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# The hidden costs of urban and territorial planning

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**Abstract.** Approaching the urban and territorial planning process two main facts need to be considered. First, this activity, as a decision-making process oriented to define and introduce specific policies, is generally influenced by the actions of pressure groups. Second, urban and territorial planning, via the conditionings and limits imposed upon the ways in which land can be used, may affect many social dynamics in ways where there is not always a clear distinction between the costs and the benefits. The contribution highlights these issues using the economic analysis tools and aim to consider in particular the hidden costs of the urban and territorial planning, namely: transaction, operational and assessment costs. The results of the analysis highlights how the planning process allows to protect public goods, such as environmental health and safety, as well as to ensure competitive markets. But an excessive or misusing of the planning instrument is harmful, produces unnecessary costs for businesses, citizens and public institutions, fuels corruption, improves injustice, paralyzes economic activities and loads the action of government. Too many rules or confusing and contradictory rules are equivalent to no rules. The normative proliferation feeds the uncertainty and asymmetric information, increases the possibilities of interpretation encouraging elusory behaviors that constitute the first step towards the illegality. Improving the planning system is therefore an essential prerequisite to modernize the countries, but taking actions to correct, from time to time, individual dysfunctions caused by wrong, outdated, unnecessary invasive and rigid rules it's not enough. It is necessary to change the decision-making process, from hierarchical systems to a more complex system that involves participation, monitoring and evaluation and is able to help decision makers to better understand the outcomes of their choices (minimizing the cost for the public institution), to limit (if it is not possible to eliminate) the opportunistic behavior and, if verified, to punish it immediately.

## 1. Introduction

Urban planning plays a central role in modern economies. Much of our prosperity depends on this activity, which concerns the potential residential and productive uses of the soil and the land. For a long time, however, the issue of urban planning has been kept at the margins of the economic debate. This is particularly true for regional economists, who seem to focus excessively on the determinants of localization, rather than seeking a broader explanation for regional inequality in terms of growth and economic development. This fact, for a while, kept at the margin of economic analysis the role of institutions in influencing many social choices concerning the uses of the soil and the land. One of the main consequences has been to hand the over activity of urban planning almost totally in the domain of planners (architects and engineers), who typically pay attention mainly to aesthetic or functional issues. Continuous advances in knowledge, bringing out new intersections among different disciplines, have finally today developed a more comprehensive approach to the issues of urban and territorial development. In this sense it is now generally recognized that institutions, conceived as formal and



informal rules that structure the relationships between subjects in different political and economic realities [1], tend to have important effects on productive systems. And even if institutions are often disjointed by specific economic goals, however they significantly determine the level of wellbeing of the citizenry. It is not surprising therefore the growing awareness among scholars about the interdependence between territorial, legal and economic facts. Clear signs of this awareness are the already mature streams of economic research on incomplete contracts, informational asymmetries, agency contracts, corporate and territorial governance [2, 3]. Within these streams of research it fairly well known the debate around the role of the government [4], which indirectly emphasizes the fact, although from diverging point of view, that the market alone – i.e. without the support of other institutions and organizations – is unable to allocate resources efficiently in order to ensuring growth and development. Moreover, among scholars of different orientations, it is also widely shared the idea that a certain degree of economic control by the state is necessary. Thus, the focus is on which should be the appropriate degree of intervention and the effectiveness of the instruments (institutions) to promote and create conditions for the economic and territorial development. This new approach is favoured, in particular, by a growing and fruitful discussion among lawyers, economists and planners on issues regarding the definition and refinement of laws, regulations and other types of regulatory provisions. This concerns particularly urban planning, because its central focus are the rules governing the ownership and the uses of the land, i.e. of a factor of production that continues to be the cornerstone of economic development. The impact of such a form of regulation affects, in first place, the localization of human settlements and the related economic activities and then the price system of land and buildings, but more generally, as it can be easily understood, the overall wellbeing of the citizenry. This impact, as will be more fully explained in the following paragraphs, derives both from the explicit effects of the different regulations adopted and from the characteristics of the planning process itself which - in force of its intrinsic nature – is not always able to promote economic efficiency and / or to improve the level of well-being of a given community.

## **2. The transaction costs**

Several contributions [5-9], point out that planning theory has essentially to deal with the objectives, form, mode, and the justification of the land market regulation. In this context the transaction costs [10] [11] play a significant role. The idea of transaction costs has provided a theoretical base to the intervention of government in general, and then the idea of planning by the State in particular. Some critics argue that, although in principle attractive, the idea of taking into account economic costs other than those of production, in reality it is hardly feasible. Other scholars on the other hand, while agreeing with the idea that it is difficult to measure the transaction costs in a cardinal way, do not find it impossible to measure them along an ordinal scale, dividing them according to different institutional orders as property rights [12] or contractual agreements [11]. Applying the concept of transaction costs in the planning process, can be highlighted three main approaches, all between choice and regulation theories and related to each other in various ways. Specifically, these costs can be attributed to the following aspects: governance of planning, information asymmetry and the structure of contractual agreements.

The first approach focuses on the governance of planning and emphasizes how the process of comparison of a typical public decision-making, especially in the approval stage of the planning tool, involve transaction costs [13]. As the discussion may or may not reach an agreement, the cost created by the attempt to reach it is, in any case, significant. The costs of participation and collective action, however, are affected by the discursive strategies used by the involved parties [14]. The debate involves mostly, explicitly or implicitly, exchange mechanisms (log-rolling) between modification of plan features (intended uses of the lands and/or buildings, volume awards, building indices, obligations, etc..) and support for approval of the same [15]. Many aspects and details are in fact usually modified during the definition phase of the plan in order to gain more support in the approval stage according to opportunistic behaviors that become inability to maximize the social welfare [16]. On this point it's particularly important the contribution of Arrow [17]. He demonstrated, by the impossibility theorem,

that any attempt to aggregate the different rankings of individual preferences to reach a social rank (the so-called social welfare function) is doomed to failure. Such an approach thus emphasizes that any outcome of a public choice process, including therefore the planning, involves some loss in social welfare, meant as the difference or gap between the individual preferences and the social ones (i.e. the set of choices and priorities institutionalized by the plan). In such a context, transaction costs are substantiated in all forms of debate (search for mediation, negotiation, conciliation, etc..) among and within the different groups and territorial stakeholders. Whenever these processes will realize a transformation from local to processed knowledge, transaction costs may take the (virtuous) aspect of a "transactive planning" [18], "communicative planning" [15] or "strategic planning" [19], lowering the costs [20]. Olson [21] highlights, instead, the influence that certain pressure groups (in particular small groups) can have on decision makers, both politicians and technicians. Small groups may reveal a greater efficiency in facilitating change processes of a given set of rules than those established by a larger number of participants, and this because the groups with a greater number of contributors usually support higher transaction costs. A deviant form of this theory is that of regulatory capture, as a form of collusion between business and government employees that are assigned the task to regulate them (the regulator is captured) in order to obtain the application of special economic regulations. In the same direction other studies [22] [23] analyze the behaviors put in place by some individuals to influence political or social milieu in order to obtain economic rents dropped from their actual ability to create value: the so-called rent-seeking behaviors. In this context Stigler [24] highlighted how the coercive force allows a government to reward some individuals/groups/industries rather than others: favorable regulations are being offered to those who are more useful to reach the government targets.

The second approach focuses, as mentioned, on the problems of information asymmetry in the market. The idea is that, in a market transaction *"the unequal and uneven distribution of information would benefit one party to a market transaction over the other and hence there are grounds for government intervention where the market could not tackle such information imperfection"* [9, p. 10]. This approach fits particularly in the planning process because in most cases, the planning activity involves the collection and interpretation of information on various phenomena such as current patterns of land use, estimates of future demand, determination of potentially suitable locations for new activities and/or settlements, static and dynamics of the socio-economic structure, transport and environment system. This information, only if properly and fairly widely available, assists the decision-making process of the different actors involved in the territorial development and land use [25, 26]. As evidence of this dynamic has been highlighted that when local governments announce the preparation of planning schemes, within and/or around their areas of jurisdiction, strongly decreases the degree of uncertainty and the resulting transaction costs [7, 27]. It should be noted, however, as the knowledge and information necessary for a correct planning is "scattered" among thousands or millions of different people, and mostly tacit [28]. This characteristic of the knowledge makes unavoidable the costs of the exchange issue. When this condition is neglected it is very likely to collect or an excessive or an insufficient amount of information, with the result to generate a number of inefficiencies in planning. This issue is addressed in the latest plans (in particular in the strategic plans) by placing the participation as a central element on which the entire decision making process is based and as a characteristic able to reduce costs [20]. In this direction are contributions on the so-called "associative democracy" [29, 30], in which the state and the civil society are part of a single regulatory model that transforms the functions of both. In this perspective, the state no longer has to impose top-down regulations through the traditional means of "command and control". The key idea of the model is the transfer regulatory functions to groups and associations with detailed knowledge of problems, extensive monitoring capability and capacity to resolve problems by appealing to generalizable, rather than purely partisan, interests. The state does not disappear but, in addition to defining the basic goals of public policy, takes on new functions: select the social actors invited to participate in regulation, encourages the organization of underrepresented interests and visions, promotes the circulation of information and best practices, and retains the right to intervene in cases where self-regulation fails.

The third approach focuses on the structure of contractual arrangements, formal and informal, for specific transactions [11]. The aim is to measure any change in behavior (using, for example, the value or amount of production or the payable rent) as a result of a change in contractual arrangements (for example from an employment contract to a social contract, or from a market rent to a controlled rent). However, contractual agreements suffer from limitations associated with opportunistic behavior and information asymmetries. The importance of opportunistic (or strategic) behavior starts from the so-called "shirking" [12], and highlights the central role of an institutional hierarchy as an alternative to a decentralized market in monitoring and binding such behavior [31]. The opportunistic behavior, in this way, could be read under the axiom of rational maximization behavior, as assumed by all positivist economists. This approach, however, is considered redundant by some scholars, because it would involve double counting of transaction costs [11]. In the case of planning process, shirking, which can occur in definition and implementation phases, could be seen as a result of incomplete, or not based on performance criteria, contractual agreements. This approach leads to the problem of so-called agency costs, where costs arise when, in a principal-agent relationship, the post-contractual agent behaviour (also known as moral hazard), is not observable or presents a limited probability of being observed. This problem can be limited by the principal monitoring the performance or the compliance with the terms of the contract, but it is costly and sometimes difficult to apply. In the specific case of the urban planning these costs can be attributed to three types of principal agent relationship:

- administration (principal) – bureaucrat (agent);
- administration (principal) – planner (agent);
- administration (principal) – citizen or enterprise (agent).

Analyzing the problem from the side of bureaucrats (public officials with administrative powers that operate in the field of planning practices necessary for the establishment or implementation of planning), the opportunistic behavior, as far as feasible and convincing, is not objectively measurable. For this reason, it is impossible to assess empirically the impact. In this case, to reduce the alleged adverse effects it is necessary to define a mechanism of incentive and penalties (stick and carrot). Agency costs could be also detected looking at the relationship between the planner (the technician in charge) and the administration. This can occur when, for example, the administration does not know whether the planner use this information in the right way (transmitting the right official position to the parts) or use them for personal benefits. Finally, looking at the relationship between the administration and the citizen (or the enterprise), the agency costs are detectable in the implementation phase of planning, and in particular can be traced back to the phenomenon of unlawful building in its various forms (construction ex-novo, changes of uses, etc.), rather than the failure to comply with sanitation or safety standards, due to the inefficiency of the public administration in carrying out a systematic and continuous checks and punishing the discovered crimes in time. Even if reported, in fact, illegal buildings are resolved in most cases with the prescription for the crime because of the unacceptably long time to conclude the process. In this way the level of risk perceived by the agent is so low that he is more likely to take illegal behaviors.

### **3. The operational costs of the planning**

Urban planning, considered as a system of regulation of land use, has its main purpose to better manage the spatial arrangement of the various human activities, by controlling the use of the territory of these activities. In this sense, the welfare economics, started with Pigou [32] theories, represents the most convincing ideological-interpretative basis. This theory is based on the idea that the alignment of private aims with social purposes - the existence of the "invisible hand" that transforms actions with private motivations in socially desirable outcomes thanks to a perfect competition market - is possible only if five conditions occur. First, the property rights are always defined, or in other words, it is clear who has the power to control an asset. Second, each operator cannot influence the market prices (is a price-taker). The third condition concerns the strategic interdependence, i.e. the absence of unidirectional and mutual externalities. The fourth condition requires the market completeness, i.e. each asset can be traded on a

market. The fifth condition relates to the information which must be complete, perfect and equally distributed among all operators. Whenever one of these conditions is not satisfied (which always happens in the real world) there is a so-called market failure with the result that it is not assured that the market system produces efficient allocations of the resources. By this way it is needed an external (to the market) intervention, i.e. a state intervention. In this framework: externalities are no longer considered as the result of a mismatch between social and private costs, due to a free-rider behavior, but rather due to transaction costs that inhibit the internalization; and public goods exist not because of intrinsic rival nature of the combined consumption of a good or a service, but because of the dissipation of rent caused by the unregulated use of them (the so-called tragedy of the commons). It should be noted, however, that such situation constitutes a potential source of inefficiencies itself, the so-called failures of the state. Mainly these are:

- organizational distortions: politicians or bureaucrats replace a public purpose (that is aimed at maximizing social welfare), with a personal purpose (that is aimed at maximizing individual utility);
- lack of control of expenditure: this arises from the separation between tax revenue and public spending that is often not accompanied by a system able to match them;
- externalities derived: for example, the private initiatives concerning the supply of goods or services is inhibited, for excessive public intervention, resulting in costs of exclusion (crowding out effects).

In line with their primary purpose, the urban regulations are intended to change the spatial structures of the areas for which they were made to, and to change the patterns of development. This approach has led to the concept of "efficient urbanization" [33]: the idea that the introduction of appropriate land use rules takes to improvements in the performance of regional economies that are mainly reflected in the creation of a desirable socio-economic context. In this vein Bailey [34] and Davis [35] argued that the level of welfare of landowners can be increased with proper land controls. The zoning thus takes on a particular importance in eliminating the negative externalities between different uses. Gardner [36] and Moore [37], point out instead that the regulations on land use can also contribute to protect public goods, that would not be protected without government intervention, because these social values are not seriously considered by the private agents that focus on pursuing their own interests. Moreover, Lee [38] shows how the residents and the whole territory benefit from land use planning practices and, managing the inherent market failures, lead consequently to a more economically efficient land use. The welfare of the landlords and of all residents increase thanks to the correction of market failure through an appropriate land use regulation, and it is detectable mainly with references to two empirical groups of studies both referring to property values and therefore to a neighborhood or urban scale. The first group shows the existence of negative externalities in a land unmanaged on the housing value [39] [40]. The second shows the positive effects of environmental components (parks, verses, etc.) protected by regulations on land use and land values [41] [42]. However, it should be noted that, although these studies have provided empirical evidence to support the idea that regulations on land use are accompanied by potential gains in terms of welfare, several other studies found no statistically significant evidence of this correlation [43] [44]. In this sense, the use of land regulations may even be counterproductive, constraining the supply of land, delaying the process of development and thus influencing the real estate sector that is a fundamental element for regional economies. In particular, the territorial regulations tend to increase the cost of housing and commercial or business property because of effects related to both the demand and the supply side. The increase in demand leads to an increase in prices due to a better quality of life in the area. New residents are attracted to the area fuelling the economic growth process. On the contrary, the price increase can be stimulated by low supply, which seems to suggest that the regulation dampen the growth of a territory. Moreover, in this case, the increase in housing costs can generate a significant impact also on other sectors of the local economy, influencing production and consumption models, residents' investment patterns, labor markets, business conditions

and changing savings patterns. Another set of theoretical and empirical studies, always concerning the relationship between planning and spatial-settlement forms, sought to identify what form of settlement may be more cost-efficient (less costly), which determines a different structure of collective costs. This relation is particularly significant in the “fight” between diffuse spatial-settlement patterns (the so-called "sprawl") and dense and compact patterns supporters [45] [46]. The central point is that since the diffusive models of physical growth tend to make inefficient the provision of public services, regulations able to curb sprawl can provide economic benefits in terms of lower collective costs. In addition, a compact settlement pattern, which can generate agglomeration economies, may have additional positive effects on urban economies [47] [48]: however, higher density does not necessarily mean a higher degree of agglomeration economies, particularly in societies characterized by improved in transportation and communication technologies. The issue is so linked to the determination whether a particular type of land use regulation actually controls the sprawl, promoting the compact development or causes a more dispersed spatial structure. This effect is particularly evident when analyzing the settlement structures at provincial or regional level. The so-called "dispersed town" [49] in fact goes beyond the narrow administrative boundaries of a single municipality to join with the neighboring settlement contexts, leading to an urban setting without solution of continuity. In this context, particular attention should be given to the side effects of the legislation that may offset the benefits determined by a compact development. These effects not only include inflation of land prices and real estate, but also a potential loss of well-being of the resident population due to less variety of settlement forms, (limited by the higher density) or to the design requirements. Although the results are not unique, settlement growth policies are generally effective in curbing sprawl [27], especially when they are taken according to the logic of cooperation between the regional and local governments. Opposite results, in fact, were obtained where local governments have acted alone without coordinating with the higher-level planning [50]. The political fragmentation inside a single administration or between different administrations could be the reason of this correlation [51] because it makes administrations exposed to decision-making mechanisms "spoiled" by the logic of exchange (logrolling) or rent seeking that leads to sub-optimal choices and then to patterns of diffusive type development.

#### **4. The assessment costs**

As highlighted in the previous section, the urban planning involves different sources of cost. The attempts to remedy these situations refer mainly to assessment procedures to reduce the ineffectiveness or inefficiency of the institutions caused by legislative inertia (there are no laws who clearly define who should act and how) or by administrative inertia (there are laws but they are not applied). However, even these procedures have a cost, so it will be economically convenient to be used until this cost will be lower of the saving generated by the assessment. The implementation of an evaluation process, aimed at the minimization of the costs of planning, paradoxically, often results in higher costs than their minimization, so, it is necessary to recognize the limitations arising from the decision-making process in order to take measures for a better implementation. These procedures can be divided into three broad categories [52]:

- administrative assessment;
- impact assessment;
- judicial assessment.

The administrative assessment directly impacts on the costs of the decision-making process and is intended to ensure the achievement of the objectives established at the lowest cost, thus imposing to citizen the lower charges possible, supporting the adoption of forms of efficiency and performance control. This type of assessment over the years have generated different techniques adopted in various parts of the world (among which Program Planning and Budgeting System – PBS; Zero-Base Budgeting – ZBB; Management of Objectives – MBO; Policy and Expenditure Management System – PEMS; Regulatory Impact Assessment – RIA) that can be articulated in some main categories:

- a) assessment of the effort: it measures the quantity of input employed and could be considered the base for further evaluations;
- b) assessment of the performance: its goal is the determination of output independently of the objectives;
- c) assessment of the effectiveness: that put objectives and performance in relation to determinate if adjustment measures are necessary;
- d) assessment of the efficiency: its aim is verifying if it is possible to obtain the same result using lower costs;
- e) assessment of the process: to check the process whether they could be more efficient.

The impact assessment concerns the outcome of the process and in particular the minimization (ex-ante or ex post) of the impacts (and therefore of the costs) arising from the implementation of decisions made. This type of analysis can involve two distinct levels. The first level specifically concerns the actual implementation of the policy (or of the plan), i.e. to check whether it is handed off from the state of mere provision of the law to that of current administrative practice: if the allocated resources are actually spent, if the services are provided, if the obligations and prohibitions are enforced. The implementation of these actions may encounter several obstacles difficult to overcome (such as the opposition of groups of citizens or the unwillingness of concrete realization by the same politicians who have made them only for electoral purposes), or a implementation deficit (intending those situation with a partial implementation of the polices or not accorded to the original scheme). A second level concerns the specific effects that the policy is expected to produce or has produced. In the latter case, the assessment is necessarily ex-post, and evaluates the ability to transform reality in the desired direction. In reference to the minimization of the impacts (and thus of cost) of ex ante plans and programs (ie, at a stage prior to their actual implementation), a significant example is that of the EU Directive 42/2001. It stipulates that all countries member of European Union have to adopt a system of ex-ante evaluation to be applied to all plans and programs with significant effects on the environmental system: the so-called SEA (Strategic environmental Assessment).

The judicial assessment regards the legal issues of the implementation of policies, of programs and plans of public institutions. These evaluations consider the possibility of an incorrect application of the law (e.g unconstitutional, violation of principles of natural) in order to prevent or remedy conflicts between planned actions and higher-level policies, or more generally, between the prerogatives of the State and the rights of the individual. This assessment may also include unlawful conduct (collusion, corruption, etc.) put in place at various stages of the planning process, from defining to implementation stage. The fallout of such behavior can be explained in economic terms as agency costs. They can be specified and divided into:

- *costs of supervision and incentives* needed to guide the agent's behavior (monitoring, control and evaluation);
- *costs of verification* that the community should support, once assumed the existence of opportunistic behavior. These costs are substantiated in court proceedings;
- *costs of compensation* that the agent has to bear when, adopting opportunistic behaviours that damage the object (in this case the state), is discovered.

The use of forms of impact assessment, however, is a difficult and controversial because it can be considered itself a political activity because of his link to the objectives. Even if the assessment theoretically should be characterized by a purely rationalist footprint [53], it is instead susceptible to some bias in order to disguise or hide items that might put a bad light on the workings of government, or rather to emphasize those who show it in a better light.



## 5. Results and discussions

The rules are needed. The plans are needed. They allow to protect public goods, such as environmental health and safety, as well as ensure competitive markets. The complexity of economic and social relations attributes a central role to public regulation and in particular to the planning. But an excessive or misusing of the planning instrument is harmful, produces unnecessary costs for businesses, citizens and public institutions, fuels corruption, improves injustice, paralyzes economic activities and loads the action of government. Too many rules or confusing and contradictory rules are equivalent to no rules. The normative proliferation feeds the uncertainty and asymmetric information, increases the possibilities of interpretation encouraging an avoidancing behavior that constitutes the first step towards the illegality. In such a legislative jungle, the honest citizen loses orientation with the consequent of increasing the costs that he must support (in economic and well-being terms). On the contrary the dishonest people find shortcuts moving through the laws or finding a way to avoid them. Improving the planning system is therefore an essential prerequisite to modernize the country, but not only taking actions to correct, from time to time, individual dysfunctions caused by wrong, outdated, unnecessary invasive and rigid rules. It is necessary to change the decision-making process, from hierarchical systems to a more complex system that involves participation, monitoring and evaluation and is able to help decision makers to better understand the outcomes of their choices (minimizing the cost for the public institution), to limit (if it is not possible to eliminate) the opportunistic behaviour and, if verified, to punish it immediately.

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