Reforming the public administration to make Italy grow

Renato Brunetta
Minister for the Public Administration and Innovation

This essay describes the nature and novelty and assesses the economic consequences of the reform of Italian government administration that is already under way. The author first explicates the strict linkage between administrative accountability and political accountability – a key problem for every democratic system – and then sets out the hypothesis of an increase in the multi-factor productivity of the public administration, considered as a productive sector. This exercise results in an assessment not only of the significance of the notion of efficiency applied to government administration but also of the multitude of channels by which increases in public productivity are transmitted to the private sector. Finally, the author reviews the guiding principles of the reform (efficiency, meritocracy, accountability, transparency) and its innovative features (evaluation, verification, reward) and applies an econometric model to estimate the potential positive impact on growth.

1. Introduction

The main purpose of Legislative Decree 150 of 27 October 2009 on the reform of the public administration is to resolve the fundamental problem of democracy, namely how to ensure that the state, in its political and administrative organization, answers to the citizens for what it does. This is a key principle of the liberal-democratic state, whose primary foundation is the defence of liberty and of the legitimate interests of individuals. The second purpose of the reform is to foster economic growth by boosting the efficiency and productivity of a sector that accounts for about 20 per cent of Italy's payroll employment and whose interdependence with the private sector produces a decisive impact on the overall dynamism of the economy.

For when we speak of the efficiency of the public administration or of general government, we are not referring only to the general services of the bureaucracy but also to such key sectors as healthcare and education, which affect the growth of human capital; civil justice, which is essential to the proper working of markets; or the criminal justice system and internal and external security, as law and order is crucial not only to the direct welfare of citizens but also to economic and financial activity. Each of these state functions requires specific policies of its own, but all suffer, across the board, from administrative inefficiency, which is an obstacle to the efficacy of any and all policy measures.

This article is intended mainly to gauge and describe the magnitude of the economic effect of the administrative reform, following a consistent logical path. After showing why monitoring the efficiency and effectiveness of the public administration is strictly linked to the accountability of political action, we analyze what it means to apply the concept of efficiency to the public administration, setting out a stylized example of the complex implications of a real increase in multifactor productivity in the production of a public service. This exercise serves to highlight the many channels whereby the effects of a public-sector productivity gain are transmitted to the private sector. Next, we recall the principles and fundamental characteristics of the reform, which centres on performance and its assessment. Finally, we set out the results of simulations using an econometric model of the Italian economy to estimate the quantitative impact of an increase in public administrative productivity.

2. Administrative accountability as the premise to political accountability

The objectives and the practical design of administrative reforms reflect the historical, political and social role of the public administration and its own internal culture. These reforms, therefore, are significantly influenced by past history, which restricts the range of policy choices at the disposal of reformers. Reform strategies are

superimposed upon established norms and practices, which means that they are shaped more by the system that exists than by the model of public administration that the reformers want. The outcomes of the various attempts at systematic administrative reform in Italy to date appear to offer strong empirical corroboration for this conviction.

The legalistic tradition of European and especially Italian public administration, which is centred much more on the control of inputs than on evaluation of output, has made it quite difficult for the past 30 years to enact reforms based on the theories of the "new public management", which focuses on the citizen as taxpayer and on various indicators of performance, hence on controlling output, in order to introduce management mechanisms patterned after the private sector and directed to efficiency. The European corporatist tradition may have accorded greater scope for discussions of governance, which admittedly did call for a reorientation of public administration towards output control, but in a context of a weaker hierarchical role of the central government in setting and implementing public policy. The main idea of the governance model, in fact, is the conception of the state and public administration as an actor promoting networking and partnership with civil society and with the various stakeholders – a sort of political and social entrepreneurship in which the state actors influence, negotiate and mobilize resources instead of directly controlling policies. If governance theory tends to consider the public-private dichotomy obsolete, the new public management doctrine reaches the same conclusion but for other reasons. In this approach, the isolation of government from society is the result of its isolation from the economic pressures of the market, which has allowed the state to ignore the models of management and resource allocation developed by the market under the spur of competition. The result is the inefficiency, poor organization, indifference to the needs of "clients", and obsession with procedures of which public administration is traditionally accused.

There is one critical point of contiguity between the debate over the emerging forms of governance and the new public management approach, namely the role of elected officials, i.e. the political level

where the direction of the administration is located. Under the governance approach political leaders have the key function of promoting networks with other social actors and coordinating the joint use of public and private resources, while in the new public management approach the role of political decision-making is limited to setting the long-term objectives of the public sector and leaving broad discretionary powers to the operational institutions and agencies.

In both approaches there is a problem of accountability. The fundamental problem with both theories is the unclear link between control and accountability – a crucial problem for the democratic system of government. Both models, indeed, tend to discard political power that flows from a legal, electoral mandate in favour of an entrepreneurial style of leadership. And this raises at least two major problems. The first is that if political leaders have such limited control over the administration, it is unreasonable to hold them accountable for the administration's decisions, actions and results. But if the political elite is not accountable, then who is? If we buy the idea that the main channel of accountability is the choices of the consumers of public services (who may choose, say, between public and private services, or between different, competing offices) or the judgments of stakeholders, then it follows that only the direct users of the services and those with an immediate interest with respect to those services will have a voice and possibly exercise control. Yet if these services are financed by the entire community, then self-evidently – by the elementary principles of democracy – there should be instruments of control also for those who are not immediate users or stakeholders – who are often hard to define in any case (just think of security, say, or the judicial system).

Treating the public administration as a productive sector to which the organizational and management strategies of the private sector can apply may not be sufficient to resolve the problem, for democracy, of restoring the effectiveness of government action, including via full accountability. But it is certainly a necessary condition. Political accountability implies that political decisions are transformed into explicit, measurable objectives against which the efficacy and efficiency of the public administration can be gauged. So there is a necessary

correlation between the political moment of setting policy objectives and the administrative moment of efficient policy execution. It is no mystery that the self-referential bureaucratic system of high-level civil servants has always severely limited the control capacity of those with political responsibility, who are accordingly subject to a political judgment on the implementation of policies whose results actually depend on the bureaucracy. This implies that, in practice, politicians are not responsible for the results of the administration or for the actual efficacy of their policies. To put it crudely, the unfaithfulness of the top bureaucrats, protected by their separation from society, becomes the primary alibi for political non-accountability.

It is no accident, then, that the reform of the public administration has become necessary and urgent precisely in the midst of a crisis in which the role of the state and of politics has unquestionably regained importance and centrality. Some commentators interpret this as putting paid to the hegemonic role of the market as the regulator of economic and social growth while others see this revival simply as the necessary assumption of responsibility on the part of the state – indeed, they see political and government regulatory failure as bearing the primary responsibility for the crisis of the markets.

3. The public administration as a productive sector

The emphasis on efficiency and effectiveness certainly responds to a vision of the public administration as a productive sector, a provider of services. This is, of course, a narrow view of the administration, given the broad range of government's tasks and its role not only in the economy but also in a country's institutional and social life. Yet this view, which we might call "technocratic" or "market-oriented", and which has been espoused by the new public management school, is not necessarily in conflict with the idea that public administrative performance embraces more than just efficiency and effectiveness. The notion of performance can, and must, be broadened to include the ability of the public administration to embody such fundamental values as transparency, integrity, equity, participation – in a word,

accountability. But public administrative efficiency and effectiveness remain the precondition for pursuing varied values and interests, whatever they may be.[1]

Pursuit of these goals requires both a set of incentives, in a sector which by definition operates outside the market, and the ability to measure results, without which no set of incentives can work. The problem is certainly complicated from the standpoint of implementation procedures, but it is worth clarifying the conceptual side, because in this way we can proceed to identify and evaluate the multitude of channels by which the effects of administrative reform can be transmitted to the economy.

Let us start with the simplest question: What does increasing the productivity of the public administration mean? To explain, we consider the production of a hypothetical "product X" by the public administration and define this product as a final good (the issue of a permit or concession, say, or the conclusion of a contract tender procedure, or a civil court sentence) that produces a utility for the beneficiary, be it private individual, firm or another government body. For the time being, we do not consider the reason for this utility, i.e. whether the need that it satisfies derives from a law, an administrative regulation, or some other source. We further assume that what can be called the "production technology" for this good requires the production of a series of semi-finished goods (x_1, x_2, … x_n), themselves produced by different offices, more or less closely connected with one another. In themselves, these semi-finished or intermediate goods have no utility; only when assembled – not necessarily in the physical, material sense – do they produce the final utility for the beneficiary. What we are describing, then, is a value chain, which as in the production of any good or service in the private sector may be more or less concentrated in space or vertically integrated.

[1] It is no accident that improving efficiency and effectiveness is being emphasized in all countries, especially when budget constraints combine with growing demand for public goods and services. Citizens are asking for more and better services at lower unit costs.

Now let us posit that the objective of our system of incentives is to increase the efficiency of the production process; that is, given wages and the use cost of capital and other inputs, to reduce unit output costs. We further assume, as a first approximation, that the objective of efficiency corresponds to an increase in multifactor or total factor productivity.

What does pursuit of an increase in productivity entail in this context? If the demand for the final product is given – fixed – it means reducing the total quantity of inputs of labour, machinery and intermediate consumption, thus reducing the amount of resources utilized per unit of output. If demand is in excess of supply, so that the output of the good must be increased, boosting productivity implies producing more with the same resources or at least increasing output more than proportionally to the input of productive factors. In both cases output per hour worked must be increased, but in the first case this also means reducing the number of hours of work, i.e. the employment of personnel.

Naturally, the increase in productivity has to be attained along the entire value chain. Productivity must be raised in the production of semi-finished products and in the technology for final "assembly". In every production unit, the productivity gain must correspond to increased output or else to a reduction in hours of work.[2]

Carried to its logical extreme, this argument has additional implications. So far we have been assuming that all the "semi-finished goods" (intermediate bureaucratic products) are necessary for the final product X to have utility, to satisfy the need. Some of these semi-finished goods, however, could be rendered useless – superfluous – by a new "technology", that is a new bureaucratic procedure, that does not diminish the final value of the product. But this sort of

[2] But if the change in productivity is not uniform throughout the chain, a rise in the hourly output of one of the semi-finished products will mean overproduction of that component, unless the output of the other semi-finished products also increases. And this would imply the need to reduce the employment of productive factors in the division where the hourly productivity has increased even if the demand for the final product exceeds the supply.

productivity gain would entail the elimination of the production unit, at least as a unit dedicated to that particular intermediate good. Sometimes this sort of labour-saving innovation can be achieved by organizational changes, while in other cases it requires a normative change to legitimate the new procedure. This aspect has a certain importance for the design of the system of incentives.

Higher productivity can also be pursued in the process of assembling the x_i semi-finished products, lowering the cost of putting them together.[3]

It is important to note that these costs may be faced by the single production units – i.e., within the value chain of the public administration producing the final good – or else by the beneficiary of the final product, assigned to "assemble" the semi-finished goods and to defray the distribution cost, i.e. the cost of shipment and delivery. In the latter case, in estimating the overall productivity gain, we must also consider the inputs used in the portion of the assembly process entrusted to the final beneficiary: transport cost, time opportunity costs (whether for a private individual or the work time of employees of a firm or another public agency). Alternatively, we can consider the amount of costs faced by the end-user as one of the elements that determine the good's utility, hence its quality and value.

This stylized model is highly simplified. Plainly, it cannot offer a realistic description of the number and variety of the goods and services produced by the public sector, but it does permit two significant considerations. One concerns the system of evaluation and rewards, whose purpose is to increase productivity and efficiency. The second concerns the effects on the overall economic equilibrium, those that have an impact on the economy as a whole.

For the former, it is clear that there is a hierarchy of organizational levels and responsibilities against which one must measure and assess gains in efficiency. And as one goes higher in the chain, the measure

[3] The costs vary in nature. They may be transaction costs between the different offices, determined by the spatial concentration and vertical integration of the process, hence powerfully affected by communications technology and the distribution of the semi-finished products. They may also consist in the cost of delivery to the final beneficiary; that is, they may be determined by the distribution system.

changes conceptually, along with the perimeter of analysis. To go back to our example, it will unquestionably be necessary to quantify and to reward the increment in hourly productivity at the basic production units, which in many cases will belong, within the value chain leading to the final product, to different, independent government bodies. However, this evaluation will be meaningful only if it is joined with an assessment of whether it is actually necessary to increase the output of that office. If the objective is not to increase output, then the reward must be given for a reduction in the number of hours worked, which in turn implies labour mobility and, in the limiting case of verifiable uselessness of its output, the elimination of that particular production unit.

This can happen when certain preconditions are in place. First, the incentive system must be capable of also rewarding those offices which, by increasing their productivity to the point where the uselessness of their work becomes apparent, ordain their own elimination. Second, there must be a definitive attribution of power and accountability along the entire hierarchical chain; that is, the role and responsibility of the executive must be emphasized. And finally, the reward system must take account of the effects of increased efficiency in the various stages of production both on unit costs and on the quality of the final product; that is, the system must consider not only the unit cost to the administration but also the impact on the "assembly" and transaction costs to private-sector users. In production of goods and services by the private sector, these are standard evaluations internal to firms, because they are guided by the values resulting from the system of prices fixed by the market in the final product.

Finally, since an improvement in one of the goods and services produced in some public office or agency may influence the technology that can be used – technical progress and the possible increase in productivity – in other parts of the administration, these positive or negative externalities, where measurable, must also be a significant element in evaluating the performance of the individual components of the administration.

These unsystematic observations on the problems of designing a system for the evaluation of the results of government administration

suggest not only the complexity but also the considerable scope of the action required, which involves the entire hierarchical scale, with specific responsibilities right up to the top, at the political level.

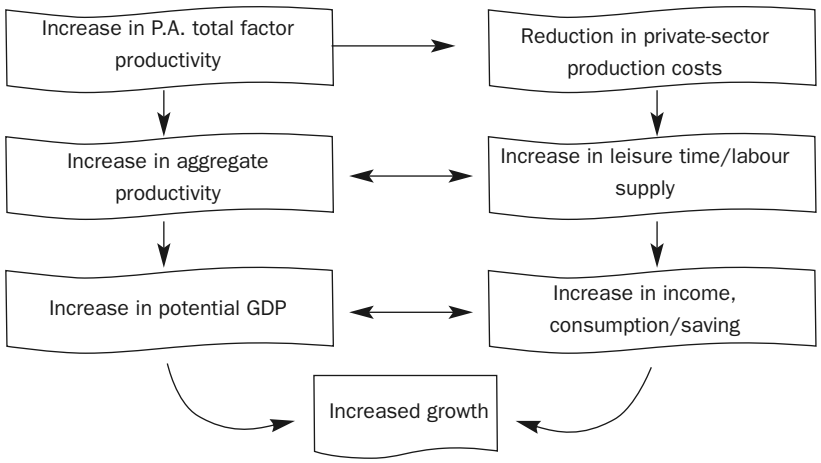
The true implementation of the reform, with rigorous attention to the conceptual basis of the methodologies used, thus requires unflagging attention to the significance of the ultimate objectives. And setting these objectives is necessarily the responsibility of the political leadership. Indeed, as we have seen, evaluation implies bringing out the problems of coordination between different administrations and departments, whose collaboration is often essential to the efficient production of the final good or service, to its efficacy, and lastly to the expected final benefit. Just think of the final good of "security", which is a complex product, the work of many administrations, agencies and units, whose supply depends not only on correct policy choices but also, frequently, on their implementation and on the managerial efficiency of the departments involved. The management capacity of each administration determines the cost, the quality and the effectiveness of its particular service, but the efficiency of the individual department often enough depends on the impact of the efficiency of others – what is known in economics as strategic complementarity, generated by the externalities mentioned above. This is why application of the reform's principles starting from the individual basic production units and moving up along the hierarchical scale can found the principle of accountability also for political leaders and the government.

4. Identifying the channels of impact on the economy

What are the channels through which an increment in public sector productivity is transmitted to the economy as a whole? Let us take the simple example used in the previous section to look at the process from the standpoint of interaction with the private sector. If we assume that the factors utilized are constant, an increase in total factor productivity with unchanging remuneration, or even with an increase in remuneration necessitated by the reward system, implies a reduction in costs per unit of output and an increase in output. Taken

together, these possible increases in public sector output have a measurable direct impact on GDP growth.

FIGURE 1. Channels for transmission of public-sector productivity gains to the entire economy



There can also be an increase in government demand for inputs supplied by the private sector, because of a change in production technology (say, the digitization of the administration), together with a change in the composition of that demand. This demand effect is possible even without a rise in overall spending, or in any event with a rise that is less than proportional to that in GDP, thanks to increased labour productivity.[4] The reduction in the cost of producing the public administration's goods and services should be measured, as we have

[4] Of course in the absence of a proportional increase in the demand for the product, it is possible for the productivity gain to translate into declining demand for inputs; even so, there would still be the effect of the redistribution of input-output coefficients, labour input above all. So on the one hand the public administration's demand vector for intermediate and final products of the private sector changes, while on the other there may be an increase in the supply of labour in the private sector or in other segments of the government sector, thanks to the savings in man/hours, with positive effects on potential output.

said, also in terms of the decreased cost of "assembly" (i.e. the direct and opportunity costs to citizens, firms and other government bodies of actually appropriating these goods and services, making them useful). This would result in an increase in private disposable income, generating an increase in the demand for other goods, especially considering that the substitution effect of lower-cost access to the public good is low – that is, assuming that the reduction in its cost does not produce an increase in demand, which is plausible for a very substantial portion of bureaucratic output. This demand effect, which is potentially quite large, comes on top of the effect of a containment of the cost of producing government goods and services, which would make possible a lowering of the taxes levied to defray that cost.

Now while this latter effect is considered in all macroeconomic models, the indirect effect stemming from the private costs of production of public goods is generally underestimated. These costs are not considered as part of public spending, and increasing or decreasing them has no effect on the desired level of taxation or on the public finance balances. Actually, the effect of a reduction in the private cost of the production of public goods is not negligible, because such a reduction has both demand[5] and supply effects.[6] The supply effect is represented by the productive use of the time and money that households and firms save. The reduction in these costs can also be interpreted, when they are sustained by private firms, public firms or public agencies, as an increase in productivity, i.e. less use of resources for a given level of output, which thus extends to the private sector.

A further supply effect operates through the governmental goods and services that are used as inputs in the private sector's production function, generating both pecuniary externalities (when the result is

[5] The demand effect emerges when households use the consequent income saving to purchase other goods, resulting in a reallocation of household demand towards private-sector goods and services.

[6] The supply effect emerges when the costs of acquiring the public good or service ("assembly" cost) take the form of an opportunity cost, i.e. of time, so that a reduction means more leisure time and an increase in the labour supply.

cheaper services) and technological externalities (when higher-quality technology affects the production and utility functions of the private sector). This is the case, for instance, with improvements in the quality of the goods and services produced by government, when quality is measured by production and delivery time, or when a change in production technology – such as digitization and ICT-based "delivery" systems – affects the utility of information and communications technologies for households and firms and thereby results in large-scale increases in their use, boosting productivity in the economy as a whole.

5. The logic and practice of administrative reform

The discussion to this point permits better understanding of the various dimensions of the overall reform design, the complex convergence of the different actions at different levels and different instruments on a single general objective, the potential impact of these reform actions on the Italian economy and, finally, the linkage with other necessary institutional reforms.

The immediate objectives of the reform are improving the organization of work, progressively raising the quality of government services to the public, and boosting both labour and total factor productivity in all sectors of the public administration. The means for attaining these goals is the practical recognition of the merits and demerits of executives in the public sector and of all government employees. In other words, what is needed is a system of incentives and evaluation of performance, which in the public sector takes the place of the market mechanisms that determine resource allocation and spur productivity gains in the private sector.

An essential part of any system of evaluation, monitoring and rewards must be the broadest possible rules for transparency and integrity. As noted, what is needed is not just to extend the concept of performance beyond the definition of efficiency and effectiveness to include the overall values of good government but to bring citizens themselves into the process of evaluation and preference formation

for the correct allocation of resources. This prospective administrative revolution is thus the basis for a great liberal and democratic revolution to develop and extend the notion of accountability not only at the administrative but also at the political level, which has *pro tempore* responsibility. The relationship between state and people has to be turned on its head in order for citizens to assert their individual interests against an administration that must find in serving those interests the foundation of the general interest that it represents.

At the same time the reform is designed to enhance the ability of the Italian economy to get in step with the world economic upturn and in particular with the changing composition of world demand and supply, which was already under way before the crisis, indeed was one of its causes, and which will be accelerated by the crisis.

Before proceeding with the discussion of the general objectives of the reform, let us recall the principles and main characteristics. It designs the incentive system[7] and the evaluation system that determines the award of incentives. First of all, that is, it regulates the performance cycle: the setting of objectives, measurement and assessment of their attainment, reporting on results for purposes of internal and external control. The legislative decree also designates the persons responsible for evaluation. The incentive system is bound strictly to production results both for individuals and organizational units, to innovative capability, and to excellence.

The main feature of the system is competition, both between individuals and between production units. The executive's own job evaluation depends on the results of his unit. This necessarily implies the full autonomy and accountability of the executive for handling human resources and procuring the expertise needed for his unit to perform its institutional tasks and attain its objectives. The effective implementation of this principle is itself a revolution in the public sector, as is the principle of the executive's accountability for failure

[7] The instruments for rewarding merit, accountability of executives and limits to the power of collective bargaining to alter the set of incentives established by law.

to oversee the real productivity of the human resources assigned and the efficiency of the unit for which he is responsible. Accountability is linked with the administrator's power to evaluate subordinates according to indicators of efficiency and effectiveness ratified by an independent agency and by the subordinates themselves and to grant bonuses on the basis of such indicators as well as with a ban on granting merit pay in the absence of verification of the relevant results.

Executives are essentially subject to the same principles of evaluation and reward, again driven by competition. In other words, the entire system is based on the idea of competitive selection of the best, who are rewarded in economic and non-economic terms. The key aim of the revision of collective bargaining is to make it compatible with the new system of incentives, hence with limits on the power of collective bargaining agreements to distort or sterilize administrators' powers in the area of management and mobility of human resources, direction and organization of work, determination of the skills required for the unit's tasks, and disciplinary powers.

The reform, then, institutes an organic design to introduce into the public administration the instruments for increasing efficiency and productivity and for taking account of most of the problems of correct evaluation of performance and of the implications of real pursuit of efficiency, as described earlier. As we have observed, the reform stops where administrative accountability gives way to political accountability – which is founded, in practice, on upholding administrative accountability.

Naturally the availability of normative and other instruments is a necessary but not a sufficient condition to pursue these objectives. Like all instruments, they require the ability to use them and adequate powers, an adjustment of production processes, and fine-tuning after a trial period.

It is important that the reform's application by all those responsible not proceed according to formal, bureaucratic logic but instead realize its full innovative scope, deepening the conceptual premises of its principles so that the competitive system of incentives can work as

intended. In the foregoing we have recalled the many ways in which the effects of better public-sector productivity and efficiency are transmitted to the economy as a whole and the welfare of the society; all the more so if the gain is achieved not only in the provision of administrative and bureaucratic services but also in the sectors of government that produce such essential services as justice, defence, law enforcement, health care, education and research. In other words, we have underscored that the overarching purpose of the reform is to foster the nation's economic growth and social advance. This is the yardstick by which the reform should be gauged; it is in the light of this objective that we must interpret the principle of competition that it intends to institute within the public administration.

In the private sector, of course, competition produces winners and losers. Schumpeter wrote of "creative destruction" and saw the process of innovation as the engine of economic growth. Essentially, this is the selection function of the market. Recently Edmund Phelps defined the morality of the marketplace as its being the place for the selection of *homo innovaticus* as opposed to, or in addition to, *homo oeconomicus*.[8] Phelps sees the competitive market as the place where the individual's liberty and innovative drive are expressed, even more than as the locus of individual and collective enrichment. To foster this spirit in government is no easy task, but it is the greatest gift one can give to public employees. And just as law, independent authorities and sanctions are needed to safeguard competition in the marketplace, so binding rules, backed by sanctions, are needed in the public administration.

While it could be argued that the introduction of competition is more important even than the results themselves, the magnitude of the potential results is indicated by two examples. The first is public procurement. The principle of competition, of competitive bids submitted by private contractors, is fundamental for two reasons: the

[8] Edmund Phelps, "Economic Justice and the Spirit of Innovation", *First Things,* October 2009.

public benefit of getting the best product at a competitive price and the private-sector benefit stemming from the reward to the drive for innovation and efficiency of the best firms in the competition. However, the mechanism needs to be backed by more than just the traditional instruments of transparency, anti-corruption checks and sophisticated models for designing the tender process. These can ensure competition on the private-sector side, but there is no mechanism spurring the other contracting party, the public administration, to devise more effective ways to apply the models and design new ones. What is needed is the introduction of competitive rewards in government for the correct application of innovative procurement models, reward mechanisms based on the objective, comparative evaluation of performance and results, to trigger a virtuous mechanism. Government action in this sphere would no longer be based only on procedural correctness.

The second example is the digital revolution. The massive introduction of information and communications technology is a potent driving force for efficiency and productivity, a drastic reduction in transaction costs, beginning with what I have termed the "assembly" costs for government services, which are borne by the private sector. It is an established fact that if it is to translate into true process and product innovation, digitization requires a general effort of reorganization and comprehension of the new opportunities, so as to avoid simply applying new technology to reproduce the same old procedures and services. In a word, it requires the rise, within the administrative bodies, of a desire for innovation that focuses on the final results of action. Logically, this desire is prior to the ability to translate it into reality, to produce true innovation. This is the point of convergence, strict complementarity, between administrative reform and the programme of innovation based on the digital revolution.

The reform must make executives and functionaries accountable for the results they obtain through competitive rewards, and the digital revolution can move the right way insofar as administrators themselves see it as the necessary means for achieving those results in service production, not only in quantitative but especially in qualitative

terms. Comparative evaluation of the services provided, when combined with checks for "customer satisfaction", is the trigger that makes technological innovation desirable, mimicking market mechanisms.

6. The quantitative impact on economic growth

Recapitulating, the reform and modernization programme aims to increase public-sector efficiency and productivity in order to relaunch overall economic growth. Public employees produce services in various sectors that form part of household final consumption or serve as intermediate inputs for other sectors. Higher average productivity accordingly has the direct effect of increasing the sector's value added for equal inputs and diminishing unit production costs for the services provided. The lowering of unit costs affects both public spending, which can be reduced while holding service provision constant, and also, especially if combined with greater efficiency of the services, household spending and the unit costs of other productive sectors. So the channels transmitting better government productivity and efficiency to economic growth are multiple. Greater supply of services at the same or lower cost to the public budget will allow a shift in the composition of public spending, increasing the portion allocated to transfer payments for households or public investment, or else a reduction in taxes.

Households get a savings: lower direct outlay per unit of service received, where part of the cost is covered out of sales prices or user tariffs, or else a reduction in the cost of accessing the service (time or opportunity cost, transport and communication costs, etc.). Firms too can benefit from substantial savings in the form of lower costs of bureaucracy.

Finally, we must consider the impact that an improvement in the quality of the services supplied by the public sector has on economy-wide total factor productivity. That is, innovation in major parts of the public administration can create substantial positive externalities for the private sector.

The total impact on economic growth, then, consists of both a supply effect and a demand effect. On the supply side there is the direct effect on aggregate value added, via higher productivity in a sector that accounts for 15 per cent of total employment. There is also a direct effect on price competitiveness in the market sector, insofar as the costs for public administration are reduced and private-sector productivity is increased thanks to more effective public services as intermediate inputs (just think of the cost of inefficient civil justice).

On the demand side there is an effect from the increase in households' disposable income, thanks to the direct savings just mentioned and also to the cost saving to government, which may allow lower taxes and thus greater private spending.

The question is what macroeconomic impact these effects can have. Making a quantitative estimate is complicated, given the complexity of the interactions. To treat these complications, in some simulations conducted at the Ministry for the Public Administration and Innovation we elected to model the impact of the reform as an increase in the multifactor productivity of the public sector. In other words, we simulated the impact of a shock consisting in a rise in the multifactor productivity of the public sector on aggregate total factor productivity of the entire economy, and through this on economic activity.

We used an econometric model in which potential output is determined on the supply side.[9] The output equation – a production function in intensive form in which output is proxied by real value added at base prices – includes aggregate multifactor productivity, which in the model is endogenous, as an explanatory variable. The short-run elasticity of output with respect to aggregate multifactor productivity is 0.5, while the long-run equilibrium elasticity is set at 1 by definition, with quite a slow rate of convergence (0.126) on that equilibrium rate. In the model the multifactor productivity of the non-

[9] The simulations used a medium-sized model of the Italian economy designated "Merman" (Medium Run Macroeconomic Analysis). See Ernesto Felli and Massimo Gerli, "Productivity Shocks and Macroeconomic Performance: A Simulation Exercise in Structural Econometrics", CREI Working Papers, 2002.

market sector is an exogenous instrument; it affects aggregate multifactor productivity with a coefficient estimated at 0.24. The function that determines multifactor productivity in the market sector includes other factors exogenous to the model, such as labour market rules, human capital, ICT capital, and basic infrastructures. All these factors were held constant in order to estimate the economic effect of an increase in public-sector multifactor productivity.

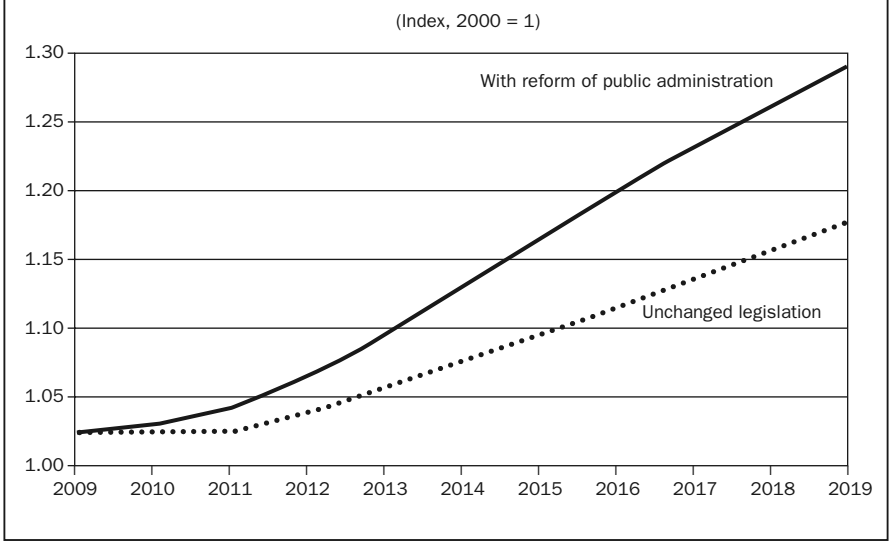
Obviously, quantifying the shock produced by the change in public-sector multifactor productivity – which in our exercise is used as a proxy for efficiency – is problematic. But the aim of the exercise is to estimate the economic impact of an increase in government efficiency. In order not to constrain the qualitative scope of the experiment and at the same time to test sensitivity to the magnitude of the shock, two scenarios were simulated, differing only in the size of the increase in public-sector multifactor productivity posited. In one the public multifactor productivity shock is a cumulative 10 per cent over five years (2010-2014), in the other about twice that.

Let us summarize the results.

On the hypothesis of a shock to public-sector multifactor productivity increasing it by at least 10 and at most 20 per cent over five years, the effect on potential GDP would be significant and durable. In the first five years (the duration of the shock itself), the average annual growth rate would be about 1 percentage point (and not less than half a point) higher than in the benchmark scenario of unchanged legislation. The gap would then close very slowly (over another ten years), independently of the magnitude of the shock. Obviously the level of output would be permanently higher than in the no-shock benchmark (see *Figure 2*).

The effects on aggregate demand, especially investment and export demand (and to a lesser but still not negligible extent consumption) would be smaller and less lasting – owing to the hyper-reactivity of imports to domestic output growth – but still significant. In the first five years the average annual growth differential would be between 0.4 and 0.6 percentage points; the gap would close quickly (two years).

FIGURE 2. Italian potential output, 2009-2019
(real value added, base prices)



In other words, over five years the cumulative growth differential between the benchmark scenario and that with an increment of 10 to 20 per cent in public-sector multifactor productivity would range from 3 to 5 percentage points for potential output and from 2 to 3.5 points for aggregate demand. The gap between the expected increases in potential output and in aggregate demand, which determines actual GDP, depends on the cyclical phase. The latter effect corresponds to expectations, because the shock postulated acts essentially on the supply side. The positive impact on aggregate investment is one of the causes of the multiplier effect on growth of the estimated increments in productivity.

Greater growth would naturally reduce the ratio of public deficit and debt to GDP, even assuming invariance of nominal public spending with respect to the current-legislation scenario. This assumption is tantamount to hypothesizing that the entire productivity gain translates into an increase in public services, hence output, and not a reduction in their total cost, i.e. nominal expenditure for their production. The intention was to isolate the "supply" effect of

administrative reform on economic growth. Distributing the productivity gains as increased "profits" for government, corresponding to lower costs for public services, and their possible allocation to public investment would form part of an array of additional policy options.

Considering, lastly, that the potential scope for productivity increases in the public sector is actually greater than hypothesized in the simulation exercise, it follows that the reform of the public administration broadly defined, i.e. covering the entire public sector including health and education, could be expected to virtually eliminate the growth gap between Italy and the euro-area average, which has come to around 0.8 percentage points a year over the last decade.

As always, it must be stressed that the *quantitative* results must be treated cautiously, as they are subject to a series of caveats relating to the very nature of the experiment, bearing on the conditions hypothesized, the design of the scenarios, and of course the model itself. Nevertheless, the way the shocks and the transmission and propagation mechanisms are modeled reflects the *qualitative* effects to be expected from the type of reform postulated here.

7. Conclusion

Reforms, like revolutions, have a starting date but they take place over time, and it is only with time that the outcome, not always predictable, can be grasped. They succeed if they express ideas, necessities, widespread desires and intentions that may not be new but that arise more forcefully, and simultaneously, at a given point in history. What until that moment – especially after countless defeats and failures – had seemed utopian, impossible, now seems not just possible but necessary, inevitable. The ability to seize the historic moment, to see that the date of the reform law, or of a revolution, is only the start of a complex process involving a multiplicity of actors, is what distinguishes reformers, or revolutionaries.

The present historical moment is characterized by the drastic changes worked by globalization; the transformation in the economic,

political and social geography of the planet; the world economic crisis, which is a sort of after-shock to that transformation; the Internet revolution, with its consequences of economic and, even more, social innovation; and the emergence in Italy of a new generation consisting more significantly of "citizens of the world", a generation more interlinked internally and above all externally and at the same time tired of trudging through the quicksand of a stagnant economy that is hardly able to regain the dynamism needed to create new opportunities for everyone.

Yet this is also the historical moment in which the state, hence the public administration that is its operational arm, has rediscovered its central role in the economy and in society. Where the trend of globalization and transnational innovation once seemed to necessitate transcending the state, it has now become clear that the state – the public administration – has a crucial role to play in these processes, but no longer as a conservative factor, a brake, but as a spur. This is the new factor, the factor that was lacking in the series of efforts at administrative reform over the decades. Hence, the stakes are higher.

This article describes the systemic meaning of the reform of the public administration, which consists of countless elements, all necessary, and still more that may be added in the course of implementation, because each lends meaning to the others. To describe the reform of the bureaucracy as the means to obtain more democracy and more economic growth is not just rhetoric; it is the way to commence application by indicating the results aimed at, the performance by which implementation will be gauged. It is the way to begin the conceptual transition from the culture of mere formal compliance to that of substantial results.

This is the only way – traveling along what we have called the value chain in the production of public goods and services – that we can confer meaning on concepts like productivity and efficiency when results are not gauged by prices formed in competitive markets. We have also suggested the multiple channels through which the public administration as a productive sector affects the overall economy and why it is perhaps now the key to closing the growth gap between Italy

and the rest of Europe. The quantitative exercise we have conducted is significant not only and not even primarily for the results obtained – which are naturally open to criticism and to improvement – but for a methodology that points the way to measurement of the effects of reform policies, including the macroeconomic impact on growth.

Appendix

Reforming the public administration
to make Italy grow

TABLE 1A. Standard Labour units of public administration as a percentage of SLU entire economy

Year	SLU pa (thousands)	SLUs (thousands)	SLUpa/SLUs %
1980	3,104	15,408	20.15%
1981	3,182	15,299	20.80%
1982	3,218	15,337	20.98%
1983	3,251	15,225	21.36%
1984	3,302	15,216	21.70%
1985	3,359	15,443	21.75%
1986	3,404	15,544	21.90%
1987	3,472	15,630	22.21%
1988	3,528	15,850	22.26%
1989	3,554	15,998	22.22%
1990	3,575	16,219	22.04%
1991	3,601	16,320	22.07%
1992	3,605	16,175	22.29%
1993	3,578	15,776	22.68%
1994	3,563	15,605	22.83%
1995	3,547	15,549	22.81%
1996	3,530	15,576	22.66%
1997	3,504	15,690	22.33%
1998	3,481	15,833	21.98%
1999	3,484	15,978	21.81%
2000	3,525	16,279	21.65%
2001	3,569	16,654	21.43%
2002	3,595	16,958	21.20%
2003	3,619	16,992	21.29%
2004	3,615	17,043	21.21%
2005	3,631	17,307	20.98%
2006	3,636	17,633	20.62%
2007	3,618	17,899	20.21%
2008	3,611	17,981	20.08%

SLUs Standard labour units, salaried, entire economy
SLUpa Standard labour units, public administration employees

FIGURE 1A. SLU of public administration as a percentage of SLU entire economy

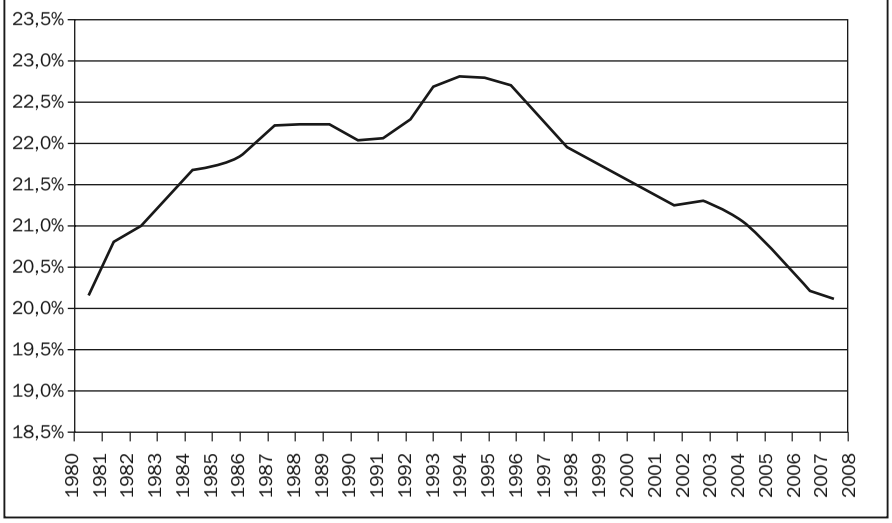
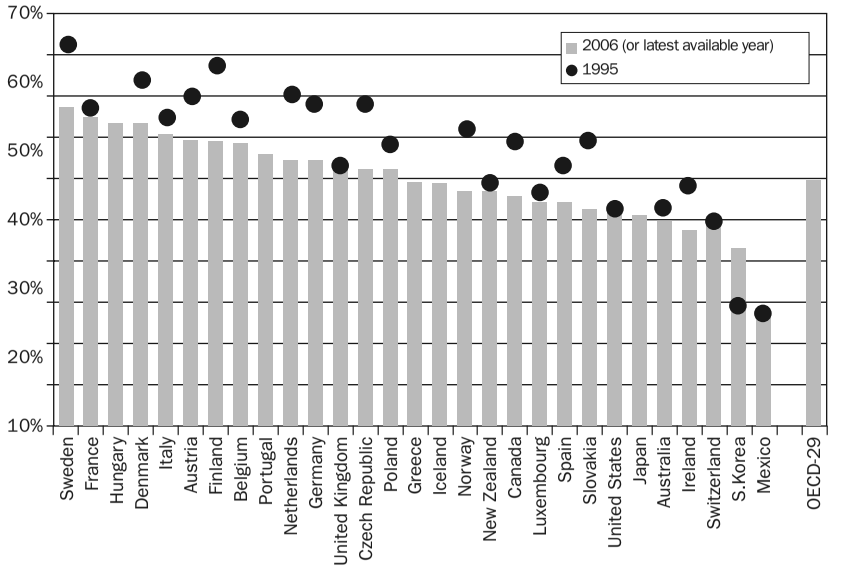
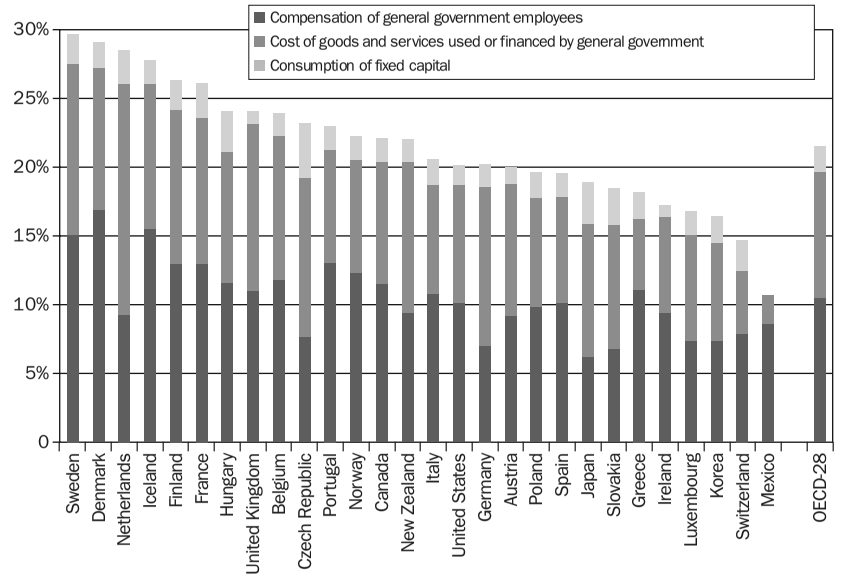


FIGURE 2A. Public expenditure as percentage of GDP, 1995 and 2006



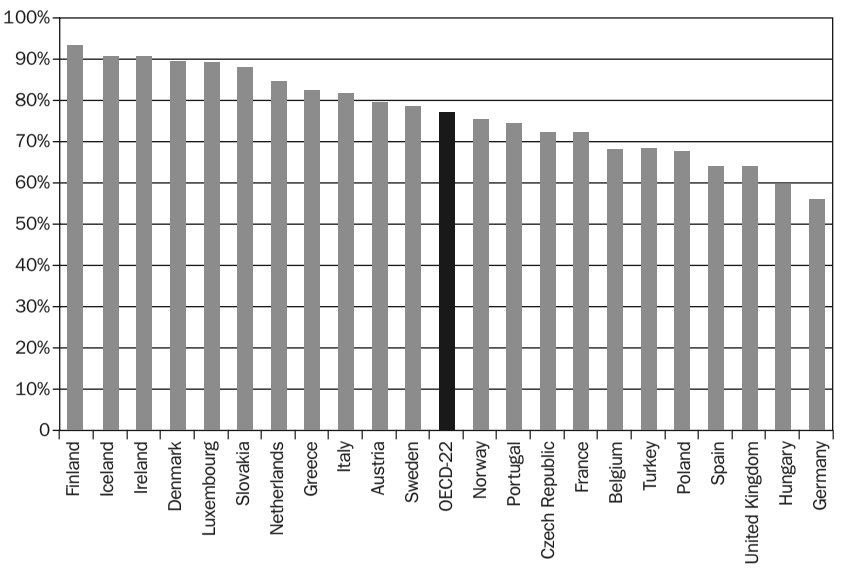
Source: : OECD, Government at a Glance, 2009

FIGURE 3A. Public production costs as percentage of GDP, 2007



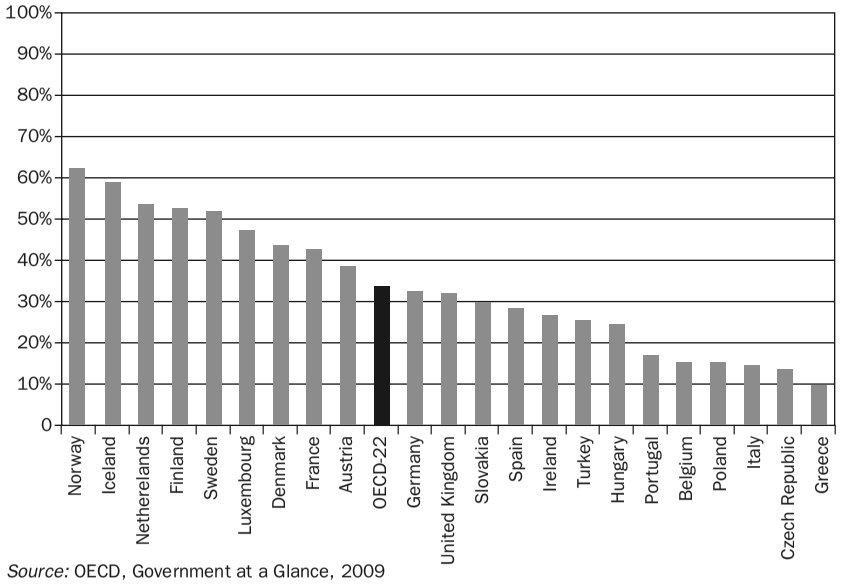
Source: OECD, Government at a Glance, 2009

FIGURE 4A. Percentage of firms using e-government services, 2008



Source: OECD, Government at a Glance, 2009

FIGURE 5A. Percentage of citizen using e-government services (2008)



Source: OECD, Government at a Glance, 2009