Part I

Uncertain Future Events and Reactions to Them
Taxation, regulations, and public spending have traditionally been the main instruments available to governments to promote collective and/or national goals. And governments have been the main institutions through which the citizens of countries can pursue, or hope to pursue, collective, national goals. Of course, it is not easy to determine precisely what the collective needs, or the national goals, are at any given time in any given country, nor how much taxation is necessary to finance their provision and to promote those objectives. Some governments are clearly better than others at delivering those goals and some goods extend beyond the frontiers of single countries.

The collective needs or the objectives change over time, because of technological and social developments, and so does the capacity of governments to collect taxes and to regulate efficiently. Therefore, the broad governmental role must change and governments may or may not be able to satisfy citizens’ needs.

For democratic countries with market economies, the usual assumption has been that collective needs can be determined democratically, and that their determination will suggest the desirable tax levels and the needed regulatory policies. The democratic process can also determine how the tax and regulatory budget should be allocated among citizens, and how the money, collected through taxes, or occasionally through loans, ought to be spent. When this is done optimally, it can be claimed, as Cicero did two millennia ago, that “we [will be] the servants of the laws in order to be free.”

Naturally, there will always be some individuals, or some groups, that will think that the tax level, or the public debt level, whatever they are, are too high; and others who will think that they are too low, and not sufficient to pay for collective needs. Others are likely to think that the tax burden is not allocated fairly among the country’s citizens. Still others will think that the money collected is not being spent efficiently,
or equitably. The same is true with the regulatory budget, which is criticized by some as being excessive, costly, and too limiting of personal freedom, and by others as not regulating enough. These debates make democracies exciting and, at times, difficult places to live in and easy to criticize. They also make some individuals think nostalgically of times and places where decisions were, or are, made less democratically and more quickly by controlling parties and authoritarian governments. Furthermore, in the normal framework that has characterized public finance decisions, the assumption has remained that the public goods are national and dealing with them requires national policies and not multinational or global collaboration and policies.

Over the last century, views about taxation changed significantly, and, more broadly, so did those about the desirable economic role that the public sector should play in the economy. Broadly speaking, and recognizing the strong opposition that has continued to come from libertarian or conservative groups, the desirable government role was extended over past decades. It came to include, especially:

(a) the need to *redistribute* some income and some wealth, from richer to poorer, deserving citizens, when the distribution generated by the market is not considered fair and has become too unequal (however, it has always been recognized that in market economies there are likely to be efficiency limits to redistributive policies; and the redistributive policies have remained national);

(b) attempts by governments to promote, with their policies, full, or fuller, employment of labor and capital, especially during recessions; and

(c) the promotion of a better allocation of resources to deal with national public goods and with various market failures that exist in most market economies.

The desirable tax level and the use of the tax revenue have normally been considered, by tax experts and by governments, to be those required by countries during *normal* times, and not during times of crisis. Occasionally, especially during wars, or in anticipation of wars, some additional revenue and some new regulations (rationing or price controls) were seen to be needed, and tax levels and some tax rates, as well as some new regulations, were temporarily pushed up or introduced.

In normal, peaceful times, the tax level and tax structure have been assumed to be those consistent with and sufficient to satisfy the normal requirements of citizens and enterprises in efficient markets in a
democratic political system. This system is usually one that directs
government policies toward the support of the voting citizens, and
toward the political objective of remaining in power, by winning the
next elections. Taxes, therefore, are expected to be efficient in their long-run impact, and sufficient to satisfy the routine and immediate needs of citizens; and so are regulations. These have been the basic, broad, and guiding principles in public finance in recent times (Tanzi 2020a).

In normal times and economic situations, governments are expected to keep tax levels as low as possible, and tax structures as efficient as possible, and to focus public spending and regulations on meeting the immediate needs of citizens and the economy. Also, when fiscal rules are created to guide and constrain the government’s actions, the rules are expected to operate during normal times, as, for example, with the Growth and Stability Pact of the European Monetary Union. That Pact set the maximum fiscal deficit of the member countries at 3 percent of GDP, and the desired public debt at 60 percent. Member countries were expected to aim for and live by those rules.

Fiscal rules and “fiscal councils,” created to monitor and enforce fiscal rules within countries, became popular institutions, especially since the 1980s, both with economists and with some governments. Several governments, as well as the European Monetary Union, adopted the rules, and some countries adopted the councils (Kopits 2004). US “states” had introduced the balanced budget rule many years ago, mostly in the nineteenth century, and the US had occasionally debated the possibility or desirability of introducing a balanced budget rule for federal government.

However, exceptional events, such as wars or the Covid-19 pandemic, can make rules set in the past for normal times, which had seemed realistic when set, totally unrealistic. This presents governments with a dilemma: whether to stick to the agreed rules or do what many citizens would expect governments to do during times of exceptional circumstances – that is, to help them to deal with those circumstances. Pandemics and climate change also raise questions about global needs that cannot be efficiently pursued by independent national actions.

The problem is that the expected behavior of the government, as that behavior was established by public finance theory (see, e.g., Musgrave’s influential 1959 book), and the fiscal rules that had become popular, especially since the 1980s, ignored the possibility of uncertain or unexpected future developments and needs, such as pandemics and major
natural disasters. These might require different government behavior, at least during emergencies. The fiscal rules had not taken into consideration these unforeseen and uncertain events when they were created for the expected determination of government behavior. They had also ignored extranational dimensions.

Uncertain developments had attracted little, if any, attention, from either experts or governments, because they were difficult to anticipate and to prepare for. Therefore, when a major, unexpected event happens, the guiding theory, or the fiscal rules, fail to provide guidance on what the government’s policy should be. The recent confusion on the role of governments in the ongoing pandemic is an indication of this lack of guidance from the theory. There is clearly a case of what might be considered a theoretical failure in how to deal with such events, even when they might have happened before and thus should not have been considered totally unexpected. As we shall report in the second part of this book, pandemics and epidemics have happened at various times in the past, as have other major natural disasters, in addition to wars.

Generally, uncertain, future events, until they become a reality, have not influenced the current tax and public spending levels of governments, and have had little influence on the regulatory budget. Until these events materialize, and thus cease to be uncertain, they have had no impact on government decisions, nor on those of private agents.

A democratic government that spent a significant amount of money, or imposed stricter regulations, to prepare for what are still considered distant and uncertain needs, events that might never materialize, or might not materialize for a long time, most likely would pay a political price in popular support, and in the support of voters, in democratic countries with market economies where that support is important. Governments would likely be criticized for wasting money during good, or normal, times.

In markets that are assumed to be competitive, private enterprises will focus on surviving and on making profits for their shareholders. They will minimize the current use of labor and capital inputs in their economic operations. They will keep inventories low to contain costs. Enterprises that allocated significant current resources to deal with future and still uncertain events would risk becoming less competitive in the short run.

An exception might be pharmaceutical companies that search for new drugs, and that expect to benefit from the time-limited monopoly power
that they would enjoy from the sales of these new drugs, if they were successful in their research. These companies rely on "venture capital," which is provided by rich investors who take into account the high probability of failure by single enterprises, but balance that failure against potentially large gains by successful ones (Tanzi 2018a, 2020b).

In conclusion, neither governments nor most private enterprises are likely to give much thought or to pay much attention to potential, future events, events that are still uncertain, such as future epidemics, pandemics, and major natural disasters. When, or if, these events become a reality, there will have been little preparation for them, alongside confusion and a lack of clear guidance on what to do, as the current pandemic has shown. Different countries have gone different ways. Governments will be asked to intervene, but they will immediately face the obstacle of the existing fiscal rules, which might constrain some of them, as has been the case for local governments in the USA during the Covid-19 pandemic.

The theories of taxation and market behavior by enterprises – theories that were developed over many decades – were developed for normal situations and not for periods of uncertain, future crises. They were based initially on the Darwinian concept of evolution, which implied slow changes over long periods of time. They were also influenced by the nineteenth-century strong faith in progress, promoted in part by the Industrial Revolution that would prove to be the most radical of all revolutions.

The theories that were developed focused on the achievement of equilibrium and optimality, as Paul Samuelson had shown in his classic 1947 book. As Bernstein (1996, p. 216) put it: “the classical economists [especially during the nineteenth century] had defined economics as a riskless system that always produced optimal results,” not one for unusual conditions. Over the years, many economists kept finding exceptions to that assumed, riskless system in the real world, but the essence of the system did not change in any fundamental way.

It should be stressed that the equilibrium theorized by laissez-faire and by classical and neoclassical economists was always that of the long run. They would have been blind not to observe that, in the short run, some market failures could and did exist, at least in some parts of the market. However, they believed that, over time, the forces of competition would prevail and bring the market back toward equilibrium and efficiency. For them, equilibrium, like evolution, was a dynamic process.
That view has been central to the disagreements between Chicago School economists, who have emphasized the long run, and Keynesian economists, who have focused more on the short run, and especially on the role of business cycles.

Keynesian economists saw disequilibria, due to business cycles, as common development, rather than as exceptions. They saw them as an essential part of a capitalist economy (Rohatinski 2017, pp. 100–101; Vicarelli 1984). The problem is that as unexpected, random crises or events become more likely, the longer the time period considered becomes. An event that is not likely to happen in one year may become much more likely to happen in ten, or even more so in a hundred years. The long run is more likely than the short run to experience what at one moment in time may be considered unlikely, random events.

As we shall report in this book, countries are not free from events and occurrences that at times challenge citizens’ lives, destroy their properties, and affect normal operations. These events call for special, or exceptional, reactions by communities and governments, and not just by single, uncoordinated, individual reactions. Over the past century or so governments have often been called to intervene and “to do something” in situations when “everything seems to fail” (Moss 2002).

As the ability of governments to raise taxes, improve their administrative capabilities, regulate markets, and spend public money improved, so did the citizens’ demands on them to do more (Tanzi 2018b). However, these demands were mostly related to what governments were expected to do to deal with recognizable risks, risks faced by many citizens, such as invalidity, illness, old age, and unemployment. Governments’ policies were progressively created or modified to deal with some of these risks. In some countries, governments were more ambitious and more efficient than others in dealing with them. However, governments generally continued to ignore needs that might be created by uncertain events, such as the coming of future pandemics or climate change.

The roles that governments have played in dealing with recognizable risks faced by citizens have been described, analyzed, and criticized in many books. We shall ignore those roles in this book. However, discussions of the actual or potential role of governments to deal with exceptional situations, situations that did occasionally arise in the past and that can be expected to keep arising in the future, have remained almost nonexistent. This is a potential, desirable government role that has been largely ignored by economists and by political scientists, except for
discussions, especially since the 1980s, about “global warming” and some other environmental issues.

Since the 1980s, environmental issues have been receiving increasing attention on the part of some economists and others, but still relatively limited action by governments, and there is little agreement among either economists or governments on what should be done. Some economists and some governments, such as the Trump administration and that of Brazil, have continued to ignore these problems and to believe and have faith in the free market and in spontaneous innovations to deal with some of these environmental issues. They would prefer that the government stayed out of these issues. Other governments, such as the Biden Administration, which came into office in January 2021, believe that the government should intervene and play some or major roles in dealing with some of these problems.

The aim of this book is mainly to call attention to the very limited role that governments have played in the past in dealing with exceptional situations, situations that may have involved pandemics and other major disasters. Some of these disasters may have been limited, in space and time, in their impact. They have been strictly national in impact. Others may have had a wider geographic range. The latter include some pandemics, including those brought about in 1918–20 by the “Spanish flu” and in 2020–21 by Covid-19. Climate change is clearly an event with very wide geographic range.

At the time of this writing (second half of 2020, early part of 2021), nobody knows how long the current pandemic will be with us, and what final impact it will have on economies and on social arrangements. Except for the example of smallpox, the viruses brought by past pandemics were never totally eradicated. They became endemic if somewhat controlled by medical progress. It is likely that Covid-19 will also become endemic, but better controlled.

In 2020, GDPs fell by as much as 10 percent in some countries and millions of workers lost their jobs. It was the greatest annual fall for economies since the Great Depression. In late 2020 and early 2021 the pandemic is still with us and has been getting worse in several countries. Governments have seemed, and continue to seem, confused about what to do: Should they try to sustain and push aggregate demand, as many have argued they should? Or should they mainly assist “essential workers” and those who have been more exposed to the pandemic, many of whom have lost their incomes, risking going hungry with their
families? In particular, the choice between regulating personal behavior and public spending has been subjected to much debate, and to much disagreement, in several countries, especially in the USA.

Major, global pandemics, and problems such as global warming, require collaboration between governments of different countries in order to deal effectively with them. Many natural disasters may still need only national attention, except when they hit very poor countries, as with the earthquake that killed hundreds of thousand people in Haiti in 2010. Some countries may be too poor to deal with these major national disasters without outside help. The rest of the world should feel some obligation to help these countries and play a role in doing so. In other cases, more coordinated international collaboration is needed. Providing vaccines to poor countries during pandemics would be one way of assisting them.

The potential desirable role of national governments in dealing with pandemics and disasters when they come has changed significantly over the long run. Today, many governments would be both more capable and should be more willing to step in during these major crises than they have been in the past. Citizens expect them to do so. However, existing fiscal rules may create political and temporary constraints on some of them, in terms of how much to spend and how much to regulate.

The second part of this book will provide some historic records of major epidemics, pandemics, and natural and other disasters, and of the extent to which governments did play some role in dealing with them. Only the major ones could be mentioned. As one would expect, the government role was very limited in the distant past, for lack of knowledge and administrative and financial resources.

The third part of this book will focus more on the present, and will discuss governments’ reactions to the current pandemic, and especially to the growing problems of climate change, which have presented the world with complex problems and somewhat uncertain future consequences. The hope is to make this book accessible to a broad range of interested readers, and not just to professional economists, and to stimulate some thinking on the issues covered. The book provides a lot of information that many potential readers may not have and that they should find useful. They are likely to find the discussion of global warming particularly disturbing and worrisome and some will disagree with its main conclusions.

Chapter 2 will discuss, in a hopefully approachable style, some theoretical issues that may determine the interest and may influence the
ability of governments to anticipate crises, and determine their capacity to better prepare for them and to intervene when the crises become a reality. The chapter will focus especially on the distinction that exists between crises that can be predicted with some degree of statistical accuracy and those that are not so predictable. It will stress the role that uncertainty plays, especially in democratic countries with market economies. It is not appreciated how the distinction between risk and uncertainty – a distinction that is often not fully understood or appreciated – often guides or restrains the actions of individuals and governments. It can at times become a fundamental distinction that encourages some behavior that could be considered irrational. Behavioral economics should allocate more attention to it.

An important conclusion of the book will be that, perhaps, in today’s economies, there is overinvestment in providing protection against risky events, those for which the risk is statistically measurable, and under-investment in protection against uncertain events, events for which the risk cannot be measured statistically. It is argued that countries should make a greater effort to be better prepared for the coming of events that are uncertain, such as pandemics and some major natural disasters, that are likely in the future but remain uncertain as to the specific time and scope. Governments should not be complacent. Some preparation for those events may reduce their impact when and if they come. There may be events that, while statistically unpredictable, are more likely than others. The former may require and deserve more attention than they have received to date. Climate change is among them.