AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

**From Government to Regulatory
Governance:
Privatization and the Residual Role
of the State**

Enrico Perotti and Bernardo Bortolotti

NOTA DI LAVORO 151.2005

DECEMBER 2005

PRCG – Privatisation, Regulation, Corporate Governance

Enrico Perotti, *University of Amsterdam*
Bernardo Bortolotti, *University of Turin, and Fondazione Eni Enrico Mattei*

This paper can be downloaded without charge at:

The Fondazione Eni Enrico Mattei Note di Lavoro Series Index:
<http://www.feem.it/Feem/Pub/Publications/WPapers/default.htm>

Social Science Research Network Electronic Paper Collection:
<http://ssrn.com/abstract=871953>

The opinions expressed in this paper do not necessarily reflect the position of
Fondazione Eni Enrico Mattei
Corso Magenta, 63, 20123 Milano (I), web site: www.feem.it, e-mail: working.papers@feem.it

From Government to Regulatory Governance: Privatization and the Residual Role of the State

Summary

This paper reviews the state of thinking on the governance role of public ownership and control. We argue that the transfer of operational control over productive assets to the private sector represents the most desirable governance, due to the inherent difficulty for citizens to constrain political abuse relative to the ability of governments to regulate private activity. However in weak institutional environments the process needs to be structured so as to avoid capture of the regulatory process. The speed of transfer should be timed on the progress in developing a strong regulatory governance system, to which certain residual rights of intervention must be vested. After all, what are “institutions” if not governance mechanisms with some degree of autonomy from both political and private interests? The gradual creation of institutions partially autonomous from political power must become central to the development of an optimal mode of regulatory governance. We advance some suggestions about creating accountability in regulatory governance, in particular creating an internal control system based on a rotating board representative of users, producers and civil society, to be elected by a process involving frequent reporting and disclosure.

Keywords: Regulatory Governance, Privatization

JEL Classification: G38, L53

Perotti thanks the Global Corporate Governance Forum for research support. We are grateful to Erik Feijen and Valentina Milella for research assistance and Stijn Claessens for useful discussion.

Address for correspondence:

Enrico Perotti
Univerity of Amsterdam
Finance Group
Roetersstraat 11
1018 WB Amsterdam
The Netherlands
Phone: +31 0 20 525 4159
Fax: +31 0 20 525 5285
E-mail: E.C.Perotti@uva.nl

1. Introduction

The boundaries of state ownership have moved considerably in modern times, following historical events, business cycles and of the ebbs and tides of economic thinking on the role of the state in the economy.

A sweeping nationalization movement took place starting with World War I in Europe, as public demand for greater social control over markets followed a series of devastating financial crises (hyperinflation, the 1929 stock market crash, banking crises). Indeed, the economic downturn caused by the Great Depression led to a strong interventionist approach almost everywhere. In the late 1920s, the French and the Belgian governments established financial institutions taking control of the banking sector. In Germany, from the Weimar Republic to the National Socialist period, large scale nationalizations were implemented to foster the industrialization process. Similarly, in 1933 - under the fascist era - the state-owned industrial holding Istituto per la Ricostruzione Industriale (IRI) was created in Italy in order to recover the national economy. After the Civil War, Spain imported the “IRI” model, creating the Instituto Nacional de Industria (INI), with the aim to strengthen domestic development, foster import substitution, and inject growth in underdeveloped areas. In Portugal, since 1933, the "corporative" ideology became the manifesto of the Salazar's authoritarian regime, which aimed at keeping political and economic activity under tight public control.

While the process continued apace in several European countries after the World War II, decolonization created many new independent states eager to engage in nation building and to promote development through SOEs. Most of the new African leaders were ideologically prone to take over the “commanding heights” of the economy and firmly convinced that economic planning was the right policy to address poverty and disease (Nellis, 2005). As a consequence, several Sub-Saharan countries established socialist (and sometimes Marxist) regimes and based their industrial policies on large scale nationalizations.

Yet the post-war experience led to a drastic rethinking over time. Evidence confirmed the inefficiency of state-owned enterprises, questioned the motives of politicians in establishing direct control for regulatory purposes and challenged the social equity of favouring specific constituencies at high public costs. In response, in the last two decades a massive privatization process of productive and other activities previously considered public services has taken place across the world.

In early 1980s, the problem of the inefficiency of the SOE sector – absorbing an increasing amount of public subsidies – became a priority in the political agenda of most European countries, prompting the surge of privatizations that began in the 1980s and gathered momentum from 1991 onwards after the ratification of the Maastricht Treaty. The restructuring and privatization of the SOE sector became necessary not only to modernize the economy, but also to meet convergence criteria without politically costly tax increases. Privatization in developing countries has been spurred in the 90s since the IMF and the World Bank started to make their assistance and lending conditional on privatization. In the early period, the largest share of activity came from the three main countries in Latin America. After the peak in 1997, revenues declined partly following the East Asian financial crisis and the Russian debt crisis of 1998. The recent resurgence of the process in developing countries results from increased privatization activity in China and several Eastern European countries (Kikeri, 2005).

After 20 years of this process, the borders of state ownership have been dramatically redrawn in many countries. The process has unquestionably been quite successful overall. The general evidence of privatization is favorable in terms of improvement in firm performance (see Megginson and Netter, 2001; Kikeri and Nellis, 2004). In the case of Latin America privatization resulted in some (small) increases in inequality, surely in the short run, with the gains (efficiency and access to infrastructure) more diffused and over longer term (Nellis, 2000). The experiences in the Bulgaria, Czech Republic, Russia and other transition economies also show how a voucher scheme privatization aimed at the general public can get high-jacked by insiders. Privatization currently underway in China,

Vietnam and other countries is also expected to yield adverse effects in income distribution.

Thus the experience of privatization has led to objections and resistance even among early and committed proponents, who find that privatization in certain Latin American and Eastern European countries created specific risks and social costs (Nellis, 1999).

To discuss the relative merits of state and private ownership we review the fundamental literature on ownership, discuss the main drivers of political decision making and draw some conclusions on what role state ownership or more generally public governance does and/or should play in regulating economic activity. Particularly, section 2 introduces our view about the basic tradeoffs of private vs public ownership of firms. Section 3 presents the intrinsic limits of state ownership in solving commitment problems, while section 4 addresses the risks of privatization in poorly regulated contexts. Section 5 develops the concept of regulatory governance advancing some suggestions about institutional development. Section 6 concludes.

2. The costs and benefits of State ownership: a broad conceptual framework

SOEs exhibit a significant lower productive efficiency in comparison with privately owned counterparts.¹ The main causes have been traced back to a general lack of accountability,² leading to:

- a) a lack of managerial and employee incentives to efficiency
- b) problems of competence or corruption by state authorities
- c) the use of SOEs for political purposes to cater favoured constituencies.

¹ Good surveys are found in for instance in Megginson and Netter (2001), McKenzie and Mookherjee (2002), and Boubakri and Cosset (1999).

² We mean accountability to citizens, not investors. While SOEs are incorporated firms, they have no private shareholders; nor do lenders play a disciplining role, as SOE debt is perceived as a public obligation.

Russia provides a conspicuous example of political abuse and capture of SOEs by special interest groups. The power vacuum after the collapse of the Soviet Union was not compensated, as in Central Europe, by an identification with the West supported by a realistic prospect of joining the European Union. Weak legitimacy made the Yeltsin government vulnerable to the support of special interests, and led to the capture of state decisions which further undermined support. A distorted corporate and regulatory governance system, in which each strong interest sought to maximize and secure short term gains, produced a massive build-up of non-payment, tax evasion, and barely conceived asset theft from SOEs (Black, Kraakman and Tarassova, 2000).

Although state ownership comes with substantial costs, two arguments have been set forth to justifying it in the presence of market failures such as market power or externalities (see e.g. Esfahani and Ardakani, 2002). The first (which we term the ‘public commitment problem’) concerns the inability of a sovereign government to commit to market-friendly tax and regulatory policies, which discourages private investment and may result in direct government involvement in production as a substitute. The approach takes the view that politicians have difficulties in credibly committing to refrain from tax and regulation manipulation to collect “quasi-rents” on relation-specific and often sunk assets. For instance, state control of infrastructure may be the result of the unwillingness of private investors to fund large ex ante investments whose rewards, once sunk, are subject to political decisions.

The public commitment view is buttressed by considerable evidence showing that the size of the public sector is smaller in countries endowed with better institutions, especially those curbing the risk of arbitrary changes in policies, such as contract repudiation and expropriation by the government (Keefer and Knack, 1995). In a similar vein, La Porta, Lopez-de-Silanes and Shleifer (2002) find that government ownership of banks is more pervasive in countries with poorly defined property rights, finding support for Gerschenkron (1962) view that in these circumstances only the government can promote financial market development.

The second (which we term the ‘private commitment problem’) identifies the difficulty for regulators in controlling significant decisions by private owners, unless government has direct control over the enterprise (see Hart *et al.*, 1997; Shleifer and Vishny, 1994). For instance, state ownership of banks may arise because private banks take advantage of depositors or deposit insurance. Most large Russian private banks became empty boxes ahead of the 1998 crises, as their capital fled abroad and liabilities piled up. Depositors and foreign investors took large losses. In the end, the experience led most retail depositors to turn to state-owned Sbarbank.

Both these rationales for the state ownership presume that state authorities seek to correct classic market failures such as externalities, natural monopolies, high information costs or public goods. Yet rather than assuming such a public objective, it seems useful to discuss under what governance forms there will be enough public scrutiny to ensure political attention to public welfare.

In general, commitment problems apply to both private individuals and state authorities under incomplete private contracting and its public sector counterpart, incomplete legislation. The critical difference is that the sovereign state has greater discretion and thus greater scope for abuse.

For example, a typical cost of market contracting is the possibility of “lock-in”. When the transaction extends over a long period of time and is potentially affected by unforeseen contingencies, one party may be exposed to the risk of exploitation when some relation-specific investments must be made. Under incomplete contracting, these costs are usually mitigated by vertical integration, i.e. assigning ownership rights to the parties most severely exposed to these risks. Under incomplete legislation, the greater scope from exploitation and abuse comes from the fact that the government can write rules and enforce them, exposing the private party to an additional “regulatory risk” which was absent under private contracting. Indeed, the government can not only renege a contract, but more generally can modify legislation for its own advantage.

Thus the main argument against state control arises from the combination of broader discretionary powers and the potential for political opportunism. Given that many

developing countries have weaker institutions constraining public abuse, the case for state control is particularly difficult precisely in those contexts where its need may be in principle the greatest.

We claim that in general constraining public abuse is more difficult than regulating private economic activity. Thus a more desirable governance mode implies the transfer of ownership rights to the private sector combined with open regulation. While privatization is necessary for productive efficiency, open regulation is needed to achieve allocative efficiency. This proposition implies that private ownership creates better incentives to improve firm productivity, but firms must be suitably regulated in order to maximize social surplus.

There is a broad consensus that privatization usually fails to deliver much of its potential in poor institutional contexts, when poor regulation leads either to public or private abuse. Yet regulation fails just as privatization does, namely when it leads to regulatory or (in the extreme cases) to state capture. Good examples are the large privatization programs in Chile in the late 1970s, in Mexico in the 1980s and in Russia in the mid 1990s. In some early Latin American privatization programs, large private investors were grossly favoured on the privatization of the large state banks, which were sold on the cheap and on highly leveraged terms. This enabled these investors to fund the acquisition of control over a number of privatized firms. In all these cases, the abuse of bank resources for private purposes led to brutal financial crises, which forced re-nationalization of most of these groups (Velasco, 1988). The Russian experience is also instructive in how captured privatization programs can undermine the authority of the state and other institutions (Perotti, 2002). In contrast, the Chinese experience of gradual privatization of the economy by favouring entry while retaining control over the process has limited private capture of the process, although it still leaves some uncertainty as there may be gradual retreat.

Thus the relevant notion of non-private governance appears to be *regulatory governance*. Regulation needs to be explicit in order to expose both public policy and private behaviour to greater public scrutiny. To function properly in poor institutional

contexts, however, the regulatory institutions may need to be developed along with societal institutions able to detect or respond to abuse. In what follows, we will argue that a grassroots form of governance may be required to create legitimacy and scope for increasing independence from the executive branch of government. But before describing more precisely the mechanics of regulatory governance and its relation with residual state ownership, we will try to further explore the limits of state ownership and control in pursuing social welfare.

3. Self-interested or benevolent government?

Sappington and Stiglitz (1987) present the classic argument for state ownership and control. They argue that information, contracting and bargaining costs limit the government's ability to regulate by ex ante design. They also suggest that when the government cannot exactly determine its objectives due to lack of experience, it may want to retain direct control to avoid costly contract renegotiation procedures with private parties. To the extent that intervention has large costs, state ownership (or rather, state control) is to be preferred to private ownership (Hart et al, 1997).³

Yet the regulation of SOEs by politicians suffers serious drawbacks. First, it is widely known that any public institution empowered to exert control for a temporary purpose tends to make it a permanent task. It may thus be difficult for dispersed citizens to intervene to reverse state control once its purposes have ceased to exist. Second, it is hard to induce politicians in office to represent the interest of the electorate over special interests and to avoid conflict of interests.

When voters are poorly informed or too dispersed to coordinate collective responses, politicians are able to pursue special interests at the cost of the common good. If selfish politicians are prone to corruption and patronage (Shleifer and Vishny, 1993), then SOEs' inefficiency is not just due to weak incentives, but results from a deliberate

³ Authors in the past have argued that social goals, such as acceleration of technology transfer, increased employment, reduced inequality, and regional development, may be best realized via SOEs (Cholski, 1979). The evidence on the actual role of SOEs have largely discredited this view.

political choice to transfer resources to supporters (Shleifer and Vishny, 1994). Such indirect targeting, distorting the productive choices, produces inefficiency (Bias and Perotti, 2002), such as excessive employment and wages above marginal productivity.⁴ For instance, SOEs may build plants in economically unfavorable but politically attractive regions (Martinelli, 1981). Other inefficient political benefits include the production of goods that are not socially desirable.⁵ Politicians may even distort the regulatory framework ahead of a SOE sale, by reducing future competition, hence maximizing revenues (or bribes) at the cost of consumer surplus.

Even if we abstract away from the most blatant cases of political abuses, the empirical record of SOEs solving market failures is quite poor. Externalities such as pollution were not visibly better managed by SOEs, as the environmental situation in Eastern Europe vividly illustrates (Grossman and Krueger, 1995). Public monopolies often abuse their market power not necessarily by high prices but by sheer inefficiency, allowing their employees a “quiet life”, or by granting preferential treatment to political constituencies (Kikeri, Nellis and Shirley, 1992). This form of internal capture has led to such low rates of investment under state monopoly in many countries. Primary examples are the energy or telecommunication sectors, which often only after privatization and the resulting increase in competition expanded and modernized their infrastructures (Bortolotti et al., 2002).

If outright ownership and control do not yield efficient outcomes, the issue becomes how to establish a credible time path for the retreat of the direct control role of the state and the emergence of genuine, more accountable forms of regulation.

4. Privatization, regulatory capture, and institutions building

⁴ Even in the U.S., state entities employ typically 20-30% more employees than their private counterparts (Donahue, 1989).

⁵ The development of the Concorde plane is a good example (Anastassopoulos, 1981).

Privatization outcomes are heavily affected by the institutional setting in which divestiture takes place. In countries where public regulation cannot control private activity, the speed of privatization should be aligned with the progressive strengthening of institutional foundations. Where the institutional foundations to support or regulate private activities are completely missing, rapid privatization may lead to an unacceptable loss of control over the economic system. Under these circumstances, privatization cannot escape capture, and it may even weaken corporate governance (weak regulatory, bankruptcy and take-over procedures, corrupt legal enforcement) and lead to a loss of ultimate control over the process and its goals. Major structural reforms can thus fail when their design leads to regulatory or (in the extreme cases) to state capture.

In a grand political bargain to buy out opposition to privatization, most Russian enterprises became controlled by managers (Shleifer and Treisman, 2000). Perhaps there was no other way to securely establish private property in Russia than to "buy in" the potential opposition. Yet it appears that the extent of control transfer to the managers seriously weakened the ability of the state to control the reform process. Many structural reforms, such as bank legislation, the sale of the most valuable resource companies, the public debt market, and the provision of currency hedges were implemented in a compromise with powerful interests.

A spectacular example of policy capture was the debt-for-shares deal negotiated in Russia on the eve of the 1996 presidential elections. Via a highly dubious secured loan, control of the best natural resource companies was captured by a few influential banks, creating a number of Financial Industrial Groups (FIGs). Cash-generating companies in these groups were actively milked by controlling shareholders, leading to major conflicts with investors, and more recently, with the new Russian government.⁶ The high opportunity cost of cash payments (because of the high appropriability of cash for

⁶ Large industrial-financial groups, common in underdeveloped financial systems, certainly owe their influence to political support, yet may provide governance and an internal capital market to alleviate credit constraints. Empirical research on Russian FIGs (Perotti and Gelfer, 2001) has shown that while group firms were better managed, cash flow from cash rich group firms was reallocated on a massive scale, and may have been shifted outside the group.

managers) also fed a massive demonetization of transactions and a shift to barter, an extremely inefficient payment system.⁷

In contrast, the Chinese experience, where the state has retained control over privatization and deregulation, has a more limited record of private capture of the reform. While its success has been attributed to its gradualism, its main critical element may have been privatization by favouring entry, rather than rapid transfer of control. Arguably, the Chinese economy had ample underutilized resources and its industrialization had barely began, so there were many free resources to deploy, while in the FSU reforms required massive reallocation of resources frozen in inefficient production. Moreover, considerable uncertainty remains over the future path of further retreat.

Privatization can lead to increased efficiency and improved welfare only in settings with enough capacity to ensure appropriate protection of property rights, contract enforcement, control of market abuse, fair regulation and open entry, and commercial dispute settlement based on law, not payments.

At the same time, there are enough cases of poor performance of privatization in some contexts to alert us to some objective limits in private control, primarily due to regulatory inefficiency or outright capture. When the transfer of critical assets to private ownership cannot be managed safely (in the sense of avoiding losing control of the sale and the regulatory process), public ownership (and control) can have a temporary role, while some process of institution-building takes place. Indeed, under uncertain public commitment, governments can credibly inspire confidence by selling ownership gradually, signalling commitment to privatization policy through willingness to bear residual risk (Perotti, 1995). A parallel argument may be made by arguing that the State should keep control over the decision rights until proper regulation is in place. In both cases the argument is for temporary, gradually decreasing residual cash flow /control rights.

⁷ Evidence that cash-stripping took precedence over productive activity is that barter rose with real interest rates, and with ruble overvaluation. Ivanova and Wyplosz (1999) find that both higher monetary growth and higher interest rates are correlated with higher barter.

Yet to be feasible, the structure and role of this residual ownership form needs to be designed from the beginning for this temporary purpose, however long it may take. The suggestion is that without an explicit commitment by the state to release control under some conditions, the process of institution building may not even start.

Thus the State has to be progressively removed from direct involvement in the economy, in order to create some scope for allocating residual regulatory and enforcement rights in new institutions. The emphasis should be toward creating increasingly professionalized and autonomous regulatory institutions that draw their legitimacy and the right to gain further autonomy from a direct, i.e. non-state form of governance that involves consumers and citizens to a greater extent.

Recent evidence (Acemoglu and Johnson, 2005; Djankov *et al.*, 2003) suggests that the most important institutions are those that restrain the executive and reinforce its accountability, i.e. limit abuse of power over those that regulate relationships among individuals. The reason may be that power-restraining institutions also correct political incentives to favour strong private interests, for instance to control market power, and thus undermine a level playing field and the process of entry by new producers.⁸

State capture by special interests seriously weakens the credibility of enforcement. While corruption accompanied transition in all countries, its extent in the FSU (Former Soviet Union) led many authors to describe it as state capture, where the corrupting agents hold more power than the corrupted officials. There is evidence that while connected firms benefit, on average, firms grow less than in less captured economies (Hellmann, Jones and Kaufmann, 2000). In Russia, the private capture of the privatization process weakened the ability of the government to control the behaviour of the most powerful private owners (Perotti, 2003).

A way to summarize the case for a further retreat of state ownership even in countries with poor institutions comes from Djankov *et al.* (2003). They argue that the

⁸ Perotti and Volpin (2003) suggests that in a context of poor political accountability, established interests can lobby successfully to adapt regulation and even selective enforcement in their favor, blocking entry by new firms. Thus institutions reinforcing political and regulatory accountability are a preliminary step to ensure also proper enforcement of relationships among individuals.

more civic capital a country has, the more it is able to achieve cooperation among its members without coercion. Civic capital, fixed in the short run, is determined by culture, factor endowments, and history. The less civic capital a country has, the less it can ‘buy’ order with extra regulation. Thus less developed countries can achieve less with regulation. Deregulation of competitive markets in less developed countries should then count as a high priority. The presence of relatively high barriers to entry in such countries suggests that regulation is often captured and thus tends to hinder growth. But just as barriers to entry must be reduced, the urgency to amend the regulatory institutions increases. We claim that this requires a deliberate policy toward greater scrutiny and accountability via a more directly elected form of regulatory governance.

5. The mechanics of regulatory governance

The bottom-line of our reasoning is straightforward. Both private agents and the public sector face commitment problems. Since governments are sovereign institutions, they have more difficulty in committing to specific decision criteria than the private sector. They should ideally be constrained by private ownership, and the private sector should be constrained by regulation. Thus the critical question shifts to the governance of the regulatory institutions.

Regulatory authorities have grown throughout the developed and developing world as a result of privatization, and exhibit various degrees of autonomy.⁹ We will argue here that whatever the record, the separation of ownership from regulation tends to generate additional open scrutiny and necessarily improves the governance of the regulatory process, at least as long as it is not captured. One of the most neglected benefit of privatization is the increase in public scrutiny arising from the fact that political control becomes exercised more at arm-length, or in any case through explicit legislation, so that its goals become more open to public opinion. This is comparable to the case of a

⁹ A common criticism is that regulatory inefficiency is less observable when buried inside a public institution than when it is subject to public scrutiny as public regulation of private activity.

firm with dispersed ownership obtaining a public listing, a move which improves the quality of information available to judge its management.

In the language of Pistor and Xu (2002), laws and regulations are necessarily incomplete, just as private contracts are. By default, residual rights to regulate belong to the State. Yet the authority to adjust enforcement under unspecified contingencies could be granted to semiautonomous judiciary or regulatory authorities. The role of regulatory agencies is more proactive than courts, which may respond only after damaged parties bring legal action and may not intervene preventively.

Provided that such institutions operate under a framework in which they can avoid being captured, granting them progressively increasing residual enforcement rights has several advantages over the assertion of direct state control.

Currently the degree of regulatory autonomy is politically controlled. In perspective, regulatory governance could be made contingent on public approval in similar ways as the public sector. As long as the mandate is both explicit and focused, and a reputation can be established (as for central banks), such institutions have less power and appetite for secondary political goals. Besley and Coate (2003) argue along similar lines that politically appointed regulators tend to pursue unrelated political goals. They report evidence that US states with elected regulators in place of political appointees choose more pro-consumer policies.

The ability to ensure that regulators act in an independent and accountable fashion towards their stated goals can be reinforced by a novel approach to their governance. Their mandate should be temporary and subject to public review: their governance should include representatives of consumers and other nongovernmental organizations. There are traditional forms of institutional governance, such as in mutual banks or administrations of public infrastructure, in which there are elected representatives of users. This concept should be broadened and further experimented in other contexts as well.

An important distinction needs to be made between NGOs and grassroots organizations. Especially in developing countries, grassroots organizations are

arrangements around specific underrepresented interests (say small farmers or craft makers, or neighbourhood organizations). They are usually detached from the political system and relatively communal in nature. In contrast, NGOs are foreign-inspired, staffed with more educated individuals, often driven by some strong motivation. They are better politically connected, or at the very least they have some access to foreigners in terms of either funding or visibility. Clearly, the two types of organization are complementary. It could be particularly interesting to create stronger links between the ability of NGOs to mobilize external resources or broader attention and the ability of grassroots organizations to mobilize support or public opinion. They should therefore have distinct roles in regulatory governance, yet they may also become encouraged to cooperate more to ensure that fundamental needs may rise to the attention of the regulatory system.

In conclusion, we argue that the governance process of regulators should take a more democratic, directly elected turn. The logic of the argument is not democratization per se; there are agency and common good problems to this solution as well as to others. The logic of this proposal reflects the sensible economic principle that those who have the greatest benefit from proper regulations should be at least in part entrusted with its governance (Hansmann, 1996; Besley and Coate, 2003). Thus the composition of a regulatory board may include representatives from different constituencies and nongovernmental organizations, elected on a rotational basis from broad lists. The governance assignments of individual organizations may be made temporary, and extensions and rotation may be made subject to public, rather than political, approval. Importantly, the regulators should be subject to various forms of explicit accountability by the establishment of specific quantifiable or verifiable goals, and they would need to report on an annual basis as to their achievements. A task of the external appointees would be then to report publicly on their view on the regulatory effort, and to contribute to adjust the statement of regulatory intents and their priorities by increasing public scrutiny.

6. Conclusions

The issue of public versus private governance in circumstances of market failure hinges on the relative ability to commit to a fair and efficient allocation. We have argued that the state has on average greater difficulty in committing, due to its status. State ownership should remain an extreme solution, not advisable except in circumstances when privatization leads to uncertainty over the allocation of ultimate control. This is evident in the case of executive powers and public security, as in the case of the army, the police or the prisons.

In countries where private commitment is hindered by poor legal enforcement, a case can be made for some form of state control. Yet because such environments are also commonly associated with corrupt politicians and unconstrained abuse of power, the public commitment problem is here even more serious. The evidence in the recent literature clearly points to institutional development as a precondition for the functioning of both private and public policy (see Acemoglu *et al.*, 2003) on macroeconomic instability in poor institutional environments), which produce worse outcomes even after controlling for policy choices.

The conclusion is that in such environments there is too little institutional capacity for proper state-controlled regulation, and thus the balance should tilt in favour of more direct state control.

Of course, this is only a static view. The fact that an institutional framework is too weak to support active state regulation suggests that institutional capacity has to be built up, not forsaken. What are institutions if not governance mechanisms with some degree of autonomy from both political and private interests? The gradual creation of institutions partially autonomous from political power becomes central to the development of an optimal mode of regulatory governance.

In conclusion, a residual degree of state control, rather than outright ownership, may have a role when proper institutional mechanisms are not (yet) in place. Yet this role

must be progressively reduced by the creation of intermediate, focused regulatory institutions that may offer some weakening of the political grip on decision making.

The separation of enterprises from ministries and their corporatization, the creation of independent regulators, and the resort to temporary mixed ownership are all policies qualifying the shift from government ownership to regulatory governance, which should allow a greater exposure to market discipline, better incentives in firms, and an increased accountability towards citizens.

REFERENCES

1. Acemoglu, Daron, Simon Johnson, James Robinson, and Yonyong Thaicharoen (2003). 'Institutional Causes, Macroeconomic Symptoms: Volatility, Crises and Growth', *Journal of Monetary Economics*, 50, 49-123.
2. Acemoglu, Daron and Johnson, Simon (2005). 'Unbundling Institutions', *Journal of Political Economics*, forthcoming.
3. Anastassopoulos, Jean-Pierre C. (1981). 'The French Experience: Conflicts with Government'. *State-owned enterprise in the Western Economies*. London: Croom Helm, pp. 99-116.
4. Besley, Timothy and Stephen Coate, (2003) 'Elected versus Appointed Regulators: Theory and Evidence', LSE mimeo.
5. Biais, Bruno and Enrico Perotti (2002). 'Machiavellian Privatization'. *American Economic Review*, 92(1), 240-258.
6. Black, Bernard, Reiner Kraakman and Anna Tarassova (2000) 'Russian Privatization and Corporate Governance: What Went Wrong?', *Stanford Law Review*, 52, 1731-1808.
7. Bortolotti, Bernardo, W. Megginson, J. D'Souza, M. Fantini (2002) "Privatization and the sources of performance improvement in the global telecommunication industry", *Telecommunications Policy*, 26, 243-268.
8. Boubakri, Narjess, and Jean-Claude Cosset (1999). 'Does Privatization meet the Expectations? Evidence from African Countries'. Mimeo. African Economic Research Consortium, Nairobi.
9. Danahue, John D. (1989). *The Privatization Process*. New York: Basic Books.
10. Djankov, S., Edward L. Glaeser, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer (2003). 'The New Comparative Economics'. NBER working paper n. 9608.

11. Esfahani, Hadi Salehi and Ali Toossi Ardakani (2002). 'What Determines the Extent of Public Ownership?'. Working paper, University of Illinois at Urbana-Champaign.
12. Gerschenkron, Alexander (1962), 'Economic Backwardness in Historical Perspective', Cambridge, MA, Harvard University Press.
13. Grossman, Gene and Alan B. Krueger (1995) 'Economic Growth and the Environment'. *Quarterly Journal of Economics*, 110, 353-77.
14. Hart, Oliver, Andrei Shleifer, Robert W. Vishny (1997). 'The Proper Scope of Government: Theory and an Application to Prisons'. *Quarterly Journal of Economics*, 112, 1127-1161.
15. Hansmann, Henry (1996). 'The Ownership of Enterprise', *Cambridge, MA: Harvard University Press*.
16. Hellmann, J. Jones, G. and Kaufmann, D., (2000), 'Seize the State, Seize the Day', *World Bank Policy Research Paper 2444*.
17. Ivanova, N. and Wyplosz, Ch. (1999). 'Arrears : the Tide that is Drowning Russia', *RECEP, mimeo, Moscow*.
18. Kikeri, Sunita, John Nellis, and Mary Shirley (1992). 'Privatization: Eight Lessons From Experience', *Policy Views, World Bank, Country Economics Department* (www.worldbank.org/html/prddr/outreach/or3.htm.)
19. Kikeri, Sunita and Nellis, John (2004). 'An Assessment of Privatization,, *The World Bank Research Observer*, Vol.19, no 1 (Spring 2004).
20. Kikeri, Sunita (2005) 'Privatization: Trends and Recent Developments', *World Bank, mimeo*.
21. Knack, Stephen and Keefer, Philip (1995). 'Institution and Economic Performance: Cross-country Test Using Alternative Institutional Measures', *Economics and Politics*, 7, 207-227.

22. La Porta, Rafael, Florencio Lopez-de-Silanes, and Andrei Shleifer, 2002, 'Government ownership of banks', *Journal of Finance* 57, 265-301.
23. Laeven, Luc and Enrico Perotti (2002). 'Confidence Building and Emerging Market Development', *Journal of International Economics*, forthcoming.
24. Martinelli, Alberto (1981). 'The Italian Experience: Conflicts with Government'. *State-owned enterprise in the Western Economies*. London: Croom Helm, pp. 85-98.
25. McKenzie, David, and Dilip Mookherjee (2003). 'The Distributive Impact of Privatization in Latin America: Evidence from Four Countries'. *Economia*, Spring 2003, 161-218.
26. Megginson, William, and Jeff Netter (2001) From State to Market: a Survey of Empirical Studies of Privatization, *Journal of Economic Literature*, 39, 321-389.
27. Nellis, John (1999). 'Time to Rethink Privatization in Transition Economies?', *Finance and Development*, 36(2).
28. Nellis, John. 2000. "Privatization in Transition Economies: What Next?," working paper, Washington D.C.: World Bank
29. Nellis, John (2005). 'Privatization in Africa: What has happened? What is to be done?', *FEEM Nota di Lavoro* 127.2005.
30. Perotti, Enrico (1995). 'Credible Privatization'. *American Economic Review*, 85, 847-859.
31. Perotti, Enrico (2002). 'Lessons from the Russian Meltdown: The Economics of Soft Legal Constraints', *International Finance*, 3, 359-399.
32. Perotti, Enrico C. and Gelfer, Stanislav (2001). 'Red barons or robber barons? Governance and investment in Russian financial-industrial groups', *European Economic Review*, 45,, 1601-1617
33. Perotti, Enrico C and Volpin, Paolo, 2004. 'Lobbying on Entry', *CEPR Discussion Papers* n 4119.

34. Pistor, Katharina and Chenggang Xu (2002), 'Incomplete Law', *Working Paper, LSE*, London.
35. Sappington, David. E.M., Joseph E. Stiglitz (1987). 'Privatization, Information, and Incentives'. *NBER Working Paper* #2196.
36. Shleifer, Andrei, and Daniel Treisman. 'Without a Map: Political Tactics and Economic Reform in Russia', *Cambridge: MIT Press*, 2000.
37. Shleifer, Andrei, and Robert. W. Vishny (1993). 'Corruption'. *Quarterly Journal of Economics*, Volume 108, 599-617
38. Shleifer, Andrei, and Robert. W. Vishny (1994). 'Politicians and Firms'. *The Quarterly Journal of Economics*, 109, 995-1025.

NOTE DI LAVORO DELLA FONDAZIONE ENI ENRICO MATTEI

Fondazione Eni Enrico Mattei Working Paper Series

Our Note di Lavoro are available on the Internet at the following addresses:

<http://www.feem.it/Feem/Pub/Publications/WPapers/default.html>

<http://www.ssrn.com/link/feem.html>

<http://www.repec.org>

NOTE DI LAVORO PUBLISHED IN 2004

IEM	1.2004	Anil MARKANDYA, Suzette PEDROSO and Alexander GOLUB: <u>Empirical Analysis of National Income and So2 Emissions in Selected European Countries</u>
ETA	2.2004	Masahisa FUJITA and Shlomo WEBER: <u>Strategic Immigration Policies and Welfare in Heterogeneous Countries</u>
PRA	3.2004	Adolfo DI CARLUCCIO, Giovanni FERRI, Cecilia FRALE and Ottavio RICCHI: <u>Do Privatizations Boost Household Shareholding? Evidence from Italy</u>
ETA	4.2004	Victor GINSBURGH and Shlomo WEBER: <u>Languages Disenfranchisement in the European Union</u>
ETA	5.2004	Romano PIRAS: <u>Growth, Congestion of Public Goods, and Second-Best Optimal Policy</u>
CCMP	6.2004	Herman R.J. VOLLEBERGH: <u>Lessons from the Polder: Is Dutch CO2-Taxation Optimal</u>
PRA	7.2004	Sandro BRUSCO, Giuseppe LOPOMO and S. VISWANATHAN (lxv): <u>Merger Mechanisms</u>
PRA	8.2004	Wolfgang AUSENNEGG, Pegaret PICHLER and Alex STOMPER (lxv): <u>IPO Pricing with Bookbuilding, and a When-Issued Market</u>
PRA	9.2004	Pegaret PICHLER and Alex STOMPER (lxv): <u>Primary Market Design: Direct Mechanisms and Markets</u>
PRA	10.2004	Florian ENGLMAIER, Pablo GUILLEN, Loreto LLORENTE, Sander ONDERSTAL and Rupert SAUSGRUBER (lxv): <u>The Chopstick Auction: A Study of the Exposure Problem in Multi-Unit Auctions</u>
PRA	11.2004	Bjarne BRENDSTRUP and Harry J. PAARSCH (lxv): <u>Nonparametric Identification and Estimation of Multi-Unit, Sequential, Oral, Ascending-Price Auctions With Asymmetric Bidders</u>
PRA	12.2004	Ohad KADAN (lxv): <u>Equilibrium in the Two Player, k-Double Auction with Affiliated Private Values</u>
PRA	13.2004	Maarten C.W. JANSSEN (lxv): <u>Auctions as Coordination Devices</u>
PRA	14.2004	Gadi FIBICH, Arie GAVIOUS and Aner SELA (lxv): <u>All-Pay Auctions with Weakly Risk-Averse Buyers</u>
PRA	15.2004	Orly SADE, Charles SCHNITZLEIN and Jaime F. ZENDER (lxv): <u>Competition and Cooperation in Divisible Good Auctions: An Experimental Examination</u>
PRA	16.2004	Marta STRYSZOWSKA (lxv): <u>Late and Multiple Bidding in Competing Second Price Internet Auctions</u>
CCMP	17.2004	Slim Ben YOUSSEF: <u>R&D in Cleaner Technology and International Trade</u>
NRM	18.2004	Angelo ANTOCI, Simone BORGHESI and Paolo RUSSU (lxvi): <u>Biodiversity and Economic Growth: Stabilization Versus Preservation of the Ecological Dynamics</u>
SIEV	19.2004	Anna ALBERINI, Paolo ROSATO, Alberto LONGO and Valentina ZANATTA: <u>Information and Willingness to Pay in a Contingent Valuation Study: The Value of S. Erasmo in the Lagoon of Venice</u>
NRM	20.2004	Guido CANDELA and Roberto CELLINI (lxvii): <u>Investment in Tourism Market: A Dynamic Model of Differentiated Oligopoly</u>
NRM	21.2004	Jacqueline M. HAMILTON (lxvii): <u>Climate and the Destination Choice of German Tourists</u>
NRM	22.2004	Javier Rey-MAQUIEIRA PALMER, Javier LOZANO IBÁÑEZ and Carlos Mario GÓMEZ GÓMEZ (lxvii): <u>Land, Environmental Externalities and Tourism Development</u>
NRM	23.2004	Pius ODUNGA and Henk FOLMER (lxvii): <u>Profiling Tourists for Balanced Utilization of Tourism-Based Resources in Kenya</u>
NRM	24.2004	Jean-Jacques NOWAK, Mondher SAHLI and Pasquale M. SGRO (lxvii): <u>Tourism, Trade and Domestic Welfare</u>
NRM	25.2004	Riaz SHAREEF (lxvii): <u>Country Risk Ratings of Small Island Tourism Economies</u>
NRM	26.2004	Juan Luis EUGENIO-MARTÍN, Noelia MARTÍN MORALES and Riccardo SCARPA (lxvii): <u>Tourism and Economic Growth in Latin American Countries: A Panel Data Approach</u>
NRM	27.2004	Raúl Hernández MARTÍN (lxvii): <u>Impact of Tourism Consumption on GDP. The Role of Imports</u>
CSRM	28.2004	Nicoletta FERRO: <u>Cross-Country Ethical Dilemmas in Business: A Descriptive Framework</u>
NRM	29.2004	Marian WEBER (lxvi): <u>Assessing the Effectiveness of Tradable Landuse Rights for Biodiversity Conservation: an Application to Canada's Boreal Mixedwood Forest</u>
NRM	30.2004	Trond BJORN DAL, Phoebe KOUNDOURI and Sean PASCOE (lxvi): <u>Output Substitution in Multi-Species Trawl Fisheries: Implications for Quota Setting</u>
CCMP	31.2004	Marzio GALEOTTI, Alessandra GORIA, Paolo MOMBRINI and Evi SPANTIDAKI: <u>Weather Impacts on Natural, Social and Economic Systems (WISE) Part I: Sectoral Analysis of Climate Impacts in Italy</u>
CCMP	32.2004	Marzio GALEOTTI, Alessandra GORIA, Paolo MOMBRINI and Evi SPANTIDAKI: <u>Weather Impacts on Natural, Social and Economic Systems (WISE) Part II: Individual Perception of Climate Extremes in Italy</u>
CTN	33.2004	Wilson PEREZ: <u>Divide and Conquer: Noisy Communication in Networks, Power, and Wealth Distribution</u>
KTHC	34.2004	Gianmarco I.P. OTTAVIANO and Giovanni PERI (lxviii): <u>The Economic Value of Cultural Diversity: Evidence from US Cities</u>
KTHC	35.2004	Linda CHAIB (lxviii): <u>Immigration and Local Urban Participatory Democracy: A Boston-Paris Comparison</u>

KTHC	36.2004	<i>Franca ECKERT COEN and Claudio ROSSI</i> (lxviii): <u>Foreigners, Immigrants, Host Cities: The Policies of Multi-Ethnicity in Rome. Reading Governance in a Local Context</u>
KTHC	37.2004	<i>Kristine CRANE</i> (lxviii): <u>Governing Migration: Immigrant Groups' Strategies in Three Italian Cities – Rome, Naples and Bari</u>
KTHC	38.2004	<i>Kiflemariam HAMDE</i> (lxviii): <u>Mind in Africa, Body in Europe: The Struggle for Maintaining and Transforming Cultural Identity - A Note from the Experience of Eritrean Immigrants in Stockholm</u>
ETA	39.2004	<i>Alberto CAVALIERE</i> : <u>Price Competition with Information Disparities in a Vertically Differentiated Duopoly</u>
PRA	40.2004	<i>Andrea BIGANO and Stef PROOST</i> : <u>The Opening of the European Electricity Market and Environmental Policy: Does the Degree of Competition Matter?</u>
CCMP	41.2004	<i>Micheal FINUS</i> (lxix): <u>International Cooperation to Resolve International Pollution Problems</u>
KTHC	42.2004	<i>Francesco CRESPI</i> : <u>Notes on the Determinants of Innovation: A Multi-Perspective Analysis</u>
CTN	43.2004	<i>Sergio CURRARINI and Marco MARINI</i> : <u>Coalition Formation in Games without Synergies</u>
CTN	44.2004	<i>Marc ESCRIHUELA-VILLAR</i> : <u>Cartel Sustainability and Cartel Stability</u>
NRM	45.2004	<i>Sebastian BERVOETS and Nicolas GRAVEL</i> (lxvi): <u>Appraising Diversity with an Ordinal Notion of Similarity: An Axiomatic Approach</u>
NRM	46.2004	<i>Signe ANTHON and Bo JELLES MARK THORSEN</i> (lxvi): <u>Optimal Afforestation Contracts with Asymmetric Information on Private Environmental Benefits</u>
NRM	47.2004	<i>John MBURU</i> (lxvi): <u>Wildlife Conservation and Management in Kenya: Towards a Co-management Approach</u>
NRM	48.2004	<i>Ekin BIROL, Ágnes GYÓVAI and Melinda SMALE</i> (lxvi): <u>Using a Choice Experiment to Value Agricultural Biodiversity on Hungarian Small Farms: Agri-Environmental Policies in a Transition al Economy</u>
CCMP	49.2004	<i>Gernot KLEPPER and Sonja PETERSON</i> : <u>The EU Emissions Trading Scheme. Allowance Prices, Trade Flows, Competitiveness Effects</u>
GG	50.2004	<i>Scott BARRETT and Michael HOEL</i> : <u>Optimal Disease Eradication</u>
CTN	51.2004	<i>Dinko DIMITROV, Peter BORM, Ruud HENDRICKX and Shao CHIN SUNG</i> : <u>Simple Priorities and Core Stability in Hedonic Games</u>
SIEV	52.2004	<i>Francesco RICCI</i> : <u>Channels of Transmission of Environmental Policy to Economic Growth: A Survey of the Theory</u>
SIEV	53.2004	<i>Anna ALBERINI, Maureen CROPPER, Alan KRUPNICK and Nathalie B. SIMON</i> : <u>Willingness to Pay for Mortality Risk Reductions: Does Latency Matter?</u>
NRM	54.2004	<i>Ingo BRÄUER and Rainer MARGGRAF</i> (lxvi): <u>Valuation of Ecosystem Services Provided by Biodiversity Conservation: An Integrated Hydrological and Economic Model to Value the Enhanced Nitrogen Retention in Renaturated Streams</u>
NRM	55.2004	<i>Timo GOESCHL and Tun LIN</i> (lxvi): <u>Biodiversity Conservation on Private Lands: Information Problems and Regulatory Choices</u>
NRM	56.2004	<i>Tom DEDEURWAERDERE</i> (lxvi): <u>Bioprospection: From the Economics of Contracts to Reflexive Governance</u>
CCMP	57.2004	<i>Katrin REHDANZ and David MADDISON</i> : <u>The Amenity Value of Climate to German Households</u>
CCMP	58.2004	<i>Koen SMEKENS and Bob VAN DER ZWAAN</i> : <u>Environmental Externalities of Geological Carbon Sequestration Effects on Energy Scenarios</u>
NRM	59.2004	<i>Valentina BOSETTI, Mariaester CASSINELLI and Alessandro LANZA</i> (lxvii): <u>Using Data Envelopment Analysis to Evaluate Environmentally Conscious Tourism Management</u>
NRM	60.2004	<i>Timo GOESCHL and Danilo CAMARGO IGLIORI</i> (lxvi): <u>Property Rights Conservation and Development: An Analysis of Extractive Reserves in the Brazilian Amazon</u>
CCMP	61.2004	<i>Barbara BUCHNER and Carlo CARRARO</i> : <u>Economic and Environmental Effectiveness of a Technology-based Climate Protocol</u>
NRM	62.2004	<i>Elissaios PAPYRAKIS and Reyer GERLAGH</i> : <u>Resource-Abundance and Economic Growth in the U.S.</u>
NRM	63.2004	<i>Györgyi BELA, György PATAKI, Melinda SMALE and Mariann HAJDÚ</i> (lxvi): <u>Conserving Crop Genetic Resources on Smallholder Farms in Hungary: Institutional Analysis</u>
NRM	64.2004	<i>E.C.M. RUIJGROK and E.E.M. NILLESEN</i> (lxvi): <u>The Socio-Economic Value of Natural Riverbanks in the Netherlands</u>
NRM	65.2004	<i>E.C.M. RUIJGROK</i> (lxvi): <u>Reducing Acidification: The Benefits of Increased Nature Quality. Investigating the Possibilities of the Contingent Valuation Method</u>
ETA	66.2004	<i>Giannis VARDAS and Anastasios XEPAPADEAS</i> : <u>Uncertainty Aversion, Robust Control and Asset Holdings</u>
GG	67.2004	<i>Anastasios XEPAPADEAS and Constadina PASSA</i> : <u>Participation in and Compliance with Public Voluntary Environmental Programs: An Evolutionary Approach</u>
GG	68.2004	<i>Michael FINUS</i> : <u>Modesty Pays: Sometimes!</u>
NRM	69.2004	<i>Trond BJØRNDAL and Ana BRASÃO</i> : <u>The Northern Atlantic Bluefin Tuna Fisheries: Management and Policy Implications</u>
CTN	70.2004	<i>Alejandro CAPARRÓS, Abdelhakim HAMMOUDI and Tarik TAZDAÏT</i> : <u>On Coalition Formation with Heterogeneous Agents</u>
IEM	71.2004	<i>Massimo GIOVANNINI, Margherita GRASSO, Alessandro LANZA and Matteo MANERA</i> : <u>Conditional Correlations in the Returns on Oil Companies Stock Prices and Their Determinants</u>
IEM	72.2004	<i>Alessandro LANZA, Matteo MANERA and Michael MCALEER</i> : <u>Modelling Dynamic Conditional Correlations in WTI Oil Forward and Futures Returns</u>
SIEV	73.2004	<i>Margarita GENIUS and Elisabetta STRAZZERA</i> : <u>The Copula Approach to Sample Selection Modelling: An Application to the Recreational Value of Forests</u>

CCMP	74.2004	<i>Rob DELLINK and Ekko van IERLAND</i> : <u>Pollution Abatement in the Netherlands: A Dynamic Applied General Equilibrium Assessment</u>
ETA	75.2004	<i>Rosella LEVAGGI and Michele MORETTO</i> : <u>Investment in Hospital Care Technology under Different Purchasing Rules: A Real Option Approach</u>
CTN	76.2004	<i>Salvador BARBERÀ and Matthew O. JACKSON</i> (lxx): <u>On the Weights of Nations: Assigning Voting Weights in a Heterogeneous Union</u>
CTN	77.2004	<i>Àlex ARENAS, Antonio CABRALES, Albert DÍAZ-GUILERA, Roger GUIMERÀ and Fernando VEGA-REDONDO</i> (lxx): <u>Optimal Information Transmission in Organizations: Search and Congestion</u>
CTN	78.2004	<i>Francis BLOCH and Armando GOMES</i> (lxx): <u>Contracting with Externalities and Outside Options</u>
CTN	79.2004	<i>Rabah AMIR, Effrosyni DIAMANTOUDI and Licun XUE</i> (lxx): <u>Merger Performance under Uncertain Efficiency Gains</u>
CTN	80.2004	<i>Francis BLOCH and Matthew O. JACKSON</i> (lxx): <u>The Formation of Networks with Transfers among Players</u>
CTN	81.2004	<i>Daniel DIERMEIER, Hülya ERASLAN and Antonio MERLO</i> (lxx): <u>Bicameralism and Government Formation</u>
CTN	82.2004	<i>Rod GARRATT, James E. PARCO, Cheng-ZHONG QIN and Amnon RAPOPORT</i> (lxx): <u>Potential Maximization and Coalition Government Formation</u>
CTN	83.2004	<i>Kfir ELIAZ, Debraj RAY and Ronny RAZIN</i> (lxx): <u>Group Decision-Making in the Shadow of Disagreement</u>
CTN	84.2004	<i>Sanjeev GOYAL, Marco van der LEIJ and José Luis MORAGA-GONZÁLEZ</i> (lxx): <u>Economics: An Emerging Small World?</u>
CTN	85.2004	<i>Edward CARTWRIGHT</i> (lxx): <u>Learning to Play Approximate Nash Equilibria in Games with Many Players</u>
IEM	86.2004	<i>Finn R. FØRSUND and Michael HOEL</i> : <u>Properties of a Non-Competitive Electricity Market Dominated by Hydroelectric Power</u>
KTHC	87.2004	<i>Elissaios PAPYRAKIS and Reyer GERLAGH</i> : <u>Natural Resources, Investment and Long-Term Income</u>
CCMP	88.2004	<i>Marzio GALEOTTI and Claudia KEMFERT</i> : <u>Interactions between Climate and Trade Policies: A Survey</u>
IEM	89.2004	<i>A. MARKANDYA, S. PEDROSO and D. STREIMIKIENE</i> : <u>Energy Efficiency in Transition Economies: Is There Convergence Towards the EU Average?</u>
GG	90.2004	<i>Rolf GOLOMBEK and Michael HOEL</i> : <u>Climate Agreements and Technology Policy</u>
PRA	91.2004	<i>Sergei IZMALKOV</i> (lxv): <u>Multi-Unit Open Ascending Price Efficient Auction</u>
KTHC	92.2004	<i>Gianmarco I.P. OTTAVIANO and Giovanni PERI</i> : <u>Cities and Cultures</u>
KTHC	93.2004	<i>Massimo DEL GATTO</i> : <u>Agglomeration, Integration, and Territorial Authority Scale in a System of Trading Cities. Centralisation versus devolution</u>
CCMP	94.2004	<i>Pierre-André JOUVET, Philippe MICHEL and Gilles ROTILLON</i> : <u>Equilibrium with a Market of Permits</u>
CCMP	95.2004	<i>Bob van der ZWAAN and Reyer GERLAGH</i> : <u>Climate Uncertainty and the Necessity to Transform Global Energy Supply</u>
CCMP	96.2004	<i>Francesco BOSELLO, Marco LAZZARIN, Roberto ROSON and Richard S.J. TOL</i> : <u>Economy-Wide Estimates of the Implications of Climate Change: Sea Level Rise</u>
CTN	97.2004	<i>Gustavo BERGANTIÑOS and Juan J. VIDAL-PUGA</i> : <u>Defining Rules in Cost Spanning Tree Problems Through the Canonical Form</u>
CTN	98.2004	<i>Siddhartha BANDYOPADHYAY and Mandar OAK</i> : <u>Party Formation and Coalitional Bargaining in a Model of Proportional Representation</u>
GG	99.2004	<i>Hans-Peter WEIKARD, Michael FINUS and Juan-Carlos ALTAMIRANO-CABRERA</i> : <u>The Impact of Surplus Sharing on the Stability of International Climate Agreements</u>
SIEV	100.2004	<i>Chiara M. TRAVISI and Peter NIJKAMP</i> : <u>Willingness to Pay for Agricultural Environmental Safety: Evidence from a Survey of Milan, Italy, Residents</u>
SIEV	101.2004	<i>Chiara M. TRAVISI, Raymond J. G. M. FLORAX and Peter NIJKAMP</i> : <u>A Meta-Analysis of the Willingness to Pay for Reductions in Pesticide Risk Exposure</u>
NRM	102.2004	<i>Valentina BOSETTI and David TOMBERLIN</i> : <u>Real Options Analysis of Fishing Fleet Dynamics: A Test</u>
CCMP	103.2004	<i>Alessandra GORIA e Gretel GAMBARELLI</i> : <u>Economic Evaluation of Climate Change Impacts and Adaptability in Italy</u>
PRA	104.2004	<i>Massimo FLORIO and Mara GRASSEN</i> : <u>The Missing Shock: The Macroeconomic Impact of British Privatisation</u>
PRA	105.2004	<i>John BENNETT, Saul ESTRIN, James MAW and Giovanni URG</i> : <u>Privatisation Methods and Economic Growth in Transition Economies</u>
PRA	106.2004	<i>Kira BÖRNER</i> : <u>The Political Economy of Privatization: Why Do Governments Want Reforms?</u>
PRA	107.2004	<i>Pehr-Johan NORBÄCK and Lars PERSSON</i> : <u>Privatization and Restructuring in Concentrated Markets</u>
SIEV	108.2004	<i>Angela GRANZOTTO, Fabio PRANOVI, Simone LIBRALATO, Patrizia TORRICELLI and Danilo MAINARDI</i> : <u>Comparison between Artisanal Fishery and Manila Clam Harvesting in the Venice Lagoon by Using Ecosystem Indicators: An Ecological Economics Perspective</u>
CTN	109.2004	<i>Somdeb LAHIRI</i> : <u>The Cooperative Theory of Two Sided Matching Problems: A Re-examination of Some Results</u>
NRM	110.2004	<i>Giuseppe DI VITA</i> : <u>Natural Resources Dynamics: Another Look</u>
SIEV	111.2004	<i>Anna ALBERINI, Alistair HUNT and Anil MARKANDYA</i> : <u>Willingness to Pay to Reduce Mortality Risks: Evidence from a Three-Country Contingent Valuation Study</u>
KTHC	112.2004	<i>Valeria PAPPONETTI and Dino PINELLI</i> : <u>Scientific Advice to Public Policy-Making</u>
SIEV	113.2004	<i>Paulo A.L.D. NUNES and Laura ONOFRI</i> : <u>The Economics of Warm Glow: A Note on Consumer's Behavior and Public Policy Implications</u>
IEM	114.2004	<i>Patrick CAYRADE</i> : <u>Investments in Gas Pipelines and Liquefied Natural Gas Infrastructure What is the Impact on the Security of Supply?</u>
IEM	115.2004	<i>Valeria COSTANTINI and Francesco GRACCEVA</i> : <u>Oil Security. Short- and Long-Term Policies</u>

ITEM	116.2004	<i>Valeria COSTANTINI and Francesco GRACCEVA: <u>Social Costs of Energy Disruptions</u></i>
ITEM	117.2004	<i>Christian EGENHOFER, Kyriakos GIALOGLOU, Giacomo LUCIANI, Maroeska BOOTS, Martin SCHEEPERS, Valeria COSTANTINI, Francesco GRACCEVA, Anil MARKANDYA and Giorgio VICINI: <u>Market-Based Options for Security of Energy Supply</u></i>
ITEM	118.2004	<i>David FISK: <u>Transport Energy Security. The Unseen Risk?</u></i>
ITEM	119.2004	<i>Giacomo LUCIANI: <u>Security of Supply for Natural Gas Markets. What is it and What is it not?</u></i>
ITEM	120.2004	<i>L.J. de VRIES and R.A. HAKVOORT: <u>The Question of Generation Adequacy in Liberalised Electricity Markets</u></i>
KTHC	121.2004	<i>Alberto PETRUCCI: <u>Asset Accumulation, Fertility Choice and Nondegenerate Dynamics in a Small Open Economy</u></i>
NRM	122.2004	<i>Carlo GIUPPONI, Jaroslav MYSLAK and Anita FASSIO: <u>An Integrated Assessment Framework for Water Resources Management: A DSS Tool and a Pilot Study Application</u></i>
NRM	123.2004	<i>Margaretha BREIL, Anita FASSIO, Carlo GIUPPONI and Paolo ROSATO: <u>Evaluation of Urban Improvement on the Islands of the Venice Lagoon: A Spatially-Distributed Hedonic-Hierarchical Approach</u></i>
ETA	124.2004	<i>Paul MENSINK: <u>Instant Efficient Pollution Abatement Under Non-Linear Taxation and Asymmetric Information: The Differential Tax Revisited</u></i>
NRM	125.2004	<i>Mauro FABIANO, Gabriella CAMARSA, Rosanna DURSI, Roberta IVALDI, Valentina MARIN and Francesca PALMISANI: <u>Integrated Environmental Study for Beach Management: A Methodological Approach</u></i>
PRA	126.2004	<i>Irena GROSFELD and Iraj HASHI: <u>The Emergence of Large Shareholders in Mass Privatized Firms: Evidence from Poland and the Czech Republic</u></i>
CCMP	127.2004	<i>Maria BERRITTELLA, Andrea BIGANO, Roberto ROSON and Richard S.J. TOL: <u>A General Equilibrium Analysis of Climate Change Impacts on Tourism</u></i>
CCMP	128.2004	<i>Reyer GERLAGH: <u>A Climate-Change Policy Induced Shift from Innovations in Energy Production to Energy Savings</u></i>
NRM	129.2004	<i>Elissaios PAPYRAKIS and Reyner GERLAGH: <u>Natural Resources, Innovation, and Growth</u></i>
PRA	130.2004	<i>Bernardo BORTOLOTTI and Mara FACCIO: <u>Reluctant Privatization</u></i>
SIEV	131.2004	<i>Riccardo SCARPA and Mara THIENE: <u>Destination Choice Models for Rock Climbing in the Northeast Alps: A Latent-Class Approach Based on Intensity of Participation</u></i>
SIEV	132.2004	<i>Riccardo SCARPA Kenneth G. WILLIS and Melinda ACUTT: <u>Comparing Individual-Specific Benefit Estimates for Public Goods: Finite Versus Continuous Mixing in Logit Models</u></i>
ITEM	133.2004	<i>Santiago J. RUBIO: <u>On Capturing Oil Rents with a National Excise Tax Revisited</u></i>
ETA	134.2004	<i>Ascensión ANDINA DÍAZ: <u>Political Competition when Media Create Candidates' Charisma</u></i>
SIEV	135.2004	<i>Anna ALBERINI: <u>Robustness of VSL Values from Contingent Valuation Surveys</u></i>
CCMP	136.2004	<i>Gernot KLEPPER and Sonja PETERSON: <u>Marginal Abatement Cost Curves in General Equilibrium: The Influence of World Energy Prices</u></i>
ETA	137.2004	<i>Herbert DAWID, Christophe DEISSENBERG and Pavel ŠEVČIK: <u>Cheap Talk, Gullibility, and Welfare in an Environmental Taxation Game</u></i>
CCMP	138.2004	<i>ZhongXiang ZHANG: <u>The World Bank's Prototype Carbon Fund and China</u></i>
CCMP	139.2004	<i>Reyer GERLAGH and Marjan W. HOFKES: <u>Time Profile of Climate Change Stabilization Policy</u></i>
NRM	140.2004	<i>Chiara D'ALPAOS and Michele MORETTO: <u>The Value of Flexibility in the Italian Water Service Sector: A Real Option Analysis</u></i>
PRA	141.2004	<i>Patrick BAJARI, Stephanie HOUGHTON and Steven TADELIS (lxxi): <u>Bidding for Incomplete Contracts</u></i>
PRA	142.2004	<i>Susan ATHEY, Jonathan LEVIN and Enrique SEIRA (lxxi): <u>Comparing Open and Sealed Bid Auctions: Theory and Evidence from Timber Auctions</u></i>
PRA	143.2004	<i>David GOLDREICH (lxxi): <u>Behavioral Biases of Dealers in U.S. Treasury Auctions</u></i>
PRA	144.2004	<i>Roberto BURGUET (lxxi): <u>Optimal Procurement Auction for a Buyer with Downward Sloping Demand: More Simple Economics</u></i>
PRA	145.2004	<i>Ali HORTACSU and Samita SAREEN (lxxi): <u>Order Flow and the Formation of Dealer Bids: An Analysis of Information and Strategic Behavior in the Government of Canada Securities Auctions</u></i>
PRA	146.2004	<i>Victor GINSBURGH, Patrick LEGROS and Nicolas SAHUGUET (lxxi): <u>How to Win Twice at an Auction. On the Incidence of Commissions in Auction Markets</u></i>
PRA	147.2004	<i>Claudio MEZZETTI, Aleksandar PEKEČ and Ilia TSETLIN (lxxi): <u>Sequential vs. Single-Round Uniform-Price Auctions</u></i>
PRA	148.2004	<i>John ASKER and Estelle CANTILLON (lxxi): <u>Equilibrium of Scoring Auctions</u></i>
PRA	149.2004	<i>Philip A. HAILE, Han HONG and Matthew SHUM (lxxi): <u>Nonparametric Tests for Common Values in First-Price Sealed-Bid Auctions</u></i>
PRA	150.2004	<i>François DEGEORGE, François DERRIEN and Kent L. WOMACK (lxxi): <u>Quid Pro Quo in IPOs: Why Bookbuilding is Dominating Auctions</u></i>
CCMP	151.2004	<i>Barbara BUCHNER and Silvia DALL'OLIO: <u>Russia: The Long Road to Ratification. Internal Institution and Pressure Groups in the Kyoto Protocol's Adoption Process</u></i>
CCMP	152.2004	<i>Carlo CARRARO and Marzio GALEOTTI: <u>Does Endogenous Technical Change Make a Difference in Climate Policy Analysis? A Robustness Exercise with the FEEM-RICE Model</u></i>
PRA	153.2004	<i>Alejandro M. MANELLI and Daniel R. VINCENT (lxxi): <u>Multidimensional Mechanism Design: Revenue Maximization and the Multiple-Good Monopoly</u></i>
ETA	154.2004	<i>Nicola ACOCELLA, Giovanni Di BARTOLOMEO and Wilfried PAUWELS: <u>Is there any Scope for Corporatism in Stabilization Policies?</u></i>
CTN	155.2004	<i>Johan EYCKMANS and Michael FINUS: <u>An Almost Ideal Sharing Scheme for Coalition Games with Externalities</u></i>
CCMP	156.2004	<i>Cesare DOSI and Michele MORETTO: <u>Environmental Innovation, War of Attrition and Investment Grants</u></i>

CCMP	157.2004	<i>Valentina BOSETTI, Marzio GALEOTTI and Alessandro LANZA: <u>How Consistent are Alternative Short-Term Climate Policies with Long-Term Goals?</u></i>
ETA	158.2004	<i>Y. Hossein FARZIN and Ken-Ichi AKAO: <u>Non-pecuniary Value of Employment and Individual Labor Supply</u></i>
ETA	159.2004	<i>William BROCK and Anastasios XEPAPADEAS: <u>Spatial Analysis: Development of Descriptive and Normative Methods with Applications to Economic-Ecological Modelling</u></i>
KTHC	160.2004	<i>Alberto PETRUCCI: <u>On the Incidence of a Tax on PureRent with Infinite Horizons</u></i>
IEM	161.2004	<i>Xavier LABANDEIRA, José M. LABEAGA and Miguel RODRÍGUEZ: <u>Microsimulating the Effects of Household Energy Price Changes in Spain</u></i>

NOTE DI LAVORO PUBLISHED IN 2005

CCMP	1.2005	<i>Stéphane HALLEGATTE: <u>Accounting for Extreme Events in the Economic Assessment of Climate Change</u></i>
CCMP	2.2005	<i>Qiang WU and Paulo Augusto NUNES: <u>Application of Technological Control Measures on Vehicle Pollution: A Cost-Benefit Analysis in China</u></i>
CCMP	3.2005	<i>Andrea BIGANO, Jacqueline M. HAMILTON, Maren LAU, Richard S.J. TOL and Yuan ZHOU: <u>A Global Database of Domestic and International Tourist Numbers at National and Subnational Level</u></i>
CCMP	4.2005	<i>Andrea BIGANO, Jacqueline M. HAMILTON and Richard S.J. TOL: <u>The Impact of Climate on Holiday Destination Choice</u></i>
ETA	5.2005	<i>Hubert KEMPF: <u>Is Inequality Harmful for the Environment in a Growing Economy?</u></i>
CCMP	6.2005	<i>Valentina BOSETTI, Carlo CARRARO and Marzio GALEOTTI: <u>The Dynamics of Carbon and Energy Intensity in a Model of Endogenous Technical Change</u></i>
IEM	7.2005	<i>David CALEF and Robert GOBLE: <u>The Allure of Technology: How France and California Promoted Electric Vehicles to Reduce Urban Air Pollution</u></i>
ETA	8.2005	<i>Lorenzo PELLEGRINI and Reyer GERLAGH: <u>An Empirical Contribution to the Debate on Corruption Democracy and Environmental Policy</u></i>
CCMP	9.2005	<i>Angelo ANTOCI: <u>Environmental Resources Depletion and Interplay Between Negative and Positive Externalities in a Growth Model</u></i>
CTN	10.2005	<i>Frédéric DEROLAN: <u>Cost-Reducing Alliances and Local Spillovers</u></i>
NRM	11.2005	<i>Francesco SINDICO: <u>The GMO Dispute before the WTO: Legal Implications for the Trade and Environment Debate</u></i>
KTHC	12.2005	<i>Carla MASSIDDA: <u>Estimating the New Keynesian Phillips Curve for Italian Manufacturing Sectors</u></i>
KTHC	13.2005	<i>Michele MORETTO and Gianpaolo ROSSINI: <u>Start-up Entry Strategies: Employer vs. Nonemployer firms</u></i>
PRCG	14.2005	<i>Clara GRAZIANO and Annalisa LUPORINI: <u>Ownership Concentration, Monitoring and Optimal Board Structure</u></i>
CSRM	15.2005	<i>Parashar KULKARNI: <u>Use of Ecolabels in Promoting Exports from Developing Countries to Developed Countries: Lessons from the Indian LeatherFootwear Industry</u></i>
KTHC	16.2005	<i>Adriana DI LIBERTO, Roberto MURA and Francesco PIGLIARU: <u>How to Measure the Unobservable: A Panel Technique for the Analysis of TFP Convergence</u></i>
KTHC	17.2005	<i>Alireza NAGHAVI: <u>Asymmetric Labor Markets, Southern Wages, and the Location of Firms</u></i>
KTHC	18.2005	<i>Alireza NAGHAVI: <u>Strategic Intellectual Property Rights Policy and North-South Technology Transfer</u></i>
KTHC	19.2005	<i>Mombert HOPPE: <u>Technology Transfer Through Trade</u></i>
PRCG	20.2005	<i>Roberto ROSON: <u>Platform Competition with Endogenous Multihoming</u></i>
CCMP	21.2005	<i>Barbara BUCHNER and Carlo CARRARO: <u>Regional and Sub-Global Climate Blocs. A Game Theoretic Perspective on Bottom-up Climate Regimes</u></i>
IEM	22.2005	<i>Fausto CAVALLARO: <u>An Integrated Multi-Criteria System to Assess Sustainable Energy Options: An Application of the Promethee Method</u></i>
CTN	23.2005	<i>Michael FINUS, Pierre v. MOUCHE and Bianca RUNDSHAGEN: <u>Uniqueness of Coalitional Equilibria</u></i>
IEM	24.2005	<i>Wietze LISE: <u>Decomposition of CO2 Emissions over 1980–2003 in Turkey</u></i>
CTN	25.2005	<i>Somdeb LAHIRI: <u>The Core of Directed Network Problems with Quotas</u></i>
SIEV	26.2005	<i>Susanne MENZEL and Riccardo SCARPA: <u>Protection Motivation Theory and Contingent Valuation: Perceived Realism, Threat and WTP Estimates for Biodiversity Protection</u></i>
NRM	27.2005	<i>Massimiliano MAZZANTI and Anna MONTINI: <u>The Determinants of Residential Water Demand Empirical Evidence for a Panel of Italian Municipalities</u></i>
CCMP	28.2005	<i>Laurent GILOTTE and Michel de LARA: <u>Precautionary Effect and Variations of the Value of Information</u></i>
NRM	29.2005	<i>Paul SARFO-MENSAH: <u>Exportation of Timber in Ghana: The Menace of Illegal Logging Operations</u></i>
CCMP	30.2005	<i>Andrea BIGANO, Alessandra GORIA, Jacqueline HAMILTON and Richard S.J. TOL: <u>The Effect of Climate Change and Extreme Weather Events on Tourism</u></i>
NRM	31.2005	<i>Maria Angeles GARCIA-VALIÑAS: <u>Decentralization and Environment: An Application to Water Policies</u></i>
NRM	32.2005	<i>Chiara D'ALPAOS, Cesare DOSI and Michele MORETTO: <u>Concession Length and Investment Timing Flexibility</u></i>
CCMP	33.2005	<i>Joseph HUBER: <u>Key Environmental Innovations</u></i>
CTN	34.2005	<i>Antoni CALVÓ-ARMENGOL and Rahmi İLKILIÇ (Ixxii): <u>Pairwise-Stability and Nash Equilibria in Network Formation</u></i>
CTN	35.2005	<i>Francesco FERI (Ixxii): <u>Network Formation with Endogenous Decay</u></i>
CTN	36.2005	<i>Frank H. PAGE, Jr. and Myrna H. WOODERS (Ixxii): <u>Strategic Basins of Attraction, the Farsighted Core, and Network Formation Games</u></i>

CTN	37.2005	<i>Alessandra CASELLA and Nobuyuki HANAKI</i> (lxxii): <u>Information Channels in Labor Markets. On the Resilience of Referral Hiring</u>
CTN	38.2005	<i>Matthew O. JACKSON and Alison WATTS</i> (lxxii): <u>Social Games: Matching and the Play of Finitely Repeated Games</u>
CTN	39.2005	<i>Anna BOGOMOLNAIA, Michel LE BRETON, Alexei SAVVATEEV and Shlomo WEBER</i> (lxxii): <u>The Egalitarian Sharing Rule in Provision of Public Projects</u>
CTN	40.2005	<i>Francesco FERI</i> : <u>Stochastic Stability in Network with Decay</u>
CTN	41.2005	<i>Aart de ZEEUW</i> (lxxii): <u>Dynamic Effects on the Stability of International Environmental Agreements</u>
NRM	42.2005	<i>C. Martijn van der HEIDE, Jeroen C.J.M. van den BERGH, Ekko C. van IERLAND and Paulo A.L.D. NUNES</i> : <u>Measuring the Economic Value of Two Habitat Defragmentation Policy Scenarios for the Veluwe, The Netherlands</u>
PRCG	43.2005	<i>Carla VIEIRA and Ana Paula SERRA</i> : <u>Abnormal Returns in Privatization Public Offerings: The Case of Portuguese Firms</u>
SIEV	44.2005	<i>Anna ALBERINI, Valentina ZANATTA and Paolo ROSATO</i> : <u>Combining Actual and Contingent Behavior to Estimate the Value of Sports Fishing in the Lagoon of Venice</u>
CTN	45.2005	<i>Michael FINUS and Bianca RUNDSHAGEN</i> : <u>Participation in International Environmental Agreements: The Role of Timing and Regulation</u>
CCMP	46.2005	<i>Lorenzo PELLEGRINI and Reyer GERLAGH</i> : <u>Are EU Environmental Policies Too Demanding for New Members States?</u>
IEM	47.2005	<i>Matteo MANERA</i> : <u>Modeling Factor Demands with SEM and VAR: An Empirical Comparison</u>
CTN	48.2005	<i>Olivier TERCIEUX and Vincent VANNETELBOSCH</i> (lxx): <u>A Characterization of Stochastically Stable Networks</u>
CTN	49.2005	<i>Ana MAULEON, José SEMPERE-MONERRIS and Vincent J. VANNETELBOSCH</i> (lxxii): <u>R&D Networks Among Unionized Firms</u>
CTN	50.2005	<i>Carlo CARRARO, Johan EYCKMANS and Michael FINUS</i> : <u>Optimal Transfers and Participation Decisions in International Environmental Agreements</u>
KTHC	51.2005	<i>Valeria GATTAI</i> : <u>From the Theory of the Firm to FDI and Internalisation: A Survey</u>
CCMP	52.2005	<i>Alireza NAGHAVI</i> : <u>Multilateral Environmental Agreements and Trade Obligations: A Theoretical Analysis of the Doha Proposal</u>
SIEV	53.2005	<i>Margaretha BREIL, Gretel GAMBARELLI and Paulo A.L.D. NUNES</i> : <u>Economic Valuation of On Site Material Damages of High Water on Economic Activities based in the City of Venice: Results from a Dose-Response-Expert-Based Valuation Approach</u>
ETA	54.2005	<i>Alessandra del BOCA, Marzio GALEOTTI, Charles P. HIMMELBERG and Paola ROTA</i> : <u>Investment and Time to Plan: A Comparison of Structures vs. Equipment in a Panel of Italian Firms</u>
CCMP	55.2005	<i>Gernot KLEPPER and Sonja PETERSON</i> : <u>Emissions Trading, CDM, JI, and More – The Climate Strategy of the EU</u>
ETA	56.2005	<i>Maia DAVID and Bernard SINCLAIR-DESGAGNÉ</i> : <u>Environmental Regulation and the Eco-Industry</u>
ETA	57.2005	<i>Alain-Désiré NIMUBONA and Bernard SINCLAIR-DESGAGNÉ</i> : <u>The Pigouvian Tax Rule in the Presence of an Eco-Industry</u>
NRM	58.2005	<i>Helmut KARL, Antje MÖLLER, Ximena MATUS, Edgar GRANDE and Robert KAISER</i> : <u>Environmental Innovations: Institutional Impacts on Co-operations for Sustainable Development</u>
SIEV	59.2005	<i>Dimitra VOUVAKI and Anastasios XEPAPADEAS</i> (lxxiii): <u>Criteria for Assessing Sustainable Development: Theoretical Issues and Empirical Evidence for the Case of Greece</u>
CCMP	60.2005	<i>Andreas LÖSCHEL and Dirk T.G. RÜBBELKE</i> : <u>Impure Public Goods and Technological Interdependencies</u>
PRCG	61.2005	<i>Christoph A. SCHALTEGGER and Benno TORGLER</i> : <u>Trust and Fiscal Performance: A Panel Analysis with Swiss Data</u>
ETA	62.2005	<i>Irene VALSECCHI</i> : <u>A Role for Instructions</u>
NRM	63.2005	<i>Valentina BOSETTI and Gianni LOCATELLI</i> : <u>A Data Envelopment Analysis Approach to the Assessment of Natural Parks' Economic Efficiency and Sustainability. The Case of Italian National Parks</u>
SIEV	64.2005	<i>Arianne T. de BLAEIJ, Paulo A.L.D. NUNES and Jeroen C.J.M. van den BERGH</i> : <u>Modeling 'No-choice' Responses in Attribute Based Valuation Surveys</u>
CTN	65.2005	<i>Carlo CARRARO, Carmen MARCHIORI and Alessandra SGOBBI</i> : <u>Applications of Negotiation Theory to Water Issues</u>
CTN	66.2005	<i>Carlo CARRARO, Carmen MARCHIORI and Alessandra SGOBBI</i> : <u>Advances in Negotiation Theory: Bargaining, Coalitions and Fairness</u>
KTHC	67.2005	<i>Sandra WALLMAN</i> (lxxiv): <u>Network Capital and Social Trust: Pre-Conditions for 'Good' Diversity?</u>
KTHC	68.2005	<i>Asimina CHRISTOFOROU</i> (lxxiv): <u>On the Determinants of Social Capital in Greece Compared to Countries of the European Union</u>
KTHC	69.2005	<i>Eric M. USLANER</i> (lxxiv): <u>Varieties of Trust</u>
KTHC	70.2005	<i>Thomas P. LYON</i> (lxxiv): <u>Making Capitalism Work: Social Capital and Economic Growth in Italy, 1970-1995</u>
KTHC	71.2005	<i>Graziella BERTOCCHI and Chiara STROZZI</i> (lxxv): <u>Citizenship Laws and International Migration in Historical Perspective</u>
KTHC	72.2005	<i>Elsbeth van HYLCKAMA Vlieg</i> (lxxv): <u>Accommodating Differences</u>
KTHC	73.2005	<i>Renato SANSA and Ercole SORI</i> (lxxv): <u>Governance of Diversity Between Social Dynamics and Conflicts in Multicultural Cities. A Selected Survey on Historical Bibliography</u>
IEM	74.2005	<i>Alberto LONGO and Anil MARKANDYA</i> : <u>Identification of Options and Policy Instruments for the Internalisation of External Costs of Electricity Generation. Dissemination of External Costs of Electricity Supply Making Electricity External Costs Known to Policy-Makers</u> <u>MAXIMA</u>

ITEM	75.2005	<i>Margherita GRASSO and Matteo MANERA: <u>Asymmetric Error Correction Models for the Oil-Gasoline Price Relationship</u></i>
ETA	76.2005	<i>Umberto CHERUBINI and Matteo MANERA: <u>Hunting the Living Dead A “Peso Problem” in Corporate Liabilities Data</u></i>
CTN	77.2005	<i>Hans-Peter WEIKARD: <u>Cartel Stability under an Optimal Sharing Rule</u></i>
ETA	78.2005	<i>Joëlle NOAILLY, Jeroen C.J.M. van den BERGH and Cees A. WITHAGEN (lxxvi): <u>Local and Global Interactions in an Evolutionary Resource Game</u></i>
ETA	79.2005	<i>Joëlle NOAILLY, Cees A. WITHAGEN and Jeroen C.J.M. van den BERGH (lxxvi): <u>Spatial Evolution of Social Norms in a Common-Pool Resource Game</u></i>
CCMP	80.2005	<i>Massimiliano MAZZANTI and Roberto ZOBOLI: <u>Economic Instruments and Induced Innovation: The Case of End-of-Life Vehicles European Policies</u></i>
NRM	81.2005	<i>Anna LASUT: <u>Creative Thinking and Modelling for the Decision Support in Water Management</u></i>
CCMP	82.2005	<i>Valentina BOSETTI and Barbara BUCHNER: <u>Using Data Envelopment Analysis to Assess the Relative Efficiency of Different Climate Policy Portfolios</u></i>
ETA	83.2005	<i>Ignazio MUSU: <u>Intellectual Property Rights and Biotechnology: How to Improve the Present Patent System</u></i>
KTHC	84.2005	<i>Giulio CAINELLI, Susanna MANCINELLI and Massimiliano MAZZANTI: <u>Social Capital, R&D and Industrial Districts</u></i>
ETA	85.2005	<i>Rosella LEVAGGI, Michele MORETTO and Vincenzo REBBA: <u>Quality and Investment Decisions in Hospital Care when Physicians are Devoted Workers</u></i>
CCMP	86.2005	<i>Valentina BOSETTI and Laurent GILOTTE: <u>Carbon Capture and Sequestration: How Much Does this Uncertain Option Affect Near-Term Policy Choices?</u></i>
CSRM	87.2005	<i>Nicoletta FERRO: <u>Value Through Diversity: Microfinance and Islamic Finance and Global Banking</u></i>
ETA	88.2005	<i>A. MARKANDYA and S. PEDROSO: <u>How Substitutable is Natural Capital?</u></i>
ITEM	89.2005	<i>Anil MARKANDYA, Valeria COSTANTINI, Francesco GRACCEVA and Giorgio VICINI: <u>Security of Energy Supply: Comparing Scenarios From a European Perspective</u></i>
CCMP	90.2005	<i>Vincent M. OTTO, Andreas LÖSCHEL and Rob DELLINK: <u>Energy Biased Technical Change: A CGE Analysis</u></i>
PRCG	91.2005	<i>Carlo CAPUANO: <u>Abuse of Competitive Fringe</u></i>
PRCG	92.2005	<i>Ulrich BINDSEIL, Kjell G. NYBORG and Ilya A. STREBULAIEV (lxv): <u>Bidding and Performance in Repo Auctions: Evidence from ECB Open Market Operations</u></i>
CCMP	93.2005	<i>Sabrina AUCI and Leonardo BECCHETTI: <u>The Stability of the Adjusted and Unadjusted Environmental Kuznets Curve</u></i>
CCMP	94.2005	<i>Francesco BOSELLO and Jian ZHANG: <u>Assessing Climate Change Impacts: Agriculture</u></i>
CTN	95.2005	<i>Alejandro CAPARRÓS, Jean-Christophe PEREAU and Tarik TAZDAÏT: <u>Bargaining with Non-Monolithic Players</u></i>
ETA	96.2005	<i>William BROCK and Anastasios XEPAPADEAS (lxxvi): <u>Optimal Control and Spatial Heterogeneity: Pattern Formation in Economic-Ecological Models</u></i>
CCMP	97.2005	<i>Francesco BOSELLO, Roberto ROSON and Richard S.J. TOL (lxxvii): <u>Economy-Wide Estimates of the Implications of Climate Change: Human Health</u></i>
CCMP	98.2005	<i>Rob DELLINK, Michael FINUS and Niels OLIEMAN: <u>Coalition Formation under Uncertainty: The Stability Likelihood of an International Climate Agreement</u></i>
CTN	99.2005	<i>Valeria COSTANTINI, Riccardo CRESCENZI, Fabrizio De FILIPPIS, and Luca SALVATICI: <u>Bargaining Coalitions in the Agricultural Negotiations of the Doha Round: Similarity of Interests or Strategic Choices? An Empirical Assessment</u></i>
ITEM	100.2005	<i>Giliola FREY and Matteo MANERA: <u>Econometric Models of Asymmetric Price Transmission</u></i>
ITEM	101.2005	<i>Alessandro COLOGNI and Matteo MANERA: <u>Oil Prices, Inflation and Interest Rates in a Structural Cointegrated VAR Model for the G-7 Countries</u></i>
KTHC	102.2005	<i>Chiara M. TRAVISI and Roberto CAMAGNI: <u>Sustainability of Urban Sprawl: Environmental-Economic Indicators for the Analysis of Mobility Impact in Italy</u></i>
ETA	103.2005	<i>Livingstone S. LUBOOBI and Joseph Y.T. MUGISHA: <u>HIV/AIDS Pandemic in Africa: Trends and Challenges</u></i>
SIEV	104.2005	<i>Anna ALBERINI, Erik LICHTENBERG, Dominic MANCINI, and Gregmar I. GALINATO: <u>Was It Something I Ate? Implementation of the FDA Seafood HACCP Program</u></i>
SIEV	105.2005	<i>Anna ALBERINI and Aline CHIABAI: <u>Urban Environmental Health and Sensitive Populations: How Much are the Italians Willing to Pay to Reduce Their Risks?</u></i>
SIEV	106.2005	<i>Anna ALBERINI, Aline CHIABAI and Lucija MUEHLENBACHS: <u>Using Expert Judgment to Assess Adaptive Capacity to Climate Change: Evidence from a Conjoint Choice Survey</u></i>
CTN	107.2005	<i>Michele BERNASCONI and Matteo GALIZZI: <u>Coordination in Networks Formation: Experimental Evidence on Learning and Salience</u></i>
KTHC	108.2005	<i>Michele MORETTO and Sergio VERGALLI: <u>Migration Dynamics</u></i>
NRM	109.2005	<i>Antonio MUSOLESI and Mario NOSVELLI: <u>Water Consumption and Long-Run Urban Development: The Case of Milan</u></i>
SIEV	110.2005	<i>Benno TORGLER and Maria A. GARCIA-VALIÑAS: <u>The Determinants of Individuals’ Attitudes Towards Preventing Environmental Damage</u></i>
SIEV	111.2005	<i>Alberto LONGO and Anna ALBERINI: <u>What are the Effects of Contamination Risks on Commercial and Industrial Properties? Evidence from Baltimore, Maryland</u></i>
SIEV	112.2005	<i>Anna ALBERINI and Alberto LONGO: <u>The Value of Cultural Heritage Sites in Armenia: Evidence from a Travel Cost Method Study</u></i>
CCMP	113.2005	<i>Mikel GONZÁLEZ and Rob DELLINK: <u>Impact of Climate Policy on the Basque Economy</u></i>
NRM	114.2005	<i>Gilles LAFFORGUE and Walid OUESLATI: <u>Optimal Soil Management and Environmental Policy</u></i>

NRM	115.2005	<i>Martin D. SMITH and Larry B. CROWDER (lxxvi): <u>Valuing Ecosystem Services with Fishery Rents: A Lumped-Parameter Approach to Hypoxia in the Neuse River Estuary</u></i>
NRM	116.2005	<i>Dan HOLLAND and Kurt SCHNIER (lxxvi): <u>Protecting Marine Biodiversity: A Comparison of Individual Habitat Quotas (IHQs) and Marine Protected Areas</u></i>
PRCG	117.2005	<i>John NELLIS: <u>The Evolution of Enterprise Reform in Africa: From State-owned Enterprises to Private Participation in Infrastructure — and Back?</u></i>
PRCG	118.2005	<i>Bernardo BORTOLOTTI: <u>Italy's Privatization Process and Its Implications for China</u></i>
SIEV	119.2005	<i>Anna ALBERINI, Marcella VERONESI and Joseph C. COOPER: <u>Detecting Starting Point Bias in Dichotomous-Choice Contingent Valuation Surveys</u></i>
CTN	120.2005	<i>Federico ECHENIQUE and Mehmet B. YENMEZ: <u>A Solution to Matching with Preferences over Colleagues</u></i>
KTHC	121.2005	<i>Valeria GATTAI and Corrado MOLTENI: <u>Dissipation of Knowledge and the Boundaries of the Multinational Enterprise</u></i>
KTHC	122.2005	<i>Valeria GATTAI: <u>Firm's Intangible Assets and Multinational Activity: Joint-Venture Versus FDI</u></i>
CCMP	123.2005	<i>Socrates KYPREOS: <u>A MERGE Model with Endogenous Technological Change and the Cost of Carbon Stabilization</u></i>
CCMP	124.2005	<i>Fuminori SANO, Keigo AKIMOTO, Takashi HOMMA and Toshimasa TOMODA: <u>Analysis of Technological Portfolios for CO2 stabilizations and Effects of Technological Changes</u></i>
CCMP	125.2005	<i>Fredrik HEDENUS, Christian AZAR and Kristian LINDGREN: <u>Induced Technological Change in a Limited Foresight Optimization Model</u></i>
CCMP	126.2005	<i>Reyer GERLAGH: <u>The Value of ITC under Climate Stabilization</u></i>
PRCG	127.2005	<i>John NELLIS: <u>Privatization in Africa: What has happened? What is to be done?</u></i>
PRCG	128.2005	<i>Raphaël SOUBEYRAN: <u>Contest with Attack and Defence: Does Negative Campaigning Increase or Decrease Voters' Turnout?</u></i>
PRCG	129.2005	<i>Pascal GAUTIER and Raphael SOUBEYRAN: <u>Political Cycles : The Opposition Advantage</u></i>
ETA	130.2005	<i>Giovanni DI BARTOLOMEO, Nicola ACOCCELLA and Andrew HUGHES HALLETT: <u>Dynamic Controllability with Overlapping targets: A Generalization of the Tinbergen-Nash Theory of Economic Policy</u></i>
SIEV	131.2005	<i>Elissaios PAPYRAKIS and Reyner GERLAGH: <u>Institutional Explanations of Economic Development: the Role of Precious Metals</u></i>
ETA	132.2005	<i>Giovanni DI BARTOLOMEO and Nicola ACOCCELLA: <u>Tinbergen and Theil Meet Nash: Controllability in Policy Games</u></i>
IEM	133.2005	<i>Adriana M. IGNACIUK and Rob B. DELLINK: <u>Multi-Product Crops for Agricultural and Energy Production – an AGE Analysis for Poland</u></i>
IEM	134.2005	<i>Raffaele MINIACI, Carlo SCARPA and Paola VALBONESI: <u>Restructuring Italian Utility Markets: Household Distributional Effects</u></i>
SIEV	135.2005	<i>Valentina ZANATTA, Paolo ROSATO, Anna ALBERINI and Dimitrios REPPAS: <u>The Impact of Speed Limits on Recreational Boating in the Lagoon of Venice</u></i>
NRM	136.2005	<i>Chi-CHUR CHAO, Bharat R. HAZARI, Jean-Pierre LAFFARGUE, Pasquale M. SGRO, and Eden S. H. YU (lxxviii): <u>Tourism, Jobs, Capital Accumulation and the Economy: A Dynamic Analysis</u></i>
NRM	137.2005	<i>Michael MCALEER, Riaz SHAREEF and Bernardo da VEIGA (lxxviii): <u>Risk Management of Daily Tourist Tax Revenues for the Maldives</u></i>
NRM	138.2005	<i>Guido CANDELA, Paolo FIGINI and Antonello E. SCORCI (lxxviii): <u>The Economics of Local Tourist Systems</u></i>
NRM	139.2005	<i>Paola De AGOSTINI, Stefania LOVO, Francesco PECCI, Federico PERALI and Michele BAGGIO (lxxviii): <u>Simulating the Impact on the Local Economy of Alternative Management Scenarios for Natural Areas</u></i>
NRM	140.2005	<i>Simone VALENTE (lxxviii): <u>Growth, Conventional Production and Tourism Specialisation: Technological Catching-up Versus Terms-of-Trade Effects</u></i>
NRM	141.2005	<i>Tiago NEVES SEQUEIRA and Carla CAMPOS (lxxviii): <u>International Tourism and Economic Growth: a Panel Data Approach</u></i>
NRM	142.2005	<i>Francesco MOLA and Raffaele MIELE (lxxviii): <u>An Open Source Based Data Warehouse Architecture to Support Decision Making in the Tourism Sector</u></i>
NRM	143.2005	<i>Nishaal GOOROOCHURN and Adam BLAKE (lxxviii): <u>Tourism Immiserization: Fact or Fiction?</u></i>
NRM	144.2005	<i>S. MARZETTI Dall'ASTE BRANDOLINI and R. MOSETTI (lxxviii): <u>Social Carrying Capacity of Mass Tourist Sites: Theoretical and Practical Issues about its Measurement</u></i>
NRM	145.2005	<i>Sauveur GIANNONI and Marie-Antoinette MAUPERTUIS (lxxviii): <u>Environmental Quality and Long Run Tourism Development a Cyclical Perspective for Small Island Tourist Economies</u></i>
NRM	146.2005	<i>Javier LOZANO, Carlos GÓMEZ and Javier REY-MAQUIEIRA (lxxviii): <u>An Analysis of the Evolution of Tourism Destinations from the Point of View of the Economic Growth Theory</u></i>
CCMP	147.2005	<i>Valentina BOSETTI and Laurent DROUET: <u>Accounting for Uncertainty Affecting Technical Change in an Economic-Climate Model</u></i>
NRM	148.2005	<i>Mondher SAHLI and Jean-Jacques NOWAK (lxxviii): <u>Migration, Unemployment and Net Benefits of Inbound Tourism in a Developing Country</u></i>
ETA	149.2005	<i>Michael GREENSTONE and Justin GALLAGHER: <u>Does Hazardous Waste Matter? Evidence from the Housing Market and the Superfund Program</u></i>
CCMP	150.2005	<i>Ottmar EDENHOFER, Kai LESSMANN and Nico BAUER: <u>Mitigation Strategies and Costs of Climate Protection: The effects of ETC in the hybrid Model MIND</u></i>
PRCG	151.2005	<i>Enrico PEROTTI and Bernardo BORTOLOTTI: <u>From Government to Regulatory Governance: Privatization and the Residual Role of the State</u></i>

- (lxv) This paper was presented at the EuroConference on “Auctions and Market Design: Theory, Evidence and Applications” organised by Fondazione Eni Enrico Mattei and sponsored by the EU, Milan, September 25-27, 2003
- (lxvi) This paper has been presented at the 4th BioEcon Workshop on “Economic Analysis of Policies for Biodiversity Conservation” organised on behalf of the BIOECON Network by Fondazione Eni Enrico Mattei, Venice International University (VIU) and University College London (UCL) , Venice, August 28-29, 2003
- (lxvii) This paper has been presented at the international conference on “Tourism and Sustainable Economic Development – Macro and Micro Economic Issues” jointly organised by CRENoS (Università di Cagliari e Sassari, Italy) and Fondazione Eni Enrico Mattei, and supported by the World Bank, Sardinia, September 19-20, 2003
- (lxviii) This paper was presented at the ENGIME Workshop on “Governance and Policies in Multicultural Cities”, Rome, June 5-6, 2003
- (lxix) This paper was presented at the Fourth EEP Plenary Workshop and EEP Conference “The Future of Climate Policy”, Cagliari, Italy, 27-28 March 2003
- (lxx) This paper was presented at the 9th Coalition Theory Workshop on "Collective Decisions and Institutional Design" organised by the Universitat Autònoma de Barcelona and held in Barcelona, Spain, January 30-31, 2004
- (lxxi) This paper was presented at the EuroConference on “Auctions and Market Design: Theory, Evidence and Applications”, organised by Fondazione Eni Enrico Mattei and Consip and sponsored by the EU, Rome, September 23-25, 2004
- (lxxii) This paper was presented at the 10th Coalition Theory Network Workshop held in Paris, France on 28-29 January 2005 and organised by EUREQua.
- (lxxiii) This paper was presented at the 2nd Workshop on "Inclusive Wealth and Accounting Prices" held in Trieste, Italy on 13-15 April 2005 and organised by the Ecological and Environmental Economics - EEE Programme, a joint three-year programme of ICTP - The Abdus Salam International Centre for Theoretical Physics, FEEM - Fondazione Eni Enrico Mattei, and The Beijer International Institute of Ecological Economics
- (lxxiv) This paper was presented at the ENGIME Workshop on “Trust and social capital in multicultural cities” Athens, January 19-20, 2004
- (lxxv) This paper was presented at the ENGIME Workshop on “Diversity as a source of growth” Rome November 18-19, 2004
- (lxxvi) This paper was presented at the 3rd Workshop on Spatial-Dynamic Models of Economics and Ecosystems held in Trieste on 11-13 April 2005 and organised by the Ecological and Environmental Economics - EEE Programme, a joint three-year programme of ICTP - The Abdus Salam International Centre for Theoretical Physics, FEEM - Fondazione Eni Enrico Mattei, and The Beijer International Institute of Ecological Economics
- (lxxvii) This paper was presented at the Workshop on Infectious Diseases: Ecological and Economic Approaches held in Trieste on 13-15 April 2005 and organised by the Ecological and Environmental Economics - EEE Programme, a joint three-year programme of ICTP - The Abdus Salam International Centre for Theoretical Physics, FEEM - Fondazione Eni Enrico Mattei, and The Beijer International Institute of Ecological Economics.
- (lxxviii) This paper was presented at the Second International Conference on "Tourism and Sustainable Economic Development - Macro and Micro Economic Issues" jointly organised by CRENoS (Università di Cagliari and Sassari, Italy) and Fondazione Eni Enrico Mattei, Italy, and supported by the World Bank, Chia, Italy, 16-17 September 2005.

2004 SERIES

CCMP	<i>Climate Change Modelling and Policy</i> (Editor: Marzio Galeotti)
GG	<i>Global Governance</i> (Editor: Carlo Carraro)
SIEV	<i>Sustainability Indicators and Environmental Valuation</i> (Editor: Anna Alberini)
NRM	<i>Natural Resources Management</i> (Editor: Carlo Giupponi)
KTHC	<i>Knowledge, Technology, Human Capital</i> (Editor: Gianmarco Ottaviano)
IEM	<i>International Energy Markets</i> (Editor: Anil Markandya)
CSRM	<i>Corporate Social Responsibility and Sustainable Management</i> (Editor: Sabina Ratti)
PRA	<i>Privatisation, Regulation, Antitrust</i> (Editor: Bernardo Bortolotti)
ETA	<i>Economic Theory and Applications</i> (Editor: Carlo Carraro)
CTN	<i>Coalition Theory Network</i>

2005 SERIES

CCMP	<i>Climate Change Modelling and Policy</i> (Editor: Marzio Galeotti)
SIEV	<i>Sustainability Indicators and Environmental Valuation</i> (Editor: Anna Alberini)
NRM	<i>Natural Resources Management</i> (Editor: Carlo Giupponi)
KTHC	<i>Knowledge, Technology, Human Capital</i> (Editor: Gianmarco Ottaviano)
IEM	<i>International Energy Markets</i> (Editor: Anil Markandya)
CSRM	<i>Corporate Social Responsibility and Sustainable Management</i> (Editor: Sabina Ratti)
PRCG	<i>Privatisation Regulation Corporate Governance</i> (Editor: Bernardo Bortolotti)
ETA	<i>Economic Theory and Applications</i> (Editor: Carlo Carraro)
CTN	<i>Coalition Theory Network</i>