losses.
>
> Conceivably, its failure could have triggered a 1930s-style global financial and economic meltdown, with catastrophic implications for production, incomes, and jobs.

Finally in testimony before the House Financial Services in March, Treasury Secretary Geithner

[3] Federal Reserve and Treasury officials have repeatedly said that AIGFP was unregulated. See Kohn (2009) and Bernanke (2009c).

(2009) offered a somewhat different reason why the agencies made the decision to rescue AIG:

> Treasury, the Federal Reserve, and the Federal Reserve Bank of New York, acted to prevent the collapse of AIG. That action was based on a judgment, a collective judgment, that AIG's failure would have caused catastrophic damage, damage in the form of sharply lower equity prices and pension values, higher interest rates, and a broader loss of confidence in the world's major financial institutions. This would have intensified an already deepening global recession and we did not have the ability to contain that damage by other means. We did not have the authority to unwind AIG.

These descriptions of the rationale for AIG's rescue by the key parties involved expand significantly upon both the traditional concepts of systemic risk and the reasons for special treatment of banking organizations. The original reason for government regulation of banks and the provision of deposit insurance was to shortcut the adverse effects that information asymmetries and negative externalities might have on the payments system, which could also cause problems for the real economy. A massive conversion of deposit funds from banks into currency could spill over to healthy banks, become contagious and lead to a cumulative collapse of credit and the money supply.[4] The abrupt withdrawal of funds from healthy banks without sufficient access to short term liquidity to meet that demand could result in their collapse.

The concern about short term liquidity has also played an important role in the theoretical literature when a sudden shock to asset prices, like that experienced by US real estate, can cause a system wide liquidity crisis. This theoretical view helps in part to explain the initial interpretation of the US financial crisis as a problem of liquidity, because large banks were unable to continue to fund themselves in the short term asset backed commercial paper market as credit spreads widened and the decline in asset values triggered collateral calls. Essentially the same problem happened to AIG, which faced collateral calls on its credit default swaps and experienced difficulties in its securities lending program.

But viewing the current problems of financial institutions as a liquidity problem is looking at the short-term consequences of a much deeper problem. When counterparties begin to be concerned about repayment of even short-term borrowings, then this is, at root, a concern about solvency. This is a far cry from the short-term liquidity problems caused by traditional runs on banks. This happens when depositors suddenly show up at a bank's teller window demanding repayment of their par deposits. The institution may be solvent but simply has insufficient cash on hand to meet those withdrawal requests and lacks sufficient time to liquidate marketable assets to meet those demands. The justifications offered for intervention in AIG go beyond the traditional concerns about runs on banks.

Consider what typically happens when a bank fails and how that failure is resolved and its negative externalities averted. When a bank cannot meet its obligations or pay out its deposits in full, it goes into default, it is closed; insured depositors are paid the par value of their claims and losses are allocated among creditors and equity holders according to their priority in bankruptcy. The whole process, engineered by the FDIC, usually takes place over a weekend. In most instances the institution is re-opened on the following Monday, either having been acquired by another bank or as a temporary government-owned, newly chartered bridge bank. Insured depositors have access to the par value of the deposits, other uninsured creditors may have partial access to their funds and lending continues under near normal conditions.

When other US firms and European banks or European non-bank firms fail, the resolution process can typically can take months (Eisenbeis 2006). In the meanwhile creditors are denied access to their funds and services may be curtailed. Because of the importance of bank deposits as a medium of exchange, such delays were regarded as unacceptable and special bankruptcy provisions were enacted in the US enabling the institution to be closed by the primary chartering authority and the FDIC can begin the resolution process with the aim of opening the banks the next business day.[5]

The concerns about AIG, as expressed in these different policies, seems to include three main considerations: 1) the possible spillover effects related to the

[4] Diamond and Dybvig (1983) have built a model that describes when participating in a run and suspension of convertibility of deposits represent optimal depositor and bank behavior. See also Chari and Jagannanthan(1988), Chari(1989), Jacklin(1987), Jacklin and Bhattacharya(1988) and Wallace(1988).

[5] See Bliss and Kaufman (2006) for a comparison of bank and non-bank bankruptcy procedures.

unwinding of its derivative and credit default swap contracts, 2) the possible problems caused to AIG's insurance contract holders, and 3) a general and amorphous fear that its demise might cause a generalized, worldwide financial panic. None of these issues, except for perhaps the third, conform to the traditional concerns that specialized bankruptcy procedures were designed to remedy for banks.

What prevented US authorities from closing AIG?

Throughout the current crisis US officials have repeatedly complained that they lacked the necessary authority to windup institutions like Bear Stearns, Lehman Brothers and AIG in a prompt and efficient manner. To simply say that regulators needed to have the authority to put AIG into a bank-type insolvency and to resolve it the way banks are resolved is too simplistic when it comes to large multinational organizations like AIG or even large US or European multinational banks. The authority of a home-country authority to close the parent organization, such as AIG, really has limited reach because of the large number of foreign chartered affiliates and subsidiaries that a large, multinational firm may own.

In AIG's case, a good part of its problems emanated from the transactions that were originated in one way or another through a London office of a French-charted bank subsidiary of AIG's Finanical Products Group. Even if the Fed or Treasury, for example, could have closed AIG's parent holding company, this would not have permitted them to resolve many of the transactions that were at the root of AIG's problems. A sovereign authority cannot grant one of its agencies legal authority to close and resolve an entity chartered by another sovereign state. In the case of multination entities the resolution of such a failure can entail both agency problems and conflicts with other sovereigns and their regulators, each legitimately seeking to protect their citizens and claims. To suggest that US authorities could successfully deal with this issue, should one of its major banking institutions become insolvent, is not credible.

Failure and problems of institutional resolution

Many practical issues arise, should a large multinational financial institution experience financial difficulties and need to be resolved. The sheer size and complexity of modern multinational financial institutions clearly impacts the feasibility as well as efficiency of resolving insolvencies, where efficiency here means minimizing the costs to home and host country governments and customers. With different insolvency regimes applicable to affiliates and subsidiaries, even sorting out who would be responsible for what claims would be a daunting task, even if there was close co-operation and co-ordination among the responsible agencies. In general, however, cross border co-ordination and decision making would be extremely difficult, especially in the absence of explicit ex ante plans. Such firms are subject to multiple regulatory jurisdictions and regulators, as well as many different legal systems, which may even be in conflict with each other. In addition, the quality of host country monitoring and supervision may complicated, as it was in the case of AIG for the Office of Thrift Supervision (OTS) because of the need to co-ordinate with AIG's multiple regulatory authorities and because of the far-flung nature of its insurance and financial services activities. Furthermore, because the same claims might be treated differently by each responsible country, there might be incentives for individuals as well as the company experiencing financial distress to engage in intra company funds transfers that might delay the settlement and disposition of claims.

With the computerization of records and the centralization of operations, it is technically feasible to separate the operational and legal structures of an organization, so that the legal structure bears no relationship nor adequately captures the interdependence among subsidiaries and affiliates. Often both data and processing are located in home or multiple host countries to ensure 24/7 operations as markets open and close around the world. The fragmented nature of both an institution's organization and its information and operational structure will only increase the costs to regulators of gaining meaningful information on the cross-subsidiary linkages and the true nature and extent of its counterparty exposures.

Lack of information may also adversely affect the quality of both home and host country monitoring and supervision because regulators are generally less able to obtain useful financial information from domestically chartered, foreign-owned institutions than from domestically-owned institutions. In some instances, key management, records and processing capabilities may not even be located in any countries where financial affiliates or subsidiaries may be chartered. Thus, barriers posed by information costs, constraints on the ability of supervisors to assess the health of an institution and difficulties in identifying an institution's counter parties can pose considerable problems, especially when an institution's access to liquidity and funds may vanish quickly. For these reasons, timely resolution of a troubled entity may involve the co-operation and co-ordination of multiple regulators and chartering agencies across wide geographic areas and time zones, even when some of the legal-entities may appear to be sound according to their financial records. With such organizational structures the failure of an organization may make it impossible to rescue or keep open independently chartered subsidiaries and affiliates in the home countries where they are chartered in an effort to maintain key business relationships and provide customer access to services.

At the same time financial institution regulators naturally have a home-country bias and will likely respond to a problem in what they consider is the best interest of their country and its citizens (Bollard 2005). For these reasons, it is generally infeasible, as well as inefficient and costly to physically dispose of or liquidate large complex financial institutions when they are declared insolvent and closed legally.

In the case of AIG, its insurance activities were fragmented across many states and many different foreign countries, each with separate authorities, rules and regulations. This greatly complicated the OTS's consolidated supervisor responsibilities. Furthermore, these insurance subsidiaries were participating in a securities lending program, with the proceeds being invested in mortgage related securities through a non-banking subsidiary (AIGFP) using a subsidiary bank as a conduit.[6] The true risks to the insurance business lines could have only been assessed only by an entity with access to AIG's internal records on a consolidated basis.

A similar information problem existed, for example, for the bank supervisors of AIGs bank counterparties. Given that European banking supervision is left to the individual countries and is dependent upon co-ordination and co-operation, it is little wonder that we have not heard much about European banks broad exposure to AIG.

[6] In many instances, the individual state insurance regulators were empowered to restrict or reverse certain intra company transfers of funds and activities. For example, the state regulators were the ones that forced AIGFP to unwind AIG's securities lending program in an attempt to protect the reserves backing the insurance contracts in the state in which that insurance subsidiary was chartered.

Conclusions: actions to deal with financial difficulties in large financial institutions

A number of policy makers have made suggestions and recommendations to expedite the resolution of possible failures of large, systemically important institutions. Simply granting closure responsibility to a responsible agency, without either defining ex ante which institutions should be subject to a regime that does not address the complexity of the resolution process or that does not confront the legal difficulties in dealing with a multinational institution with perhaps hundreds of independently chartered affiliates and subsidiaries, fails to solve the problem. Moreover, it is not clear that appointing a systemic risk authority would be effective, especially given the potential conflicts that might arise when it comes to the independent conduct of monetary policy (Eisenbeis and Wall 1999). Consider, for example, the 2002–04 period. Would a systemic risk authority, if lodged with an agency outside the Fed, have forced the Fed to begin raising interest rates as housing was leading the US out of the recession? If the Fed had had the responsibility at that time would it have conducted policy differently? Formalizing systemic risk responsibility seems at best to simply be a substitute for avoiding the pursuit of destabilizing monetary and fiscal policies and lax financial institution supervision.

The following is a list of objectives and policies that should be the focus of regulatory reform efforts.

Regulatory initiatives not requiring legislation

1. Limit excessive leverage on the part of financial institutions by imposing a maximum leverage constraint – excessive leverage by financial institutions made them vulnerable to a decline in credit quality.
   a) Focus on capital that would be at risk and available to avoid losses – there are really only two types of liabilities in banks, for example, guaranteed liabilities and liabilities capable of absorbing losses.
   b) Abandon risk-based capital concepts. Regulators should not be involved in internal capital allocation decisions.

2. Focus supervisory efforts on the consolidated entity and look through legal affiliates and subsidiaries when assessing a firm's financial condition. If legal structure represents a potential res-

olution problem, then this should both be identified and be a focus of regulatory and supervisory co-ordination and co-operation.

3. Address the issue of organizational complexity: Charge complex institutions for the cost of supervision and examination to introduce a cost to complexity.

4. Seek to ensure that failures of financial firms are isolated events: Make an unwinding scenario part of the supervision of each large, complex financial institution.

Initiatives requiring legislative action

1. Consider restricting derivatives above the first degree.
   a) Complex instruments whose cash flows are dependent upon fund flows from other complex instruments serve little useful economic purpose relative to the risks.
   b) Consider restricting naked swaps.
   c) Put derivatives on exchanges structured like current futures exchanges.

2. For large, complex financial institutions focus international co-ordination and harmonization of supervision, regulation, deposit insurance coverage, and bankruptcy procedures.

References

Bernanke, B. (2009a), "Financial Reform to Address Systemic Risk", before the Council on Foreign Relations, March 10.

Bernanke, B. (2009b), "Four Questions About the Financial Crisis", speech delivered at Morehouse College, April 14.

Bernanke, B. (2009c), "American International Group", before the Committee on Financial Services, US House of Representatives, Washington, DC, March 24.

Bliss, R. R. and G. G. Kaufman (2006), "A Comparison of U.S. Corporate and Bank Insolvency Resolution", Federal Reserve Bank of Chicago *Economic Perspectives* 30, 44–56.

Bollard, A. (2005), "Being a Responsible Host: Supervising Foreign-Owned Banks," in D. Evanoff and G. Kaufman, eds., *Systemic Financial Crises: Resolving Large Bank Insolvencies,* World Scientific Publishing, Singapore, 3–15.

Chari, V. (1989), "Banking Without Deposit Insurance or Bank Panics: Lessons From a Model of the US National Banking System", Federal Reserve Bank of Minneapolis *Quarterly Review* 13 (3), 3–36.

Chari, V. and E. Jagannanthan (1988) "Banking Panics, Information, and Rational Expectations", *Journal of Finance* 43, 749–60.

Diamond, W. D. and P. H. Dybvig, (1983), "Bank Runs, Deposit Insurance, and Liquidity", *Journal of Political Economy* 91, 401–19.

Eisenbeis, R. A. (2009a), "An Interesting Hearing," Cumberland Advisors, March,http://www.cumber.com/special/AIG%20032709.pdf? file= 031809p3.asp&n =l_mc

Eisenbeis, R. A. (2009b), "Financial Turmoil and Central Bank Responses in the United States, United Kingdom, European Union and Japan" in R. Litan and R. Herring, eds., *Prudent Lending Restored: Securitization After the 2008 Mortgage Securities Meldown,* Brookings Institution, in press.

Eisenbeis, R. A. (2006), "Cross-Border Banking: Challenges for the European Union" in G. Caprio, D. Evanoff and G. G. Kaufman, eds., *Cross-Border Banking: Regulatory Challenges,* World Scientific, Singapore, 331–48.

Eisenbeis, R. A. and L. D. Wall (1999), "Financial Regulatory Structure and the Resolution of Conflicting Goals", *Journal of Financial Services Research*16 (2), 223–45.

Geithner, T. F. (2009), Statement Before the Committee on Financial Services, US House of Representatives, as read, March 24.

Jacklin, C. (1987), "Demand Deposits, Trading Restrictions, and Risk-sharing", in E. Prescott and N. Wallace, eds. *Contractual Arrangements for Intertemporal Trade,* University of Minnesota Press, Minneapolis.

Jacklin, C. and S. Bhattacharya (1988), "Distinguishing Panics and Information-Based Bank Runs: Welfare and Policy Implications", *Journal of Political Economy* 96, 568–92.

Kaufman, G. G. (1988), "Bank Runs: Causes, Benefits, and Costs", *Cato Journal* 7 (3), 559–87.

Kohn, D. L. (2009), "American International Group", before the Committee on Banking, Housing and Urban Affairs, US Senate, Washington, DC, March 5.

Wallace, N. (1988), "Another Attempt to Explain an Illiquid Banking System: The Diamond and Dybvig Model with Sequential Service Taken Seriously", Federal Reserve Bank of Minneapolis *Quarterly Review* 12, 3–16.

Lessons from the Banking Crisis: A Return to Narrow Banking

Paul De Grauwe*

The basics of banking

In order to draw lessons from the banking crisis, it is useful to start from the basics of banking.[1] Banks are in the business of borrowing short and lending long. In doing so they provide an essential service to the rest of us, i.e., they create credit that allows the real economy to grow and expand.

This credit creation service, however, is based on an inherent fragility of the banking system. If depositors are gripped by a collective movement of distrust and decide to withdraw their deposits at the same time, banks will be unable to satisfy these withdrawals as their assets are illiquid. A liquidity crisis erupts.

In normal times, when people have confidence in the banks, these crises do not occur. But confidence can quickly disappear, for example, when one or more banks experience a solvency problem due to non-performing loans. Then bank runs are possible. A liquidity crisis erupts that can bring down sound banks also. The latter become innocent bystanders that are hit in the same way as the insolvent banks by the collective movement of distrust.

The problem does not end here. A devilish interaction between liquidity crisis and solvency crisis is set in motion. Sound banks that are hit by deposit withdrawals have to sell assets to confront these withdrawals. The ensuing fire sales lead to declines in asset prices, reducing the value of banks' assets. This in turn erodes the equity base of the banks and leads to a solvency problem. The cycle can start again: the solvency problem of these banks ignites a new liquidity crisis and so on.

The last great banking crisis occurred in the 1930s. Its effects were devastating for the real economy. After that crisis the banking system was fundamentally reformed. These reforms were intended to make such a banking crisis impossible. The reforms had three essential ingredients. First, the central bank took on the responsibility of lender of last resort. Second deposit insurance mechanisms were instituted. These two reforms were aimed at eliminating collective movements of panic. A third reform was intended to prevent commercial banks from taking on too many risks. In the US this took the form of the Glass-Steagall Act, which, introduced in 1933, separated commercial banking from investment banking.

Most economists thought that these reforms would be sufficient to produce a less fragile banking system and to prevent large scale banking crises. It was not to be. Why? In order to answer this question it is useful to first discuss "moral hazard".

The insurance provided by central banks and governments in the form of lender of last resort and deposit insurance gives bankers strong incentives to take more risks. To counter this, authorities have to supervise and regulate, much like any private insurer who wants to avoid moral hazard will do.

And that's what the monetary authorities did during most of the post-war period. They subjected banks to tight regulation aimed at preventing them from taking on too much risk. But then something remarkable happened.

The efficient market paradigm

From the 1970s on, economists were all gripped by the intellectual attraction of the efficient market paradigm. This paradigm, which originated in academia, became hugely popular. also outside academia. Its main ingredients are the following.

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[1] A very useful book is Goodhart and Illing (2002).

First, financial markets efficiently allocate savings towards the most promising investment projects, thereby maximizing welfare. Second, asset prices reflect underlying fundamentals. As a result, bubbles cannot occur, and neither can crashes. The third ingredient of the efficient market paradigm is the capacity of markets for self-regulation. The proponents of this paradigm told us that financial markets can regulate themselves perfectly well and that regulation by governments or central banks is unnecessary and even harmful (Greenspan 2007).

The efficient markets paradigm was extremely influential. It was also used by bankers to lobby for deregulation. If markets work so beautifully, there was no need for regulation anymore. And bankers achieved their objective. They were progressively deregulated in the US and in Europe. The culmination was the repeal of the Glass-Steagall act in 1999 by the Clinton administration. This allowed commercial banks to take on all the activities investment banks had been taking, e.g., the underwriting and holding of securities; the development of new and risky assets like derivatives and complex structured credit products. Thus banks were allowed to take on all risky activities that the Great Depression had taught us could lead to problems. The lessons of history were forgotten.

The efficient market paradigm provided the intellectual backing for deregulation of financial markets in general and the banking sector in particular. At about the same time financial markets experienced a burst of innovations. Financial innovations led to the design of new financial products. These made it possible to repackage assets into different risk classes and to price these risks differently. It also allowed banks to securitize their loans, i.e. to repackage them in the form of asset backed securities (ABSs) and to sell these on the market.

This led to the belief, inspired by the optimism of the efficient market paradigm, that securitization and the development of complex financial products would lead to a better spreading of the risk over many more people, thereby reducing systemic risk and reducing the need to supervise and regulate financial markets. A new era of free and unencumbered progress would be set in motion.

Are financial markets efficient?

Deregulation and financial innovation promised to bring great welfare improvements: better risk spreading; lower costs of credit, benefitting firms who would invest more and benefitting millions of consumers who would have access to cheap mortgages.

The trouble is that financial markets are not efficient. We illustrate this lack of efficiency in the two dimensions that matter for the stability of the banking sector.[2] First, bubbles and crashes are an endemic feature of financial markets. Second, financial markets are incapable of regulating themselves. In the end both failures brought down the new banking model that was predicated on financial markets being efficient.

Bubbles and crashes are endemic in financial markets

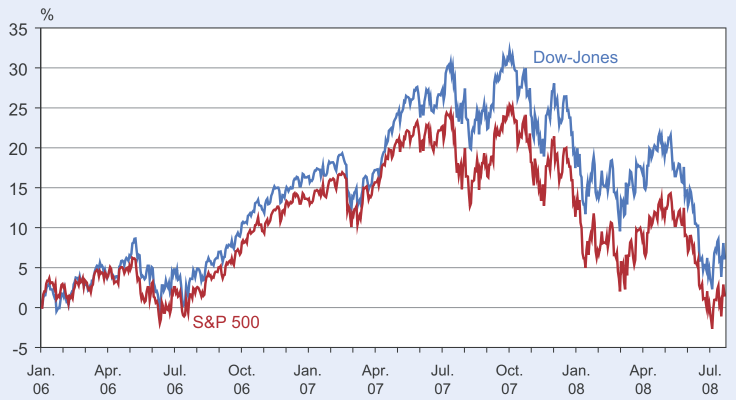
Nobody has written a better book on the capacity of financial markets to generate bubbles and crashes than Kindleberger in his masterful *Manias, Panics and Crashes.*[3] Kindleberger shows how the history of capitalism is littered with episodes during which asset markets are caught by a speculative fever that pushes prices to levels unrelated to fundamental economic variables. But the lessons from history were forgotten.

Let us look at some of the bubbles and crashes that have littered financial markets during the last twen-

Figure 1

THE DOW JONES AND THE S&P500 2006–2008

daily frequency

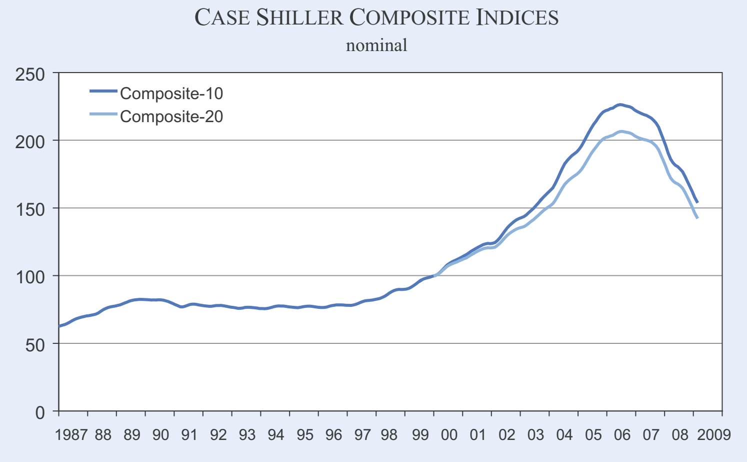


Source: Yahoo Finance.

[2] The empirical evidence against the efficiency of financial markets has been building up over the last decade. For useful overviews see Shleifer (2000) and Shiller (2000).

[3] See Kindleberger (2005). Chancellor (1999) also provides a vivid account of the many bubbles and crashes in the history of financial markets.

Figure 2



Source: Standard&Poor's.

ty five years. Take the US stock market from 2006 to 2008 (see Figure 1).

What happened in the US economy between July 2006 and July 2007 to warrant an increase of 30 percent in the value of stocks? Or put differently, in July 2006 US stock market capitalization was $11.5 trillion. One year later it was $15 trillion. What happened to the US economy to make it possible that $3.5 trillion was added to the value of US corporations in just one year? During the same year GDP increased by only 5 percent ($650 billion).

The answer is: almost nothing. Fundamentals like productivity growth increased at their normal rate. The only reasonable answer is that there was excessive optimism about the future of the US economy. Investors were caught by a wave of optimism that made them believe that the US was on a new and permanent growth path for the indefinite future. Such beliefs of future wonders can be found in almost all bubbles in history, as is made vividly clear in Kindleberger's book.

Then came the downturn with the credit crisis. In one year's time (July 2007 to July 2008) stock prices dropped by 30 percent, destroying $3.5 trillion of value. The same amount as had been created the year before. What happened? Investors finally realized that the optimism had been excessive. The wave turned into one of excessive pessimism.

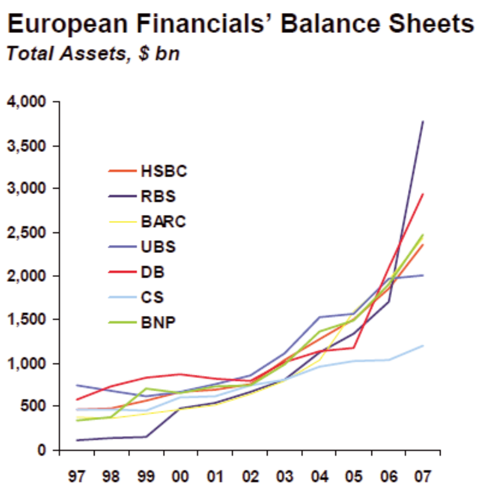
A similar story can be told about the US housing market. Figure 2 shows the Case-Shiller house price index from 2000 to 2008. During 2000–07 US house prices more than doubled. What happened to economic fundamentals in the US that warranted a doubling of house prices in seven years time? Very little. Again the driving force was excessive optimism. Prices increased because they were expected to increase indefinitely into the future. This was also the expectation that convinced US consumers that building up mortgage debt would not create future repayment problems.

These episodes illustrate the endemic nature of bubbles and crashes in capitalist systems. They happened in the past and will continue to occur in the future.

The deregulation of the banking sector that started in the 1980s fully exposed the banks to the endemic occurrence of bubbles and crashes in asset markets. Because banks were allowed to hold the full panoply of financial assets, their balance sheets became extremely sensitive to bubbles and crashes that gripped these assets. This is shown in a spectacular way in Figure 3. It illustrates how since the start of the decade the balance sheets of the major European banks exploded, reflecting the various bubbles that occurred at that time (housing bubble, stock market bubbles, commodities bubbles).

While commercial banks were increasingly involving themselves in financial markets and thus were taking over activities that were reserved to investment banks, the opposite occurred with investment banks. The latter increasingly behaved like banks, i.e., they borrowed short and lent long, thereby moving into

Figure 3



Source: Bloomberg.

the business of credit creation. To give an example. Investment banks (e.g., Lehman Brothers) moved into the business of lending money to hedge funds and accepted stocks or other securities as collateral. They then went on and lent that collateral to others so as to make extra money. Thus, investment banks had become banks in that they were creating credit. In the process they created an unbalanced maturity structure of assets and liabilities. Their assets were long term and illiquid, while their liabilities had a very short maturity.

Thus, as a result of deregulation a double movement occurred: Commercial banks moved into investment bank territory and investment banks moved into commercial bank territory. This led to a situation in which both the commercial banks and the investment banks built up a lethal combination of credit and liquidity risks.

The mirage of self-regulation of financial markets

A centerpiece of the efficient market theory was that financial markets were capable of self-regulation, making government regulation redundant. Two mechanisms were seen as central in making self-regulation work. One was the role of rating agencies; the other was the use of mark-to-market rules.

Rating agencies would guarantee a fair and objective rating of banks and their financial products. It did not happen. The reason was that there was massive conflict of interest in the rating agencies. These both advised financial institutions on how to create new financial products and later on gave a favourable rating to the same products. Their incentives, instead of leading to the creation of sound and safe financial products, were skewed towards producing risky and unsafe products.

The other piece in the belief that markets would regulate themselves was the idea of mark-to-market. If financial institutions used mark to market rules the discipline of the market would force them to price their products correctly. Since prices always reflected fundamental values, mark-to-market rules would force financial institutions to reveal the truth about the value of their business, allowing investors to be fully informed when making investment decisions.

The trouble here again was the efficiency of markets. As we have illustrated, financial markets are regularly gripped by bubbles and crashes. In such an environment mark-to-market rules, instead of being a disciplining force, worked pro-cyclically. Thus during the bubble this rule told accountants that the massive asset price increases corresponded to real profits that should be recorded in the books. Now the reverse is happening. Mark to market rules force massive write-downs, correcting for the massive overvaluations introduced the years before, intensifying the sense of gloom and the economic downturn.

Long-term solutions: a return to narrow banking

It is time to start working on the rules for a new banking system. There are two ways to go forward. One can be called the Basle approach, the other the Glass-Steagall approach.

The Basle approach accepts as a *fait accompli* that banks will go on performing both traditional and investment bank activities. This approach then consists in defining and implementing rules governing the risks that these banks can take. Its philosophy is that a suitable analysis of the risk profile of the banks' asset portfolios allows for calculating the required capital to be used as a buffer against future shocks in credit risk. Once these minimum capital ratios are in place, credit risk accidents can be absorbed by the existing equity, preventing banks from going broke and thereby avoiding the devilish spillovers from solvency problems into liquidity problems.

This approach has completely failed. It was first implemented in the Basle 1 accord, but was massively circumvented by banks that profited from the loopholes in the system. Basle 2 attempted to remedy this by allowing banks to use internal risk models to compute their minimum capital ratios. The underlying assumption was that scientific advances in risk analysis would make it possible to develop a reliable method of determining minimum capital ratios.

This approach to managing banks' risks does not work and will never do so, because it assumes efficiency of financial markets; an assumption that must be rejected.[4] Banks that fully participate in the financial markets subject themselves to the endemic occurrence of bubbles and crashes. These lead to large

[4] There is a second reason why it will not work and that is conflict of interests. Supervisors should not trust complex risk models produced by bankers because the latter have a strong incentive not to reveal their true risk exposures.

tail risks that with our present knowledge cannot be quantified. There is no prospect for gaining substantial knowledge about tail risks in the near future. The Basle approach must be abandoned.

This leaves only one workable approach. This is a return to the Glass-Steagall Act approach, or put differently, a return to narrow banking in which the activities banks can engage in are narrowly circumscribed. In this approach banks are excluded from investing in equities, derivatives and complex structured products. Investment in such products can only be performed by financial institutions, investment banks, which are forbidden from funding these investments by deposits (either obtained from the public of from other commercial banks).

In a nutshell a return to narrow banking could be implemented as follows. Financial institutions would be forced to choose between the status of a commercial bank and that of investment bank. Only the former would be allowed to attract deposits from the public and from other commercial banks and to transform these into a loan portfolio with a longer maturity (duration). Commercial banks would benefit from the lender of last resort facility and deposit insurance, and would be subject to the normal bank supervision and regulation. The other financial institutions that do not opt for a commercial bank status would have to ensure that the duration of their liabilities is on average at least as long as the duration of their assets. This would imply, for example, that they would not be allowed to finance their illiquid assets by short-term credit lines from commercial banks. Thus while commercial banks would be barred from engaging in activities of investment banks, the reverse would also hold, i.e., investment banks would not be allowed to borrow short and to lend long, thereby taking on liquidity risks.

Thus, we would return to a world where banking activities are tightly regulated and separated from investment banking activities. This also implies that commercial banks would no longer be allowed anymore to sell (securitize) their loan portfolio. Securitization leads to a build-up of the credit pyramid. When a bank securitizes a loan, it obtains new liquidities that can be used to grant new loans, which in turn can be used to securetize further. As a result, a credit expansion is made possible which occurs outside the supervision and control of the central bank (which, however, will be called upon to buy these assets when it becomes the lender of last resort). Put differently, securitization allows the credit multiplier to increase for any given level of the money base provided by the central bank. Credit gets out of control, endangering the whole banking system, including the central bank. It is worth stressing the latter point. The massive credit expansion made possible by securitization also endangers the balance sheet of the central bank. This is so because in times of crisis, the central bank is called upon to function as a lender of last resort. As a result, it will be faced with the need to accept as collateral securitized assets that were created by banks. Allowing banks to securitize thus means that the central bank takes on a substantial part of the risk.

The preceding argument also implies that the "originate and distribute model" that banks have increasingly used in the recent past must be abandoned. Recent proposals to save it by requiring banks to hold a fraction of the securitized assets on their balance sheets are inappropriate as they do not eliminate the risk arising from the multiplication of credit described in the previous paragraph.

A return to narrow banking will necessitate a co-operative international approach. When only one or a few countries return to narrow banking, the banks of these countries will face a competitive disadvantage. They will loose market shares to banks less tightly regulated. As a result, they will have forceful arguments to lobby domestically against the tight restrictions they face. In the end, the governments of these countries will yield and the whole process of deregulation will start again.

References

Chancellor, E. (1999), *Devil Take the Hindmost: A History of Financial Speculation,* Farrar, Straus and Giroux, New York.

Goodhart, C. and G. Illing (2002), eds., *Financial Crises, Contagion, and the Lender of Last Resort: a Reader,* Oxford University Press, Oxford.

Greenspan, A. (2007), *The Age of Turbulence: Adventures in a New World,* Penguin Books, London.

Kindleberger, C. (2005), *Manias, Panics, and Crashes,* 5th ed., Wiley, New York.

Minsky, H. (1986), *Stabilizing an Unstable Economy,* McGraw-Hill, New York.

Shiller, R. (2000), *Irrational Exuberance,* Princeton University Press, Princeton NJ.

Shleifer, A. (2000), *Clarendon Lectures: Inefficient Markets,* Oxford University Press, Oxford.

Institutions and Growth in OECD Countries

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The institutional characteristics of economies affect economic growth. Economists and policy makers alike are interested in the specific institutional determinants that best foster growth. In 2007, the Ifo Institute for Economic Research in Munich developed an Institutions Climate Index that assesses institutional quality across OECD countries and its relationship to economic growth. This article highlights some important developments that have come to light after the most recent update of the index. The index is used to understand the institutional drivers that affect countries growth prospects. We have found that the index's ability to track growth is undiminished. At the country level we have examined the drivers of the recent decline in the OECD institutions climate and identified countries that have advanced and declined in recent years in the institutions ranking. (For detailed results and the complete dataset, the interested reader is referred to the CESifo DICE Database [see Box].)

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[1] The four-year moving average of GDP per capita growth has been chosen to filter out business cycle fluctuations.

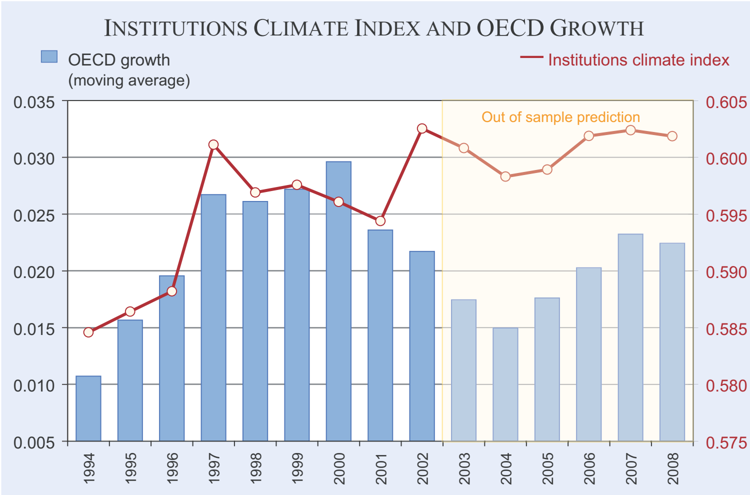
[2] One exception to the synchronous development is given in 2002. Whereas the index increased sharply between 2001 and 2002, economic growth deteriorated. The increase in the index is due to the increase in the sub-index Trade Openness. The sub-index 2002 refers to the quality of institutions in 2000. At that time the introduction of the euro removed some of the barriers for Intra-European trade. The euro, however, did not stimulate economic growth to the same extent. From 2002 on the index and economic growth developed in a parallel manner.

The institutional climate and economic growth

The Ifo Institution Climate Index was created with the express intent of highlighting the key underlying variables that determine economic per capita growth in OECD countries. Since establishing the Institutions Climate Index, the Ifo Institute has maintained its interest in analysing how well the index tracks economic growth across OECD countries. Figure 1 shows the relationship between the Institutions Climate Index (right scale) and the four-year moving average of OECD per capita GDP growth (left scale).[1] The Institutions Climate Index is based on two-year lagged and five-year averaged institutional indicators. Thus the value of the index in 2008, e.g., is based on institutional indicators for the years 2002–06 averaged over the 24 OECD countries in our sample.

Figure 1 highlights how well the institutional performance of OECD countries predicts OECD growth.[2] That is, the variation in lagged institutional quality seems to be closely related to the rise and fall of current growth observed across OECD countries. The performance of the index is especially surprising since the calibration of the index weights is based on three cross sections only (1994, 1998 and 2002), implying six years of out of sample prediction. (For details, see Eicher and Röhn [2007] and Box.)

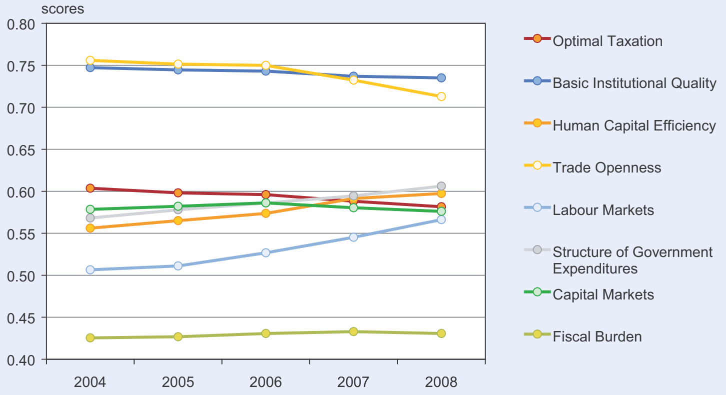
Figure 1



Source: Institutions Climate Index for OECD Countries.

Figure 2

INSTITUTIONAL DETERMINANTS OF THE ECONOMIC DEVELOPMENT IN OECD COUNTRIES, SUB-INDICES[a)], 2004–2008



a) Averages of all OECD countries included.

Source: Institutions Climate Index for OECD Countries.

Institutional determinants of the recent economic development

Even at the aggregate OECD level the magnitude of annual variation in institutions is surprising. This section analyses the overall OECD index and focuses on the underlying institutional sub-indices and their components that were responsible for the aggregate movements in the index. We focus on the period from 2004 to 2008, which highlights changes incorporated in our recent update. Interestingly, both institutions and growth saw an upswing post-2004 followed by a decline in 2008.

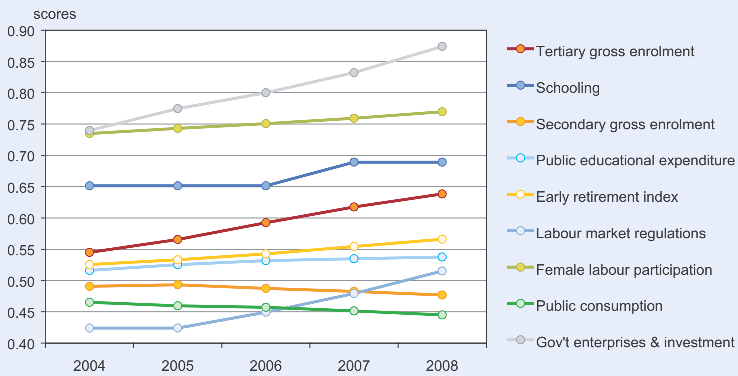
Disaggregating the index in Figure 1 into its sub-indices, Figure 2 highlights that the upswing in the Institutions Index (and economic growth) has been largely due to improvements in Human Capital Efficiency, Labour Markets and the Structure of Government Expenditures (Eicher et al. 2008). The downturn of the index has been driven by the decline in openness and an unfavourable tax environment. Openness declined mostly due to trade in goods, but capital market concerns have also become apparent since 2007.

In analysing the trends of individual components, we find that the increase in Human Capital Efficiency is primarily due to increases in *tertiary gross enrolment*. Other factors that are also relevant include longer *school time* and increased *public educational expenditures*. Labour market reforms are driven by improvements in *labour market regulations*, increased *female labour participation* and reductions in *early retirement*. Finally, the scope of state control in the private sector as measured by *government enterprises and investment* has been reduced, which has resulted in better measures of the Structure of Government Expenditures. It is notable that this effect was sufficiently strong to overcome the drag on the Structure of Government Expenditures that was imposed by a worsening of *public consumption* (see Figure 3).

As indicated above, the institutional quality did not improve in all areas, however. In 2008 declining components dominated to cause a reduction in the Institutions Climate Index. Figure 2 indicates that the Optimal Taxation performed badly, and the same has been true for Trade Openness since 2006. Figure 4 lists the components of the declining institutional characteristics to highlight that the sharp deterioration in Trade Openness is driven by both a reduction in openness as measured by tariff levels and also by a reduction in the trade volumes. According to the *Economic Freedom of the World* (2008) of the Fraser Institute, which is our source for Trade Openness, the increase in *tariffs* was due to a sharp rise of *mean tariff rates* and of *standard deviations in the country's tariff*

Figure 3

INSTITUTIONAL DETERMINANTS OF THE ECONOMIC DEVELOPMENT IN OECD COUNTRIES, COMPONENTS I [a)], 2004–2008

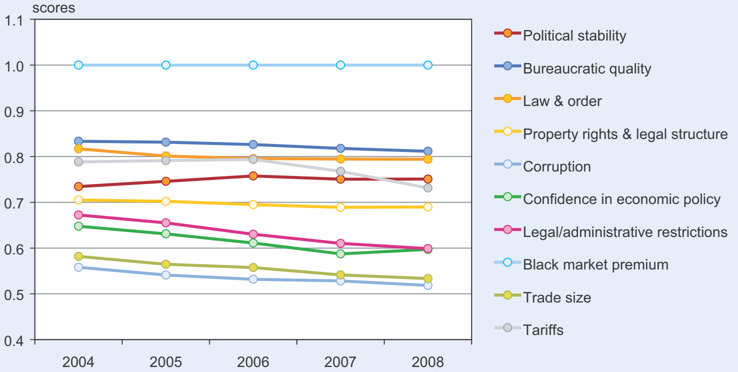


a) For the sub-indices Human Capital Efficiency, Labour Markets and Structure of Government Expenditures. Averages of all OECD countries included.

Source: Institutions Climate Index for OECD Countries.

Figure 4

INSTITUTIONAL DETERMINANTS OF THE ECONOMIC DEVELOPMENT IN OECD COUNTRIES, COMPONENTS II [a)], 2004–2008



a) For the subindices Basic Institutional Quality and Trade Openness. Averages of all OECD countries included.
Source: Institutions Climate Index for OECD Countries.

rates whereas the third sub-component *(revenues of taxes from international trade)* did not increase. The rise of *tariffs* took mainly place in South Korea, Japan, Switzerland, Norway and Canada. *Trade size* is measured by the actual size of the trade sector relative to the expected size. The expected size is an estimation based on the population and geographic size of a country and its location relative to the concentration of the world GDP. *Trade size* diminished mainly in Canada, Greece, Ireland and New Zealand.

Ranking of countries by their institutional climate in 2008

In this section we disaggregate the overall OECD index to the individual country level. Table 1 displays the individual country rankings for the Institutions Climate Index from 1994–08. In 2008 Australia, Canada, the United States and Finland were the most successful countries. Fourteen years

Table 1

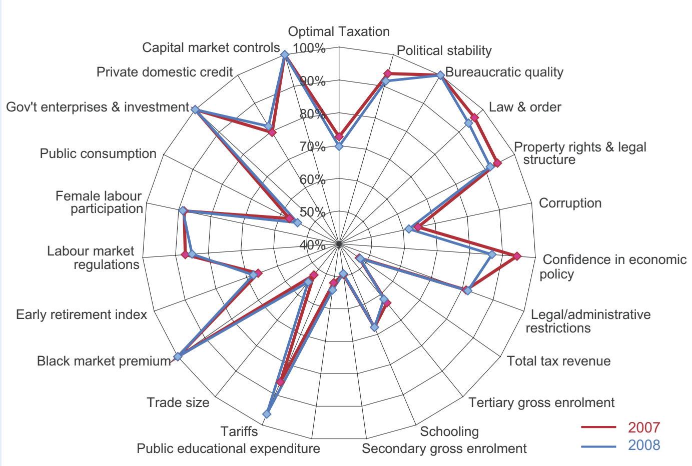
Country rankings

Rank	1994		2006		2007		2008	
	Country	Index score	Country	Index score	Country	Index score	Country	Index score
1	United States	0.688	Australia	0.703	Australia	0.706	Australia	0.703
2	Japan	0.678	Canada	0.668	Canada	0.663	Canada	0.657
3	Switzerland	0.652	United States	0.661	United States	0.658	United States	0.654
4	Canada	0.650	United Kingdom	0.657	United Kingdom	0.653	Finland	0.650
5	Ireland	0.628	Netherlands	0.654	Netherlands	0.652	New Zealand	0.648
6	United Kingdom	0.628	Ireland	0.647	Ireland	0.648	Denmark	0.648
7	Norway	0.624	Finland	0.642	Finland	0.647	Netherlands	0.646
8	Netherlands	0.622	New Zealand	0.640	New Zealand	0.645	Ireland	0.646
9	Australia	0.617	Denmark	0.636	Denmark	0.641	United Kingdom	0.643
10	Germany	0.617	Germany	0.630	Germany	0.633	Germany	0.635
11	Belgium	0.592	Switzerland	0.629	Switzerland	0.631	Switzerland	0.627
12	Denmark	0.580	Norway	0.629	Sweden	0.625	Sweden	0.626
13	Austria	0.580	Sweden	0.622	Norway	0.623	Norway	0.621
14	Finland	0.574	Japan	0.613	Japan	0.615	Japan	0.620
15	Sweden	0.567	Austria	0.610	Austria	0.608	Austria	0.608
16	South Korea	0.562	Belgium	0.592	Belgium	0.590	Belgium	0.585
17	Spain	0.550	Spain	0.587	Spain	0.586	Portugal	0.583
18	New Zealand	0.549	Portugal	0.581	Portugal	0.580	Spain	0.583
19	France	0.549	Greece	0.556	Greece	0.566	Greece	0.573
20	Portugal	0.547	France	0.545	France	0.543	France	0.544
21	Italy	0.515	South Korea	0.532	South Korea	0.529	South Korea	0.528
22	Greece	0.505	Italy	0.493	Italy	0.495	Italy	0.491
23	Mexico	0.493	Turkey	0.465	Turkey	0.467	Turkey	0.469
24	Turkey	0.463	Mexico	0.454	Mexico	0.452	Mexico	0.457

Source: Institutions Climate Index for OECD Countries.

Figure 5

INSTITUTIONAL CHARACTERISTICS OF THE UNITED KINGDOM
2007 AND 2008 (23 components)



Source: Institutions Climate Index for OECD Countries.

ago the United States, Japan, Switzerland and Canada were at the top of the ranking. Turning to the other end of the ranking scale we find Mexico, Turkey, Italy and South Korea at the bottom of the index in 2008, South Korea having replaced Greece (at the bottom in 1994).

Of the five leading countries only Canada and the United States were top performers in 1994. Australia (+8 ranks since 1994), Finland (+10 ranks since 1994) and New Zealand (+12 ranks since 1994) were not among the leading performers at that time. The Australian success story is mainly due to its educational reforms. Finland, on the other hand, improved a) its Human Capital Efficiency mainly through a rise in *tertiary enrolment*, b) its Basic Institutional Quality by abolishing *legal and administrative restrictions* and by increasing *confidence in economic policy*, and c) by opening the economy (see Ochel and Osterkamp 2007 for details). New Zealand's success consisted primarily of labour market reforms. In addition New Zealand's trade barriers were reduced and its Human Capital Efficiency improved markedly.

Looking more closely at the most recent development between 2007 and 2008, we observe that especially Denmark, Finland and New Zealand improved their ranking (+ 3 ranks). These improvements can be traced back to *labour market reforms* and to a reduction in *early retirement*. Finland also reduced the scope of *government enterprises*. The United Kingdom, in contrast, faced a decline from rank 4 in 2007 to rank 9 in 2008. This decline is largely due to a reduction in the sub-indices Optimal Taxation, Basic Institutional Quality and Structure of Government Expenditures (an increase in *public consumption*). The UK's Basic Institutional Quality diminished because the scores of all components in that area (with the exception of *bureaucratic quality* and *legal and administrative restrictions*) declined (see Figure 5).

Institutional quality of high- and low ranking countries (2008)

High-ranking countries share some common institutional characteristics. Their Basic Institutional Quality is favourable. Governments protect *property rights*, enforce *law and order* and prevent *corruption*. Hu-

Table 2

Institutional quality as a percentage of the best-practice country (2008)

Country	Optimal Taxation	Basic Institutional Quality	Fiscal Burden	Human Capital Efficiency	Trade Openness	Labour Markets	Structure of Government Expenditure	Capital Markets
Australia	77	95	64	96	84	79	81	60
Canada	67	89	55	82	82	84	76	99
United States	42	83	77	91	81	96	85	100
Finland	98	100	22	95	86	48	56	58
South Korea	30	47	81	87	79	67	78	53
Italy	94	40	30	59	86	35	73	65
Turkey	75	31	83	26	78	26	91	27
Mexico	18	31	100	38	86	77	92	29

Source: Institutions Climate Index for OECD Countries.

Box

The methodology of constructing the Institutions Climate Index and the dataset

Based on a set of 61 candidate institutional indicators, Eicher and Röhn (2007) developed an index of endogenously selected and weighted indicators that are combined into one aggregate institutional index that reflects institutional quality and its conduciveness to economic growth in OECD countries. The methodology is as follows. First factor analysis is employed to reduce the dimensionality of independent variables and to address the high degree of collinearity among covariates that measure similar institutional characteristics. The different factors are represented by the sub-indices in the Table below and the factor components are simply labeled "components" below.

Factors are then regressed on the moving average of GDP per capita growth in a fixed effects regression that features 24 OECD countries in our sample. To address business cycle fluctuations, we average growth over time periods, which render the three cross sections in our panel: 1990–94, 1994–98 and 1998–2002. Only those factors are retained that improve the fit of the regression (factors with t value>1).

The result is a set of factors that explain 44 percent of the variation in per capita GDP growth rates. The individual factor coefficient estimates are then used to establish the contribution of each sub-index on the aggregate institution index. Once the contribution or weight of each factor is determined, we use the factor loadings to identify the individual weight of each component in the aggregate index. (For a more extensive description of the methodology see DICE Database: http://www.cesifo-group.de/portal/page/portal/ifoHome/a-winfo/d3iiv/_DICE_division?_ id=6746666&_div=7209869.)

The Ifo Institutions Climate Index is then composed of eight distinct institutional sub-indices and 23 components. A score of 0 (1) indicates that a country received the minimum (maximum) score observed within the entire sample in each component. The weights of the sub-indices and of the components in the final index are shown below.

Sub-indices	Components	Source	Contribution index in %
Optimal Taxation[a]	Top marginal tax Tax wedge	EFW[b] OECD[c]	9.8 11.4
Basic Institutional Quality	Political stability Bureaucratic quality Law & order Property rights & legal structure Corruption Confidence in economic policy Legal/administrative restrictions	WES[g] ICRG[f] ICRG[f] EFW[b] ICRG[f] WES[g] WES[g]	6.1 4.5 4.0 4.0 1.9 0.4 0.1
Fiscal Burden	Total tax revenue	OECD[d]	(16.7)
Human Capital Efficiency	Tertiary gross enrolment Schooling Secondary gross enrolment Public educational expenditure	World Bank[h] World Bank[h] World Bank[h] World Bank[h]	4.8 4.0 3.2 2.9
Trade Openness	Tariffs Trade size Black market premium	EFW[b] EFW[b] EFW[b]	3.8 2.9 1.5
Labour Markets	Early retirement index Labour market regulations Female labour participation	OECD[e] EFW[b] World Bank[i]	4.1 3.2 0.8
Structure of Government Expenditures	Public consumption Gov't enterprises & investment	EFW[b] EFW[b]	4.1 2.5
Capital Markets	Private domestic credit Capital market controls	World Bank[i] EFW[b]	1.8 1.5

[a] The sub-index "Optimal Taxation" assigns low values to countries with either insufficiently low or excessively high tax rates. The assumption is that taxes have a non-linear effect on growth. A certain quantity of tax revenues is necessary for growth to provide, for example, productivity enhancing infrastructure investments. However, excessive tax rates deter private investment. The non-linear relationship between the tax rates and growth is captured by the squared tax component. It affects the sub-index, although it is not documented in the table. [b] Fraser Institute, Economic Freedom of the World (2008). [c] OECD Taxing Wages (2008). [d] OECD Revenue Statistics (2008). [e] OECD Employment and Labour Force Statistics (2008). [f] International Country Risk Guide (2007). [g] Ifo World Economic Survey (2009). [h] World Bank, Educational Statistics und Development Indicators (2008). [i] World Bank Development Indicators 2008.

Source: Eicher and Roehn (2007).

man capital is used efficiently. *Tertiary and secondary enrolment rates* are high. A considerable part of GDP is spent on *public education*. With the exception of Finland Labour Markets are flexible (Table 2).

Low-ranking OECD countries, on the other hand, have a relatively poor Basic Institutional Quality, which is a fundamental impediment to economic growth in these countries because individuals are not sufficiently protected from the government's attempt to divert resources to unproductive uses. A second impediment is the low Human Capital Efficiency (with the exception of South Korea). Education is neglected in these countries. And finally, Labour Markets (with the exception of Mexico and South Korea) and Capital Markets (with the exception of Italy) are too rigid (Table 2).

Summary

This paper provides an analysis of the recent update of the Ifo Institutions Climate Index. We have shown that the index continues to track OECD growth with remarkable precision. Lagged and averaged institutional quality indicators perform well in predicting subsequent OECD growth. The recent growth downturn is the result of unfavourable tax policies and a reduction in openness measures, both in terms of trade and capital flows in recent years. Overall OECD countries have made significant improvements in human capital formation, labour markets and the scope of state control in the private sector. In 2008 the institutional quality was most growth-conducive in Australia, Canada, the United States and Finland. At the other end of the ranking scale we find Mexico, Turkey, Italy and South Korea. During the last year Denmark, Finland and New Zealand improved their position by three ranks. The United Kingdom faced a decline in its ranking position from rank 4 in 2007 to rank 9 in 2008.

References

Eicher, T. and O. Röhn (2007), "Institutional Determinants of Economic Performance in OECD Countries – An Institutions Climate Index", *CESifo DICE Report* 5 (1), 38–49.

Eicher, T., W. Ochel, O. Röhn and A. Rohwer (2008),"Institutionen und Wirtschaftswachstum in den OECD-Ländern", *ifo Schnelldienst* 61 (11), 28–36.

Fraser Institute (2008), *Economic Freedom of the World,* Vancouver.

Ochel, W. and R. Osterkamp (2007), "What Does the Institutions Climate Index for OECD Countries Tell us about Institutional Change and Economic Policy Reforms?", *CESifo DICE Report* 5 (1), 50–62.

Employment Protection: Concepts and Measurement

Wolfgang Ochel*

Introduction

Employment protection (EP) is one of the institutions that is of decisive importance in determining how labour markets function. It places constraints on the individual behaviour of market participants. It takes the form of laws, ordinances and legal precedents together with norms and customs. The scientific analysis of EP is concerned firstly with its origin and evolution and secondly with its effects.

Whilst these two areas of analysis have received a great deal of attention, EP itself has been mostly neglected. It must, however, be investigated in depth if one is to find an explanation for its origins and if its effects. Assessing EP requires that it be clearly defined and delimited. What is more, it is necessary to formulate a theoretical concept that can serve as a basis for understanding it. Furthermore, it must be investigated empirically. Qualitative information must be transformed into quantitative information. And finally, it may prove to be necessary to aggregate individual indicators to a composite indicator.

Definitions

The term EP refers both to regulations concerning hiring as well as firing. In the first instance, the relevant regulations concern the conditions under which temporary contracts (fixed-term contracts and temporary agency work) may be concluded, which offer the possibility of circumventing the provisions of protection against dismissal within a regular employment relationship. Regulations with respect to dismissal concern both the individual termination of a regular employment relationship and collective dismissals. The protection of regularly employed workers against dismissal represents a restriction on employers, who are no longer free to give notice to their employees without justification. This restriction has been attained through two types of sanctions: the obligation to continue the employment relationship despite notice having been given or severance pay. The prior condition for the general protection against wrongful dismissal to be effective is that an employment relationship should in fact exist, i.e. that someone is in a position of dependent gainful employment. And finally, there are certain conditions that must be fulfilled if collective dismissal is to be legally justified.

The character of EP is affected by the nature of the legal system. This influence is quite distinct, depending on whether the legal system is based on English common law or whether it is based on civil (or statutory) law. Common law is characterised by the importance of decisions made by juries, by independent judges and the emphasis on judicial discretion as opposed to the dominance of codified law. The system of common law evolved originally in England and was adapted by other English speaking countries. Civil law is characterised by a less independent judiciary and gives a greater role to codified substantive and procedural rules. It evolved out of Roman law and has been incorporated into the civil codes of France and Germany and adopted by many countries on the European continent and by Japan (Botero et al. 2003, 7–9; Deakin et al. 2007).

Measurement

Assessing EP in depth is difficult. The arrangements that exist as a result of constitutional provisions, legal measures or collective agreements are complex and the documentation of their implementation is incomplete. The complexity becomes apparent when for example the OECD (2004) employs not less than eight indicators of protection against dismissal of employees with regular employment contracts: notifica-

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tion procedure; delay involved before notice can be given; length of notice period; severance pay; definition of unfair dismissal; length of trial period; compensation following unfair dismissal; and possibilities of obtaining reinstatement after unfair dismissal. In order to identify the provisions applicable in this area it is necessary to analyse very carefully the laws, ordinances and wage agreements. But this is only the first step; one must also take into the account how these provisions are implemented and enforced. And this is up to courts, arbitration boards and the public administration in general. Courts of law, for example, interpret how the law is to be applied, decide on the reinstatement of employees in the event of wrongful dismissal, and determine the amount of severance pay, etc. Furthermore, it is of interest to know what proportion of employees take legal action in a court of law to make good their right to seek protection against wrongful dismissal; it is equally interesting to know how often such legal action is successful. There is a similar need for information about the decisions of arbitration boards and the public administration. Administrative records represent an important source of information with respect to the implementation and enforcement of EP (Bertola et al. 1999 and 2000).

The assessment of EP in all its complexity involves the summing-up and interpretation of laws, ordinances and court decisions by experts. An example of what is meant by summing-up and interpretation is provided by the OECD's description of EP regulations (OECD 2004, background material for chapter 2). As a rule, assessments are made by assigning scores. Scores may be assigned along a metric scale or may be based on rank. Since EP is typically multidimensional, the task of reducing it to quantitative indices is not simple. And if the indicators are aggregated to a composite indicator the problem of weighting arises (Freudenberg 2003).

If assessing EP in one country is a problem, then obtaining data for international comparisons is all the more difficult. The assessment of EP in different countries can be carried out centrally, e.g. by a supranational organisation, or decentrally by experts in each country. In both cases assessment problems arise (Ochel 2005).

The information used for international comparisons should be comparable. Problems of validity may arise, when EP has evolved in different contexts: for example in a society with a common law tradition as opposed to the civil law tradition of continental European countries. In this case a uniform concept and similar indicators do not adequately reflect EP. The strictness of EP in the Anglo-American countries cannot be registered with the use of indicators that are primarily geared to codified laws. And vice versa, it would not be suitable to examine the dismissal protection regulations of continental European countries using indicators that are primarily based on legal precedents (court decisions). One approach to overcoming this problem is to replace the identity of concepts and indicators by the functional equivalence of concepts and indicators (Kenworthy and Kittel 2003, 22). Measurement concepts are equivalent to the degree to which "[the] results provided by [them, W.O.] reliably describe with (nearly) the same validity particular phenomena in different social systems" (Przeworski and Teune 1970, 108).

If one goes beyond cross-section comparisons and attempts a panel analysis, then the concept employed in analysing EP must be adjusted to take into account its evolution in the course of time. Basic changes in the regulatory framework must be considered as well as the emergence of new forms of employment relationships such as fixed-term contracts or temporary agency work.

Data sets

One approach to quantifying the strictness of EP in inter-country comparisons is to use surveys. Such surveys were carried out for the first time in 1985. The International Association of Employers commissioned surveys in 14 countries designed to assess the severity of rules restraining the termination of employment contracts. In the same year, the Commission of the European Union conducted a survey of entrepreneurs in 9 EU countries. In this survey the respondents were asked to assess the employment effect of shorter periods of notice of dismissal, of simpler legal procedures, and of a reduction in redundancy payments (Emerson [1988]) reviews the results of these surveys). Bertola (1990) based his rankings of ten industrial countries on the information obtained from these surveys. At the present time, organisations such as Watson Wyatt Data Services and the World Economic Forum carry out surveys.

Whilst the surveys mentioned above request information about the general assessment of the strictness of EP, others based their assessment on indicators (Table 1). Lazear (1990) considered only two obstacles to firing workers: weeks of notice and severance pay. Grubb and Wells (1993) and the OECD Job Study (1994) considered eight indicators referring to obstacles to dismissal of employees with regular contracts (indicators one to eight in Table 2). They also consider the possibilities of circumventing general EP by means of fixed-term contracts and temporary work agency employment. Regulatory efforts in these two areas are represented by a further six indicators (indicators nine to fourteen in Table 2). In the OECD's Employment Outlook 1999 and 2004 these studies have been broadened by the inclusion of indicators bearing on collective dismissal (indicators fifteen to eighteen in Table 2). The descriptions of these 18 indicators are based on a variety of national sources as well as multi-country surveys by Watson Wyatt Data Services, Incomes Data Services and the European Commission. OECD governments provided additional information based on a request for information from the OECD Secretariat (OECD 1999, 90).

In order to obtain a time series for the period 1960 to 1996, Blanchard and Wolfers (2000) collated the OECD data for the late 1980s and 1990s with data from Lazear (1990). They combined data of a very different quality. Whereas the OECD indicator is based on many EP dimensions Lazear used just two indicators as a proxy for EP. Nickell et al. (2005) later on interpolated the Blanchard and Wolfers series (with data for every five years) in order to obtain annual data, and William Nickell updated them in 2006.

Table 1

Sources of data on employment protection for international comparisons

Lazear (1990)
Grubb and Wells (1993)
OECD Job Study (1994)
OECD, Employment Outlook (1999 and 2004)
Blanchard and Wolfers (2000)
Nickell et al. (2005)
William Nickell, LSE database
Botero et al. (2004)
World Bank, Doing Business
Brandt et al. (2005)
Allard (2005)
Amable et al. (2007)
CBR, Cambridge (Deakin et al. 2007)
Comparable information on EP is also supplied by the reports and databases of the Frazer Institute, the Heritage Foundation, the International Institute for Management Development, Lausanne, Watson Wyatt Data Services and the World Economic Forum.
Individual researchers have made important contributions on the concept and measurement of EP. See the references in OECD (2004), ch. 2 and 3.

Source: Own compilation.

Another major source for EP data are the Doing Business Reports of the International Finance Corporation of the World Bank Group. It has been publishing its Employing Workers Indicator since 2004. The theoretical framework and methodology is based on Botero et al. (2004).

The datasets presented up to now are generated by cross-sectional approaches. They refer to some data points and afterwards have been interpolated in order to produce time series. Recently attempts have been made to generate "true" time series with annual data by analyzing reforms of EP. Brandt et al. (2005) reassessed the recommendations of the OECD Jobs Strategy and provides a detailed description of EP reforms over the 1994-2004 period. Allard (2005) reviews changes of EP documented by ILO's International Encyclopedia for Labor Law and Industrial Relations. Based on the OECD methodology she offers country scores for 1950-2003 at the aggregate level. Amable et al. (2007) use the Social Reforms Database of the Fondazione Rodolfo Debenetti and run regressions with the help of these data to predict the evolution of the strictness of EP between 1980 and 2004. The Centre of Business Research (CBR) in Cambridge measures legal change over time (influenced by either common law or civil law regulatory styles) and constructs a longitudinal labour regulation index (Deakin et al. 2007).

The OECD measure of employment protection

EP is assessed by the OECD Employment Outlook 1999 and 2004 for the late 1980s, the late 1990s and 2003. By means of 18 single indicators, EP of regular workers against individual dismissal, the specific requirements for collective dismissals and the regulation of temporary forms of employment are summarised.

In order to allow for meaningful comparisons, a four-step procedure has been developed for constructing cardinal summary indicators of strictness of EP. The 18 indicators are initially expressed in units of time (e.g. months of notice), as a cardinal number (e.g.

Table 2

Employment protection legislation summary indicator at four successive levels of aggregation[a)] and weighting scheme

Level 4 Scale 0-6	Level 3 Scale 0-6	Level 2 Scale 0-6	Level 1 Scale 0-6		
Overall summary indicator	Regular contracts **(5/12)**	Procedural inconveniences **(1/3)**	1. Notification procedures		(1/2)
			2. Delay to start a notice		(1/2)
		Notice and severance pay for no-fault individual dismissals **(1/3)**	3. Notice period after	9 months	(1/7)
				4 years	(1/7)
				20 years	(1/7)
			4. Severance pay after	9 months	(4/21)
				4 years	(4/21)
				20 years	(4/21)
		Difficulty of dismissal **(1/3)**	5. Definition of unfair dismissal		(1/4)
			6. Trial period		(1/4)
			7. Compensation		(1/4)
			8. Reinstatement		(1/4)
	Temporary contracts **(5/12)**	Fixed-term contracts **(1/2)**	9. Valid cases for use of fixed-term contracts		(1/2)
			10. Maximum number of successive contracts		(1/4)
			11. Maximum cumulated duration		(1/4)
		Temporary work agency (TWA) employment **(1/2)**	12. Types of work for which TWA employment is legal		(1/2)
			13. Restrictions on number of renewals		(1/4)
			14. Maximum cumulated duration		(1/4)
	Collective dismissals **(2/12)**		15. Definition of collective dismissal		(1/4)
			16. Additional notification requirements		(1/4)
			17. Additional delays involved		(1/4)
			18. Other special costs to employers		(1/4)

a) Version 2.

Source: OECD (2004, 106).

maximum number of successive fixed-term contracts allowed), or as a score on an ordinal scale (0 to 2, 3, 4 or simply yes/no). These first-level measures are accounted for in comparable units and then converted into cardinal scores ranging from 0 to 6. This scoring algorithm is somewhat arbitrary (OECD 1999, Table 2.B.1 and OECD 2004, Table 2.A.1.1). The three remaining steps consist in forming successive weighted averages, thus constructing three sets of summary indicators that correspond to successively more aggregated measures of strictness of EP (OECD 1999, Annex 2 B; OECD 2004, Annex 2.A.1 and Table 2).

The OECD summary indicators of the strictness of EP rank the United States, Canada, the United Kingdom, Ireland and New Zealand as the OECD member countries providing in 2003 the least EP. The results of the OECD survey indicate that the strictest protection against dismissal is to be found in three southern European countries: Greece, Spain and Portugal and in the threshold countries Mexico and Turkey (Table 3).

The indicator of the strictness of EP developed by the OECD is in all likelihood one of the best indicators that is available at the moment for the purpose of making international comparisons in this area. Important areas of regulation are taken into account. The choice of 18 indicators goes far to take adequately into account the complexity of the problem. Nevertheless, the OECD's approach does have some weaknesses:

– The OECD focuses on laws and ordinances bearing on protection against wrongful dismissal, but

Table 3

OECD summary indicators of the strictness of employment protection legislation, 2003[a)]

Country	Score[b)]	Country	Score[b)]	Country	Score[b)]
United States	0.7	Czech Republic	1.9	Norway	2.6
Canada	1.1	Korea	2.0	Sweden	2.6
United Kingdom	1.1	Slovak Republic	2.0	France	2.9
Ireland	1.3	Finland	2.1	Greece	2.9
New Zealand	1.3	Poland	2.1	Spain	3.1
Austria	1.5	Austria	2.2	Mexico	3.2
Switzerland	1.6	Netherlands	2.3	Portugal	3.5
Hungary	1.7	Italy	2.4	Turkey	3.5
Denmark	1.8	Belgium	2.5		
Japan	1.8	Germany	2.5		

a) Summary indicator for regular and temporary employment and collective dismissals. – b) Higher scores represent stricter regulation.

Source: OECD (2004, 117).

devotes little attention to other areas such as the system of social security which also may provide protection against loss of employment. One such mechanism is the system of experience rating in the United States where an employer's social security contribution depends in part on the firm's lay-off activity. Then too, the interaction of the protection against dismissal with other labour market institutions must be taken into account if the actual level of protection is to be determined. As Belot and van Ours (2000) have shown, such interactions may reinforce or undermine the level of protection.

– The OECD's measure of EP is mainly based on legislative provisions. Protection against dismissal, that is, a part of wage agreements or of individual employment contracts (e.g. provisions for severance pay) is neglected.
– Differences in the form of legal rules are not codified. The extent to which they are formally binding or capable of modification by the parties ("default rules") is not recorded.
– Similarly, the question to what extent the EP legislation is actually enforced receives too little attention. Up till now there has not been an adequate response to Bertola et al.'s (1999) plea for the enforcement of EP to be taken into account. The implementation of regulatory measures that are based on legal dispositions is primarily in the hands of labour tribunals. They interpret the law and hand down decisions on the cases brought before them. The stringency of the EP actually afforded to workers depends to a great extent on these decisions. The importance of labour tribunals, however, varies greatly from one country to another. Sometimes disputes are resolved by arbitration boards. It is difficult to collect systematic information on judicial and other resolution of labour disputes (e.g., on the number of cases in litigation, how long they are pending and how they are resolved), and work in this area has only just begun.
– The OECD provides no information on the proportion of employees that are covered by EP. It thus does not take into account that legal provisions, wage agreements, court decisions etc. exist which preclude giving regular notice of dismissal to certain clearly defined categories of employees (e.g. older employees, or those who have worked in the production unit for a certain period). On the other hand, it does not take into account that the application of EP may depend on the production unit being larger than a minimum size and/or that there may be provisions requiring a waiting period; persons economically active in a production unit that have the formal legal status of self-employed (e.g., a sub-contractor) but are deemed to be dependent employees or workers in the informal sector may not be covered by the EP provisions either (Rebhahn 2003, 190–94).
– The OECD does not document the specific sources of its indicators and does not explain their coding. Furthermore, converting the first-level indicators of EP legislation into cardinal scores and the assignment of weights is somewhat arbitrary (Addison and Teixeira 2001, 10–14). "The assignment of scores and weights adds a subjective dimension to the EPL strictness scores that is additional to the judgements already embodied in the…descriptive indicators" (OECD 1999, 117). The extent to which the OECD has empirically analysed the interrelationship among the first-level indicators is not clear.
– The OECD indicator for EP only covers the late 1980s, the late 1990s and 2003. In order to be able to carry out panel analyses, it would be desirable if the OECD provided longer and more complete time series. These time series should, however, not be generated by interpolation, but should be based on an analysis of the pace and direction of EP reforms providing annual data for the strictness of EP.
– Theoretical studies emphasise the analogy between EP regulation and a tax borne by the employer on employment adjustment. The cost implications of the various regulatory provisions for employees are not measured by the OECD. These costs include severance payments, costs of litigation, and costs arising from legally proscribed periods of notice, social plans, and continued payment of remuneration for employees enjoying protection. Furthermore, there are costs that are borne by society in general such as unemployment benefits (Jahn 2004, 11). Information on the costs involved in hiring and firing for businesses are, however, provided by other organisations such as the World Bank Group (2008).

The employing workers indicators of *Doing Business*

The assessment of the strictness of EP by the OECD is mainly based on legislative provisions and neglects the enforcement of the legislation. The World Bank's *Doing Business* tries to include both components. The methodology for its employing workers indicators was developed in Botero et al. (2004). They apply the legal origin hypothesis to labour law. This hypothesis claims that national regulatory styles are influenced by the origins of legal systems, namely the English common law or the civil law of continental Europe. In order to document and analyse EP adequately in countries with different legal origins, the assessment has to include laws and public regulations, contracts and juries' decisions as well as their implementation. This objective can be achieved if the assessment is carried out by local experts who evaluate all components of the strictness of EP in their country.

The data on employing workers in *Doing Business* is based on surveys that are completed by local lawyers and public officials. To ensure comparability across countries the lawyers have to make the following assumptions when answering the questions. The worker is a 42-year-old, non-executive, full-time male employee with 20 years of tenure. He earns a salary plus benefits equal to the country's average wage. He resides in the largest business city and is not a member of a labour union. The business he works for is a limited liability company, is domestically owned, operates in the manufacturing sector, has 201 employees, is law-abiding, but does not grant workers more benefits than mandated by law or collective bargaining agreement.

The questionnaire refers to three institutional fields: difficulty of hiring, rigidity of hours and difficulty of firing and several components within each field. Firing costs are also taken into account (Table 4). The questionnaire does not include all of the topics proposed by Botero et al. (2004).

The answers are most commonly recorded by binary coding. For each of the fields the scores of the components (0 or 1) are averaged and scaled to 100. Each of the three subindices thus takes values between 0 and 100, with higher values indicating more rigid regulation. By averaging the three subindices, the index of rigidity of employment is generated (World Bank Group 2004).

Compared to the OECD indicators the *Doing Business* indicators have the advantage of including more countries and making use of local experts. On the other hand they are confronted with as many methodological objections as the OECD approach:

- One major limitation is the recourse to purely hypothetical cases. The Employing Workers Index is based on strong assumptions about the workers and the enterprises in order to make international comparisons possible. The chosen cases are, however, not at all representative for the labour force and the size of firms of the different countries (Du Marais 2006). It would be useful if the World Bank would provide more general information (Davies and Kruse 2007).
- Another limitation relates to the enforcement procedures. From one country to the other there are different degrees and ways of how national administrations and labour courts determine the en-

Table 4

The Doing Business employing workers indicator

Rigidity of employment			Firing cost (weeks of salary)
Difficulty of hiring (0-100)	Rigidity of hours (0-100)	Difficulty of firing (0-100)	
1 Use of fixed-term contracts 2 Maximum duration of fixed-term contracts 3 Ratio of the minimum wage to the average value added per worker (for new hiring)	4 Night work restrictions 5 Weekend work restrictions 6 Days of rest 7 Workweek duration 8 Paid annual vacation days	9 Use of redundancy 10 Third party notification for redundancy (individual/collective) 11 Third party approval for redundancy (individual/collective) 12 Reassignment or retraining requirement before redundancy 13 Priority rules for redundancies 14 Priority rules for reemployment	Cost of advance notice requirements, severance payments and redundancy penalties

Source: *Doing Business*; http://www.doingbusiness.org/methodologysurveys/employingworkers.aspx

Table 5

CBR labour regulation indices

Alternative employment contracts (0-1)		Regulation of working time (0-1)		Regulation of dismissal (0-1)	
1	The law, as opposed to the contracting parties, determines the legal status of the worker	9	Annual leave entitlements	16	Legally mandated notice period (all dismissals)
2	Part-time workers have the right to equal treatment with full-time workers	10	Public holiday entitlements	17	Legally mandated redundancy compensation
3	The cost of dismissing part-time workers is equal in proportionate terms to the cost of dismissing full-time workers	11	Overtime premia	18	Minimum qualifying period of service for normal case of unjust dismissal
4	Fixed-term contracts are allowed only for work of limited duration	12	Weekend working	19	Law imposes procedural constraints on dismissal
5	Fixed-term workers have the right to equal treatment with permanent workers	13	Limits to overtime working	20	Law imposes substantive constraints on dismissal
6	Maximum duration of fixed-term contracts	14	Duration of the normal working week	21	Reinstatement normal remedy for unfair dismissal
7	Agency work is prohibited or strictly controlled	15	Maximum daily working time	22	Notification of dismissal
8	Agency workers have the right to equal treatment with permanent workers of the user firm			23	Redundancy selection
				24	Priority in re-employment

Source: http://www.cbr.cam.ac.uk/research/programme2/project2-20.htm

forcement of EP. It is doubtful whether enforcement procedures have been adequately captured (Berg and Cazes 2008, 366–67).

– *Doing Business* has created a unique information gathering process based on a network of informants. It is however not clear how reliable the information is. The database is dependent on a small number of informants in many countries. The answers to the questionnaires are subjective. Uncertainty about the regulatory environment is neglected. It is doubtful whether national experts of different countries employ the same standards in assessing EP, etc. (IEG 2008, 52).

– In addition, methodological objections can be raised against the coding method and the weighting. Transforming qualitative and complex information into quantitative variables by binary coding is critical (Berg and Cazes 2008, 370). Attributing equal weight to the components and the three subindices seems to be arbitrary.

The CBR labour regulation index

A major limitation of the OECD and the *Doing Business* approaches is that they are cross-sectional. They describe law in different countries as it stood at a certain point in time. By interpolating the scores of various data points time series can be generated. But the pace and the direction of legal change is not really captured by this approach. The Centre of Business Research tries to overcome this shortcoming by constructing a longitudinal labour regulation index. This index is based on primary legal sources and an evaluation of changes in labour law in the course of time. The sources are fully set out (Deakin et al. 2007).

The CBR index follows the same functional approach as Botero et al. (2004) which is to assume that laws impose rules which limit the formal freedom of employers and empower employees. It uses similar categories of labour law as Botero et al. and *Doing Business:* alternative employment contracts, the regulation of working time and regulation of dismissal. These three categories consist of 24 individual variables (Table 5; two further categories of the index are excluded here: employee representation and industrial action). The CBR datasets cover the development of labour law in France, Germany, India, the UK and the US over the period 1970–2005.

In spite of some similarities the CBR approach is different from the OECD and the *Doing Business* approaches. CBR does not try to estimate the impact of labour law rules on a representative firm – as *Doing Business* does – but wants to capture in general to which extent regulations protect the interests of workers as opposed to those of employers. In addition, CBR takes account not just of formal law but also of self-regulatory mechanisms, including collective agreements. It aims to reflect the systemic nature of legal rules, that is to say, their structural relationship to other rules in a given national context. Furthermore CBR attempts to capture to what extent rules are mandatory and to what extent they can be modified (default rules). The CBR index avoids making prior assumptions about the impacts of legal rules. It seeks to be a pure measure of the content of the rule (Deakin and Sarkar 2008, 22–27).

The CBR index is based on detailed country level data, covers a larger range of rules than other approaches by taking account of non-legal sources of binding norms and default rules and utilizes a complex coding process. Nevertheless it has some shortcomings. It neglects considering enforcement of EP legislation and the judicial resolution of labour disputes. It does not weight the variables. And it does not provide information on the proportion of employees that are covered by EP.

Summary

Assessing EP is difficult. The arrangements that exist as a result of laws, ordinances, self-regulatory mechanisms and legal precedents are complex. They are affected by the nature of the legal system. The enforcement of EP legislation may be quite different.

Since the seminal study of Lazear in 1990 much progress has been made in understanding and documenting EP. The OECD indicator of the strictness of EP, the *Doing Business* employing workers indicator and the CBR labour regulation index are among the best indicators that are available at the moment for the purpose of making international comparisons. They have different advantages. At the same time they share some common shortcomings. None of them captures in a functionally equivalent way the different characteristics of EP in civil and common law countries. All of them neglect the implementation of EP legislation.

References

Addison, J.T. and P. Teixeira (2001), "The Economics of Employment Protection", *IZA Discussion Paper* 381.

Allard, G. (2005), "Measuring Job Security Over Time: In Search of a Historical Indicator", *IE Working Paper* 17.

Amable, B., L. Demmou and D. Gatti (2007), "Employment Performance and Institutions: New Answers to an Old Question", *IZA Discussion Paper* 2731.

Belot, M. and J. van Ours (2000), "Does the Recent Success of some OECD Countries in Lowering their Unemployment Rates Lie in the Clever Design of their Labour Market Reforms?", *IZA Discussion Paper* 147.

Berg, J. and S. Cazes (2008), "Policymaking Gone Awry: The Labor Market Regulations of the Doing Business Indicators", *Comparative Labor Law and Policy Journal* 29 (4), 349–81.

Bertola, G. (1990), "Job Security, Employment and Wages", *European Economic Review* 34, 851–86.

Bertola, G., T. Boeri and S. Cazes (1999), *Employment Protection and Labour Market Adjustment in OECD Countries: Evolving Institutions and Variable Enforcement,* Employment and Training Papers 48, ILO.

Bertola, G., T. Boeri and S. Cazes (2000), "Employment Protection in Industrialized Countries: The Case of New Indicators", *International Labour Review* 139 (1), 57–72.

Bewley, T. (2004), "Fairness, Reciprocity, and Wage Rigidity", *IZA Discussion Paper* 1137.

Blanchard, O. and J. Wolfers (2000), "The Role of Shocks and Institutions in the Rise of European Unemployment: the Aggregate Evidence", *The Economic Journal* 110 (462), 1–33.

Botero, J., S. Djankov, R. La Porta, F. Lopez-de-Silanes and A. Shleifer (2004), "The Regulation of Labor", *Quaterly Journal of Economics* 119 (4), 1339–382.

Brandt, N., J.-M. Burniaux and R. Duval (2005), "Assessing the OECD Jobs Strategy", *OECD Economics Working Paper* 429.

Davis, K.E. and M.B. Kruse (2007), "Taking the Measure of Law: The Case of the Doing Business Project", *Law and Social Inquiry* 32 (4), 1095–119.

Deakin S. and P. Sarkar (2008), "Assessing the Long-Run Economic Impact of Labour Law Systems: A Theoretical Reappraisal and Analysis of New Time Series Data", *CLPE Research Paper* 30, vol. 4 (6).

Deakin, S., P. Lele and M. Siems (2007), "The Evolution of Labour Law: Calibrating and Comparing Regulatory Regimes", *International Labour Review* 146, 133–62.

Du Marais, B. (2006), "Methodological Limits of "Doing Business" Reports", *AED Working Paper* 1, Attractivité Economique du Droit, University of Paris X_Nanterre.

Emerson, M. (1988), "Regulation or Deregulation of the Labour Market, Policy Regimes for the Recruitment and Dismissal of Employees in the Industrialised Countries", *European Economic Review* 32, 775–17.

Freudenberg, M. (2003), "Composite Indicators of Country Performance: A Critical Assessment", *OECD, DSTI Working Paper* 16, Paris.

Grubb, D. and W. Wells (1993), "Employment Regulations and Patterns of Work in OECD Countries", *OECD Economic Studies* 21, 7–58.

IEG, World Bank Independent Evaluation Group (2008), *Doing Business: An Independent Evaluation: Taking the Measure of the World Bank – IFC Doing Business Indicators,* Washington DC.

Jahn, E. J. (2004), "Der Kündigungsschutz auf dem Prüfstand", *Arbeitspapier der Konrad-Adenauer-Stiftung e.V.* 138, Sankt Augustin.

Kenworthy, L. and B. Kittel (2003), *Indicators of Social Dialogue: Concepts and Measurement,* ILO Working Paper no. 5, Geneva.

Lazear, E.P. (1990), "Job Security Provisions and Employment", *The Quarterly Journal of Economics,* August, 699–726.

Nickell, S., L. Nunziata and W. Ochel (2005), “Unemployment in the OECD Since the 1960s. What Do We Know?” *The Economic Journal* 115 (500), 1–27.

Ochel, W. (2005), “Concepts and Measurement of Labour Market Institutions”, *CESifo DICE Report* 4, 40–55.

OECD (1994), The OECD *Jobs Study,* Part II, Paris.

OECD (1999), *Employment Outlook,* Paris.

OECD (2004), *Employment Outlook,* Paris.

Przeworski, A. and H. Teune (1970), *The Logic of Comparative Social Inquiry,* New York.

Rebhahn, R. (2003), “Der Kündigungsschutz der Arbeitnehmer in den Staaten der EU”, *ZfA* 34 (2), 163–235.

World Bank Group (2004), *Doing Business* 2004, Washington D.C.

World Bank Group (2008), *Doing Business* 2009, Washington D.C.

Governance in Australian Universities: Where Next?

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Introduction

In 2004 a set of National Governance Protocols were established for universities in Australia (DEST 2004) because there had been some significant breakdowns that had damaged reputations, caused tens of millions of dollars in losses and led some universities to the brink of bankruptcy. In February 2008, the Australian government decided to separate the National Governance Protocols from funding requirements, in effect making these protocols voluntary and the three-year review of the protocols then underway redundant. However, there is evidence that there are still significant governance issues prevalent throughout the Australian higher education sector (Austin 2008; Blackman et al. 2008; BIHECC 2007; GPSC2 2009a; GPSC2 2009b; NIG 2007, 2008a, 2008b, 2009; Walters 2006) and that there needs to be consideration as to how such challenges can be addressed.

Background

The National Institute of Governance (NIG) has a long-standing interest in university governance. Its founding director was author of *Review of New Zealand Tertiary Education Institution Governance* (Edwards 2003). The institute was contracted as national coordinator of the University Governance Professional Development program by the association of chancellors (Swansson, Mow and Bartos 2005). Concurrently the institute has conducted a range of research projects building an Australian evidence base for innovations in university governance. The institute has made submissions to the review of the National Governance Protocols (NIG 2007) and three further reviews/inquiries since 2007 (NIG 2008a, 2008b, 2009). Most recently governance disputes waged in public have prompted a New South Wales parliamentary committee to establish an inquiry into university governance in that state in November 2008 (NIG 2009) at which a further submission was made. In each case concerns have been raised that governance is weak, poorly managed and that more formal systems of governance might be advocated. However, there is a question as to whether more "hard" forms of governance (Kocourek, Burger and Birchard 2003) will overcome the problems being identified.

The concern about university governance has both general and specific causes. The public attention in the wake of large enterprise failures (whether public organisations or companies) has generally required governments to reconsider governance arrangements that were "not long ago regarded as either excellent or at least as not presenting serious policy problems" (Kirkpatrick 2004, 14). Since 1995 the Australian government, as the sector's primary public funder, has had concerns regarding the skills and capacity of university governing bodies (generally called councils) to manage the organisational and financial risks of what were by then very large enterprises (Hoare 1995).

Such doubts were apparently justified, with a series of reviews and inquiries (Hoare 1995; Storey 1997; West 1998; Hamilton 2002; Cameron 2003; AGO 2005). Concerns initially questioned the operating effectiveness of university governing bodies, with particular concerns about the perceived lack of focus on corporate and strategic issues and structures that hamper management and deter institutions from being aware of their costs or to minimize them (Hoare 1995; Storey 1997; West 1998). Specific failures and multimillion dollar losses within universities or subsidiary companies in their control prompted a series of reviews and inquiries (Hamilton 2002; Cameron 2001; Cameron 2003; AGO 2005). Examples include (but are not limited to):

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- The impact of losses by Melbourne University Private Limited (up to $4 million per year to 2001) on the University of Melbourne. MUPL's annual losses were forecast to increase despite increasing revenue, posing a potential loss of capital and revenue to the university and reducing services sold to MUPL. A particular concern was the overlap and hence competition with University of Melbourne services (Cameron 2001).
- From 1999 Royal Melbourne Institute of Technology experienced a 22.5 percent growth in revenue but a 42 percent increase of expenditure. In addition to general costs and losses associated with overheads, research activities, the TAFE division and a large property portfolio, one significant factor was the mismanagement of the Academic Management System, whose $47 million implementation cost was nearly four times the original budget while delivering less than the required functionality, significantly disrupting services to students. Inadequate governance arrangements included contract management practices and unreliable information inhibiting effective review of the performance of management by the Council (Cameron 2003).
- In New South Wales, public audits of 2004 financial reports identified five with operating deficits and three with a liquidity ratio too low to provide financial safety for cash flow. Key issues identified included risks associated with subsidiary companies and off shore activities as fund-raising activities (AGO 2005).

In the early 2000s the view of both state and Commonwealth governments reflected the international emphasis on the capability of institutions to be responsible for themselves. The essence of the Victorian Review of University Governance (Hamilton 2002) was to distance the state from responsibility for the financial losses of universities constituted under their legislation, and strengthen the responsibility and capability of councils for their institutions and subsidiaries. The following year the Commonwealth government introduced the National Governance Protocols (NGP) as a conditional component of funding in the Higher Education Support Act (HESA) 2003. The NGP offered a significant financial incentive for universities to significantly improve their governance and were aimed at culture change (Bishop 2006).

The eleven National Governance Protocols were negotiated by the government with the sector including vice-chancellors and chancellors. These protocols impose obligations on Australian universities and other higher education providers for (DEST 2004):

- definition of institutional objectives and governing body purposes and duties (nos. 1, 3);
- systematic professional development programs and performance evaluations of governing bodies (no. 4);
- systematic procedures for composition of the governing body, including limits on size (some were as large as 90) and specifications of expertise (nos. 2, 5, 6); and
- codification and reporting of business practices of the university and subsidiaries (nos. 7, 8, 9, 10, 11).

What have the National Governance Protocols achieved?

All universities were required to annually report compliance against NGP to receive (certain) funding, with a transition period to allow for legislative changes to Acts. All universities have been assessed for the years 2004 to 2007 and deemed compliant. From this it can be inferred that all universities made the required structural changes and documented roles and responsibilities in legislation and ancillary documents. There has been a significant reduction in risk due to controlled entities and offshore operations, due in part to better identification of existing controlled entities and in part to a move towards stricter procedures for creating controlled entities. Acknowledgement of poor business models for some business-type activities led to good practice: closing loss-making operations.

In 2006 the UGPD Program conducted a survey of university governors' responses to the National Governance Protocols (UGPD 2006). The survey data showed greater than 80 percent thought their institutions well placed to satisfy the requirements of the NGP, and in general Australian universities were better placed in corporate governance than rhetoric might suggest. However, this was self-assessment and evidence shows that there may be too much complacency within the system.

What have the National Governance Protocols not achieved?

"The compliance assessment entails an examination of whether required actions have been taken and criteria have been met. *It cannot measure behaviours* *and the extent to which good practices have been embraced"* [emphasis added] (Walters 2006).

The compliance framework of the protocols can be criticized for generating a tick-a-box culture (see NIG 2008b) and within a few years the Commonwealth government was expressing concern that the protocols were being perceived by university Councils as "an invitation to accept the lowest common denominator" (Bishop 2006). Before 2003 academics and corporate regulators already recognised that closed systems of compliance, with penalties and/or incentives, have a tendency to degenerate into boilerplate being less meaningful as well as incomplete (JCCG 2001; Conglianese et al. 2004; ASX CGC 2006). Individual or institutional behaviour can be either malevolent or negligent, either intending to "comply with the letter of the law but circumvent its underlying purpose" (Conglianese et al. 2004, 3) or failing to "focus on the particular needs, strengths and weaknesses of the company" (ASX CGC 2006).

Contemporaneously the focus in corporate governance has shifted from compliance to performance (e.g., Nadler 2004; Young 2006). There is now a growing body of evidence confirming that corporate governance exerts an important influence on growth prospects. The most fundamental task of any institution, and therefore its governing body, is to ensure its sustainability as a strong, viable and competitive organisation against a background of a changing environment. "This focus on regulation rather than performance has arisen despite the fact that more value is lost through strategic mismanagement than through fraud and malpractice" (Young 2006).

Data from the 2006 NIG survey of university governors suggests that university governing bodies are still more oriented to compliance than performance and that satisfying the National Governance Protocols was not too formidable a task (NIG 2008b). Furthermore, individual comments reveal discrepancies or shortcomings, including (but not limited to):

- The overall prescriptiveness of the protocols;
- The lack of definition of, as the main example, "controlled entities";
- The limited definition of "expertise" as financial;
- The difficulty of operationalising some protocols (e.g., succession planning) in the external environment (where ministerial appointments of council members take many months).
- The absent, or recent, knowledge of institutional responses to the protocols.

Fate of the National Governance Protocols

In 2007 the protocols themselves were due for a three-year operation review. At the same time the Victorian state government commenced a review of its higher education legislation, some enabling acts being over 100 years old. Both of these reviews were overshadowed by two actions of the new Australian government in the first months of 2008.

In March it announced a wide ranging review of Australian higher education whose terms of reference included regulation of the sector and governance of individual universities. A month earlier the Australian government decided to separate the National Governance Protocols from funding requirements, in effect making these protocols voluntary and their review redundant (JCHE 2008). In some respects this is an unintended consequence of the fulfillment of a general election promise to revoke the previous government's policy on employment relations, which for this sector were contained in the same section of HESA 2003 as the NGP. Subsequent to this change the Australian government is seeking to replace the NGPs with a voluntary code that will be owned and mandated by the higher education sector. The Australian government is seeking to develop the code with Universities Australia, the vice-chancellors' group, and the University Chancellors' Council (DEEWR 2009).

What problems will a voluntary code attempt to solve?

Crises of governance continue in Australian universities, and recent disputes within governing bodies have hit headlines in two states and prompted a parliamentary inquiry into governance of NSW universities.

- UNSW vice-chancellor attributes the approximately $50 million loss on failed establishment of a UNSW-Asia campus in Singapore to poor governance, particularly lack of financial skills on the part of council (GPSC2a 2009);
- Former UNE chancellor, also former chief executive and chairman of construction firm, describes the university as poorly managed and financially vulnerable, stating that "As recently as last year the university was to all intents and purposes technically insolvent" (GPSC2b 2009); and
- VU chancellor and Supreme Court judge engages the Victorian government solicitor to write a let-

ter to council member and state president of the National Tertiary Education Union president for breach of the council's code of conduct for writing critically of the university's leadership in a letter to state and federal members of parliament (Austin 2008).

Professional approaches to governance and management appear to still be a problem. There is evidence that there is a lack of skills and that the senior committees do not develop and encourage challenge. The complexity of the legal framework of universities especially creates ambivalence toward fiduciary duties of university councils and individual members. The now revoked National Governance Protocols required the insertion of fiduciary duties equivalent to statutory duties in corporate law into individual university enabling acts (DEST 2004). Otherwise, in Victoria at least, university council members are subject to neither corporate nor public sector standards of financial responsibility (NIG 2008a). In this context one Victorian vice-chancellor has argued against the incorporation of universities under the Corporations Act 2001 from the perception of a functional immunity from insolvency (BIHECC 2007).

University governance and knowledge management

So the question is – why is university governance still such a problem? A research study undertaken by NIG explored why these governance breakdowns may still be occurring and considered what strategies would need to be adopted in future if governance is to improve. The study built upon work undertaken by Blackman et al. (2006), where it was argued that how knowledge was understood and managed would actively impact upon organisational outcomes and the effectiveness of an organisation. The argument in this context is that as universities become increasingly interested in improving governance to achieve strategic outcomes, the relationship between good governance and good knowledge becomes central. Understanding the nature and role of knowledge processes and systems is a central concern in the current global interest in governance. Corporate governance has always used financial, physical-plant and intellectual capital to build value (Keenan and Aggestam 2001), and university governance should be no different.

Our interest in this research is in the way in which knowledge is being created, recognised, harnessed, stored and transferred in support of the governance and strategic development in the university. This interest emerges as a result of the growing acceptance that it is the knowledge held within institutions which enables them to develop and grow (Earl 2001; Teodorescu 2006). The literature on governance and board effectiveness emerges from the corporate sector (Newton and Sackney 2005), but its application to universities and other educational settings is acknowledged by bodies which recognise that: "The university is no longer a quiet place to teach and do scholarly work at a measured pace and contemplate the universe as in centuries past. It is a big, complex, demanding, competitive business …" (OECD 2007).

The importance of knowledge development as a strategic concern in organisations is established as an important issue for corporate governance (Keenan and Aggestam 2001), whilst in Australia there has been a strong impetus in recent years for university governance to maintain a focus on strategic development in contexts of increasingly fast-paced change. This focus is reflected in the council protocols for many Australian universities, although some continue to publish governance protocols that restrict council and board roles to approving, supporting, and overseeing policy systems.

Even in instances where there is an espoused role for university councils in the development of strategic direction, the practice in governing bodies still lags, with councils maintaining the heuristics and habits that reflect governance in less turbulent times (Blackman et al. 2007). This limited engagement with strategic activity by council has been linked with perspectives of knowledge that reflect somewhat outdated notions of the nature and diversity of knowledge in organisations (Blackman et al. 2006) and the claim is made that strategic success in the university is dependent upon richer understandings of the role of knowledge and its management in governance decision making.

Study methodology

The study sought to determine how knowledge is created, shared and transferred within university structures in order to identify whether possible weaknesses in this process might be leading to breakdowns in governance. In order to gather rich data about perceptions of the knowledge creation and transfer processes in place, the research drew on observations and semi-structured face-to-face interviews with members of academic board and council. Five observations of each committee were undertaken, totalling in excess of 40 hours of observation. The observers used protocols designed to record where knowledge was recognised as being used, shared or created. They then noted the type of knowledge being discussed, from where it emerged and to where it was transferred. Five interviews were undertaken with members of council and academic board (all those interviewed sat on both committees). The interviewees were chosen to give a range of views of the committees – they included a staff elected member, a student member, two previous chairs of academic board and the vice-chancellor. Between them, these participants had sat on a range of council subcommittees including finance, information technology, campus development and resources, and academic board subcommittees including education, admissions and student services. Three of the interviewees had also been members of a vice chancellor's advisory committee which, while not a formally constituted committee, had been highly influential in university decision making. Each interview took one hour and followed a semi-structured format in which participants were asked about their role in council; how they understood knowledge; where, in their view, knowledge was created within the university structure; and the impacts of the way knowledge was or was not created and transferred upon effective corporate governance.

Observations of committee meetings and transcripts of interviews were transcribed and analysed using the NVivo™ qualitative analysis tool. Two major themes emerged in the data and these were further investigated through interrogation of the full data set: firstly: *how* was the way that knowledge was (or was not) created and disseminated through the governance structures affecting strategic decision making and, secondly, *who* was driving knowledge, innovation and strategy implementation within the governance structures.

Findings and discussion

Creation and dissemination of knowledge in university governance structures affecting strategic decision making

Observation and interview data demonstrated that there was little knowledge creation or transfer occurring at the major decision making forums of the university. According to those interviewed this was not a problem as they argued that their role was to ratify and confirm knowledge and decisions that have been transferred to them; knowledge creation should happen in the subcommittees that feed into council and academic board. Members of these committees discussed the need for innovation, for "think tanks", new strategies and collaboration; however, these were discussed in terms of the committees' role in arranging workgroups to do this thinking and collaborating. There was no discussion in board or at council that indicated these groups considered these active development roles to be ones they should assume.

A concern that emerged was that the intended model for knowledge development and transfer, whereby knowledge created within subcommittees would be transferred to relevant governance structures in the university, was not actually occurring. Subcommittees might be creating useful knowledge and using this to make recommendations and decisions; however, the recording mechanisms reduce the transfer to bare information, stripped of the context and process of knowledge production and of any meaning. What was finally reported and ratified at university council and academic board was a series of decisions, which enabled control but not knowledge development.

We would argue that this is having a serious affect upon the strategic decision making of the university. University councils are widely (if not universally) claimed to be the overarching decision making body of the university. However, what is clear here is that this cannot be the case. Moreover, during the observations it was clear that very few of those involved in the meetings actively took part – in most meetings only a handful of those present spoke and often any opportunities for debate were stifled. In fact it became clear that the processes at academic board and at council were focused on attempting to restrict the impact of external change on the organisation by increasing control mechanisms, rather than by innovating to adapt to environmental turbulence. Examples obtained through observation highlighted the committees' preoccupation with monitoring the progress of draft policy and approving decisions made elsewhere, with very little comment or challenge. Presentation of reports, feedback from committees and papers tabled for review consumed the vast majority of time and effort in both committees. While there was some development of definitions, which required minimal creative discussion, generally the committee process limited knowledge development, placing the focus instead on information transfer. This focus was reinforced within the committees, members being censured at times for challenging the information presented to the group.

The structures' focus on cementing process and maintaining stability is in direct contradiction to the current theoretical discussion of appropriate knowledge strategies in environments of flux. These strategies, similarly, appear antithetical to improvements to the university's progress in increasingly uncertain times. In terms of effective governance, it became clear that unless the way that the council protocols were interpreted changed in terms of knowledge management principles (Blackman et al. 2008), many major strategic decisions would not be made within the expected frameworks.

Who drives knowledge, innovation and strategy implementation?

An important implication of the lack of knowledge transfer between committees is that any new knowledge created resides solely within the individuals who took part in any decision-making process – mostly tacit and usually unrecorded. When new decisions are being made, dialogue in committees will only enable previous knowledge to be used, provided those individuals are still with the organisation and they are involved in the decision-making process. If not, the competitive advantage that such knowledge might provide will be lost. This means that not only is the actual decision-making taking place outside the key governance bodies, those within the governance bodies who helped frame the decision will be likely to hold undue influence over others within the committees. Observations led to the conclusion that so few members of the committees were contributing because they were ill-equipped to do so. Interviews confirmed this with participants commenting that they often did not have the knowledge of where ideas had emerged from or that decisions were made elsewhere and they were not encouraged to challenge them. It was clear that senior university management saw the council as a place to get their previously agreed decisions ratified. This led to a concern for effective governance in terms of the way the agency relationship was being framed.

An agency relationship is one where one party or principal employs another to manage and run their company or other organisation for them. An agent will be paid to reflect the best interests of those employing them who should be primarily focused upon the best outcomes for the organisation (Frankforter et al. 2007) and the governance systems should be in place to ensure that the employers maintain control over the agent. However, there has been concern raised over the years as to the efficacy of such relationships and their ability to deliver the best outcomes for the organisation and its sustainability (Frankforter et al. 2007; Eisenhardt 1989). There is a tendency in such relationships for their success to be based upon short-term successes and self-interest (Hill and Jones 1992) as this enables those taking part to understand the benefit of the decisions that they are taking. Moreover, as the agent needs to justify their decisions this will be more likely if either (a) the benefit to the principal is clear or (b) the task is difficult and there is a high level of trust in the agent. There are concerns with the latter, however, as it means that the agent may be able to become the major decision maker and the governance systems may not prove to be adequate checks and balances.

We would argue that in a situation where there is limited knowledge shared or there are potentially underskilled individuals undertaking the governance roles, it is highly likely that the effective of the governance will be undermined. We would argue that this is the case in many Australian university governance systems at present.

Implications

In this paper we have argued that there are still considerable problems with governance in Australian universities. It was stated earlier that the focus of the protocols was upon "hard" governance and we now consider whether the two themes identified here lead to a greater recognition for managing the "soft" side of governance. According to Kocourek, Burger and Birchard (2003) there are seven elements to "soft" governance:

- Select the right directors;
- Train them continuously;
- Give them the right information;
- Balance the power of the CEO and directors;
- Nurture a culture of collegial questioning;
- Gain from directors an adequate commitment of time; and
- Measure and improve.

We would argue that these can be undermined by both of the elements outlined in this paper. Having the appropriate directors may be considered in terms of skills but also needs to be considered in terms of how open they are to developing, acquiring and challenging new knowledge. There will be a need not only for not a range of business skills, but also life and thinking skills enabling an ongoing and robust debate. Without discussion no new knowledge can be transferred and no novelty will emerge (Cook and Brown 1999). The need for ongoing training and development also supports the need to develop new skills and create informed debate. The balancing of power is directly related to the issues of agency power, and without a culture that enables and supports challenge, the agent's power will become steadily stronger.

Consequently, we contend that the issues pertaining to knowledge development and transfer, both in terms of how it is done and who drives it are crucial to the effective development of governance both within universities and elsewhere. We call for a much greater focus upon the research into "soft" wiring governance in place of the increasingly common compliance model and seek research that links differing, but related, areas of organisation studies to governance in order to develop new models of both structures and implementation.

References

Auditor-General Office (AGO; 2005), *Report to Parliament,* vol. 2, State of New South Wales.

Australian Stock Exchange Corporate Governance Council (ASX CGC; 2006), *Principles of Good Corporate Governance and Best Practice,* ASX, http://www.asx.com.au/supervision/pdf/asxcgc_amended_principles_021106.pdf

Austin P. (2008), "Judge Accused of Attacking Freedom of Speech", *The Age,* 18 December.

Bishop J. (2006), *Keynote Speech, National Conference on University Governance,* http://www.dest.gov.au/Ministers/Media/Bishop/2006/10/B001101006.asp (accessed 18/5/09).

Blackman, D., M. Kennedy, J. Swansson and A. Richardson (2008), "University Governance in Uncertain Times: Refocusing on Knowledge Creation and Innovation", *Journal of Institutional Research* 14 (1), 1–8.

Blackman, D., J. Swansson and A. Richardson (2006), "Why Organisations Need to Consider the Way They Conceive Knowledge", *actKM online Journal of Knowledge Management* 3 (1), http://www.actkm.org/userfiles/File/actKMjnl/2006/Why%20organisations%20should%20consider%20how%20they%20conceive%20knowledge.pdf.

Business, Industry and Higher Education Collaboration Council (BIHECC; 2007), Submission to MCEETYA Review of the National Governance Protocols, http://www.mceetya.edu.au/mceetya/review_of_ngps_-_submissions,20578.html (accessed May 2009).

Cameron, J. W. (2001), *Report on Ministerial Portfolios,* June, Auditor General Victoria, State of Victoria, Melbourne.

Cameron, J. W. (2003), *Report of the Auditor-General on RMIT's Finances,* Auditor General Victoria, State of Victoria, Melbourne, 2003.

Coglianese, C., T. J. Healey, E. K. Keating and M. L. Michael (2004), "The Role of Government in Corporate Governance", *Faculty Research Working Papers Series RWP04-045,* John F. Kennedy School of Government, Harvard University.

Cook, S. D. N. and J. S. Brown (1999), "Bridging Epistemologies: The Generative Dance between Organizational Knowledge and Organizational Knowing", *Organization Science* 10 (4), 381–400.

Department of Education, Employment and Workplace Relations (DEEWR; 2009), "Submission 9, Inquiry into Governance of NSW Universities", Legislative Council General Purpose Standing Committee No. 2, Parliament of NSW, http://www.parliament.nsw.gov.au/prod/PARLMENT/committee.nsf/V3ListSubmissions?open&ParentUNID=4057D761E7A7D2ED-CA2574E30000C561.

Department of Education, Science and Training (DEST; 2004), *Commonwealth Grant Scheme Guidelines* (revised annually), Commonwealth of Australia, Canberra, http://www.dest.gov.au/sectors/higher_education/programmes_funding/forms_guidelines/hesa_guidelines/commonwealth_grant_scheme_guidelines.htm (accessed May 2009).

Edwards M. (2003), *Review of New Zealand Tertiary Education Institution Governance,* New Zealand Ministry of Education.

Earl, M. (2001), "Knowledge Management Strategies: Toward a Taxonomy", *Journal of Management Information Systems* 18 (1), 215–33.

Eisenhardt, K. M. (1989), "Agency Theory: An Assessment and Review", *Academy of Management Review* 14 (1), 57–74.

Frankforter, S. A., J. H. Davis, D. A. Vollrath and V. Hill (2007), "Determinants of Governance Structure among Companies: A Test of Agency Theory Predictions", *International Journal of Management* 24 (3), 454–62.

General Purpose Standing Committee No. 2 (GPSC2; 2009a), Public Hearing 26/02/2009 – Governance of NSW universities, http://www.parliament.nsw.gov.au/prod/PARLMENT/committee.nsf/0/F4C61332752B1944CA25750F0003A106.

General Purpose Standing Committee No. 2 (GPSC2; 2009b), Public Hearing 03/04/2009 – Governance of NSW universities, http://www.parliament.nsw.gov.au/prod/PARLMENT/committee.nsf/0/B33F2D6829258AF8CA25758F00820750.

Hamilton S. (2002), *Review of University Governance,* State of Victoria, Melbourne.

Hoare D. (1995), *Higher Education Management Review,* Commonwealth of Australia, Canberra.

Hill, C. W. L. and T. M. Jones (1992), "Stakeholder-agency Theory", *Journal of Management Studies* 29, 131–54.

Joint Committee on Corporate Governance (JCCG; 2001), Beyond Compliance: Building a Governance Culture, Canadian Institute of Chartered Accountants, http://www.cica.ca/multimedia/Download_Library/Research_Guidance/Risk_Management_Governance/Governance_Eng_Nov26.pdf

Joint Committee on Higher Education (JCHE; 2008), http://www.mceetya.edu.au/mceetya/default.asp?id=11474

Keenan, J. and M. Aggestam (2001), "Corporate Governance and Intellectual Capital: Some Conceptualisations", *Empirical Research-based and Theory-building Papers* 9 (4), 259–75.

Kirkpatrick G. (2004), *Corporate Governance – A Survey of OECD Countries,* OECD Publications.

Kocourek, P. F., C. Burger and B. Birchard (2003), "Corporate Governance: Hard Facts about Soft Behaviours", *Strategy and Business* 30, http://www.strategybusiness.com/press/16635507/8322

Nadler, D. A. (2004), "Building Better Boards", *Harvard Business Review* 82 (5), 102–11.

National Institute of Governance (NIG; 2007), Submission to MCEETYA Review of the National Governance Protocols, http://www.mceetya.edu.au/mceetya/review_of_ngps_-_submissions,20578.html (accessed May 2009).

National Institute of Governance (NIG; 2008a), Submission to OTTE Review of Victorian Higher Education Legislation http://www.diird.vic.gov.au/CORPLIVE/STANDARD/PC_65242.html (accessed May 2009).

National Institute of Governance (NIG; 2008b), Submission 122, Commonwealth Review of Australian Higher Education http://www.deewr.gov.au/HigherEducation/Review/Pages/Submissions.aspx (accessed May 2009).

National Institute of Governance (NIG; 2009), Submission 13, Inquiry into Governance of NSW universities, Legislative Council General Purpose Standing Committee No. 2, Parliament of NSW http://www.parliament.nsw.gov.au/prod/PARLMENT/committee.nsf/V3ListSubmissions?open&ParentUNID=4057D761E7A7D2ED-CA2574E30000C561.

Newton, P. and L. Sackney (2005), "Group Knowledge and Group Knowledge Processes in School Board Decision Making", *Canadian Journal of Education* 28 (3), 434–57.

OECD (2007), *On the Edge: Securing a Sustainable Future for Higher Education,* Papers O E W, OECD Publishing.

Storey, H. (1997), *University Governance in Victoria,* Government of Victoria, Melbourne.

Swansson, J. A., K. E. Mow and S. Bartos (2005), "Good University Governance in Australia", *Refereed Proceedings of 2005 Forum of the Australasian Association for Institutional Research,* ISBN 0-646-45592-3, 98-109.

Teodorescu, D. (2006), "Institutional Researchers as Knowledge Managers in Universities: Envisioning New Roles for the IR Profession", *Tertiary Education and Management* 12, 75–88.

Walters, C. (2006), *University Governance,* IMHE/OECD, http:// www.oecd.org/dataoecd/54/49/37378292.pdf.

West, R. (1998), *Review of Higher Education Financing and Policy,* Commonwealth of Australia, Canberra, http://www.dest.gov.au/archive/highered/hereview/default.htm.

Young, D. (2006), *The Real Agenda: Corporate Governance and Performance,* Accountancy Ireland, 38, Institute of Chartered Accountants Ireland.

University Governance Professional Development Program (UG-PD; 2006), *University Governors Reflection on National Governance Protocols,* National Institute of Governance, University of Canberra.

Parental Leave in the Netherlands

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Introduction

This article addresses the development of leave policies, in particular parental leave, in the Netherlands. This development can be characterised as a search for the most accurate interpretation of the leave instrument and the corresponding division of responsibilities between the government, social partners and parents. Starting from a position in which parental leave was interpreted as a way to facilitate part-time employment, the Act on Parental Leave of 1991 provided a basic entitlement to take part-time, unpaid leave for a relatively short period of time. It was left to the social partners to supplement this minimum, for example, in terms of length or in terms of income support. Over time, however, the public responsibility regarding leave has increased. This is apparent not only in the increasing number of leave policies, but also in a growing public involvement in the provision of income support. During this process, the interpretation of parental leave seemed to have changed from a labour market instrument pure and simple, towards a more complex instrument also targeting the facilitation of parenthood and the wellbeing of children.

Legal entitlements

In 1991, after some years of debate, the Act on Parental leave came into force in the Netherlands. This act granted an unpaid part-time parental leave for a maximum of six months to employees who had been employed by their current employer for at least one year to be taken within four years after the birth of a child (TK 1987–1988).

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The design of the parental leave was mainly inspired by practical feasibility and labour market effects; leave policies were hardly discussed as part of the care system with young children as the primary beneficiaries (Plantenga and Remery 2009). Given the importance attached to part-time working hours as a means of increasing the female participation rate, the parental leave policy was to enable young parents to work part-time during a period of heavy care responsibilities. The leave entitlement was therefore structured as a part-time right: the employee was to remain active in the labour market for at least 20 hours per week. A second important consideration in the early debates was that the leave arrangement should favour the equal division of paid and unpaid work between men and women. As a result, parental leave was defined as an individual, non-transferable right and not as a family right. Finally, the entitlement was unpaid, because parents were considered primarily responsible for raising their children. In addition, it was argued that a paid leave would result in an undesirable increase in the tax burden for both the private and collective sector.

Although the parental leave legislation was welcomed as a first important step towards a more gender equal society, there were several problems with the actual design of the leave policy. The stipulations of the act, especially the 20-hour threshold, excluded quite a number of (part-time) working mothers from taking leave. Another problem referred to the fact that the actual design of the leave policy did not favour an equal sharing of paid and unpaid work; it was presumed that a more flexible approach, especially the possibility to spread the leave hours over a longer period of time, would increase the take-up of men. A final argument against the rather rigid part-time orientation of the parental leave legislation was that this approach was not in line with the draft directive on parental leave of the European Union, which (either implicitly or explicitly) favoured a full-time leave (Spaans and Van der Werf 1994).

The remedy for these problems was to take a different approach to parental leave. While in the act of 1991 parental leave could be interpreted as introducing a statutory right to reduce working hours against the background of a rather standard working-time regime, the new proposal brought parental leave in line with the growing reality of rather divers and individualised working hours. In the new draft (TK 1995–1996), the total number of leave hours was set at 13 times the number of the contractual weekly working hours. The statutory right is still part-time: parents have the legal right to lower their working hours by 50 percent over a period of 26 weeks. However, employees may request the employer's permission to spread the leave hours over a longer period than six months or to take more hours per week. Employers may not refuse unless compelling business reasons dictate otherwise. As a result of this proposal, the flexibility of the leave policy was increased, while it also became accessible for part-timers. Moreover, it was suggested that the period until which the leave could be taken should be extended from four years to six years (TK 1995–1996). This extension would facilitate the transition from day care facilities to primary school. In the final negotiations over the parental leave act, the period during which the leave can be taken was further extended until the child was eight years old. This was in line with the EU Directive on Parental Leave, which was accepted in 1996 (TK 1997). Despite these major changes, the leave remained unpaid. The government persisted in its original point of view that income support during leave is an issue to be settled by the social partners through collective labour agreements. The changed Act on Parental leave came into force on 1 July 1997.

A few years later, the leave legislation was streamlined in the Work and Care Act of 2001 (TK 1998–1999). The act included the right to paid maternity leave (16 weeks), paid paternity leave (2 days), unpaid parental leave (for a maximum of 6 month on a part-time basis) and provisions in case of adoption and multiple births. In addition to the specifically child-related leave benefits, provisions to care for family or household members include paid emergency leave, paid short-term carers' leave and a regulation to finance a career break in order to care or to study. Since June 2005 the Work and Care Act has been extended with an entitlement of all employees to take (unpaid) long-term leave to care for a terminally ill child, partner or parent. The design of the long-term care leave follows to some extent the logic of the parental leave legislation. The maximum duration of this leave is 6 times the weekly number of working hours in a period of 12 successive months. In contrast to parental leave, however, long-term care leave is not a statutory right; employers may refuse because of compelling business reasons.

Employers' involvement

From the very start, the employer has been given an important role in the introduction of leave policies within the Dutch working-time regime. By way of collective labour agreements, the social partners are expected to top up public policy, which is mainly concerned with guarantying the minimum right. In order to create some flexibility and to allow for tailor-made solutions, the leave legislation is also of a so-called three-quarter mandatory legal nature. This means that deviation from the standard legal provision is allowed by way of collective agreement or by decision of the employee's council. In case of parental leave, divergent agreements are for example possible with regard to the splitting up of the leave and/or the spreading of the leave over the year. Also the age stipulation (the fact that the leave has to be taken up before the eight birthday of the child) may be changed. The particular role of the employers in this dossier reflects the overall system of industrial relations with consultation and involvement at the central level, but which at the same time, emphasises the importance of decentralisation and tailor-made solutions. Yet the division of responsibilities is rather fluid. As the OECD puts it: "The government specifies issues that it thinks should be the topics under discussion in industrial bargaining. If the outcomes are unsatisfactory as they have been over leave, working time flexibility and childcare, to some extent, it may then consider imposing legislation" (OECD 2002: 16). An interesting illustration of this search for the optimal division of responsibilities is offered by the payment issue.

Within the context of the Act on Parental leave, the payment was left to the employees and the employers; collective agreements are expected to provide for income support. However, several studies indicated that the majority of employers did not offer any payment during the period of parental leave, and this majority proved to be fairly stable. The unpaid character of the leave had a negative impact on the take up rate. An evaluation in 1999 indicated that only one in five eligible parents actually made use of this right (Grootscholte et al. 2000). Yet in branches with paid leave the take-up rates were five times higher than in branches without paid leave. Two third of the parents that were entitled to the leave but did not use it stated that they would have taken it if 70 percent of the wages had been paid.

The rather reluctant attitude of the employers and the effects of this attitude in terms of take-up rates created a growing public support for additional measures. A more positive approach on the part of the employers was also favoured because of the presumption that higher take-up rates would contribute to a more equal sharing of unpaid care work, which was still an important goal of the emancipation policy. Finally, arrangements for paid leave would fit with developments in Europe, showing an increasing number of member states offering paid parental leave (TK 2000–2001:5). Making paid leave mandatory was still considered unrealistic, however, given the primary role employers were expected to play in matters concerning labour conditions. The solution was to change the fiscal incentive structure. By 2001, employers could deduct 50 percent of the costs of paid leave, under the condition that payment during parental leave was at least 70 percent of the minimum wage. In addition, payment was to be included in the collective agreement or made available to at least three-quarter of the employees in the firm. With this tax deduction the actual payment became the shared responsibility of the government, the employer and the employee.

Employers, however, have never been particularly eager to supplement legal provisions. Research carried out in 2004 indicated that only half of the employers were familiar with the Work and Care Act; small companies in particular did not have a positive view on these matters (Van der Linden and Van der Werf 2004). It seemed that the employer was overburdened by the specificity of the measures. It also implied that – more than 15 years after the introduction – only a minority of the potential leave takers were entitled to a paid parental leave.

Table

Take-up of parental leave among entitled employees, 2000–06

	Take up of parental leave		Average length of leave, in hours per week		Average length of leave, in months	
	Female	Male	Female	Male	Female	Male
2000	39.0	15.8	12	9	8	11
2001	45.3	15.7	12	8	8	10
2002	37.3	15.9	12	9	8	11
2003	42.1	15.9	12	8	8	10
2004	39.6	18.0	11	9	9	10
2005	44.1	18.9	11	8	8	11
2006	43.8	21.0	10	8	9	11

Source: CBS Statline.

Parental leave: take-up rates

The fact that young parents in the Netherlands are not entitled to paid parental leave presumably explains why the take-up is still far from 100 percent; see the Table for further details. In 2006 the take-up among women amounted to 44 percent while 21 percent of the entitled men took up parental leave. Although the take-up rate of men is considerably lower, it is fairly high compared with that of other European countries (Plantenga and Remery 2005).

The Table indicates that there are also slight differences in the average length of the leave taken up by men or women. Men on average take up eight hours of leave and spread the number of leave hours over 11 months. Women take up more hours of leave, resulting in a somewhat shorter duration of the leave period. The data seem to indicate that, in a typical case, both parents use the possibility of spreading the leave hours over a longer period of time. Part-time parental leave is thus still the usual option despite the possibility to organise leave on a full-time basis. This is in line with the overall emphasis on part-time working hours within Dutch society. Whereas in some of the other European countries leave is scheduled before the use of childcare facilities, in the Netherlands a parallel approach is advocated. To balance work and family life, parents use part-time working hours, partly facilitated by parental leave legislation, in combination with a part-time use of childcare facilities. By implication, childcare facilities are open to very young children, starting directly after the 16 weeks of maternity leave.

Latest developments

Although the Work and Care Act was considered to be a final piece of legislation, the debate over this dossier never completely stopped. Improving the possibilities to take up leave for the purpose of care or study became an important element in the debate on modernising social security. At the same time there was a growing reluctance to add just another piece of legislation to an already complex dossier. Rather the emphasis was on finding an innovative and flexible approach which would solve several problems and fit into a more mature, individualistic approach towards social security. In this context, the life-course perspective became an important frame of reference for both policy makers and academics (Plantenga 2005). The first initiative to develop a life-course savings scheme was undertaken in 2002 but it was not until 2006 that the Dutch scheme came into effect. According to this scheme employees may save up to 12 percent of their gross annual income tax-free for a "life-course product". Employees may use it to finance a period of non-labour-force participation. In principle, the period of leave may be used for all kinds of different purposes, like going on holidays, care obligations or a sabbatical. A maximum of 210 percent of the last-earned yearly wage may be saved, which amounts to three years of leave at 70 percent of the last earned income. The deferred tax principle is applicable implying that no taxes are paid on the savings account, but solely on the withdrawal. In addition, there is a fiscal bonus for each participating year as a result of which the life-course scheme can be characterised as a tax-favored private savings scheme. Finally, parents who take up parental leave and participate in the life-course scheme have access to an extra fiscal benefit of 50 percent of the minimum wage for the statutory period of parental leave. As a result, although the statutory right for parental leave was still unpaid, since 2006 young parents had access to paid parental leave as long as they participated in the life-course savings scheme.

The organisation of the income support for leave takers may not be a very elegant nor a very transparent solution – the time component of parental leave is now organised within the context of the Work and Care Act, whereas the payment is organised within the context of the life-course scheme. Yet it indicates a shift from the interpretation of the leave instrument from only enabling part-time working hours for parents towards a broader perspective in which the well-being of young parents and children also plays a role. The introduction of a tax credit also indicates the difficulty of generating a full coverage by collective labour agreements. The reluctance of the employers to provide income support is thereby acknowledged, and the government has taken over the responsibility. Within this context it is only logical that by introducing the parental credit within the life-course scheme, the tax relief for employers who provide paid parental leave has been terminated.

In addition to the payment issue, the length of the parental leave period also became a subject of policy concern. At the start of the fourth Balkenende cabinet in 2007 the Coalition Agreement (2007) stated that "parents should be able to combine labour and care, working and raising children. In the rush hour of life it should be possible to organize a time out. The life-course scheme also serves that purpose. The statutory right to parental leave will be lengthened from 13 to 26 weeks per employee and will not be transferable. The life-course scheme will be reorganised accordingly" (p. 29). Indeed, as of the first of January 2009, the length of parental leave is now fixed at 26 times the contractual number of working hours. Young parents are thus entitled to a part-time (50 percent) leave of 52 weeks. Contrary to the original statement, however, the fiscal benefit is now granted to all employees taking-up parental leave and no longer reserved for employees also participating in the life-course scheme. This can be interpreted as an important first step to develop a more broadly accepted, paid parental leave legislation.

This slight reorientation also seems to imply a shift from a concurrent towards a more consecutive relationship between leave arrangements and childcare provision. The latest Equal Opportunities Policy Note, for example, points out that the 26 weeks per parent was chosen so that working parents, when taking up parental leave, can care for their child during his/her first year (OCW 2007, 31). This indicates a clear break from earlier policies, according to which the leave taker was supposed to remain attached to the labour market and the parental leave scheme only to facilitate part-time working hours.

Concluding remarks

The Dutch policies on parental leave seem rather limited compared to other European countries. In fact, it seems fair to state that Dutch policy makers always had some ambivalence towards the instrument of leave. Presumably, this rather austere attitude is partly inspired by the Dutch working-time regime that is characterised by relatively short full-time working hours and a high part-time rate. As a result, the pressure for extended leave policies has never been strong. Rather the parental leave policy was intended to facilitate the attachment to the labour market in a period in which care responsibilities were rather heavy. As such the parental leave legislation entitles parents to work part-time. Consistent with this view, the payment issue is of only secondary importance.

The developments within the parental leave legislation also demonstrate an underlying search for the proper design. On the whole this search seems rather "incremental" and problem-oriented; there was no particular, goal-oriented plan. As such the specific details of the parental leave legislation illustrate the typical Dutch problem-solving style of decision-making (e.g., Hemerijck and Visser 1999). This particular style and the heavy reliance on party-political compromises may not always translate into extremely transparent regulations. This is also illustrated by the parental leave case in the sense that the entitlement to leave and the entitlement to income support is organised by different legislation. As stated before, this is not a very carefully considered design and it is quite perceivable that it will lower the use of parental leave (Haan and Plantenga 2007).

Nevertheless, there are clear signs of a somewhat broader perspective on the leave instrument. With hindsight, the inclusion of payment within the life-course scheme may be assessed as a slight detour that has made financial support for leave takers from public funds more acceptable. Within a European perspective, the extension of the period of parental leave to 26 weeks (in full time equivalents) is certainly an improvement. The level of payment remains rather low, however, despite improvements, which raises concern about affordability and related to this the take-up of parental leave.

References

Coalition agreement (2007), *Coalition Agreement between the Parliamentary Parties of the Christian Democratic Alliance, Labour Party and Christian Union.*
.

Grootscholte, M., J.A. Bouwmeester and P. de Klaver (2000), *Evaluatie Wet op het ouderschapsverlof,* Ministerie van Sociale Zaken en Werkgelegenheid, 's-Gravenhage.

Haan, P. de and J. Plantenga (2007), "Ouderschapsverlof in de levensloop", *Economisch Statistische Berichten,* 5 October, 598–99.

Hemerijck, A. and J. Visser (1999), "Beleidsleren in de Nederlandse verzorgingsstaat", *Beleid en Maatschappij* 26(1), 13–26.

Linden, L. van der and C. van der Werf (2004), *Ervaringen van werkgevers met de Wet arbeid en zorg,* Research voor Beleid, Leiden.

Plantenga, J. (2005), "Dutch Debates: Modernising Social Security by Introducing the Life Course as a Frame of Reference", in P. de Gijsel and H. Schenk, eds., *Multidisciplinary Economics. The Birth of a New Economics Faculty in the Netherlands,* Springer, Dordrecht, 53–64.

Plantenga, J. and C. Remery (with the assistence of P. Helming; 2005), *Reconciliation of Work and Private Life: a Comparative Review of Thirty European Countries,* Office for the Official Publications of the European Communities, Luxembourg.

Plantenga, J. and C. Remery (2009), "The Netherlands: Bridging Labour and Care", in S. Kamerman and P. Moss,eds., *The Politics of Parental Leave Policies,* Policy Press, Bristol.

OCW (Ministerie van Onderwijs, Cultuur en Wetenschap; 2007), *Meer kansen voor vrouwen. Emancipatiebeleid 2008–2011,* Ministerie van OCW, Den Haag.

OECD (2002), *Babies and Bosses: Reconciling Work and Family Life, vol. 1, Australia, Denmark and the Netherlands,* Paris.

Spaans, J. and C. van der Werf (1994), *Evaluatie van de Wet op het ouderschapsverlof,* VUGA, 's-Gravenhage.

TK (Tweede Kamer; 1987–1988), *Regelingen betreffende de aanspraak op ouderschapsverlof (Wet op het ouderschapsverlof),* Tweede Kamer vergaderjaar 1987–1988, 20 528, no. 3, Den Haag.

TK (Tweede Kamer, 1995–1996), *Wijziging van titel 7.10 (arbeidsovereenkomst) van het Burgerlijk Wetboek met betrekking tot ouderschapsverlof,* Tweede Kamer vergaderjaar 1995–1996, 24 869, no. 3, Den Haag.

TK (Tweede Kamer; 1997), *Handelingen Tweede Kamer over het wetsvoorstel Wijziging van titel 7.10 (arbeidsovereenkomst) van het Burgerlijk Wetboek met betrekking tot het ouderschapsverlof (24869),* Tweede Kamer 45e vergadering, 28 January 1997, 3577–87.

TK (Tweede Kamer; 1998–1999), *Arbeid en zorg,* Tweede Kamer vergaderjaar 1998–1999, 26 447, no. 2, Den Haag.

TK (Tweede Kamer; 2000–2001), Wijzigingen van belastingwetten c.a. (Belastingplan 2001), Tweede Kamer vergaderjaar 2000-2001, 27 431, no 3, Den Haag.

Worldwide Governance Indicators: Rule of Law, 2007

The Worldwide Governance Indicators (WGI) project of the World Bank reports aggregate and individual governance indicators for 212 countries and territories over the period 1996–2007, for six dimensions of governance: Voice and Accountability, Political Stability/Absence of Violence, Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption.

The aggregate indicators combine the views of a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. The individual data sources underlying the aggregate indicators are drawn from a diverse variety of survey institutes, think tanks, non-governmental organizations, and international organizations.

The World Bank uses an Unobserved Component Model (UCM) to aggregate the various responses in the broad 6 clusters. This model treats the "true" level of governance in each country as unobserved, and assumes that each of the available sources for a country provide noisy "signals" of the level of governance. The UCM then constructs a weighted average of the sources for each country as the best estimate of governance for that country. The weights are proportional to the reliability of each source. This means that more precise sources (in the sense of providing less noisy signals of governance) receive more weight in the aggregate indicators. The resulting estimates of governance have an expected value (across countries) of zero, and a standard deviation (across countries) of one. This implies that virtually all scores lie between – 2.5 and 2.5, with higher scores corresponding to better outcomes.

In "Rule of Law" the World Bank includes several indicators which measure the extent to which agents have confidence in and abide by the rules of society. These include perceptions of the incidence of crime, the effectiveness and predictability of the judiciary, and the enforceability of contracts. Together, these indicators measure the success of a society in developing an environment in which fair and predictable rules form the basis for economic and social interactions, and importantly, the extent to which property rights are protected.

Table

Worldwide Governance Indicators: Rule of Law, 2007 and 1998

Country	Governance score 2007	Governance score 1998
Australia	1.79	1.77
Austria	1.90	1.82
Belgium	1.52	1.29
Bulgaria	– 0.14	– 0.23
Canada	1.86	1.78
Cyprus	0.96	0.82
Czech Republic	0.77	0.82
Denmark	1.95	1.86
Estonia	1.00	0.50
Finland	1.87	1.90
France	1.32	1.37
Germany	1.78	1.66
Greece	0.65	0.68
Hungary	0.74	0.74
Iceland	1.97	1.76
Ireland	1.77	1.63
Italy	0.43	0.84
Japan	1.39	1.47
Korea	0.82	0.71
Latvia	0.57	0.18
Lithuania	0.49	0.41
Luxembourg	1.85	1.81
Malta	1.55	1.26
Mexico	– 0.58	– 0.51
Netherlands	1.76	1.81
New Zealand	1.91	1.88
Norway	2.00	1.98
Poland	0.28	0.69
Portugal	0.95	1.22
Romania	– 0.17	– 0.11
Slovak Republic	0.35	0.23
Slovenia	0.84	1.07
Spain	1.12	1.29
Sweden	1.90	1.80
Switzerland	2.01	2.04
Turkey	0.00	– 0.05
United Kingdom	1.75	1.80
United States	1.59	1.68

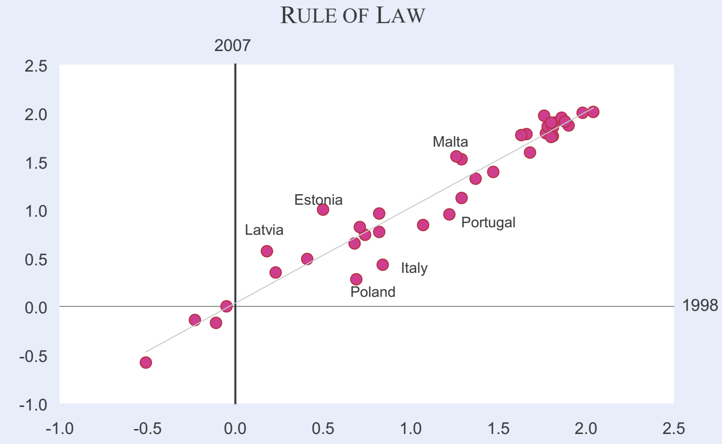
Note: Only European countries and non-European OECD countries are included.

Source: Kaufmann, D., A. Kraay and M. Mastruzzi (2008).

Among European countries and non-European OECD countries Switzerland, Norway, Iceland, Denmark and New Zealand dominate the top scores in the 2007 Rule of Law-Indicator. The United States, Malta, Belgium, Japan and France have been classified as countries with a medium level of Rule of Law. The countries with the lowest score are Bulgaria, Romania and Mexico (Table).

To have a comparison over time, the Figure illustrates the changes for the Rule of Law-Indicator over the decade 1998–2007. The 1998 score is shown on the horizontal axis and the 2007 score on the vertical axis. Countries located above the 45-degree angle line exhibited improvements in Rule of Law,

Figure



Source: Kaufmann et al. (2008).

while countries below the line exhibited deteriorations in Rule of Law. The first feature of this graph is that most countries are clustered quite close to the 45-degree line, indicating that changes in the Rule of Law-Indicator in most countries are relatively small over the ten-year period covered by the graph. But improvements have been made in Estonia, Latvia and Malta. In contrast there have been declines in countries such as Poland, Italy and Portugal.

A. R.

References

Kaufmann, D., A. Kraay and M. Mastruzzi (2008), "Governance Matters VII: Aggregate and Individual Governance Indicators 1996–2007", *Policy Research Working Paper* 4654.

World Bank, Worldwide Governance Indicators, 1996–2007, http://info.worldbank.org/governance/ wgi/index.asp.

R&D Subsidies: Large Firms and SMEs

It is commonly agreed that research and development (R&D) is subject to potential market failure. One reason is that expenditures for R&D create significant spill-over effects. At the same time, R&D plays an important role for productivity growth. R&D is, therefore, one important area for government intervention.

In most OECD countries R&D aid is generally horizontal in nature and not targeted at a particular sector. Industrial policy targeted at R&D can, of course, take various forms with tax subsidies only being one of the possible instruments.

The following Table compares the percentage rate of tax subsidies for R&D for OECD countries. Tax subsidies are calculated as 1 minus the B-index. The B-index is compiled by the OECD to compare tax treatment of R&D investment. "The B-index is defined as the present value of before tax income necessary to cover the initial cost of R&D investment and to pay corporate income tax, so that it becomes profitable to perform research activities. The more favourable a country's tax treatment of R&D, the lower its B-index" (OECD 2007). For example, in Spain, 1 unit of R&D expenditure by large firms results in 0.39 unit of tax relief.

The Table does not confirm a traditional pattern of lower levels of R&D effort in Europe compared to

Table

Rate of tax subsidies for one US dollar of R&D[a)], large firms and SMEs, 2006–07

	SMEs	Large firms		SMEs	Large firms
Austria	0.088	0.088	Slovak Republic	–0.008	–0.008
Belgium	0.089	0.089	Spain	0.391	0.391
Czech Republic	0.271	0.271	Sweden	–0.015	–0.015
Denmark	0.161	0.161	United Kingdom	0.106	0.096
Finland	–0.008	–0.008			
France	0.189	0.189	Norway	0.232	0.207
Germany	–0.030	–0.030	Switzerland	–0.010	–0.010
Greece	–0.011	–0.011	Turkey	0.139	0.139
Hungary	0.162	0.162			
Ireland	0.049	0.049	Australia	0.117	0.117
Italy	–0.023	–0.023	Canada	0.325	0.179
Luxembourg	–0.014	–0.014	Japan	0.162	0.118
Netherlands	0.239	0.066	Korea	0.158	0.180
Poland	0.022	0.010	New Zealand	–0.023	–0.023
Portugal	0.285	0.285	United States	0.066	0.066

[a)] Tax subsidies are calculated as 1 minus the B-index. Algebraically, the B-index is equal to the after-tax cost of an expenditure of USD 1 on R&D divided by one minus the corporate income tax rate. The after-tax cost is the net cost of investing in R&D, taking into account all the available tax incentives.

$$B\text{–}index = \frac{(1-A)}{(1-\tau)}$$

where A = the net present discounted value of depreciation allowances, tax credits and special allowances on R&D assets; and τ = the statutory corporate income tax rate (CITR). In a country with full write-off of current R&D expenditure and no R&D tax incentive scheme, A = τ, and consequently B = 1. The more favourable a country's tax treatment of R&D, the lower its B-index.

The B-index is a unique tool for comparing the generosity of the tax treatment of R&D in different countries. However, its computation requires some simplifying assumptions. It should therefore be examined together with a set of other relevant policy indicators. Furthermore, its "synthetic" nature does not allow for distinguishing the relative importance of the various policy tools it takes into account (e.g., depreciation allowances, special R&D allowances, tax credit, CITR). B-indexes have been calculated under the assumption that the "representative firm" is taxable, so that it may enjoy the full benefit of the tax allowance or credit. For incremental tax credits, calculation of the B-index implicitly assumes that R&D investment is fully eligible for the credit and does not exceed the ceiling if there is one. Some detailed features of R&D tax schemes (e.g., refunding, carry-back and carry-forward of unused tax credit or flow-through mechanisms) are therefore not taken into account.

The effective impact of the R&D tax allowance or credit on the after-tax cost of R&D is influenced by the level of the CITR. An increase in the CITR reduces the B-index only in those countries with the most generous R&D tax treatment. If tax credits are taxable, the effect of the CITR on the B-index depends only on the level of the depreciation allowance. If the latter is over 100% for the total R&D expenditure, an increase in the CITR will reduce the B-index. For countries with less generous R&D tax treatment, the B-index is positively related to the CITR.

See Warda (2001) for country reviews of policy instruments.

Sources: OECD (2007), Warda (2001).

Japan and the US (EEAG 2008). With regard to tax treatment Spain and Canada offer the greatest incentive for companies to invest in research.

SMEs tend to be more flexible and inventive and, therefore, are of particular importance for innovation and research in the economy. Only a few countries, however, in their policy of R&D tax subsidies, treat SMEs and large companies differently (Netherlands, Poland, United Kingdom, Norway, Canada, Japan, and Korea). With the exception of Korea, all countries grant higher tax subsidies to SMEs than to large companies. The Netherlands and Canada display the greatest distinction. In the Netherlands one additional unit of R&D expenditure will result in a 0.173 unit greater tax relief for SMEs than for large companies. Interestingly, large companies in Korea gain a slightly bigger tax relief for 1 unit of R&D expenditure (0.022) than SMEs. One potential explanation is that huge business conglomerates, so-called chaebols, play an important role in Korea and often receive government assistance.

E.B./C.H.

References

EEAG (2008), *The EEAG Report on the European Economy,* Munich, chapter 4.

OECD (2007), Science, Technology and Industry Scoreboard 2007, Paris, 72–73, available at http://puck.sourceoecd.org/vl=1728276/cl=11/nw=1/rpsv/sti2007/c-3.htm.

Warda, J. (2001), “Measuring the Value of R&D Tax Treatment in OECD Countries”, in OECD, Special Issue on New Science and Technology Indicators, *STI Review* no. 2.

Do Fathers Still Play a Peripheral Role in Daily Family Life?

In theoretical models of families the father still often plays the role of "bread-winner", living with a wife who cares for the children (e. g., Algan and Cahuc 2005). There have been considerable increases in female labour supply in OECD countries and changes in women's attitudes towards family and gender roles over the last few decades. The partners of these women have responded to this changed situation. Statistics indicate that male full-time labour supply is falling and part-time supply is rising moderately. To get an idea of future changes in the full-time labour supply of men, it is important to look at the prospective integration of fathers in family affairs. Current sociological concepts of fatherhood and trends in the attitudes of fathers towards family and their involvement in the labour market can provide insight into this matter.

Different concepts of fatherhood

In comparison to the long-established model of the "patriarchal father" with a strong but emotionally distant father, today the father role model has become increasingly differentiated. The following examples provide a brief overview[1]:

– *The modern provider:* In addition to the classical functions of a bread-winner, this type of father takes part in family activities only some of the time, focuses on maintaining good relations with his children and is interested in their future. Routine interaction with the children does not take place because of lack of available time on the part of the father.

– *The democratic father:* In contrast to the patriarchal role model this father shows more interest in his family and the education of his children. He is socially very active and places importance on broadening the horizons of his children.

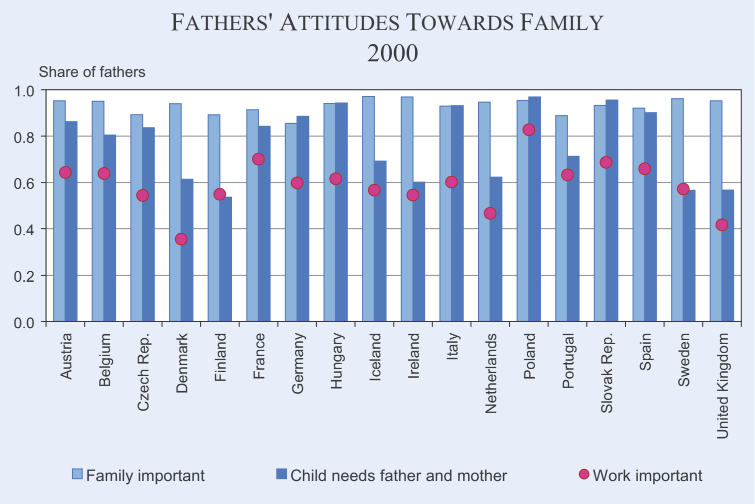
– *The holistic father:* This father regards fatherhood as an important aspect in male life, focusing on an emotional relationship to his children. He takes on responsibilities and plays an important role in the daily activities of the family. Household chores are a normal part of his life.

Insight into fathers' attitudes towards family

To gain insight into the trend of some attitudes of fathers towards family, micro data were analysed from the 1990 and 2000 wave of the World Value Survey. The focus of analysis is on fathers in their prime (aged between 25 and 54), living in OECD-countries.[2] The answers to the following three questions were investigated:

1) "How important is family in your life?"[3]
2) "If someone says a child needs a home with both a father and a mother to grow up happily, would you tend to agree or disagree?"[4]
3) "How important is work in your life?"

Figure 1



Note: (a) Questions in survey: 1) "How important is family in your life?" Possible answers: "very important", "important", "not very important", "not important". Only the answer "very important" is included in our analysis. 2) "If someone says a child needs a home with both a father and a mother to grow up happily, would you tend to agree?" Possible answers: "tend to agree", "tend to disagree". Only the answer "tend to agree" is included. 3) "How important is work in your life?" Possible answers: "very important", "important", "not very important", "not important". Only the answer "very important" is included. Target group: fathers between 25–54 years.
Source: World Values Survey (www.worldvaluessurvey.org), accessed on 1 April 2009; calculation, design of the figure and additional information provided by the Ifo Institute.

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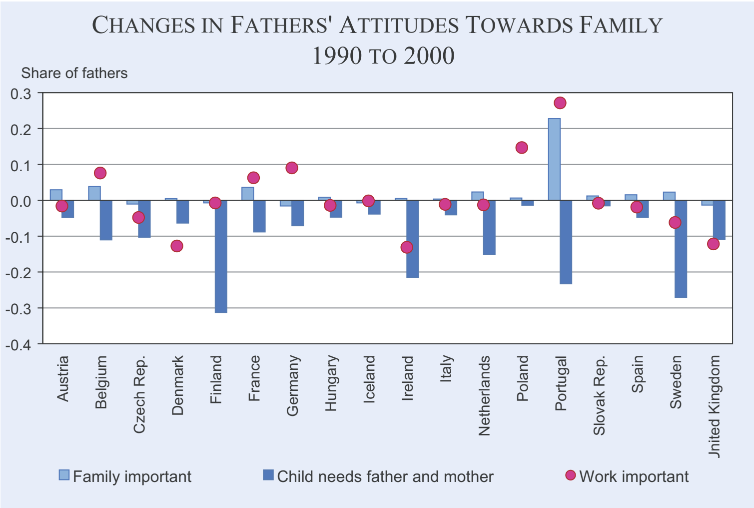
[1] For further information see DJI Bulletin Plus (2008).
[2] Because of unavailable data Australia, Canada, Greece, Korea, Mexico, Luxembourg, Norway, Switzerland, Turkey and the US were not included.
[3] Possible answers are "very important", "important", "not very important", "not important". Only the answer "very important" was included in our analysis.
[4] Possible answers are "tend to agree", "tend to disagree". Only the answer "tend to agree" was included in our analysis.

Figure 2



Note: (a) see Figure 1.
Source: see Figure 1.

High values for question one and two indicate a prevalence of modern views of fatherhood. In addition to the information about the personal value of the family in question 1), question 2) provides evidence of how important it is for the father to be involved in the upbringing of his children. Lower values in question 3) signal that the father's main focus in life is not on work and developing his career, indicating that he has more time for parenting. The data highlight considerable differences across countries and across time in the mean values of responses to these questions.

Figure 1 shows the cross-country variation in values pertaining to the three questions in wave 2000. In all countries fathers placed more importance on family than on their work (difference in average over all countries is 37 percent). The variation within "importance of family" is less than a fourth of the variation within "importance of work". Poland shows the highest values in both questions. In contrast, Germany has the lowest value with respect to family and Denmark with respect to work. Further more, Denmark is the country with the highest gap between the values of the two questions. With respect to answers to the second question there is a span of over 40 percent between the highest and lowest value. Countries like Hungary, Italy, Poland and Slovak Republic are the highest; Finland, Sweden and the UK are at the lowest end of the spectrum.

Figure 2 illustrates the changes in the three attitudes in question over time (mean values of responses from the 2000 survey subtracted from those of 1990). Numerous countries, such as Austria, Hungary, Iceland, Italy, Slovak Republic and Spain, have stable values over time (changes smaller than 5 percent). Most of the countries show a slight increase in the importance of family, with the exception of Portugal which showed an increase of more than 20 percent. It is noticeable that there is generally a negative trend with respect to the view that children need both parents to grow up happily. The Scandinavian countries Finland and Sweden demonstrate the most dramatic change with a decrease of more than 25 percent in 10 years. The trend in importance of work is not as clear: in Denmark, Ireland and the UK the values dropped dramatically. On the other hand in Poland and Portugal the importance of work increased sharply.

All in all the results do not show a clear picture with respect to views on fatherhood. On the one hand in countries like France, Poland and Slovak Republic fathers place considerable importance on the family, work and equal family-involvement for both parents. On the other hand fathers in countries like Finland, Ireland, Netherlands, Sweden and the United Kingdom have high family and low work values but the idea of a child needing a father and a mother is not deemed necessary. There is evidence that there is considerable differentiation in the father role model across countries, which may imply a change in associated behaviour relating to the future labour supply of fathers.

U.J.

References

Algan, Y. and P. Cahuc (2005), "The Roots of Low European Employment: Family Culture?", *NBER International Seminar on Macroeconomics,* 65–109.

Ochel, W. (2005), "Women's Attitudes Towards Family and Gender Roles", *CESifo DICE Report* 3 (4), 75–77.

DJI Bulletin Plus (2008), "Väter", no. 83/84.

WVS Survey (www.worldvaluessurvey.org), accessed on 1 April 2009.

Tackling Undeclared Work

Across the 27 member states of the EU, a great deal of effort is being invested in policy measures for tackling undeclared work. The European Foundation for the Improvement of Living and Working Conditions has commissioned a report on the effectiveness of the policy measures used in several countries (Williams et al. 2008). In the following we shall present some of the results of this report: a typology of potential policy approaches and a choice of particular measures.

A typology of policy approaches

Most literature on tackling undeclared work distinguishes between two broad approaches: the dominant deterrence approach and an emergent approach focused on encouraging compliant behaviour. As the Table shows, the conventional deterrence approach seeks to engender compliance by detecting and punishing non-compliance. It is based on the understanding that those who are non-compliant are "rational economic actors" who will evade tax as long as the pay-off from evasion is greater than the expected cost of being caught and punished. The goal is to deter engagement by changing the cost/benefit ratio confronting those who are engaged or thinking about participating in undeclared work. This is achieved by increasing the actual and perceived risks and costs associated with participation by raising the likelihood of detection and the penalties and sanctions for those caught.

The emergent approach aims to encourage compliance by either preventing businesses or people from engaging in undeclared work from the outset, enabling the transfer of undeclared work into the declared realm, or by facilitating a commitment to "tax morality". Such an approach seeks to bring about a change in behaviour by encouraging "good" behaviour – that is, tax and benefit compliance – rather than taking it as given. It is grounded in a belief that punishing people for doing something wrong – in other words, negative reinforcement – is relatively ineffective compared with positive reinforcement of good behaviour. In the realm of undeclared work, a positive reinforcement approach can take three different forms. Prevention measures can be adopted to prevent non-compliance from the outset. Incentives can be used to help those already participating in undeclared work to transfer into the declared work realm. And finally, commitment measures can be adopted that seek to encourage tax morality.

Table

Policy approaches for tackling undeclared work

Approach	Method	Measures
Deterrence	Improve detection	Data matching and sharing Joining up strategy Joining up operations
	Penalties	Increase penalties for evasion
Enabling compliance	Prevention	Simplification of compliance Direct and indirect tax incentives Smooth transition into self-employment Introducing new categories of work Micro-enterprise development
	Legitimising undeclared work	Employer incentives: • service vouchers • targeted direct taxes • targeted indirect taxes Worker incentives: • society-wide amnesties • voluntary disclosure • business advisory and support services
	Changing attitudes	Promoting benefits of declared work Education Peer-to-peer surveillance Tax fairness Procedural justice Redistributive justice
This table outlines the main types of approaches used for tackling undeclared work in the EU-27.		

Source: Williams et al. (2008).

Specific policy measures

In the following some specific policy approaches which are used to tackle undeclared work will be presented. These measures are quite diverse.

In several countries attempts are made to increase the likelihood of detection. One example is the so-called *Crossroads Bank in Belgium*. Measures to improve detection have been at the core of Belgium's policy for tackling undeclared work since the 1990s. E-government is an integral part of the government's strategy in this respect. An important step was the establishment of the Crossroads Bank for Social Security in 1991. This bank constitutes the central hub in an electronic network integrating the back offices of all social security institutions in Belgium and thus facilitates initiatives targeting undeclared work. Some of the main e-government initiatives targeting undeclared work include: the Social Identity Card (1991), which made undeclared work harder to perform; the Immediate Declaration system (2003), which requires employers to electronically inform social security services as soon as an employee joins or leaves the company; and the International Migration Information system (2006), which requires the electronic and immediate registration of any activity by foreign workers in Belgium.

One approach to encourage compliance by preventing people from engaging in undeclared work from the outset is the simplification of compliance. One such initiative is *CUORE in Naples*. The Operative Urban Centre for Economic Upgrading (CUORE) was established in 1999 based on an agreement between the municipality of Naples and the University Frederico II to research the local business environment. This research revealed that the principal local labour market problem in Naples was not unemployment but rather the "hidden economy". Today, CUORE consists of a network of neighbourhood service centres for entrepreneurs and aspiring entrepreneurs. Each local CUORE centre offers services to a low-income neighbourhood. Their target group is small and micro-sized "hidden" entrepreneurs. Once identified, CUORE centres offer information and advice to aid formalisation. Besides providing advice and support, attempts have also been made to offer incentives for businesses to do the same. As a result, business consortia have been established to provide promotional aid and training, arrange trade fairs, help protect the originality of their labels and offer assistance with the internationalisation of their markets. This creates further incentives for companies or individuals to legitimise their business.

A popular assumption is that the most basic way to eradicate undeclared work is by reducing overall tax rates. However, the problem with using general tax reforms to deal with undeclared work is that they have much broader impacts. For this reason, more targeted measures are often developed – as demonstrated by the *Rich Aunt Agatha scheme in the Netherlands*. It is well known that many people starting up in business secure their venture capital not from formal but from informal sources – such as family, friends and acquaintances. A resulting problem is that these loans are often made on a relatively informal basis, which may contribute to an attitude from the outset that informal practices are part of the culture of the enterprise that is being established. In the Netherlands, it was formally recognised that this is how many entrepreneurs receive their venture capital. As a result, a scheme called the Rich Aunt Agatha Arrangement was introduced as an incentive to those giving loans, and in doing so to help those using personal loans obtained from family and friends (Aunt Agatha) to start off on the right footing. By exempting these private moneylenders from certain taxes, such loans are deliberately put on the radar of the tax authorities. At the same time, the initiative helps to encourage businesses to start off on a more formal basis rather than seeing themselves as being engaged in informal arrangements which might carry over to their everyday trading practices.

Another possible method for encouraging people and businesses to engage in legitimate activities is to introduce new categories of legitimate work, enabling those involved in undeclared work, often by necessity, to move into the declared realm. For many years, EU member states effectively shut their eyes to the fact that people undertake small jobs that they do not declare. Unlike other countries, the *German* government decided to address this situation, creating a new *"Mini Jobs"* category of employment, which encourages people to legitimise these small jobs. Until 1999, "minor employment" was allowed up to a certain income level of about 325 and with a weekly working time cap of 15 hours. This work was exempt from social security payments for both employers and employees. Employers had to pay a lump-sum tax rate of 23 percent, while employees were not obliged to pay any tax whatsoever. This minor employment could be combined with normal employment and still remained exempt from tax and social security contributions. In 1999, the government reformed the minor employment scheme, in an effort to limit its growth. This drove much of this work into the undeclared sphere. As a result, in 2002, the government introduced a new initiative providing for three new types of "mini jobs":

- Jobs with a 400 earning threshold – the former 325 income limit was raised to 400. Within this income limit, mini jobs also became subject to reduced social security contributions of 23 percent (12 percent for pension insurance and 11 percent for health insurance contributions) and a lump-sum tax rate of 2 percent. Moreover, the 15 hours weekly working time cap was abolished.

- Mini jobs in the household sector – introduced to combat undeclared work in this sphere. Accordingly, the employer pays a levy of 12 percent and can deduct a certain amount from their tax payments.
- "Midi jobs" – in order to ease the transfer from minor to normal employment, a transition zone was introduced allowing for earnings ranging between Euro 400 and Euro 800, with social security contributions for the employee gradually rising from about 4 percent to the full 21 percent.

Besides using measures to prevent people from engaging in undeclared work in the first place, measures also exist to enable those already participating in undeclared work to legitimise their activities. These measures include, for example, voucher schemes such as the *Service Vouchers in Belgium*. Service vouchers are a means of paying for everyday personal services. Each voucher costs Euro 6.70 and this pays for an hour of work from certified companies that hire unemployed people. At first, the unemployed person can be hired by the company on a part-time, temporary basis. After six months, the company has to offer the worker a permanent employment contract for at least half-time employment if the person was registered as unemployed. An employee of a certified company can carry out the following activities: housecleaning, washing and ironing, sewing, running errands and preparing meals. The household pays using the vouchers, the cost price of which was Euro 21 in 2005; the difference is paid to the company by the government. The household can recover 30 percent of the price of the voucher in their tax returns. This effectively means the cost of one hour's work to the customer is Euro 4.69.

In order to encourage household work to be carried out in the formal rather than the hidden sector, wage costs for official household work can be reduced directly by government as is done by the *Home Service Scheme in Denmark*. The Danish Home Service Scheme was launched in 1994 as a pilot project and made permanent in 1997. Its aims were to: firstly, compete with undeclared work; secondly, promote the development of formal enterprises that provide household services; and thirdly, offer job opportunities to low-skilled jobseekers. Under this scheme, businesses registered with the Danish Commerce and Companies Agency provide services to households, for which the government reimbursed a portion of the cost.

Another measure to legitimise undeclared work involves offering amnesties on an individual basis to those who voluntarily disclose that they have been working on an undeclared basis, as the *Regularisation Campaign in Italy* shows. In October 2001, the Italian government implemented a law known as the Regularisation Campaign (Law 383/2001), which eventually ceased in February 2003. This allowed hidden workers and enterprises to regularise their situation with respect to issues such as tax, labour, safety, social security contributions and land use irregularities. In exchange, they paid reduced taxes and social contributions for three years, as well as reduced pension contributions for the previous years, to enable them to adapt. Hidden workers were given two options: to declare their irregularities and immediately pay all (reduced) taxes and contributions owing, or to engage in gradual "regularisation". The latter entailed submitting a regularisation plan, which included deadlines for solving irregularities, to an ad hoc committee. If the plan was not followed and the deadlines not met, the workers would be penalised by having to pay 100 percent of the tax and contributions owing, rather than the reduced amount.

W.O.

Reference

Williams, C. C., E. Horlings and P. Renooy (2008), *Tackling Undeclared Work in the European Union,* European Foundation for the Improvement of Living and Working Conditions, Dublin.

Pharmaceutical Sector Regulation in OECD Countries

Rapid growth in healthcare expenditure is a universal issue in industrialized countries. Pharmaceutical products have been an important driver of this phenomenon: between 1998 and 2003, OECD members have seen an average real increase of 32 percent in pharmaceutical products. Cost-containment policies have thus taken a prominent position on many countries' reform agendas. They aim to tackle the inefficiencies that are commonplace in a market for pharmaceuticals that is prone to problems of moral hazard, informational asymmetries and a lack of competition at various stages.

Policymakers have a host of regulatory instruments at their disposal:

- Global budgets impose spending limits on a nationwide or regional scale. The ceiling on expenditures can either apply to certain products or groups of products or the healthcare system in its entirety.
- Prescribing budgets put a ceiling on the value of medication a physician can prescribe during a period. To enhance enforcement, overrun is financially sanctioned.
- Profit controls for pharmaceutical companies either apply to the absolute level of annual profits or their growth rate.
- External reference pricing (ERP) determines a maximum reimbursement level or market price for patented drugs. This price is based on the price of similar medication in other countries.
- Other direct price controls without explicit referencing to international prices include price negotiations, maximum prices, price freezes and the like.
- Economic evaluations require or encourage the assessment of cost and benefit to determine whether or not to include a new drug in the benefit package of national health systems or a private insurance.
- Generic reference pricing (GRP) implies that the scope to which patients are reimbursed for drug purchases depends on the price of generic drugs, i.e., drugs containing the same active substances.

Table 1

Pharmaceutical sector regulation policies in 19 OECD countries (2004)

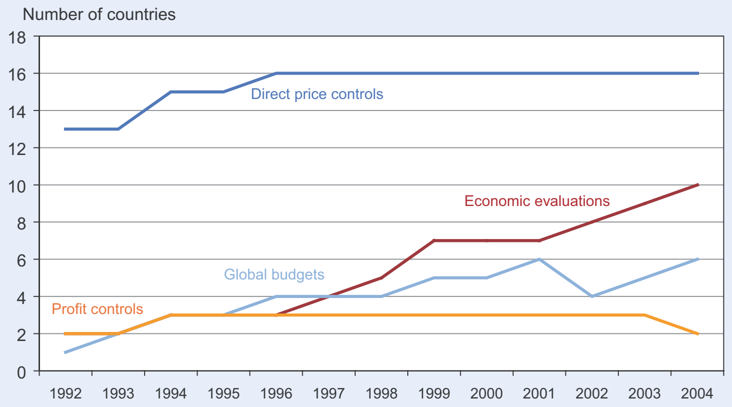
	Global budgets	Prescribing budgets	Profit controls	External reference pricing (ERP)	Price negotiations and others	Economic evaluations	Generic reference pricing (GRP)	Therapeutic reference pricing (TRP)	Generic substitution policies	Generic prescribing	Degressive pharmacy fee structures	Pharmacy chains
Australia					●	●		●	●			●
Canada					●	●	●		●			N/A
Denmark				●			●		●		●	
Finland					●	●			●		●	●
France	●				●		●		●		●	
Germany		●						●	●			●
Greece					●							
Hungary	●				●	●		●	●		●	
Italy	●				●	●		●	●	N/A	●	N/A
Japan					●					●		●
Netherlands				●				●	●			●
New Zealand	●				●	●		●	N/A	N/A		N/A
Norway				●		●	●		●	●	●	●
Portugal					●	●	●		●	●		
Spain	●		●		●		●		●	●	●	
Sweden					●	●			●		●	
Turkey				●			●		●		●	
UK	●		●			●				●	●	●
US											N/A	●
TOTAL	6	1	2	4	12	10	7	6	14	5	10	8

N/A: = not applicable or not available.

Source: Sood et al. (2009).

Figure 1

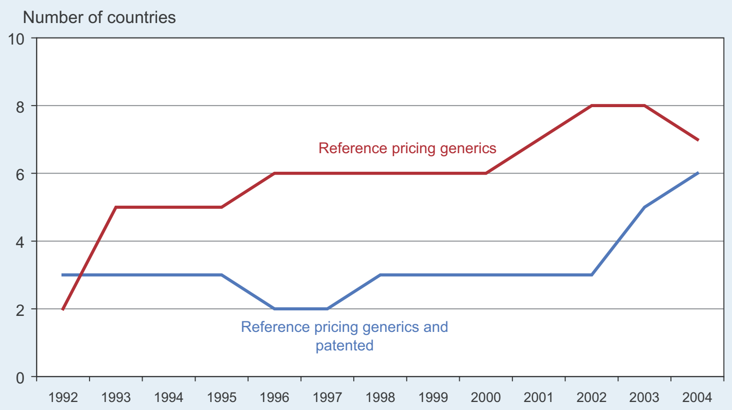
TRENDS IN VARIOUS REGULATORY MECHANISMS IN 19 OECD COUNTRIES
1992–2004



Source: Sood et al. (2009).

Figure 2

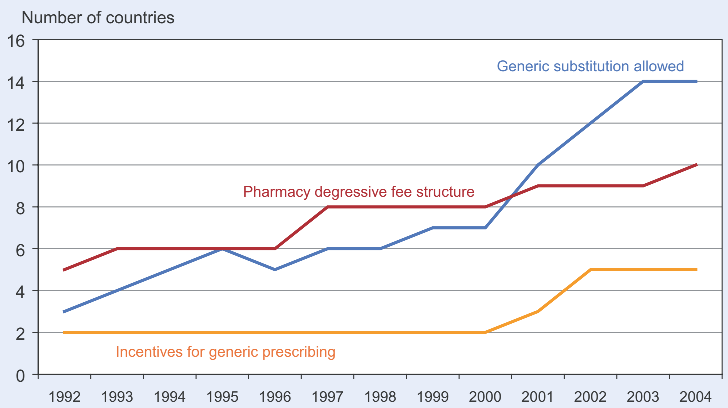
TRENDS IN REFERENCE PRICING POLICIES FOR 19 OECD COUNTRIES
1992–2004



Source: Sood et al. (2009).

Figure 3

TRENDS IN POLICIES AIMED AT INCREASING USE OF GENERIC DRUGS IN 19 OECD COUNTRIES
1992–2004



Source: Sood et al. (2009).

- Therapeutic reference pricing (TRP) imposes a reference price for both generic and patented drugs. This means that one reference price is set for products with chemically related (but not identical) active ingredients that are pharmacologically equivalent and also for products that may be neither chemically identical nor pharmacologically equivalent but have comparable therapeutic effects ("jumbo groups").
- Generic substitution policies allow pharmacists to substitute patented drugs with generics if no explicit exclusion is made on the doctor's prescription.
- Incentives for generic prescribing assign financial or non-financial benefits to doctors for substituting patented medication with generics.
- Degressive pharmacy fee structures encourage substitution with generics. The pharmacist's margin shrinks as the cost of the drug sold increases.
- Pharmacy chains' allowance is expected to lead to size-related efficiency gains and improved bargaining power towards the pharmaceutical industry.

Table 1 documents the pharmaceutical sector regulation in 19 OECD countries for 2004.

Figures 1–3 show the increasing international popularity of pharmaceutical sector regulations.

Drug price controls were the most common policy measure among OECD countries during 1992–2004. In this period, 11 additional countries adopted generic substitution policies, but the fastest growing instrument

Table 2

Percentage change in revenues following introduction of pharmaceutical regulations in 19 OECD countries, 1992–2004

	Percentage change in revenues	
	Model 1	Model 2
Profit controls	–6.3	–4.3
Budgets	–5.9**	
Global budget		–4.4*
Physician budget		–16.5***
Direct price controls	–16,8**	
Only international comparisons		–12.7***
Price negotiations and others		–17.1***
Reference pricing	1.6	
for generics		3.4
for generics and on-patent drugs		9.7**
Economic evaluation	–5.9**	–4.3
Incentives for generic use		
1 out of 3 policies for prescribing/dispensing generics	–2.8	–0.8
2 or more out of 3 policies for prescribing/dispensing generics	–4.0	–3.0

Note: For the regressions, the dependant variable was log(Revenue). The key independent variables were dummy variables for each of the regulations outlined in model 1 and model 2. Other covariates included year fixed effects, country fixed effects, exchange rates and indicator variables for whether pharmacy chains are allowed. * p<0.10 – ** p<0.5 – ***p<0.01.

Source: Sood et al. (2009).

was economic evaluation, which is now carried out in ten OECD member-states. Global budgets were imposed in another five countries, while the use of GRP and TRP, degressive pharmacy fee structures and incentives for generic prescribing also increased. The one exception to a general upward trend in regulation is direct profit control: in 2004, it was only implemented in the British and Spanish systems.

In a recent publication, Sood et al. (2009) investigate the effectiveness of these policies. As natural starting point, they test the link between regulatory regime and overall revenue generated in the pharmaceutical sector. Usage of a panel dataset of 19 OECD countries between 1992 and 2004 allows them to distinguish the revenue effects of regulation from underlying country differences and secular time trends in pharmaceutical revenue.

Table 2 presents estimation results for two model specifications. Model 1 uses broad categories of regulations, while model 2 breaks these categories down into more disaggregated classes. For model 1, significant effects on revenue are found for direct price controls, economic evaluations and budget regulation. Price controls here have the biggest impact by far, leading to an average of 16.8 percent reduction in revenues.

For model 2, the study has found that physician budgets have much more "bite" than global budgets. This appears logical, since under the former regime doctors are directly held accountable for overprescribing. Moreover, price negotiations and other forms of price controls prove more effective in reducing revenues than ERP alone.

One surprising result is the measurement of a positive association between GRP/TRP and pharmaceutical revenues. To further investigate this peculiarity, the authors have estimated a model allowing for an interaction of direct price controls and reference pricing effects. They have found that in the absence of price controls, reference pricing indeed leads to a reduction in revenue. If price controls are however already in place at the time reference pricing is implemented, its incremental effect on revenue is negligible. In fact, further analysis with fully interacted models shows that while all possible combinations of regulatory policies greatly reduce revenues, the reductive effect diminishes with each additional regulation. Introducing regulation in a mostly unregulated market like the US would therefore bring about the largest reductions.

While regulatory policies primarily target cost containment, their effects are likely to go beyond this. A number of negative dynamic impacts should be considered: lower revenues may reduce the incentive for pharmaceutical firms to invest in the development of new medication, which can delimit medical services for future generations of patients. Price controls can exacerbate market inefficiencies as they reduce competitive pressures for generic producers. The controls may also entice pharmaceutical firms to channel resources from development of new medicines into strategies to circumvent regulation.

Therefore, while pharmaceutical regulation has the potential to substantially reduce health-expenditures, its net-welfare effect remains an issue of much contention.

S. N.

Reference

Sood, N. et al. (2009), "The Effect of Regulation on Pharmaceutical Revenues: Experience in Nineteen Countries", *Health Affairs* 28(1), w125–37.

FISCAL INCENTIVES FOR R&D

Recent years have seen a clear shift from direct public funding for business R&D towards indirect funding. In 2005, direct government funds financed on average 7 percent of business R&D, down from 11 percent in 1995. In 2008, 21 OECD countries offered tax relief for business R&D, up from 12 in 1995, and most have tended to make it more generous over the years (OECD 2008, 80). The appeal of R&D tax credits stems from their non-discriminatory nature in terms of research and technology fields or industrial sectors. According to the OECD (2008) several OECD and non-member economies have recently introduced new tax incentive schemes and made changes in existing schemes to make them more generous. While many tax incentive programmes reward incremental increases in R&D investment, a number of new incentives are based on the level of R&D spending in a given year. Special tax incentives have also been introduced for small and medium-sized enterprises (SMEs). There are concerns, however, that the expansion of R&D tax credits is being driven by growing tax competition as countries seek to enhance their attractiveness for R&D-related foreign direct investment.

Spain currently has the most generous programme for R&D tax incentives, followed by Mexico, France and China. While Mexico, Norway, Portugal and New Zealand have expanded the level of support via R&D tax incentives, other countries spend more on R&D tax incentives in terms of foregone revenue: from $800 million in the United Kingdom and France to $2.2 billion in Canada and $5.1 billion in the United States in 2005.

A number of OECD countries do not have R&D tax credits but nevertheless try to encourage business R&D investment or to attract foreign R&D through the general fiscal framework. In Switzerland, the 26 cantons have their own tax policies and may use them to attract national and foreign R&D. Germany, Finland, Iceland and Sweden also do not have R&D tax incentives but some of these countries have a growing interest in using these to meet certain science and technology policy goals such as stimulating R&D in SMEs or fostering co-operation between public research and industry. Again, some of the growing interest in R&D tax credits may also reflect concerns about tax competition between countries.

W.O.

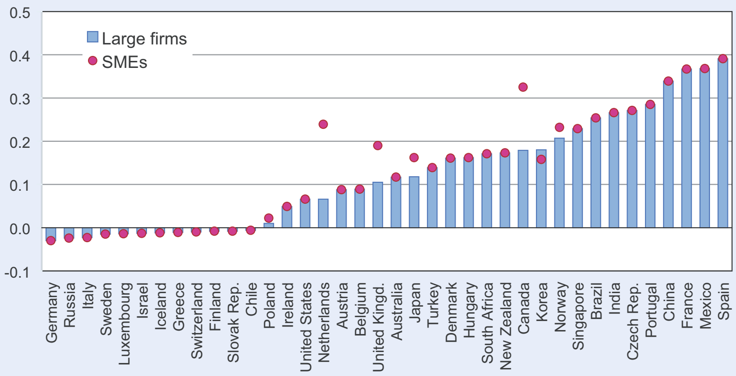
References

OECD (2008), *Science, Technology and Industry Outlook* 2008, Paris.

Warda, J. (2007), "Generosity of Tax Incentives", presentation at the TIP Workshop on R&D Tax Treatment in OECD Countries: Comparisons and Evaluations, Paris, 10 December 2007, with an update of the data in September 2008.

Figure

TAX TREATMENT OF R&D[a)] IN OECD AND NON-MEMBER COUNTRIES
2008



(a) Tax subsidy to R&D calculated as 1 minus the b-index, defined as the present value of before-tax income necessary to cover the initial cost of R&D investment and to pay corporate income tax.

Source: Warda (2007), based on national sources, with an update of the data in September 2008.

New at DICE Database

Recent entries to the DICE Database

In the second quarter of 2009 the DICE Database received about 240 new entries, consisting partly of updates of existing entries and partly of new topics. Of special interest is the update of the "Institutions Climate Index 2009" and the establishment of the topic "Industrial Policy" with the subfolder "State Aid". Furthermore there are some new entries in different folders as well as updates of existing entries. Some topics are mentioned below:

- Antitrust Policy
- Cable Networks
- Competition Policy - Dominance
- Financial and Human Resources Invested in Education
- Learning Environment and Organisation of Schools
- Merger Control
- Migration – Descriptive Data
- Mobile Networks
- Railways
- Small & Medium Enterprises.

Forthcoming Conferences

Venice Summer Institute: Rethinking the Privatisation of Social Security
10–11 July 2009, in Venice

The smoothly functioning capital markets in the 1990s brought to the public debate the issue of privatising social security. A key paradigm in this debate was that the capital markets, and especially the stock markets, can yield better risk-adjusted returns than national pension schemes. The recent global turmoil in the financial markets undoubtedly calls for rethinking of the pros and cons of privatising social security. The purpose of this workshop is to attract original contributions on these issues. All contributions with applied/policy aspects are welcome.
Scientific organisers: Gerhard Illing and Efraim Sadka

65th Annual Congress of the International Institute of Public Finance (IIPF)
13–16 August 2009, in Cape Town, South Africa

The congress will deal with Public Policy and Development.
Scientific organiser: Ravi Kanbur

ifo/CESifo & ACES Conference on Banking and Institutions
11–12 December 2009, in Munich

The Department of International Institutional Comparisons of the Ifo Institute for Economic Research, CESifo, and Association for Comparative Economic Studies (ACES) will organize this joint conference. The conference is intended to encourage further research in the areas of banking and institutions, and to stimulate interaction and co-operation in these fields.
Scientific organisers: Christa Hainz and Koen Schoors

New Books on Institutions

International Political Economy: Interests and Institutions in the Global Economy
Thomas H. Oatley
4th ed., Longman, New York 2009

Foundations of Financial Markets and Institutions
Frank J. Fabozzi
4th ed., Pearson, Boston 2009

Entrepreneurial Entry: Which Institutions Matter?
Ruta Aidis, Saul Estrin and Tomasz Mickiewicz
Centre for Economic Policy Research, London 2009

Culture and Economics: On Values, Economics and International Business
Eelke de Jong
Routledge, London 2009

The Value of Institutions for Financial Markets: Evidence from Emerging Markets
Bernardin Akitoby and Thomas Stratmann
International Monetary Fund, Washington DC 2009

Online information services of the CESifo Group, Munich

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DICE

Database for Institutional Comparisons in Europe

www.cesifo-group.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: Business and Financial Markets, Education and Innovation, Energy and Natural Environment, Infrastructure, Labour Market and Migration, Public Sector, Social Policy, Values. Information about Basic Country Characteristics 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 27 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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