1 Introduction: manufacturing markets – what it means and why it matters

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1.1 Designing markets: an essential policy tool

Designing and implementing markets aimed at fostering the efficient provision of all kinds of private and public goods has become a major challenge for contemporary economic policies. First, the processes of transition to a market economy, or the movement towards economic integration – like that occurring at the EU level – or technical change and innovations, have been leading to the creation and organization of all kinds of new markets. Second, the design of efficient markets has become an essential policy tool. Until the 1980s, the usual remedy for so-called "market failures" was either the public provision of services, or the design of command-and-control regulations. The resulting bureaucratic and political failures led to the creation of more sophisticated markets. These innovations even led to the implementation of "pure" public policies, such as environmental protection or limitation of climate change, through the design of ad-hoc markets. Third, as pointed out by the far-reaching impact of the performance of some markets – above all finance, but also energy, information, technology, etc. – on the dynamic and on the stability of the economy, the issue of controlling the sophistication of products, the interactions among agents, the fluidity of adaptations, and of course systemic collapse have become central.

Contemporary economics made major progress in departing from the traditional vision of the discipline in which institutions were exogenous to the analysis. However, the dominant vision today is still a "mechanical" one. Market mechanisms are seen as turn-key tools available on the shelves. It is often assumed that a given instrument should produce a given economic outcome, with little understanding of implementation constraints and interplay between various institutional components. More "biological" visions also remain too crude. Evolutions are too often seen through the lenses of the efficient processes of the selection of the fittest, and cumulative learning.

At the same time, analyses at the frontier of other disciplines (in particular law and political science) have highlighted the various logics at play in the dynamic of institutions. In a nutshell, institutions result inherently from the interplay among the economic quest for efficiency, the political fights for strength and rewarding positions, and the legal constraints of security and stability. It seems therefore relevant to build a framework to analyze the interplay between the economy, politics, and the law. This is the aim of this book.

1.2 Markets as manufactured devices

1.2.1 Complex social technologies …

Modern economic thinking draws largely from the "invention" of the concept of markets by the moral and political philosophy of the eighteenth century. The analysis of the performance and of the *modus operandi* of this specific social technology led to the emergence of economics as a specific body of knowledge (and academic discipline) in the nineteenth century. In addition, the strong development of the free market led many analysts to consider it as a "natural" coordination device. The market became the starting point for the analysis of many economic issues, including the question of nonmarket coordination. The economics of the firm and the analysis of organizations started by trying to understand how firms could emerge in a market economy (Coase, 1937). Also, many of the early developments in the economics of organization – i.e., the managerial and the behavioral approaches of the firm – were aimed at understanding firms' strategies in the context of imperfect/monopolistic competition and market failures rather than understanding the economics of organized collective action.

It was only in the late 1980s with the contributions of scholars like North, Williamson, Barzel, Greif, and Weingast that the institutional foundations of markets were brought into the limelight. These developments benefitted from the earlier contributions of law and economics (or how agents act in a given institutional setting and react to it) and political economy/public choice (which is about how individual interests and economic transactions shape/bias political and bureaucratic actions). They resulted in the idea that, far from being "natural," markets are organized and constructed in all their dimensions. Indeed, markets require the establishment of "measurement systems" aimed at establishing the various dimensions of the quality of the goods and services that are exchanged. Systems of property rights are also needed to establish what exactly is exchanged (rights of use, access, transformation, and consumption, etc.) and also to make it clear who is entitled to do what with the traded resources. Lastly, all kind of rules of interactions must determine how traded quantities, qualities, and prices are decided: Do agents meet directly or via an intermediary? What are they allowed to negotiate? Are prices customized or not? For all these "dimensions" in the organization of exchanges, rules must be established, processes to negotiate additional rules or amendments have to be agreed upon, and some mechanisms have to be designed to ensure enforcement and to resolve disputes.

Basically four "families" of organizational arrangement deal with these issues. Agents can negotiate bilateral contracts, they can follow self-regulation emerging in communities, they can delegate to a third party – a platform – the management of their interactions, they can be submitted to public rules. Usually, both because needs are contrasted, but also because most markets result from the addition of compromises on different issues established at different periods in time, the institutional framework that makes a market possible is a combination of alternative arrangements dealing with the various dimensions mentioned above.

Markets are complex social technologies, in the very sense of the notion of complexity. They are made of a significant number of interacting components influencing each other in a non-ergodic way. They are also *manufactured* in the sense that they draw from human action. This explains many of their "imperfections" because human beings' rationality is inherently bounded, and also because conflicting interests, and therefore compromises, lie behind the design of markets. The combination of complexity, of bounded rationality, and of compromise among conflicting interests results in systems, which are difficult to master, and rarely the result of optimization processes.

1.2.2 … designed by trembling hands

The contributions to this book all start from this premise. Markets are built by the trembling hands of human action. The "s" here is important since markets are the result of collective, sometimes contradictory, actions. Most markets are built on a piecemeal basis and rational design is often of little help both for understanding and for action.

Since markets are compromises, potential efficiency gains are not sufficient conditions for guaranteeing implementation of reforms. Beyond the confrontation of individual interests, it is important to take into account the myopic dimensions of interacting actors. These actors attempt to influence the design of markets on the basis of their own interests, but at the same time are unable to anticipate the result of the interactions among the various stakeholders; namely the users and the suppliers, but also innovators and new entrants, and the public actors including the government, the judiciary, and the various ad-hoc agencies.

Contributions to collective action are therefore often shortsighted. This explains why so many balances are needed in the evolution of markets. In fact, two types of balances exist: *de facto* and *de jure*. *De facto* balances are linked to the fact that institutional frameworks of markets translate into decisions of investment and specialization by economic agents. These agents cannot change their capabilities and capacities overnight. Moreover, they cannot write off investments and switch to other activities so easily because it might result in disequilibria on other markets (through defaults of payment, but also misadjustments of supply or demand). Thus coalitions might easily form to defend the status quo, and in any event the inertia of economic agents plays a strong role. *De jure* balances are linked to the logic of the rule of law. Markets are based on rights and rules. The ability to modify them might be bounded by the principle of the hierarchy of norms that prevent social actors and decision makers from overwhelming the distribution of rights. Such principles protect against the tyranny of the majority, or of the dominant interests. It is an essential pillar of trust in most advanced societies, at the basis of the long-term planning capability of economic agents. This is at least a strong factor of civil peace in any society, which is valued by large fractions of the population; even by the disadvantaged minorities, because at least some of their interests are guaranteed. This is the reason why legal constraints of stability are so pregnant in market reforms.

However, "political" compromises about the genesis and sharing of all kind of rents, and the "legal" preferences for, and necessity of, stability are permanently challenged by the quest for economic efficiency.

If "wider in scope," "more competitive," "less costly to run" markets might allow for a deeper division of labor, a higher pace of innovation, and boosted incentives to perform efficiently, then the generated surplus might well be shared among the various stakeholders to allow the adoption of new principles of organization and/or to form coalitions able to implement change. All kind of scenarios might occur in the complex game between customers, providers, new entrants, and rulers. "Economic" efficiency is thus a third driver of market evolution.

1.3 A set of analytical case studies …

This book groups various essays, based on in-depth case studies, attempting to highlight the various dimensions of the dynamics driving the building of markets. Indeed, if we admit that we are facing path-dependent processes concerning complex systems, it is essential to be informed about the true nature of the dynamics and interdependencies at stake. Moreover, it is not enough to claim that human rationality is bounded, or that we are dealing with "games" involving a great many "players" with different logics. It is essential to dig deeper by examining carefully who those players are, what their actual behavior is, and how in practice they interplay by examining specific experience in the real world. This is quite in line with the methodological legacy of the founding scholars of the modern economics of institutions, and above all the four Nobel Laureates – Ronald Coase, Douglass North, Elinor Ostrom, and Oliver Williamson – who all relied upon meticulous observations of real world problems.

These case studies provide us with complementary visions of the dynamics explaining the forming of markets. They enable both us and the readers to understand better how the economic, political, and legal drivers combine in various circumstances. It also leads to the better identification of the relevant categories of players and through what lenses they should be analyzed to understand better their actual role. For instance, it is very clear that most of the time, it is irrelevant to analyze those issues with an actor that would be the "government" or the "state" or the "public bureaucracy." At least, relying on the horizontal division of power "à la Montesquieu" is necessary. Moreover, it is often relevant to isolate the agencies – the competition authority and the regulatory bodies, or ad-hoc entities like the central bank – that play such a strong role in the design and performance of contemporary markets. Lastly, in the context of globalization and regional integration, it is often pertinent to take into account the multilevel character of governance, with interactions between the national, the subnational, and the international public mechanisms.

The contributions also address different "dimensions" of the institutional foundations of markets (measurement, property rights, rules of interaction) and analyze them in different industrial contexts. Among the industries covered, there are agro-food, energy, telecommunications and media, real estate and land, water provision, transportation, banking and finance, etc. We mix contributions dealing with the organization of various markets for the provision of private goods; and also consider public and club goods, or common pool resources. In addition, contributions focus on different historical, geographic, or institutional contexts, highlighting both the specificity of each of them and the common features.

1.4 … structured into six topics

We chose to group these different chapters under six analytical headings whose logic is presented below. In a sense, the first three relate to the institutional characteristics that influence the performance of markets; namely the securization of exchange, the attribution of property rights, and the organization of the exchange. They highlight the strong and multichanneled interdependencies among institutional dimensions, and therefore the difficulty to align each of them to benefit from costless and nonbiased coordination mechanisms. The three latter parts of the book consist of an investigation into the constraints characterizing public action, when attempting to design and control markets. While markets might rely on self-organization and self-regulation, these techniques are inherently flawed by weaknesses, inconstancies, and capture. At the same time, however, public action is also biased and imperfect. The contributions to the book, therefore, highlight how the combination of two incomplete and imperfect modes of governance should be understood and could be improved.

1.4.1 The "mechanics" of markets

We start with one of the most familiar problems to economists (and laymen), which is the uncertainty over the characteristics of what is exchanged, which might prevent exchange from happening. Above all, a market aims at enabling impersonal exchange, since it is the condition for fostering the division of labor and competition (through new entry). Hence the issue of building mechanisms to objectivize the characteristics of what is exchanged. This is the purpose of the part entitled "Public and Private Complementarities in Securing Exchange."

The second necessary condition for making markets possible is the attribution of property rights to players. Markets have the strong advantages, when not failing, of obliging participants to make decisions grounded on a cost/benefit analysis. Moreover the market aggregates individual choices and thus "internalizes" interdependencies among them. This is why they can be good arbiters among conflicting claims when decisions have to be taken about use of and access resources that are costly or exhaustible. Yet stakeholders must be granted with an initial endowment to allow the performance of the market. The process by which the initial distribution of property rights is decided – say auction vs. grand-fathering (or first claim–first served) – impacts on the distribution of the benefits among stakeholders of market creation/enhancement. Since market players are not all characterized by the same capabilities, this might impact on the efficiency of the process of market implementation. The related debates are developed in the second part of the book entitled "Path Dependency and Political Constraints in Establishing Property Rights Systems."

Competition is often considered as a "natural" characteristic of biological and economic systems. What can be drawn from many of the contributions to this book is that, while rivalry is "natural," there is nothing "natural" in competition in general, that is "organized" rivalry, and even less in "fair competition." Competition has to be organized and implemented. It is a condition for the efficiency of markets, but it is not necessarily a stable equilibrium; i.e., a situation to which a system will automatically converge. In the part entitled "The Political Origin of Competition" the contributors point out the difficulties with which an efficient process of competition can be implemented and guaranteed. Moreover they show that it is never achieved and that the process by which competition is developed is both piecemeal and myopic. The resulting market structure and its institutional framework are thus highly path-dependent.

1.4.2 Challenges for the "visible hand" of the state

The paradox with markets is that they are not built against the state or the government, but by the public rulers or in cooperation with them. Historically they emerged from societies structured by social casts, professional guilds, and communities in which there were exchanges, but few competitive markets (North et al., 2009). On-going negotiations between the society and the rulers led, in certain circumstances, to the development of modern anonymous and competitive markets (Brousseau et al., 2011; Wallis, this volume). The point is that the public ruler is strongly constrained in their actual actions. First, public decision-making is always subject to potential reversal, because the mandate of the ruler can evolve with the balance of powers that establishes their capability to rule. The lack of consistency of public decision-making over time inherently impacts upon the ruler's capability to implement reform and therefore the credibility of reforms, opening the door to all kinds of strategic maneuvers, which include of course the aforementioned inertia. Second, political competition favors a logic of winner takes all by which a dominant coalition tends to implement reforms without redistributing gains to losers. This generates cycles of reforms and counter-reforms that favor neither the quest for first best, nor the fine-tuning of the second-best "feasible" solution. Third, the "ruler" is not a simple entity, but a divided organization. This is an essential point: Modern states are empowered with huge bureaucratic capabilities and extended legitimacy to rule, because they are full of checks and balances that inherently result in inconsistencies in decision-making. Thus most markets are far short of the perfect competition target. These are the arguments developed in the part entitled "The Myopia of the Public Hand."

Another challenge of public action is that the capability of the ruler to substitute for private action is in actual fact very limited. Even when the ruler can suspend the market mechanism and redesign from scratch a new allocation mechanism – a solution that is often called for in the case of major systemic crisis, especially in the case of financial and monetary crisis – the ruler experiences difficulties in monitoring the economy because they cannot adjust efficiently all individual demand and supply. This is the famous risk of paralysis or inefficiency of any central planner as identified by Hayek from the 1920s. Thus, when the ruler attempts to control the functioning of a market, a public authority has to play with the incentives and anticipation of the various "players" in the markets. The point is that their aggregated capability is far beyond the capacity of any public ruler. At the same time, the public ruler is often the only entity able to mobilize consistently this energy. Hence, the difficult balance between public ordering and private initiative that is addressed by the contributions grouped under the heading "The Challenge of Balancing Public and Private Ordering." On the one hand, public regulation and intervention is difficult to implement, while on the other hand self-regulation or the absence of regulation inevitably lead to major crises.

The contributions to the last part of the book highlight how market players can rely on all types of strategies aimed at colluding, or abusing dominant positions, or hijacking the mechanisms supporting exchange in order to create bottlenecks and implement tolls. They point out, hence, that besides the role of public ordering to avoid and fix systemic crisis, the day-to-day operation of markets can lead to major captures that justify public intervention. This does not call, however, for overly strict and detailed regulations and checks, because they are too costly to design and implement … and because public bureaus – beyond the problem of incentives and motivations – do not master the detailed and evolving knowledge that is needed. What the contributors to this last part show is that there are two pillars to deal with "the Daily Adjustments of Market Technology." First, competition among platforms of exchange/self-regulated markets is a major inhibitor of potential capture. Second, judicial settlement of conflicts among stakeholders is an essential tool to guarantee the implementation of generic principles of competition, beyond the technical and economic-commercial specificities of any markets. There is a strong call, therefore, for an ongoing supervision of the performance of markets, both by specialized entities and by judges; which is consistent with the idea that efficient competitive markets are a never reached objective.