I paper

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The transformations of the regulatory State

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1. Regulation and its modes

What preceded the contemporary regulatory state was not some pure laissez faire regime but another regulatory state. What has changed is the mode, scope, and/or level of regulation, as well as the relative importance of regulatory policies with respect to other governmental functions, such as income redistribution. In the United States, for example, antitrust regulation was preceded by English common law against monopolies; modern corporate law was preceded by the state policy of chartering business corporations; federal social regulation, by state-level social regulation. In Europe, public ownership has been the traditional mode of economic regulation. Although public enterprise can be traced back to the seventeenth century, and in some cases even earlier, its use became widespread only in the nineteenth century with the development of gas, electricity, the water industry, the railways, the telegraph and, later, the telephone services. These industries, or parts of them, exhibited the characteristics of natural monopolies, hence public ownership was justified by the need to protect consumers from exploitation by private monopolies.

However, it is important to realize that the nationalization of key industries has been justified on a variety of grounds: not only to eliminate the political power and alleged economic inefficiency of private monopolies, but also to stimulate economic development, favor particular regions or social groups, foster "industrial democracy", or ensure national security. This multiplicity of objectives reduced accountability to vanishing point, but in the short run it greatly facilitated the formation of supporting coalitions. Regardless of the multiplicity of objectives and ideological justifications, the central assumption was always that public ownership would increase government's ability to regulate the economy and protect the public interest. Public enterprises would shape economic structure directly through their production decisions and indirectly through their pricing decisions. In the early days of nationalization it seemed axiomatic that the imposition of price and quality standards in the public interest could be achieved more effectively by the flexible decision-making inherent in the public ownership framework — considerable managerial discretion subject only, in theory, to political accountability — than by formalized legal controls imposed by an external agency, and subject to judicial review.

Subsequent experience demonstrated that public ownership and public control are by no means the same thing. Indeed, the problem of imposing effective public control over nationalized enterprises proved so intractable that the main objective for which they had been allegedly created — the regulation of the economy in the public interest — was almost forgotten. After the Second World War, the legislation which in France, the United Kingdom, and other European countries, brought many large enterprises into public ownership tended to stipulate objectives of a general nature and saw the role of managers of public enterprises as that of trustees of the public interest. However, the idea of an unproblematic notion of the public interest proved to be elusive. Perceptive economists soon recognized the dangers of an institutional arrangement in which objectives were multiple and ill-defined, so that it was very difficult to determine *ex post* whether or not they had in fact been achieved. In a sense, the nationalized enterprises had the worst of both worlds: they lacked adequate direction from the state to guide long-term strategy, and at the same time they were subject to government intervention in their daily operations. For example, they faced more intensive political pressures to avoid layoffs than did private firms. Detailed ministerial interventions, particularly in pricing and personnel decisions, were usually exercised through informal and even secret processes, rather than by official directions, with perverse effects in terms of accountability.

It should be noted that nationalization largely failed not only as a mode of economic regulation, but also with respect to the socio-political objectives of consumer protection and democratic accountability. For example, the British nationalized enterprises tried harder than the public corporations of other countries to create mechanisms for the protection of consumers. The 1940s witnessed the creation of consumer councils or consultative committees which handled complaints and commented on price increases and other policy proposals, and some of the most active councils even attempted to undertake consumer audits. In practice, the record of these consumer councils has generally been dismal. They rarely used records of complaints to argue for general policy changes, and although in some cases there was a statutory requirement that they be consulted before price increases and about the boards' general plans, such consultations were late and cursory. Paradoxically, the powers of the consumer councils were modest because of the official view of the managers of public enterprises as trustees of the public interest .

Also accountability to parliament was more of a myth than a reality since parliaments have neither the time nor the expertise and information necessary to supervise great industrial enterprises. Governments, on the other hand, generally resisted proposals that public corporations should be treated in the same way as private monopolies. This meant generous exemptions from antitrust legislation, and also — given the traditional reluctance of European judges to regard matters of economic and social policy as justiceable--from the judicial review of the decisions of public managers. It seems fair to conclude that the European consumer was less well protected *vis-à-vis* public corporations than the American consumer was *vis-à-vis* private monopolies subject to legal controls imposed by independent regulatory bodies, supported by a powerful judicial system.

The failure of public ownership as a mode of regulation favored the diffusion of an alternative mode whereby industries deemed to affect the public interest, such as public utilities, are left in, or are returned to, private hands but are subject to rules developed and enforced by specialized agencies or commissions on the basis of a specific legislative mandate — statutory regulation. Such bodies are usually established by law as independent authorities, in the sense that they are allowed to operate outside the line of hierarchical control or oversight by the departments of central government. In Europe this mode of regulation represents a fairly recent development, in spite of some 19th century precedents in Britain and Germany. By contrast, in America the tradition of regulation by independent agencies combining powers of rulemaking, adjudication, and enforcement, goes back to the Interstate Commerce Act of 1887 at the federal level, and even earlier in states such as New York, Massachusetts and Wisconsin. The rejection of nationalization as a politically and economically viable option (although public ownership was not unknown at the state and municipal level) reflected the generally held belief that markets function well under normal circumstances, so that interference by the government should be limited to clear cases of market failure. With the Interstate Commerce Act, the US Congress delegated its own power to regulate an important part of interstate commerce, namely interstate railway traffic, to an agency designed especially for the purpose — the Interstate Commerce Commission (ICC). This was an important institutional innovation. The novelty with respect to traditional administration consisted not only in the precise definition of the scope of the activities of the ICC — a particular industry — but even more in the broad powers given the commission in this limited area. Precisely because of this broad delegation of executive, legislative and judicial authority, the ICC and later independent regulatory commissions (IRCs) were eventually accused of constituting a politically irresponsible "fourth branch of government" never envisaged by the framers of the Constitution. The "non-delegation doctrine" was the first attempt to resolve the normative problem raised by the emergence of a modern system of administrative regulation, namely that regulations are produced and enforced by non-elected agencies rather than by Congress and the courts. For several decades the doctrine enjoyed such widespread acceptance that it came to be regarded as the traditional model of administrative law. The model conceives of the regulatory agency as a mere transmission belt for implementing legislative directives in particular cases. Vague, general, or ambiguous statutes create discretion and thus threaten the legitimacy of agency action. Hence, when passing laws Congress should decide all questions of policy, and frame its statutes in such specific terms that administrative regulation will not entail the exercise of broad discretion by the regulators. However, by the time the Federal Trade Commission was established in 1914, the agency received essentially a blank check authorizing it to eliminate unfair competition. The New Deal agencies received even broader grants of power to regulate particular sectors of the economy "in the public interest". The last time the US Supreme Court used the non-delegation doctrine was in 1935, when in *Panama Refining Co. v. Ryan* (293 US 388) and in *Schecter Poultry Corp. v. United States* (295 US 495) it held the delegation in the National Industrial Recovery Act unconstitutional.

The doctrine against delegation unraveled because the practical case for allowing regulatory discretion is overwhelming. At the same time, however, the question of whether and under what conditions a legislature should be permitted to delegate rulemaking powers to other institutions or branches of government is central to the theory and practice of a constitutional democracy based on the principle of separation of powers. The tension between efficiency in decision-making and constitutional principles creates the dilemma of delegation of regulatory powers. At any rate, the US Supreme Court's reiteration of the non-delegation principle, coupled with its very sparing use to strike down legislation, illustrates a continuing judicial effort to harmonize the modern regulatory state with traditional notions of separation of powers, representative government, and the rule of law (Mashaw, Merrill, Shane 1988). Similar normative issues began to be raised in Europe only during the last decades of the 20th century, when statutory regulation implemented by more or less independent agencies became a significant factor in a growing number of policy areas. One important factor in the diffusion of the new model was the realization that in many cases privatization would only mean the replacement of public by private monopolies unless the newly privatized companies were subjected to public regulation of profits, prices, and entry and service conditions. Hence the rise in Britain — the pioneer in this area — of the new breed of regulatory "offices" for the privatized public utilities: the Office of Telecommunications (created in 1984); the Office of Gas Supply (1989); the Office of Water Services (1989); and the Office of Electricity Regulation (1990). Parallel, if slower, institutional developments were taking place in most other countries of West Europe. Also the arguments in support of the new mode of regulation were pretty much the same everywhere: the need of expertise in highly complex and technical matters, combined with a rule-making or adjudicative function that is inappropriate for a government department; agencies' separateness from government is useful to free public administration from partisan politics; agencies provide greater policy continuity than political executives because they are one step removed from election returns; not least, the ability of independent expert agencies to focus attention on controversial issues, thus enriching public debate (Majone 1996, and literature cited therein).

An additional factor in the diffusion of statutory regulation was the remarkable growth of European Community/European Union (EC/EU) regulatory policies since the 1970s. Because the Community budget is too small to allow large-scale initiatives in the core areas of welfare-state activities — redistributive social policy and macroeconomic stabilization — the EU executive could increase its influence only by expanding the scope of its regulatory programs: rulemaking puts a good deal of power in the hands of the Brussels authorities, in spite of the tight budgetary constraints imposed by the member states. Thus, lacking an independent power to tax and spend, the EU had no alternative but to develop into an almost pure type of regulatory state. At the same time, the delegation of regulatory powers to the European level did not reduce, but actually increased, the importance of regulatory policies and institutions at the national level. This apparent paradox is easily explained. In the Community system implementation of most EC/EU rules is the responsibility of the member states, which often have to create new bodies, or at least expand existing ones, for that purpose. In addition, national experts play an active role in the formulation of European regulations. Hence, in order to influence the substance of these regulations and then implement them domestically, member states have been forced to develop regulatory capacities on an unprecedented scale. In addition to the modes of regulation discussed in the present section, a third mode, self-regulation, has been historically important. Far from having been made obsolete by the rise of the agency model, as some scholars assumed, self-regulation is actually becoming more important because of economic, technological, and institutional factors to be discussed in section 3.

2. Regulatory and market failures

No mode of regulation is immune from regulatory failures of various types. In case of public-ownership regulation, the following failures have been mentioned in the literature: capture of public managers by politicians and trade unions; anti-competitive behavior through public monopolies; ambiguous and inconsistent goals given to public managers; poor coordination among different public enterprises; no effective control over public enterprises by parliament, the courts, or even the sponsoring minister. The major defects of statutory *economic* regulation appear to be strikingly analogous: capture of regulators by the regulated firms; anti-competitive regulation; vague objectives ("regulate in the public interest"); poor coordination among different regulators; insufficient political accountability of independent regulatory agencies (Majone 1996: Table 1.1, p.18). Because of these analogies, it has been argued that there is no marked difference between, say, the old European Post and Telecommunications Ministries, and the privately owned but publicly regulated American monopolies, such as AT&T before deregulation. Such analogies cannot be pushed too far, however. Thus, if it is true that statutory regulation in America has often restricted competition among existing enterprises and limited new entries, in Europe the monopolistic position of public enterprises was often defined in law, and in some countries even guaranteed by constitutional provisions. At any rate, by now such debates have only historical interest; other issues are significant today.

The same may be said about some of the older theories of statutory regulation. For example, the so-called economic (or positive) theory of regulation initiated by George Stigler in 1971 and further developed by Peltzman, Becker, and other economists of the Chicago school, emphasized the theme of regulatory capture. Stigler's central thesis was that regulation is acquired by an industry and designed and operated primarily for its benefit. But if this were generally true, then it would follow that both naturally competitive and naturally monopolistic industries should attract economic regulation. In fact, most structurally competitive industries were never subject to economic regulation. Also, it is not obvious, given the assumptions, why deregulation should have taken place at all, while the empirical evidence of capture is quite weak in the case of social regulation. In contrast, these and related developments are perfectly understandable from the perspective of a normative theory of regulation, according to which regulation is undertaken to correct various types of market failures: failure of competition; negative externalities; information failures; insufficient provision of public goods and services, such as national defense; and the existence of “incomplete markets”.

According to Stiglitz (1988: 77-78) private markets are incomplete whenever they fail to provide a good or service, even though the cost of providing it is less than what individuals are willing to pay. Thus, private markets have often failed to provide insurance for many important risks individuals face, and governments have undertaken a number of insurance programs motivated by this particular market failure. In the 1930s, following the bank failures of the Great Depression, the American federal government set up the Federal Deposit Insurance Corporation: banks pay the corporation annual premiums, which provide insurance for depositors against a loss of savings arising from the insolvency of banks. It is interesting to note that in a number of European countries the same problem has been tackled through a self-regulatory arrangement: insurance is provided, not by the government but by the national banking associations, such as ABI in Italy. Other examples where governments have attempted to “complete” private insurance markets by means of public (often compulsory) insurance programs are farm programs providing insurance against risks farmer face from price fluctuations, and government guarantees on loans to students to finance their university education. As Stiglitz points out, however, although the absence of adequate private insurance markets, or imperfections of capital markets, may provide the normative justification for certain public programs, these same programs may be designed and implemented to pursue other objectives as well, e.g., to transfer resources in a disguised way. Thus, farm programs not only stabilize the prices received by farmers; they also substantially increase the average income of farmers, in good part through the higher prices consumers must pay for agricultural products. Similarly, the initial objective of making loans available to students became mixed with a second objective, subsidizing education: the interest charged were often substantially below market rates.

The point made by Stiglitz about the use of the same policy instrument to pursue several objectives is important enough to deserve to be further emphasized with the help of an example from the EU. Over its more than 20-year history, the Common Fisheries Policy (CFP) has largely failed in its aim of conserving fishery resources, notwithstanding its seeming institutional advantages over other international fisheries regimes. The problem is that the CFP has been shaped more by concerns about Community powers than about effective conservation measures. Paradoxically, the main culprit for the failure of fisheries conservation under the CFP is the otherwise admirable principle of non-discrimination on the ground of nationality. Because all EU fishermen can fish in the offshore waters of any member state, the international commons problem — which the United Nations had attempted to solve with the adoption of the 200-mile Exclusive Economic Zones — has been perpetuated. In turn, the perception that equal access leads to over-fishing has led to the loss of the CFP's legitimacy, especially among British and Irish fishermen. These fishermen are inclined to see the CFP as a policy aimed at redistribution rather than conservation, and fear that their compliance with quotas will simply result in foreign fishermen getting the fish (Majone 2005: 111-114)

We may conclude this brief discussion of theories of regulation and of regulatory failure with the observation that positive and normative theories should be viewed as complementary rather than mutually exclusive. Positive theories, such as the economic theory of the Chicago school, have greatly improved our understanding of the regulatory process, and of the constraints facing even the most public-spirited regulator. But even when regulation is best explained by the political and economic power of groups seeking selfish ends, those who attempt to justify it must appeal to the merits of the case. Legislators, administrators, judges, scholars and the public at large wish to know whether the regulation is justified. All of them seek standards against which to judge the success of a policy and the merits of specific programs initiated within the framework of that policy.

3. Self-regulation

As already mentioned in section 1, a third important mode of regulation is self-regulation. This mode has a long tradition among the crafts and the professions, but in more recent times it has extended into other areas such as occupational pensions, industrial safety, technical standardization, and financial services. A self-regulatory organization (SRO) can normally command a greater degree of expertise and technical knowledge of practices within the relevant area than a public agency. A second advantage is that the rules issued by a private body are less formalized than those of public regulatory regimes. This informality reduces the cost of rule-making, facilitates quick adaptation of the rules to new technical knowledge and changing economic conditions, and permits more flexible enforcement. In terms of speed and efficiency, the advantages of self-regulation over statutory regulation can be significant, as suggested by the following example. Before passage of the US Occupational Safety and Health Act in 1970, standards for toxic substances in the workplace were set by the American Conference of Governmental Industrial Hygienists (ACGIH)—a private organization in spite of its name. The OSH Act established a new federal agency, the Occupational Safety and Health Administration (OSHA) to replace the ACGIH as the main standard-setting body (OSHA standards are legally binding whereas ACGIH threshold limit values are voluntary or "consensus" standards). By the mid-1980s, however, OSHA had reduced the exposure limits for ten substances and established "work practice" standards for thirteen other chemicals, while the ACGHI had reduced the exposure limits for about two hundred more. As John Mendeloff has shown, federal standards are usually too strict and costly to justify the benefits they confer. At the same time, the slow pace of standard setting by the agency mans that many serious hazards are not addressed at all--over-regulation leads to under-regulation (Mendeloff 1988).

The European Community faced a somewhat similar situation in the 1970s. Following the adoption of the General Program for the Removal of Technical Trade Barriers, the Commission had attempted to harmonize technical standards across the EC by means of directives providing detailed technical specifications for single products or groups of products. This approach failed completely, however. Because of the technical complexity of the issues, it took an excessive amount of time to produce harmonizing directives which often would cover only a small range of products. In the same period, private and semi-private standardization bodies in the member states would produce hundreds of technical standards each year, so that a serious regulatory gap developed from the outset. Acknowledging the failure of the traditional approach, the EC Council in 1985 approved a "New Approach to Technical Harmonization and Standardization". Under the new approach, EC regulation is restricted to essential safety and health requirements, while technical specifications are spelt out by non-legally binding standards set by bodies such as the European Committee for Standardization (CEN) and the European Telecommunications Standards Institute (ETSI). Since these are private-law associations, the new approach *de facto* delegates technical regulation to SROs.

The risk of capture of the regulators by the regulated interests exists also in the case of self-regulation. In fact, according to some critics, with self-regulation regulatory capture is there from the outset. Monitoring is another potential problem. As already mentioned, an important, if not the main, reason for entrusting regulation to SROs is that practitioners are likely to be better informed than the public authorities about what is happening in their field of activity. Thus, SRO are in a better position to discover and expose malpractice, but their willingness to punish wrongdoers is likely to be less than that of a public regulator. A possible solution is a two-tier system where a public agency acts chiefly as a regulator of regulators, with the SROs handling day-to-day rule-making and supervision. This was effectively the regulatory structure set up in Britain under the 1986 Financial Services Act, with the Securities and Investment Board supervising a number of SROs regulating various financial services, such as the management of pension funds or the sale of life insurance. However, episodes like Robert Maxwell's unchecked theft from his companies' pension funds or the widespread mis-sale of life insurance, showed that the system was not very effective.

In spite of the problems posed by self-regulation, a number of important tasks which used to be assigned to central governments are today performed by private, increasingly transnational, organizations. Although there is a strong historical link between standardization and the emergence of the sovereign territorial state (Spruyt 1994), current views of standardization have changed radically as a result of the advance of globalization, the development of technology, and the growing variety and sophistication of technical standards. Already some years ago, the OECD noted that all industrialized countries tend to converge towards a greater emphasis on self-regulation and non-mandatory standards. A large market like the United States is remarkable for the high decentralization of its standardization system. There are literally hundreds of organizations involved in the development of standards. The American National Standards Institute (ANSI), a private organization, coordinates private standards, approves standards as American National Standards, and represents the United States in international standards organizations. In practice, however, only about one-half of all standard-setting organizations participate in the ANSI system, and several organizations which do not participate, such as the American Society of Testing, are as well-known internationally as ANSI (Casella 1996). An interesting theoretical explanation of these developments will be discussed in section 5.

4. From economic to social regulation

The early stages of economic regulation in Europe were deeply influenced by the century-old experience of the American regulatory state. This early influence is particularly evident in competition regulation since historically the commitment to competition policy has been much weaker in Europe than in the United States. On this side of the Atlantic cartels and restrictive agreements were traditionally accepted either as an expression of the freedom of contract, as in Britain, or as instruments of rationalization and industrial policy, as in Germany. Powerful external pressures were needed to modify such deep-seated attitudes, and these were applied by the United States after the Second World War, especially in Germany. However, with the waning of America's "consensual hegemony" in Europe, the kind of direct influence evident in the early European treaties became increasingly impossible. Nevertheless, American models remained important for European regulators in the 1960s and 1970s — especially in new policy areas like the environment, nuclear safety and consumer protection. It is not difficult to explain the pioneering role of the U.S. in economic regulation, given the ideological reluctance to nationalize industries, on the one hand, and the early development of mass production and large-scale distribution, and the concentration of economic power which was already well advanced in the 1880s, on the other. But leadership in social regulation cannot be explained in the same way. It is certainly not the case that in the 1960s the environment was more polluted or the consumer less protected in the United States than in Europe. A plausible hypothesis (Majone 1996) is that, because the U.S. was a "welfare laggard" compared to Europe, it could devote to social regulation the financial and political resources which in Europe were absorbed by the growing needs of the welfare state. Also the prevalent political culture — pluralist rather than corporatist — favored such a development. At any rate, social regulation tends to be politically less controversial than social policy in a country like the United States where the ideology of free markets, consumer sovereignty, and meritocracy has always enjoyed strong popular support.

The growth of social regulation has contributed to a significant transformation of the American regulatory state. The stereotypical organizational form in economic regulation was the independent regulatory commission. As we saw, the IRCs were granted substantial discretion via broad, vague mandates to regulate "in the public interest" — hence the intuitive appeal of the theory of regulatory capture. In the case of social regulation, Congress and the president created single-headed agencies located squarely within the executive branch, and gave them clearly defined tasks — sometimes even deadlines by which the tasks should be accomplished. Agency independence was now protected by the prevailing political culture rather than by statute, see section 8. There were also significant procedural changes, largely related to the distinction between rulemaking and adjudication. An adjudication, such as a license, is individualized in the sense that the resulting decision has an addressee — unlike the rule, which is general. Under the 1946 U.S. Administrative Procedure Act (APA), agency adjudication was made to look like court adjudication, including the adversarial process for obtaining evidence through presentations of the contending parties, and the requirement of a written record as the basis of agency decision. On the other hand, APA requirements for rulemaking were less demanding. Differences in requirements for adjudication and rulemaking did not matter much as long as most regulation was economic, dealing with rate-setting and permit-allocation (licensing), and hence relied largely on adjudication. However, with the growth of social regulation rulemaking (e.g., standard-setting) became much more important. Hence, American courts began to develop a large body of new procedural requirements and strict standards of judicial review for rulemaking proceedings, leading to a progressive judicialization of regulatory proceedings. The implications of these changes will be briefly discussed in the concluding section 8.

In the EU social policy is largely social regulation: environmental protection, occupational health and safety, consumer protection, gender equality and other anti-discrimination measures (Majone 1996) . Also the area of private insurance has called the attention of European regulators. As of July 1994 private insurance has been drawn into the single European market, with the Commission very active in establishing a single occupational pension market, with a Pension Fund Directive, among other measures (Leibfried 2005). The main reason for the emphasis on social regulation is, again, the tight budget constraint under which the EU operates. The EU budget is only slightly more than one per cent of Union GDP; moreover, it is very rigid and must always be balanced. Traditional social policy is clearly infeasible under such financial constraints. However, this regulatory emphasis is also an indication of significant changes in the political preferences of European citizens — as suggested by the fact that environmental policy is often considered the most popular of all European policies, in spite of rather disappointing results. For reasons which cannot be discussed here (see Majone 2005) institutional or procedural innovations at the European level have been much more modest than in America. A theoretical innovation which could lead to a new stage in the transformation of the regulatory state, both in America and in Europe, is discussed in the next section.

5. Regulations as "club goods"

The advance of international economic integration, the increasing sophistication of technology and, not least, the heterogeneity of socioeconomic conditions produced by the merging of markets at very different levels of development, are all factors accelerating the rate of regulatory change. The significance of the last factor — growing socioeconomic heterogeneity, raising the cost of harmonized rules, and making agreement on policy priorities more difficult to reach — can be best illustrated with the example of the EU.

It should be obvious (although it was seldom mentioned in the past) that each enlargement of the Union necessarily changes the calculus of the benefits and costs of integration — the reduction of transaction costs made possible by harmonized rules, on the one hand, and the welfare losses entailed by rules that are less precisely tailored to the preferences and resources of each member state, on the other. As long as resources and preferences are fairly similar across countries, the advantages of harmonization are likely to exceed the welfare losses, but when heterogeneity exceeds a certain threshold, the reverse will be true. There are several indications that in the present EU this threshold has been exceeded. Even recourse to mutual recognition is becoming increasingly problematic: after the "big bang" enlargement to the East, trade unions and politically important sections of public opinion in the older member states became particularly sensitive to the distributional consequences of mutual recognition. Fears of regulatory competition and "social dumping" — which in the 1980s and 1990s had not prevented the application of mutual recognition to banking, to education and the professions, and even to the free movement of goods under the "new approach" to technical standards — in case of the Bolkestein draft of the Services Directive led to one of the fiercest political battles in the history of the EC/EU (Majone 2009).

The economic theory of clubs provides useful guidelines for assessing the costs and benefits of harmonized regulations. This theory, originally developed by James Buchanan (1965), has been applied by Alessandra Casella (1996) to study the role of market size in the formation of SROs, or "clubs", and in particular to model the interaction between free trade and the provision of standards. Casella argues, *inter alia*, that if we think of standards as developed by voluntary organizations of producers and users, then "opening trade will modify not only the standards but also the coalitions that express them. As markets…expand and become more heterogeneous, different coalitions will form across national borders, and their number will rise." (Casella 1996: 149). The relevance of this observation extends well beyond the area of standard setting. In fact, Casella's emphasis on heterogeneity among traders as the main force against large-scale harmonization and for the multiplication of "clubs", suggests an attractive theoretical basis for the study of differentiated integration in the EU (Majone 2008; 2009). To understand the gist of the argument we need to recall a few key definitions and concepts.

Pure public goods, such as national defense or environmental quality, are characterized by two key properties: first, it does not cost anything for an additional individual to enjoy the benefits of the public goods, once they are produced (*joint supply property*); and, second, it is difficult or impossible to exclude individuals from the enjoyment of such goods (*non-excludability*). A *club good* is a public good from whose benefits particular individuals may be excluded — only the joint supply property holds. An association established to provide excludable public goods is a *club*. Two elements determine the optimal size of a club. One is the cost of producing the club good--in a large club this cost is shared over more members. The second element is the cost to each club member of a good which does not meet precisely his or her individual needs or preferences. The latter cost is likely to increase with the size of the club. Hence the optimal size is determined by the point at which the marginal benefit from the addition of one new member, (i.e., the reduction in the per capita cost of producing the good), equals the marginal cost caused by a mismatch between the characteristics of the good — say, a common standard or a harmonized regulatory measure — and the preferences of the individual club members. If the preferences and the technologies for the provision of club goods are such that the number of clubs that can be formed in a society of given size is large, then an efficient allocation of such excludable public goods through the voluntary association of individuals into clubs is possible. With many alternative clubs available each individual can guarantee herself a satisfactory balance of benefits and costs, since any attempt to discriminate against her will induce her exit into a competing club — or the creation of a new one.

Notice, incidentally, that because of the assumption that it is possible to join a new club, or even to create a new one, some of the normative critiques of SROs (see section 3 above) are less plausible in a situation where different SROs compete among themselves by offering different club goods. The older critiques referred to a situation in which a standardization body, say, had a *de jure* or *de facto* monopoly of standard-setting in a certain area. Under present conditions such monopolies are rapidly disappearing, as shown by the examples mentioned in the preceding section.

The important question today is: what happens as the complexity of the society increases, perhaps as the result of the integration of previously separate national markets? It can be shown that under plausible hypotheses the number of clubs tends to increase as well, since the greater diversity of needs and preferences makes it efficient to produce a broader range of club goods. The two main forces driving the results of Casella's model are heterogeneity among the economic agents, and transaction costs — the costs of trading under different standards. The general implication of the model is that top-down harmonization is desirable only when the market is relatively small and homogeneous. In a large market harmonization tends to be brought about, not by a policy imposed from the top, but through the recognition of similar needs or preferences. The main point is that rules are public goods in the sense that they fulfill specific functions deemed desirable by the community that shares them — but this does not mean that they must be established by government fiat. A good rule, say, a technical standard, must reflect the needs, preferences, and resources of the community of users, rather than some centrally defined vision of the 'common interest'. Even in economies with similar cultures and thus presumably similar preferences, "the amount of resources devoted to a clean environment, to the prevention of child labor, and to the safety of working conditions will be affected by the technologies each society has access to and the total resources it commands" (Casella 1996: 124). Moreover, standards are not necessarily defined on a territorial (national or even supranational, e.g., EU) basis, but according to product types, and the coalition of private agents that propose and adopt the standards can be physically located anywhere. The fact that in today's integrating world economy the relevant community of standards users need not be territorially defined, distinguishes the traditional view from the contemporary understanding of standards as a special class of club goods.

Think now of a society composed not of individuals, but of national states. Associations of sovereign states (alliances, leagues, confederations) are typically voluntary, and their members are exclusively entitled to enjoy certain benefits produced by the association, so that the economic theory of clubs is applicable also to this context. In fact, since excludability is more easily enforced in such a context, many goods which are purely public at the national level become club goods at the international level (Majone 2005: 20). The club goods in question could be collective security, policy coordination, technical standards, environmental regulations, or tax harmonization. In these and many other cases, countries which are not willing to share the costs are usually excluded from the benefits of interstate cooperation. Now, as an association of states expands, becoming more diverse in its preferences, the cost of uniformity in the provision of such goods, i.e., harmonization, can increase dramatically. Thus, under the conditions prevailing in the EU today, centralized harmonization tends to reduce aggregate welfare. The reason is, again, that when countries differ significantly in terms of resources, preferences, and policy priorities, the regulations that maximize aggregate welfare have to be different rather than harmonized. This is true even in the case of minimum harmonization — unless the minimum standard is so low as to be exceeded by all national standards, in which case it is simply irrelevant. As has been noted above, even mutual recognition — which in the past was considered a viable alternative to *ex ante* harmonization presupposes more homogeneity among countries than can be assumed in the present Union. Hence the theory predicts an increase in the number of voluntary associations to meet the increased demand of norms more precisely tailored to the different requirements of various national or transnational communities. The theory of clubs may be applied also to a typical institution of contemporary governance to explain how networks are formed, and how they evolve over time.

6. The transformation of governance: co-regulation and incentive compatibility

The sharing of power between a variety of public and private actors is a key feature of the contemporary view of governance, as distinct not only from government by a centralized state, but also from the "iron triangles" of politicians, public and private managers, and labor leaders of old-style corporatism. In this sense, "governance" can be understood as a shift from hierarchies to networks, and greater emphasis on partnerships and joined-up government (Rhodes 2006). Some authors consider the prevalence of network arrangements including public and private actors, to be the defining characteristic of contemporary governance. Incidentally, the interested reader can find many of the ideas being discussed in the latest literature on the transformation of governance in the papers produced by the Bielefeld Interdisciplinary Project on *Guidance, Control, and Evaluation in the Public Sector* (Kaufmann, Majone, Ostrom: 1986) — a project which Franz-Xaver Kaufmann succeeded in focusing on the question of how a multiplicity of interdependent actors can be coordinated in the lengthening chains of action typical of complex societies. Thus, the idea of "importing" private institutions (markets, professional networks, non-profit organizations) into the public sector was central to the conceptual core of the Bielefeld project. The same idea is discussed today, for instance under the label of "collaborative governance", which Donahue and Zeckhauser (2006: 496) define as "[t]he pursuit of authoritatively chosen public goals by means that include engaging the efforts of, and sharing discretion with, producers outside government". To be noted that in collaborative governance, as defined by these authors, each party has a hand in defining not only the means by which a goal is achieved (as in traditional views of delegation) but some aspects of the goal itself: for example, the constraints under which the goal is to be achieved. As policy analysts know, the distinction between goals and constraints is elusive (Majone 1989: 84-86), and this facilitates recourse to collaborative governance.

Like the insights of the theory of clubs, the ideas of the new-governance school could not fail to influence the theory and practice of regulation. In fact, in a growing number of policy areas "the classic approach to regulation — in which government specifies what must be done to forestall safety, environmental, or economic harms — is yielding to approaches that grant regulated firms a degree of discretion" (Donahue and Zeckhauser 2006:511). According to these authors, government regulators' recognition that they suffer a deficit of information, relative to regulated firms, is the fundamental motive for sharing regulatory discretion with firms' managers. Regulatory reforms initiated in the United States in the late 1990s in such areas as environmental policy and occupational safety and health, characteristically include negotiation over rules and their application, greater tolerance of agency discretion, and far more scope for flexibility in regulatory enforcement than is permitted by conventional legalistic approaches. For example, the federal Occupational Safety and Health Administration (OSHA) has experimented with approaches that rely on companies to develop their own worker safety plans and tolerates technical deviations from OSHA rules in otherwise effective plans.

The influence of new-governance ideas on regulation is becoming increasingly evident also in Europe. An important example is the method of *co-regulation*, which combines binding legislative and regulatory action with actions taken by the actors most concerned, drawing on their practical expertise. The result is wider ownership of the policies in question by involving those most affected by implementing rules in their preparation and enforcement. This often achieves better compliance, even where the detailed rules are non-binding. Another consequence is more discretion granted to the regulatees. In the EU co-regulation has been used in areas such as the setting of product standards, and in the environmental sector, e.g. to reduce car emissions. Actually, the "new approach" to technical harmonization and standardization, already mentioned in section 3, may be considered an early example of co-regulation, or of collaborative governance. Under the new approach a manufacturer may choose between two different ways of demonstrating that his products satisfy the essential requirements of health and safety: he may apply the standards produced by the appropriate European standardization body; or he may apply his own standard, in which case he must be able to demonstrate to an approved certification body that his products conform to the essential requirements as defined by the relevant European directive. The system is completed by the mutual recognition of testing and certification procedures. The practical distinction between the old and the new approach may be expressed in terms of the familiar distinction between specification standards and performance standards. The old approach relied on specification standards, which tend to stultify innovation; while the new approach uses performance standards, which foster flexibility and innovation, cut down red tape, and thus reduce cost.

As already mentioned, new-governance methods such as public-private partnerships and co-regulation imply that each party has a hand in defining not only the means, but also aspects of the goal itself, e.g., some of the constraints defining.the area of the policy space within which solutions are to be sought. Such constraints may arise from the necessity of giving stakeholders incentives to act so that, in following their self interest, they facilitate achievement of the regulatory goal. Under the command-and-control approach, public policies were seldom, if ever, designed starting with an explicit consideration of the incentives of the various actors. Today *incentive compatibility* is considered an important condition of effectiveness, and regulatory policies are been redesigned to make them more incentive compatible. An example of incentive-compatible regulation in environmental policy is the introduction of marketable pollution rights; other examples will be mentioned in the following section. Incentive compatibility is particularly important when there are informational asymmetries so that individuals might misrepresent their private information.

It is well-known that informational asymmetries constitute a serious problem in the provision of public goods. Even when public goods are supplied by the government and financed through taxation, the level of provision is often lower than what citizens demand. The difficulty is the problem of preference revelation: while consumers can express their views about the desirability of one private good versus another simply by deciding either to buy the good or not, there is no similarly effective way that citizens can express their views about the desirability of one public good versus another.. Even in circumstances where people are asked what their preferences are, it is by no means certain that they will truthfully reveal their preferences. To obtain reliable information it is necessary to build appropriate incentives into the policy (Milgrom and Roberts 1992: 145-6, where a numerical example is provided).

In 1985 Philip Selznick proposed a definition of statutory regulation which seemed to capture all the essential features of this mode of public policymaking. Regulation, the American sociologist wrote, is "sustained and focused control exercised by a public agency, on the basis of a legislative mandate, over activities that are generally regarded as desirable to society" (Selznick 1985, cited in Majone 1996:9). The paper in which this definition appeared was included in a volume titled *Regulatory Policy and the Social Sciences* which aimed to present regulation as an interesting and important field of research not only for economists but for all social scientists. Hence Selznick's definition had, so to speak, canonical status. However, comparing its state-centric emphasis with the importance which the philosophy behind such recent developments as collaborative governance, co-regulation, and incentive-compatible we can appreciate how much views about the nature of the regulatory process have changed over the last two decades. Increasingly, the hierarchical model of policymaking is being replaced by a contractual one (which includes networking).

7. The contracting approach to regulation

Recent developments in regulation and regulatory governance such as those discussed in the two preceding sections, have been influenced—more or less directly--by the new institutional economics, and in particular by the transaction-cost/contract-theory paradigm. In the language of the new institutional economics (see in particular Williamson 1985:

chapter 3; Milgrom and Roberts 1992: 126-147; Furubotn and Richter 2000: chapter 5) a contract is a voluntary agreement among a group of persons ("contract partners") which may specify the sort of actions each person is to take, the rules and procedures they will use to decide matters in the future, and the behavior that each might expect from the partners. Regardless of whether such agreements have the legal status of contracts, they may perform the same functions that formal contracts do, and even more. Indeed, contracts may be completely unarticulated and implicit, with no power of law behind them, and still be quite effective. Naturally, the idea that policies may be usefully viewed as contracts is foreign to those social scientists who still cling to the belief that the essential characteristic of public policy is its coercive character, and hence assume that the traditional command-and-control, model of policymaking is still valid. Thirty years ago a noted American political scientist, Theodore Lowi, maintained that the legitimate use of coercion is *the* intrinsic governmental feature. In his own words: "governmentalization of a function — that is, passing a public policy — is sought because the legitimacy of its sanctions makes its social controls more surely effective" (Lowi 1979: 37). One of the consequences of globalization, however, has been to make credibility more important than coercion for the success of public policy. Because of growing economic and political interdependence, domestic policy is increasingly projected beyond national borders, but it can achieve its objectives there only if it is credible. A policy lacking credibility can still be enforced by coercive means, but only domestically and only at increasing transaction costs. Even domestically, the growing complexity of public policy continues to erode the effectiveness of the command-and-control model. The single most important characteristic of the newer forms of economic and social regulation is that their success depends on affecting the attitudes, incentives, consumption habits and production patterns of millions of individuals and thousands of firms, private associations, and local units of government. The tasks confronting policymakers today are difficult not only because they often deal with technologically complex matters but even more because they aim ultimately at modifying expectations. Also for this reason credibility has become an essential condition of policy effectiveness.

How to achieve credible commitments is the key issue in the contracting approach to policymaking. To clarify, a few more definitions are needed. A *complete contract* is an agreement which specifies precisely what each partner is to do in every possible circumstance, and arranges the distribution of benefits and costs in each contingency so that each party finds it optimal to abide by the contract's terms. One moment's reflection will show that the conditions involved in writing and enforcing a complete contract cannot be satisfied in practice, except in the simplest cases. Limited foresight, imprecise language, the cost of calculating solutions, and the cost of writing down an extremely detailed plan of action, mean that not all contingencies can be foreseen, or specified with sufficient precision. In short, most contracts, and certainly all long-term contracts, are *incomplete.* When unforeseen or ambiguous contingencies arise, people must find ways to adapt their agreement to the new situation. One possibility is to renegotiate the contract ex post, but this very possibility may compromise the credibility of the original agreement since it provides incentives for opportunistic behavior, including reneging. Fear of opportunism may deter parties from trusting each other as much as they should for efficiency. For example, co-regulation — in theory an efficient method of solving many environmental problems — may be rejected in favor of a less efficient command-and-control approach for lack of sufficient trust among the various policy actors.

A possible response to contractual incompleteness is *relational contracting*, where the parties do not agree on detailed plans of action, but on general principles and procedures, on the criteria to be used in deciding what to do when unforeseen contingencies arise, on who has what powers to act and the range of actions that can be taken, and on dispute resolution mechanisms to be used if disagreements do occur. In short, a relational contract settles for a general agreement that frames the entire relationship (hence its name), recognizing that it is impossible to concentrate all the relevant bargaining action at the ex ante contracting stage. Its key feature is the choice of a mechanism for adapting the contract to unforeseen contingencies. In many situations one party will have much more authority in saying what adaptation should take place. But if other contractual partners are to delegate such discretionary authority, they must believe that it will be used fairly and effectively. Hence, the party to whom authority is delegated should be the one with the most to lose from a loss of reputation. This is likely to be the one with the longer time horizon, the more visibility, and the greater frequency of transactions: a judge or a regulator, for example.

The contracting approach to regulation is particularly relevant when the regulated activity extends over a long period of time, so that we are dealing with a situation of incomplete contracting. In such a situation, as we know, the emphasis shifts from a detailed specification of the terms of the agreement to a more general process of adjustment of the terms of the agreement over time — the establishment, in effect, of a broad framework regulating the ongoing relationship. The relational contracting approach to regulation has been pioneered by Victor Goldberg (1976), with particular reference to the case of public utilities. According to Goldberg, the role of the regulator may be envisaged as that of an agent of both the suppliers and the consumers of, say, electricity. He/she monitors, enforces, and revises the rules framing the long-term relationship among the individual electricity producer and the consumers. More precisely,the producer enters into contracts with individual customers, with the content and interpretation of these contracts governed by another level of contract — the "collective contract" or regulation — between the producer and the regulator. The task of the latter, as the agent of both the producer and the customers, is to protect the producer's right to serve as well as the consumers' right to be served.

A standard criticism of economic regulation, especially by economists of the Chicago school, was that public utilities regulation (before privatization/deregulation) unduly restricted entry of competitors, and discouraged technological change by protecting existing producers from competing technologies. Entry barriers do enable the producer to charge a higher price in the short run than he could without the barriers. But this short-run analysis, according to Goldberg, ignores the importance of the protection of the right to serve: "Would the firm have come into the market initially without some protection from competition? Would it have come in on terms as favorable as it did? What will be the rate of supply of innovations in the future if potential suppliers realize they will not be protected by the regulator?" (Goldberg 1976:435). In other words, if we view the protection afforded by the regulator as *forward looking*, we can see it as a spur to innovation rather than as a hindrance. And if this is true, then a regulator acting as the consumers' agent would desire some shielding of existing producers from competing technologies. Protection of the right to be served, like protection of the right to serve, does not come costlessly, hence the regulator must balance the benefits of protecting the right against the costs such protection entails. The point, however, is that traditional analyses, which do not take the long-term nature of the contract into consideration, tend to focus only on the cost element of protection — primarily the static misallocation problems — and ignore the possibility that some of these costs might well be worth bearing.

Thus, the relational contracting approach to regulation provides a perspective for examining regulatory policies and institutions that is very different from that of the static neoclassical approach. The difference is analogous to that between the static neoclassical view of a competitive equilibrium and the "Austrian" (Schumpeter, Hayek) dynamic view of competition as a discovery process. Victor Goldberg concluded his path-breaking 1976 article with the hope that the relational contracting framework would open up new areas of search for innovations in regulatory institutions. Thirty years later, the innovations Goldberg was anticipating are a reality in a number of areas of regulation, not least in the regulation of public utilities. In the 1970s the prevailing form of public utility regulation in the United States was rate-of-return regulation (ROR, also called "cost-of-service" regulation). This method, far from being incentive efficient in the sense defined in the preceding section, actually creates perverse incentives, such as the tendency for the firm to substitute too much capital for other inputs. This "Averch-Johnson effect" is due to the fact that the profit allowed under ROR varies directly with the rate base, i.e., invested capital. For this and other reasons, the British government, when it privatized such monopolies as British Telecom and British Gas, decided to introduce an incentive-compatible type of regulation known as "price cap" or RPI-X, where RPI is the retail price index (i.e., the rate of inflation) and X is a number representing expected increased efficiency. The initial level of X was set by the government at the time of privatization, as part of the privatization process, and was meant to be periodically reset by the regulator as part of the continuing regulatory process. The price-cap method, now widely adopted by many European countries, and also by the United States, is an example of incentive-compatible regulation because it provides incentives for the firms so regulated to be cost efficient — the company has the right to keep whatever profits it can earn during the specified period (and must also absorb any losses) — while consumers are permitted to share in the productivity gains, via the level of X. Other forms of incentive-compatible regulation include sharing by the customers and the firm of the firm's earnings; and a "social contract" whereby the regulators freeze the prices of basic or essential services, and additionally may require that the firm invest sufficient new funds to maintain quality of services; in return, the regulators give the firm flexibility on how it prices its competitive services. (Zajac 1996).

8. Concluding remarks

As we saw in the preceding pages, each change in the mode, scope, or level of regulation — from public ownership to statutory regulation, from economic to social regulation, from the national to the supranational or international level — entails far-reaching changes in the way regulatory policies are designed and implemented. It is to be expected that the privatization and regulation of pension regimes will also require new conceptual and institutional approaches. In fact, a number of recent developments in regulatory governance seem to be particularly relevant to the problems with which this project is concerned. I am thinking of such innovations as co-regulation, collaborative governance, incentive-compatible regulation, relational contracting, and also self-regulation — not in the old "corporatist" version, but as an arrangement for the provision of "club goods" tailored to the needs and preferences of particular communities. More generally, the public/private mix so characteristic of pension policies in Europe is foreign to the theory and practice of old-style statutory regulation, but is quite compatible with the new trends discussed in this chapter.

The new regulatory state now emerging in Europe needs not only up-to-date methods, but also updated normative criteria. Here I shall briefly discuss three criteria that have played an important role in the old regulatory state, and — suitably reformulated — will continue to be important in the future: independence, accountability, and efficiency. We know that one of the consequences of the new focus on social regulation in the United States during the 1970s has been the abandonment of the model of the independent regulatory commission in favor of single-headed "administrative" agencies firmly embedded within the executive branch of government. This has not meant the end of independence, however. Rather, the independence of the regulators, instead of being prescribed by law, is now maintained by a political culture sufficiently mature to realize that a regulator cannot be held responsible for the results of her decisions unless she is allowed to decide autonomously. To appreciate what this means concretely it suffices to consider how EU "regulatory" agencies operate. As is well-known, the Commission has used the so-called Meroni doctrine to deny European agencies real decision-making powers: the Commission makes the final determinations, on the recommendation made by an agency, and subject to the usual comitology controls. Thus, regulatory bodies like the European Agency for the Evaluation of Medicinal Products (EMEA) or the European Food Safety Authority (EFSA) are only allowed to make recommendations, which in principle need not be followed by the Commission. These arrangements entail costs that a clearer delegation of authority would avoid. For example, EMEA executives complain that the need to wait for the Commission's formal decision means that precious time is lost before a new, possibly life-saving, product reaches the market. Moreover, the present situation blurs the lines of accountability, and because of its ambiguity presents risks for the Commission itself, which some day might be called upon to bear the responsibility of decisions in whose formation it did not play any substantive role (Majone 2005: 96-99).

In section 4 we also saw that with the growth of social regulation, rulemaking (e.g., standard-setting) became quite important, and as a consequence American courts began to develop a large body of new procedural requirements and strict standards of judicial review for such proceedings. Eventually, the 1946 APA was integrated by several new statutes: the Freedom of Information Act (FOIA) passed in 1966 and amended several times since; the Federal Advisory Committee Act, enacted in 1972; and the Government in the Sunshine Act (GITSA) of 1976. The most important of these statutes, the FOIA, was adopted in response to claims that many core documents and other information underlying important agency decisions were not available to the public, thereby impairing the rights of citizens and of the media to monitor government performance. The act gives citizens the right to inspect all agency records that do not fall within some specified categories, such as trade secrets and those files the disclosure of which could be expected to constitute an invasion of privacy, or compromise a law enforcement investigation. To reduce even further the chances that an agency can manipulate the FOIA to its own advantage, the law requires the agency to prove that it need not release the information — rather than requiring the citizen to prove that it should release it. In sum, the discretion which accountable regulators must have, can be effectively controlled by indirect, largely procedural, means.

In their path-breaking paper on 'Administrative Procedures as Instruments of Control', McCubbins, Noll, and Weingast (1987) use the statutes just mentioned as evidence that procedural rules are not only means of assuring fairness and legitimacy in agency decision-making; they also fulfill important control functions. In addition to reducing the informational disadvantage of political executives, stakeholders, and citizens at large, procedures can be designed so as to assure that administrative decisions will be responsive to the constituents that the policy is supposed to favor. For instance, the procedural requirements under the APA, FOIA, and GITSA reduce an expert agency's advantage over its political principals in a number of ways. First, agencies cannot present the political principals with a *fait* accompli; they must announce their intention to consider an issue well in advance of any decision. Second, the notice-and-comment provisions assure that the agency learns who are the relevant stakeholders, and takes some notice of the distributive impacts associated with various actions. Third, the entire sequence of agency decision-making — notice, comment, collection of evidence, and construction of a record in favor of a chosen action — affords numerous opportunities for political principals to respond when the agency seeks to move in a direction that the principals do not approve of. Finally, the broad public participation, which the statutes facilitate, also works as a gauge of political interest and controversy, providing advance warning about serious distributive consequences of the decisions the agency is likely to make, in the absence of political intervention. In Europe, too, the new regulatory state will have to rely largely on procedural means to assure satisfactory levels of accountability and control while preserving the autonomy of regulatory decision-making in individual cases.

A few concluding words on the normative criterion of efficiency. According to the standard definition, a policy choice is efficient if there is no available alternative that is universally preferred in terms of the goals and preferences of the people involved. Thus the efficiency or inefficiency of a choice is always relative to some specific set of individuals whose interests are being taken into account, and also relative to a given set of feasible options. It follows that an efficient choice may become inefficient when the people or the constraints, or both, change. Another important distinction, already mentioned in connection with Victor Goldberg's model of regulation as long-term (relational) contracting, is that between static and dynamic efficiency: restrictions on competition, for example, which are considered inefficient from a static-equilibrium perspective may be dynamically efficient. Again, the effective achievement of the long-term interests of the regulator's principals may require that barriers be erected to their pursuit of short-run self-interest (Goldberg 1976: 433).

Perhaps the most important limitation on efficiency as a normative criterion is that it may not identify a unique position on the (Pareto) efficiency frontier. In principle, there are infinitely many points on the frontier, so that additional criteria of choice are required. In welfare economics the ambiguity is resolved by identifying the point where the social welfare function is tangent to the efficiency frontier, but this is a purely theoretical solution. In practice, the criteria used by policymakers and judges are fairness or reasonableness. Even economist Goldberg shies away "from attempting to develop any rigorous criteria for efficiency and instead contents [himself] with judging arrangements by some "reasonable" criteria"—while admitting that having scaled "the dizzying heights of optimality, it is difficult and a bit anticlimactic to have to plumb the murky depths of reasonableness" (ib.:432).

It is important to understand clearly the limits of the criterion of efficiency, but equally important to avoid the mistake of thinking that this criterion is irrelevant., As we saw in section 2, for example, efficiency is also a positive principle with some predictive power: it explains why most structurally competitive industries were never subject to economic regulation, contrary to what Stigler's capture theory of regulation would lead one to expect. Another example of the use of efficiency as a positive principle is the prediction that "If people are able to bargain together effectively and can effectively implement and enforce their decisions, then the outcomes of economic activity will tend to be efficient (at least for the parties to the bargain)" (Milgrom and Roberts 1992: 24). One final consideration is particularly significant for policy analysis: even if the efficiency frontier consists of infinitely many points, so that no unique solution may be determined, it is still important to know that any solution not on the frontier is either infeasible or else it can be improved by moving in the direction of the frontier. One simple application with far-reaching consequences: economists and decision theorists know that the attempt to achieve several objectives with the same policy instrument is bound to produce suboptimal outcomes — points not on the efficiency frontier. This is the reasoning behind Stiglitz' comment that redistributive or educational objectives, however meritorious in themselves, should not be pursued with the help of regulatory measures undertaken in order to improve incomplete markets, see section 2. Exactly the same reasoning explains why the conservation part of the EU's Common Fisheries Policy is suboptimal. Moreover, it can be shown that this is no isolated case, but the necessary consequence of the EU's method of policymaking (Majone 2009). In these and similar situations, therefore, efficiency can be enhanced by requiring that each policy objective be pursued by a specific policy instrument: such a requirement is likely to move the policy closer to the Pareto frontier.

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