The territorial impact of COVID-19: Managing the crisis across levels of government

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COVID-19 has governments at all levels operating in a context of radical uncertainty, and faced with difficult trade-offs given the health, economic and social challenges it raises. The regional and local impact of the COVID-19 crisis is highly heterogeneous, with a strong territorial dimension and significant implications for crisis management and policy responses. This paper takes an in-depth look at the health/social, economic, and fiscal impact related to the COVID-19 crisis. It provides good practice examples from all OECD countries and beyond, to help mitigate the territorial effects of the crisis, and offers ten takeaways on managing COVID-19's territorial impact, its implications for multi-level governance, subnational finance and public investment, as well as points for policy-makers to consider as they build more resilient regions.

In the first six months of 2020, COVID-19 has affected almost all countries and eight million people around the world. COVID-19 has governments operating in a context of radical uncertainty, and faced with difficult trade-offs given the health, economic and social challenges it raises. More than half of the world's population has experienced a lockdown with strong containment measures. Beyond the health and human tragedy of the coronavirus, it is now widely recognised that the pandemic triggered the most serious economic crisis in a century. The OECD predicts global economic activity to fall between 6% and 7.6% in 2020, depending on whether a second wave of infections hits before year-end or not.

Subnational governments – regions and municipalities – are responsible for critical aspects of containment measures, health care, social services, economic development and almost 60% of public investment, putting them at the frontline of crisis management. Because such responsibilities are shared among levels of government, coordinated effort is critical.

The regional and local impact of the COVID-19 crisis is highly heterogeneous, with a strong territorial dimension that has important consequences for crisis management and policy responses:

- **Health/social impact**: some regions, particularly the more vulnerable ones, such as deprived urban areas, have seen higher caseloads and mortality rates than others. Vulnerable populations, too, have been more affected.
- **Economic Impact**: regional economic exposure to the crisis is varying based on an area's exposure to global value chains and specialisation in specific sectors like tourism, at least in the initial stages.
- **Fiscal impact**: the crisis is resulting in increased expenditure and reduced revenue for subnational governments, and while its impact on subnational finance is not uniform, it is expected to be long-lasting.

Many national and subnational governments have reacted quickly to address the economic and fiscal consequences of the crisis, and countries are spending significantly more than in 2008-2009. Two-thirds of OECD countries have, for example, adopted measures in support of subnational government finance.

This paper takes an in-depth look at the three dimensions above as they relate to the COVID-19 crisis. It provides good practice examples on policy responses from all OECD countries, and beyond, to help mitigate the impact of the crisis on regions and municipalities. Below are ten early takeaways on managing COVID-19's territorial impact, its implications for multi-level governance, subnational finance and public investment, as well as points for policy-makers to consider as they build more resilient regions.

1. Introduce, activate or reorient existing multi-level coordination bodies that bring together national and subnational government representatives, in order to minimise the risk of a fragmented crisis response.
2. Support cooperation across municipalities and regions to help minimise disjointed responses and competition for resources during a crisis.
3. Consider adopting a "place based" or territorially sensitive approach to exit-strategy implementation and recovery policies.
4. Take the opportunities offered by digitalisation to support crisis management at all levels of government: use the insights offered by digital tools to track and control the spread of the coronavirus, giving equal consideration to data privacy concerns; use digital technologies to help ensure continued service delivery, being sensitive to territorial, economic, and social disparities in access.

5. Foster continuous dialogue between national and subnational governments regarding COVID-19's fiscal impact on subnational budgets using shared evidence and data, taking into account the differentiated impact of the crisis. Help subnational governments reduce the gap between decreasing revenues and increasing expenditures during the COVID-19 crisis to avoid underfunded and unfunded mandates and possible sharp cuts in subnational spending. Special grant schemes could help close these gaps. Promote the participation of subnational governments in national recovery plans.
6. Explore and introduce other temporary or permanent, fiscal tools and measures, including tax arrangements, easier access to external financing (debt), and more flexible, modern and innovative financial management tools for more effective subnational finance management. Focus on reviewing subnational financial management and strengthening expenditure and revenue effectiveness, as a means to contribute to restoring fiscal stability over the medium and long terms.
7. Strengthen national and subnational-level support to vulnerable groups to limit further deterioration in circumstances and to strengthen inclusiveness in the recovery phase, including by simplifying and facilitating access to support programmes, ensuring well-targeted services, introducing adequate and/or innovative fiscal support schemes, and identifying the needs for revising fiscal equalisation policies.
8. Ease administrative burden on core regional and local services and those that help SMEs, the self-employed and vulnerable populations. Public procurement systems should be adapted to provide adequate responses in the case of emergencies, but this should be limited in time.
9. Ensure that all levels of government should ensure that similar SMEs are treated in the same way at and by all levels of government. Subnational governments, very aware of local circumstances, can act as brokers of financial support to SMEs and the self-employed.
10. Use public investment across at all levels of government to support COVID-19 recovery over time: avoid using it as an adjustment variable; minimise fragmentation in the allocation of investment funds targeting COVID-19 responses; ensure allocation criteria are guided by strategic regional priorities; integrate social and climate objectives into recovery plans designed by all levels of government;, and consider introducing a resilience-building criteria for the allocation of public investment funding for all levels of government.

The territorial impact of COVID-19

Introduction

COVID-19 has governments around the world operating in a context of radical uncertainty, and faced with difficult trade-offs given the health, economic and social challenges raised by the crisis. In less than three months at the beginning of 2020, the COVID-19 crisis developed into a global pandemic. Schools and universities were closed in Spring, 2020 for more than one billion students of all ages. By June 2020, the virus spread to almost all countries and affected more than eight million people around the world. More than half of the world's population has experienced a lockdown with strong containment measures – the first time in history that such measures have been applied on such a large scale.

Beyond the health and human tragedy of the coronavirus, it is now widely recognised that the pandemic triggered the most serious economic crisis in a century. All economic sectors are affected by disrupted global supply chains, weaker demand for imported goods and services, a drop in international tourism (OECD, 2020[1]), or a decline in business travel, and most often a combination of these. Measures to contain the virus' spread have hit SMEs and entrepreneurs particularly hard (OECD, 2020[2]). Unemployment levels and the number of aid seekers have increased, sometimes dramatically. Many countries are now "exiting" virus containment measures, and moving to mitigate the impact of the economic crisis. With no treatment, vaccine or cure yet available (as of June 2020), many governments are adopting prudent strategies to limit the risk of second wave.

The latest estimates from the OECD released in June 2020 indicate that global economic activity will fall by 6% in 2020 and OECD unemployment climbed to 9.2% from 5.4% in 2019. This is a scenario without a second wave. In the case of second wave with renewed lockdowns, then the OECD estimates a drop of 7.6%, before climbing back to 2.8% in 2021 (OECD, 2020[3]).

Given the unprecedented scale and multi-faceted nature of the COVID-19 crisis, comparisons with previous ones, including the 2008-2009 financial crisis, have significant limitations. COVID-19 is proving unique in its generation of both a supply side and a demand side shock, and its impact on all sectors and regions of the world. Furthermore, efforts to contain the recession induced by COVID-19 simply appear to result in a sharp decline in economic activity (Standard & Poor's, 2020[4]). The impact of COVID-19 crisis is also highly heterogeneous, with a strong territorial dimension that has important policy implications for managing its consequences. Two central considerations for policy makers are:

1. The regional and local impact of the crisis has been highly asymmetric within countries. Some regions, particularly the more vulnerable ones, such as deprived urban areas, have been harder hit than others. Certain vulnerable populations, too, have been more affected. In economic terms, the impact of the crisis is differing across regions, at least in its initial stages. Differentiating factors include a region’s exposure to tradable sectors, its exposure to global value chains and its specialisation, such as tourism.
2. Subnational governments – regions and municipalities – are responsible for critical aspects of containment measures, health care, social services, economic development and public investment, putting them at the frontline of crisis management. Because such responsibilities are shared among levels of government, coordinated effort is critical.

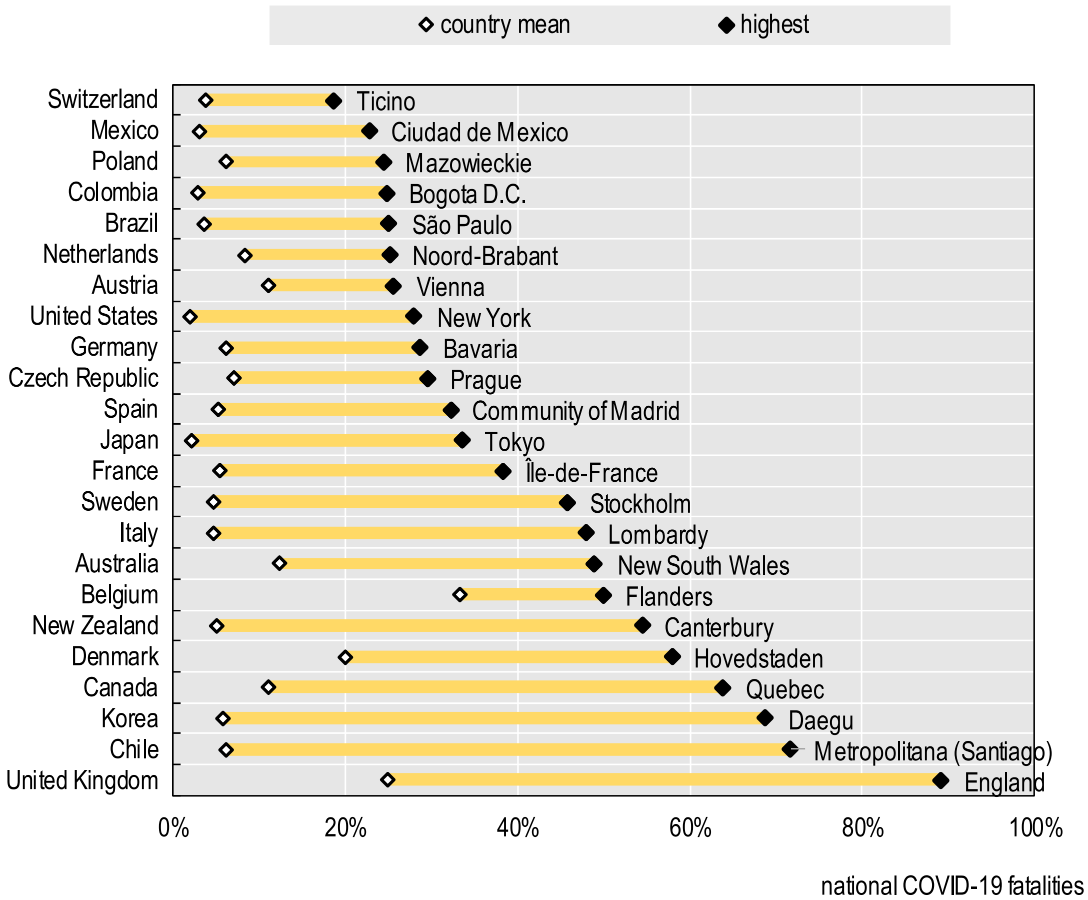
The COVID-19 pandemic will have short- medium- and long-term effects on territorial development and subnational government functioning and finance. One risk in government responses is to only focus on the short term. Longer-term priorities must be included in the immediate response measures in order to boost the resilience of regional social and economic systems.

The territorial impact of the health crisis

COVID-19, like all pandemics, has a spatial dimension that needs to be managed (McCoy, 2020[5]). As of mid-2020, it is clear that the impact of the COVID-19 crisis may differ markedly not only across countries, but also across regions and municipalities within countries, both in terms of declared cases and related deaths. In the People’s Republic of China (hereafter ‘China’), 83% of confirmed cases were concentrated in Hubei province as of June 2020. In Italy, the country’s north was hardest hit, and one of the wealthiest region in Europe, Lombardy, registered the highest number of cases (38% as of 10 June 2020). In France, the regions of Île-de-France and Grand Est were the most affected. In the United States, the concentration in the State of New York decreased as the virus spread in other states, but it was still 29% as of June 12. In Canada, the provinces of Quebec and Ontario accounted for respectively 55% and 32% of total cases as of 11 June. In Chile, Metropolitan Santiago accounted for 85% of cases as of 6 June. In Brazil, Sao Paulo registered 21% of cases as of 11 June. In India, the State of Maharashtra registered 32% of confirmed cases in India as of 3 June 2020. In Russia, Moscow represented 42% of total cases thus far recorded in Russia (5 June 2020). COVID-19-related mortality rates also exhibit a strong regional concentration (Figure 0.1).

Figure 0.1. Within-country differences in COVID-19 fatalities

Share of national COVID-19 fatalities, NUTS-2 (TL2) regions



Note: The 23 countries are OECD countries plus Brazil. Among the 37 OECD countries, Estonia, Latvia and Luxembourg have no regions at NUTS 2 level; there are no data at NUTS 2 level for Iceland, Ireland, Israel, Finland, Greece, Hungary, Lithuania, Norway, Portugal, Slovak Republic and Slovenia. For United Kingdom, data is available for England, Northern Ireland, Scotland and Wales. For New Zealand, data is available by District Health Boards. For Canada and Japan, one province (Prince Edward Island) and one prefecture (Iwate) respectively are missing. For the United States, only the 50 States are considered. All data comes from between May 28 and June 8, except for Spain for which data comes from May 12.

Source: (Australian Broadcasting Corporation, 2020[6]; Austria Federal Ministry of Social Affairs, Health, Care and Consumer Protection, 2020[7]; Belgium Infectious Diseases Data Exploration Platform, 2020[8]; Brazilian Government Covid-19 Data Platform, 2020[9]; Canadian Government Covid-19 Data Platform, 2020[10]; Chile Ministry of Health, 2020[11]; Colombia National Institute of Health, 2020[12]; Czech Republic Ministry of Healthcare, 2020[13]; Dutch Ministry of Health, Welfare and Sport, 2020[14]; French Government Covid-19 Data Platform, 2002[15]) (Italian Ministry of Health, 2020[16]; Japanese Covid-19 Data Platform, 2020[17]; John Hopkins University Centre for Systems Sciences and Engineering, 2020[18]; Mexican Government Covid-19 Platform, 2020[19]; New Zealand Ministry of Health, 2020[20]; Poland Ministry of Heath, 2020[21]; Robert Koch Institute, 2020[22]; South Korea Ministry of Health and Welfare, 2020[23]; Spanish Ministry of Health, 2020[24]; Statens Serum Institut, Denmark, 2020[25]) (Swedish Public Health Agency, 2020[26]; Swiss Government Covid-19 Data Platform, 2020[27]; United Kingdom Government Covid-19 Platform, 2020[28])

There are a number of factors that contribute to the differentiated impact of COVID-19, which also may explain the disparities seen in countries as diverse as Canada, Chile, Korea and the UK. One factor relates to how the first "clusters" of cases developed. In many instances, large cities, with their dense international links – including international markets, business travel, tourism, etc. – are often the entry points for the virus and have been particularly hit. Yet, rural areas have also experienced "first clusters", and regions with high numbers of elderly people may be severely affected. This highlights the difficulty in typifying or anticipating where the virus may start.

Contagion can spread more quickly in large urban areas, due to proximity, if preventive, protective or containment measures are not introduced early enough. However, it is not possible to establish a clear correlation between density and incidence of the disease. Some very densely populated Asian cities, such as Singapore (5.6 million residents) Hong Kong (7.5 million), Tokyo (9.3 million) and Seoul (9.8 million) had very limited diffusion of the coronavirus due to very proactive measures, mask testing and extensive testing (OECD, 2020[29]). Density *per se* is not the problem. The problem is density associated with poverty, poor housing conditions and limited access to health care (Basset, 2020[30]). Poverty and access to hospitals are more important indicators than density.

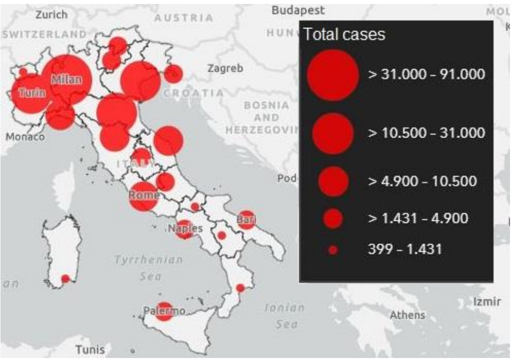
Within cities, some neighbourhoods are also more affected. These are often areas with lower incomes, such as the Bronx in New York City, or Seine-Saint-Denis in the Paris region. New York City Health Department data indicate that Manhattan, the borough with the highest population density, was not the hardest hit. Deaths are concentrated in the less dense, more diverse boroughs. Factors that do seem to explain clusters of COVID-19 deaths in the US include household crowding, poverty, socio-economic segregation and participation in the work force (Basset, 2020[30]).

Deprived areas are the most strongly affected

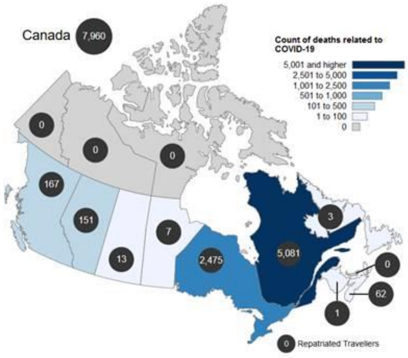
According to the United Kingdom (UK) Office for National Statistics (ONS), there is evidence that more deprived areas in England and Wales are experiencing a disproportionate rate of deaths due to COVID-19 compared to less deprived places (Iacobucci, 2020[31]). The ONS study underlines that poverty and population density significantly increase the risk of death due to the coronavirus. For example, in Wales, the most disadvantaged areas have registered around 45 COVID-19 deaths per 100 000 people, while areas with less deprivation have experienced close to 23 COVID-19 deaths per 100 000 inhabitants (Iacobucci, 2020[31]). Figure 0.2 shows that many of the UK's most income-deprived areas of are also the most affected by COVID-19. While density associated with poor housing conditions plays a role in the spread of the virus, it is worth noting that mortality rates are also determined by the health system capacity, and pre-existing health conditions (e.g. high blood pressure, obesity, and diabetes), which themselves tend to be correlated to income and education.

Figure 0.2. The asymmetric impact of the health crisis

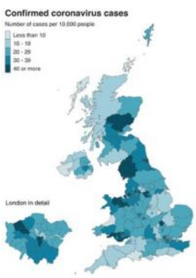
Italy: the total number of confirmed cases (11 June 2020)



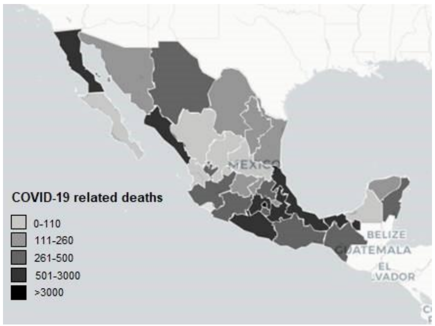
Canada: the number of deaths related to COVID-19 (10 June 2020)



United Kingdom: the number of confirmed cases (10 June 2020)

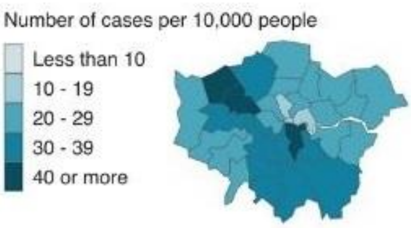


Mexico: the number of deaths related to COVID-19 (10 June 2020)

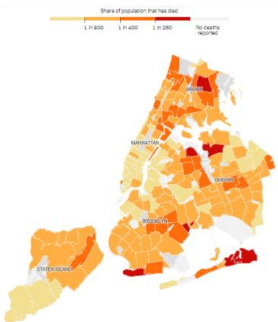


Deprived urban areas are more hit

The number of confirmed cases in the Great London (10 June 2020)



The number of deaths related to COVID-19 in New York Metropolitan Area (10 June 2020)



Note: For United Kingdom, Isles of Scilly cases combined with Cornwall

Source: (Italian Government Covid-19 Data Platform, 2020[32]); (Canadian Government Covid-19 Data Platform, 2020[10]); (BBC, 2020[33]) based on (United Kingdom Government Covid-19 Platform, 2020[28]); (Mexican Government Covid-19 Platform, 2020[19]); (BBC, 2020[33]) based on (United Kingdom Government Covid-19 Platform, 2020[28]); (New York Times, 2020[34]) based on (New York City Department of Health and Mental Hygiene, 2020[35]).

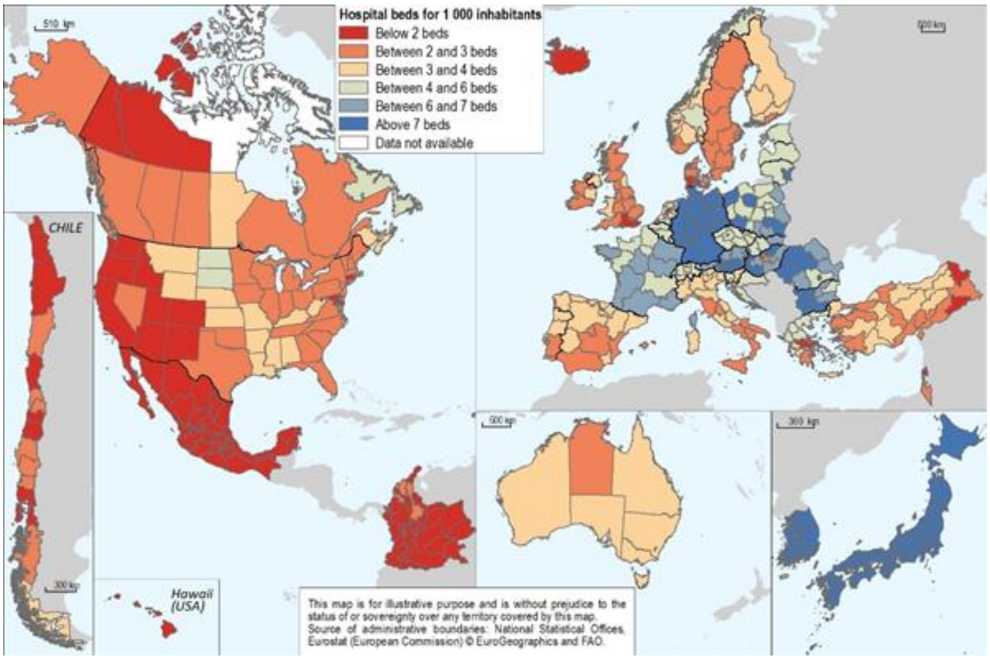
Most regions were underprepared for a crisis of such magnitude

Most countries, regions and cities were not well prepared for this pandemic for several reasons: i) they underestimated the risk when the outbreak emerged; ii) many did not have crisis management plans for pandemics (with the exception of Asian countries that have battled the SARs pandemic, and some others, like the Nordic countries, where crisis management plans are required); iii) they lacked basic, essential equipment, such as masks; and iv) they have had to face and absorb reduced public expenditure and investment in health care/hospitals. Between 2008 and 2018, thus, since the beginning of the "Great Recession" launched by the 2008 financial crisis, the number of hospital beds per capita decreased in almost all OECD countries, declining 0.7% per year, on average.

In addition, not all regions are equally equipped to battle the crisis. Regional disparities in access to health care are quite high in some countries, when measured by the number of hospital beds per 1 000 inhabitants (Figure 0.3). These disparities appear to be regardless of whether the health care spending is decentralised. It should be noted, however, that number of hospital beds alone is a limited measure for real health care capacity and quality. Much depends on health worker density and distribution, and the quality of hospital equipment. Some research points out that regional disparities in health outcomes have not increased after the decentralisation of health care spending in Spain and Italy (Lopez-Casasnovasa, Costa-Font and Planas, 2005[36]; Bianco and Bripi, 2010[37]). Also, a recent OECD Fiscal Federalism Network study showed that hospital costs are lower in countries with a higher degree of administrative decentralisation, even after controlling for particular treatments (Kalinina et al., 2019[38]). In any case, the decentralisation and concentration debates need to be distinguished for the different categories, notably basic health and most intensive care. For the most advanced care, there are obvious quality arguments for concentrating (although not necessarily centralising) services. In that case there is still need to ensure that travel times to care do not prevent services use.

Figure 0.3. Large regional disparities in access to health services

Hospital beds per 1 000 inhabitants by region, 2018

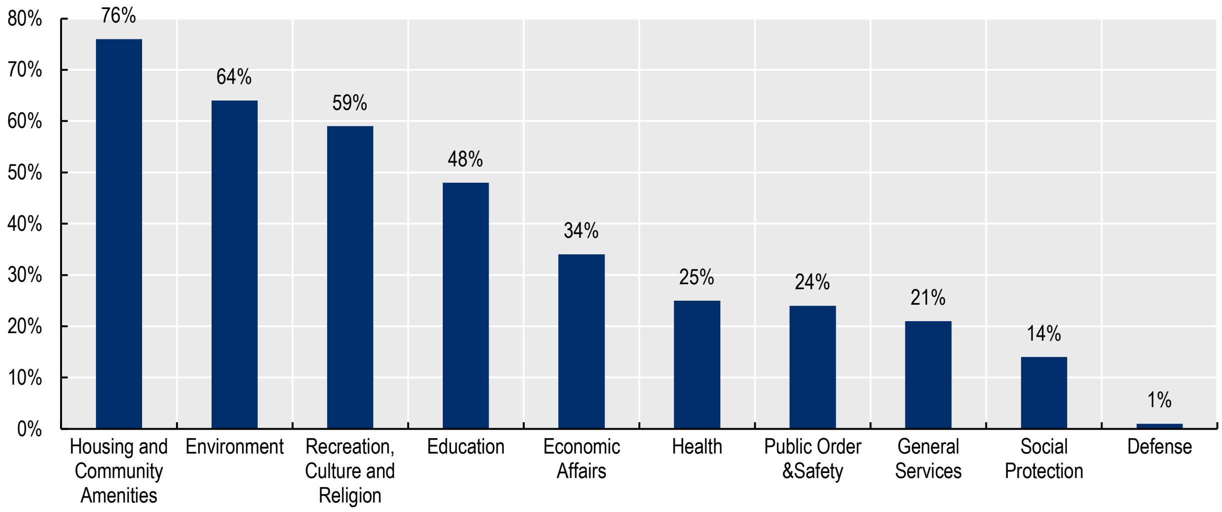


Note: the data for Iceland and Quebec are from OECD Health Statistics.
Source: OECD Regional Database – oe.cd/2Wd

Subnational governments at the frontline of crisis management

Regional and governments are at the forefront of the COVID-19 health crisis and its social and economic consequences. They are in charge of significant responsibilities in the different areas impacted by the COVID-19 crisis, along with central governments and social security bodies. In many countries, subnational governments are responsible for critical aspects of health care, from primary care to secondary care, including hospital management, accounting for 25% of total public health expenditure on average (Figure 0.4).

Figure 0.4. The share of subnational government in public expenditure by sector in OECD countries, 2017



Note: The OECD average (unweighted) is calculated for 33 countries (no data for Canada, Chile, and Mexico). The functional areas correspond the Classification of the Functions of Government (COFOG), which distinguishes 10 areas. The total of general government spending is non-consolidated.
Source: (OECD, 2018[39])

Since the beginning of the crisis, regions and cities are facing urgent social needs, from elderly people, children, disabled, homeless, migrants and other vulnerable populations – all of whom are directly and/or indirectly affected by the coronavirus. Subnational government are also responsible for welfare services and social transfers in many countries. In addition, subnational governments play a large role in delivering education (50% of public education spending). Regional and local governments are managing the closing, and then re-opening of schools under very strict health measures.

Subnational governments are also ensuring the continuity of public services in a crisis context, adapting these as necessary, and protecting their own staff. Citizens expect seamlessness in essential public services, such as water distribution and sanitation, waste collection and treatment, street cleaning and hygiene, public transport, public order and safety and basic administrative services, and the proper delivery of many of these are fundamental in managing the pandemic. In some countries, emergency services and police are managed by state, regions and municipalities, and they have been called upon during confinement periods to ensure control, security and rescue.

Regional and local governments are responding by maintaining essential services, if not at full service-levels then at adjusted ones, and by developing or providing better access to tele-services (tele-health consultations, tele-education). Finally, the emergency situation has led many subnational governments to take initiatives in areas not necessarily in the scope of their responsibilities, either because it was requested by the central government or because they decided to do so to respond to emergencies that arose.

Territorial impact of the economic crisis engendered by COVID-19

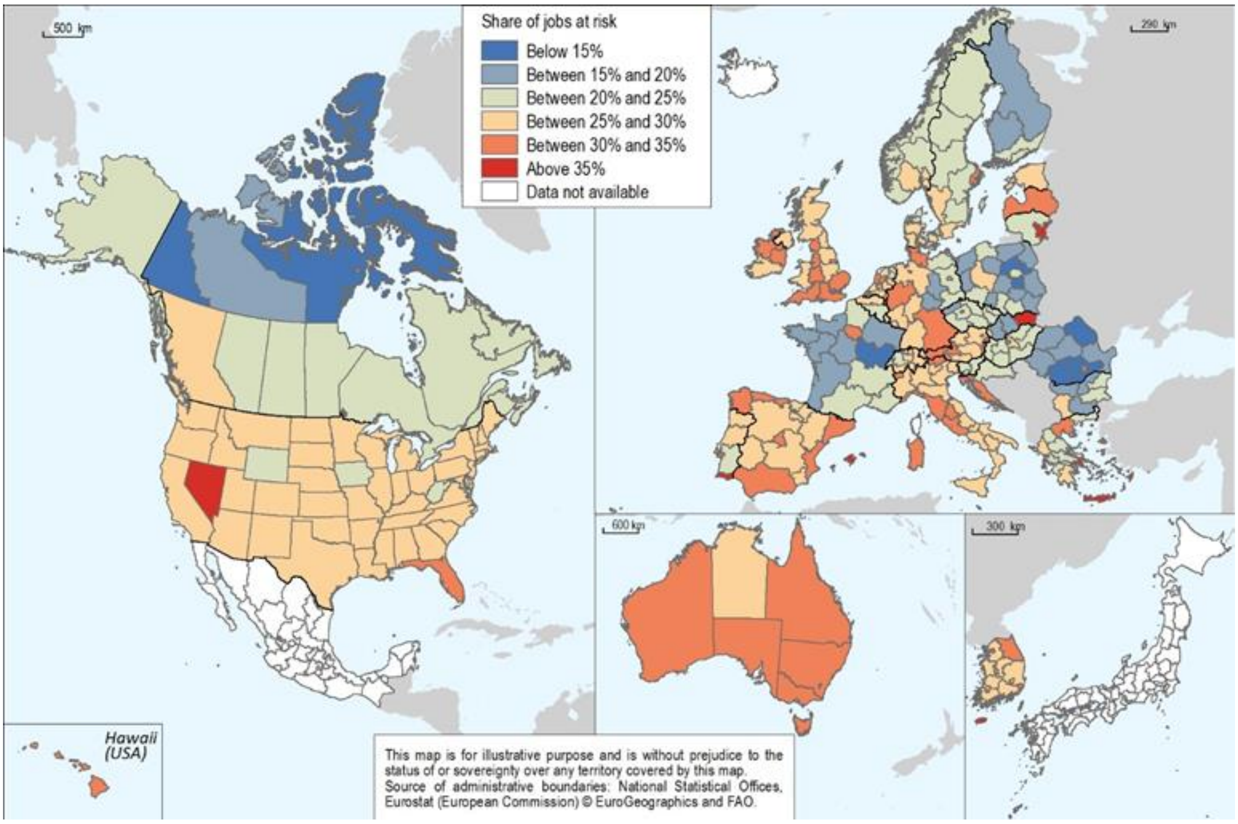
Many comparisons have been made between the coronavirus crisis and the global financial crisis in 2008, but they differ radically in scope, origin – endogenous in 2008 versus exogenous in 2020 – and consequences. Both crises are also very different in their impact on territories, with the 2020 COVID-19 crisis having a more differentiated impact, compared to 2008.

The economic impact of the COVID-19 crisis will differ across regions, depending on the region's exposure to tradable sectors and global value chains. For example, regions with economies that are heavily dependent on the tourism industry will be more affected by the coronavirus than other regions. Capital regions or other metropolitan regions show a relatively higher risk of job disruption than other regions (OECD, 2020[40]). In the United States for example, analysis by Brookings of county-level infection and economic data shows that the nation's COVID-19 case load not only remains heavily concentrated, but that the hardest-hit counties and metropolitan areas constitute the very core of the nation's productive capacity. According to Brookings, the United States' 50 hardest-hit counties "support more than 60 million jobs and 36% of its GDP" (Muro, Whiton and Maxim, 2020[41]).

The crisis' impact on regional employment and GDP may vary significantly across regions within countries. The degree to which regions are exposed to global value chains, specialised in specific sectors, and have large shares of non-standard employment can help explain within-country differences arising from the COVID-19 crisis. Evaluating the share of jobs potentially at risk from the lockdown is one way to assess the territorial impact of the COVID-19 crisis. These shares can be estimated based on the specific sectors of activity considered to be at risk in a region, following a recent OECD note on the economic impact of containment measures (OECD, 2020[42]).

Regional disparities in the share of jobs potentially at risk in the short term as a result of confinement measures are stark. These shares range from less than 15% to more than 35% across 314 regions 10 in 30 OECD and 4 non-OECD European countries (Figure 0.5). In one out of five OECD/EU regions, more than 30% of jobs are potentially at risk during lockdown (OECD, 2020[40]). In the short term, tourist destinations and large cities are suffering the most from COVID-19 containment measures. The importance of tourism and of local consumption – including large retailers, general-purpose stores, and businesses in the hospitality industry, such as coffee shops and restaurants – partially explains this. The extent to which activities will recover during the high tourist season is an important factor to determine the actual economic decline in tourist destinations.

Figure 0.5. Share of jobs potentially at risk from COVID-19 containment measures



Source: (OECD, 2020[40])

The longer the containment measures last, the higher the risk for regional economies. Previous OECD work shows that the recovery of OECD regions after the 2008 global financial crisis took a long time. In more than 40% of OECD and EU regions, even seven years after the start of the crisis, per capita GDP was still below pre-crisis levels.

In the medium- to long-term, the economic and financial effects, and their territorial dimension are likely to become more uniform across regions. All regions will be affected by a drop of economic activity. The eventual differences between regions (i.e. the severity, lag) will depend on their industrial mix.

Mitigating the impact of confinement and facilitating social distancing: the impact of telework

One important factor to mitigate the economic impact and cost of COVID-19 containment measures is the extent to which occupations can be performed remotely. Occupations amenable to remote working depends strongly on the nature of the tasks carried out by workers, which can differ significantly even within the same workplace. For example, academic researchers in universities can often continue working during a lockdown or under social distancing requirements, while canteen staff working in the same university may be forced to cease or strongly reduce their activities.

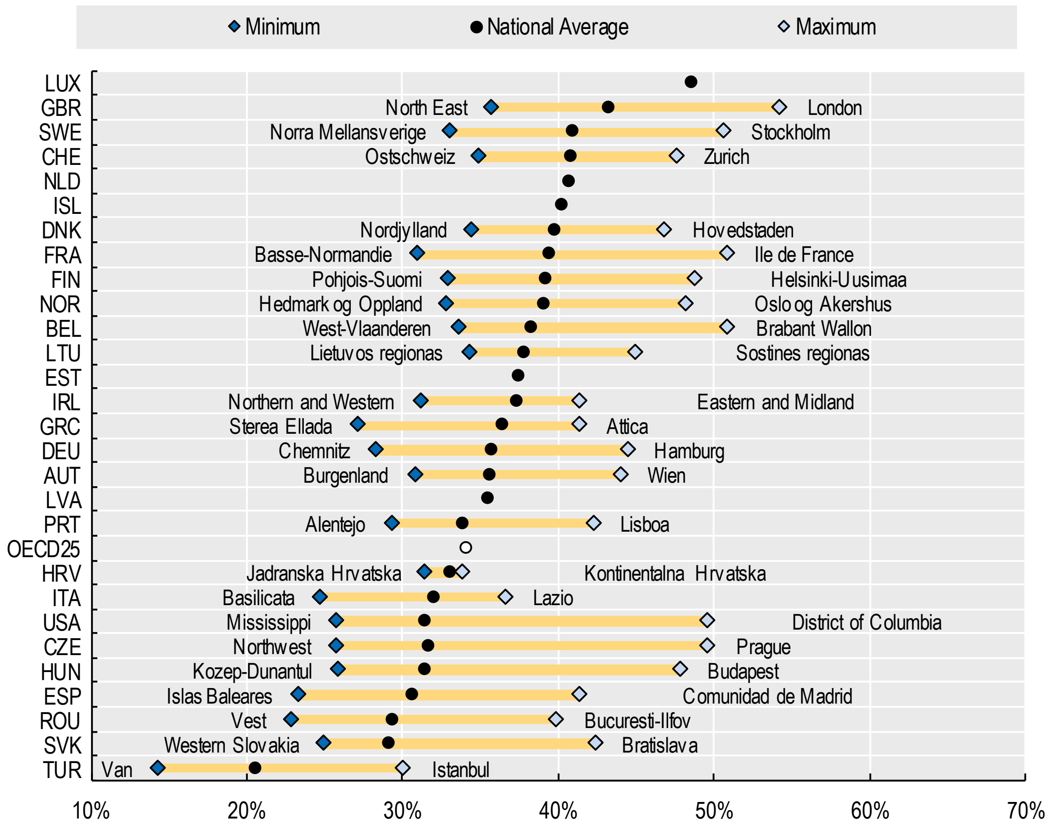
The OECD has estimated the share of occupations amenable to remote working in OECD regions based on the task performed by workers[1]. This work reveals that the potential for remote working is unevenly distributed within countries. Urban populations have a significantly higher potential to telework than those

[1] The method is detailed in the recent OECD note titled *Capacity to remote working can affect lockdown costs differently across places* (OECD, 2020[43]).

in rural areas, with nine percentage point higher shares of occupations that can be performed remotely (OECD, 2020[43])). Large cities and capital regions offer, in most cases, the highest potential for remote working within countries (Figure 0.6). Such a capacity might contribute to a territorial differentiation in resilience. On average, there is a 15 percentage point difference between the region with the highest and lowest potential for remote working in a given country. This difference reaches more than 20 percentage points in the Czech Republic, France, Hungary, and the U.S., driven by comparatively high levels of potential remote working in their capitals. It is important to note that the presented findings hold under the assumption that all workers – regardless of location – have access to an efficient internet connection and to the necessary equipment. As a consequence, differences across space might determine the extent to which the potential to telework translates into an actual opportunity.

Figure 0.6. The possibility to work remotely differs between and within countries

Share of jobs that can potentially be performed remotely (%), 2018, NUTS-1 or NUTS-2 (TL2) regions

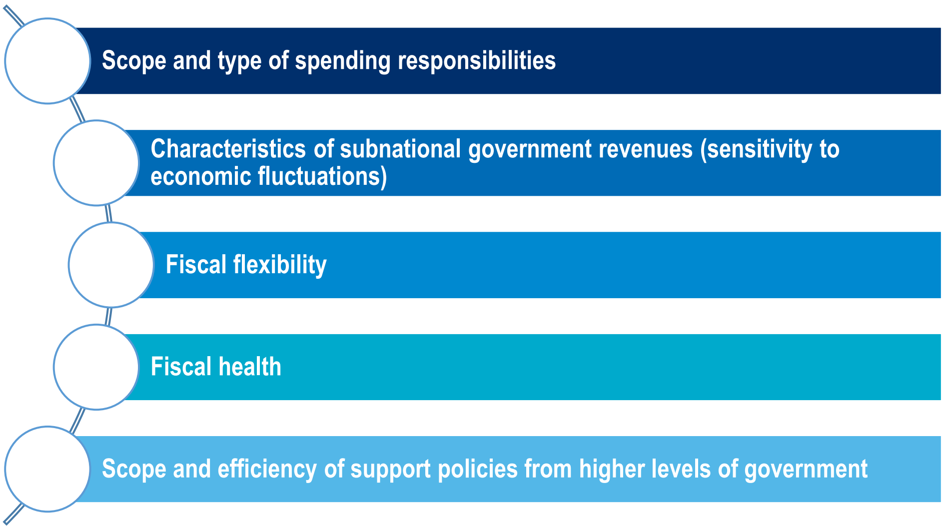


Note: The number of jobs in each country or region that can be carried out remotely as the percentage of total jobs. Countries are ranked in descending order by the share of jobs in total employment that can be done remotely at the national level. Regions correspond to NUTS-1 or NUTS-2 regions depending on data availability. Outside European countries, regions correspond to Territorial Level 2 regions (TL2), according to the OECD Territorial Grid.
Source: (OECD, 2020[43])

Asymmetric fiscal impact on subnational governments

The impact of COVID-19 on subnational finance is highly differentiated among countries, among levels of government, among regions and among municipalities. The varying effects on subnational finance depend on five main factors (Figure 0.7). The first one is the degree of decentralisation of the country, in particular the assignment of spending responsibilities. The role of regions and cities in managing the crisis can vary depending on the scope of their responsibilities. The second factor is the characteristics of subnational government revenues, in particular their degree of sensitivity to economic fluctuations. The third factor is "fiscal flexibility" i.e. the ability of subnational governments to absorb exceptional stress, their capacity to adjust their expenditure and revenues to urgent needs; the fourth factor is fiscal health or financial conditions i.e. the current budget balance and debt situation of a given local government, the level of cash treasury and set-aside reserves. Finally, the impact on finance also depends heavily on the scope and efficiency of support policies from higher levels of government. All these factors need to be taken into account to analyse and compare the fiscal impact of the current crisis on regions and municipalities in the different countries.

Figure 0.7. Differentiated impact on subnational government finance: five main factors

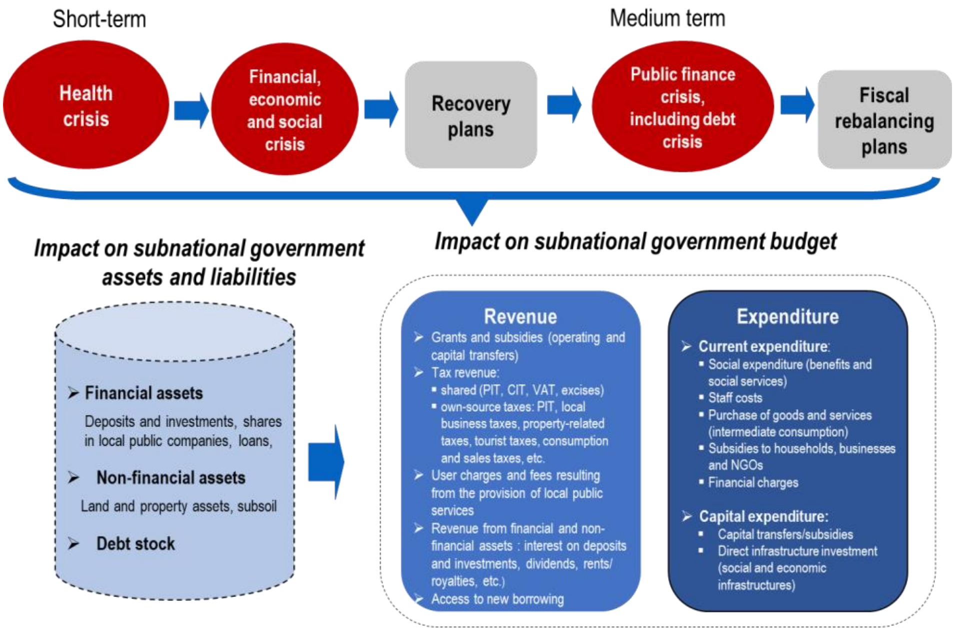


Source: Authors' elaboration

It is difficult quantify the impact as the crisis is still just beginning. There are many uncertainties surrounding its severity, duration, variability across territories, and the effectiveness of the support mechanisms introduced by international, national and subnational public authorities. Another factor to consider is time. While short term impacts have been identified, there will be additional effects on subnational finance in the medium and long-term, and these are likely to have much greater magnitude.

At this stage, it is only possible to characterise the different types of impact and identify trends or tendencies. Figure 0.8 shows the possible succession of combined shocks and cascading effects: the health crisis that quickly turned into a social and economic crisis that also rapidly motivated the adoption of recovery plans that in turn mobilise public finances. Both the recession and fiscal discretionary measures could lead to a public finance crisis, coupled with a public debt crisis. Sooner or later, countries will have to rebalance their public finance. Fiscal consolidation plans, if adopted, would put, put additional pressure on subnational budgets, resulting in risks of using public investment as an adjustment variable, as it was the case after 2010 particular in a strong drop in public investment, as observed in OECD and EU countries until recently. The effects of this "systemic" crisis occur at two levels: on subnational government "stocks" (assets and liabilities) and on "flows" i.e. on subnational government budget (expenditure and revenues).

Figure 0.8. How the cascading effects of the COVID-19 crisis and may affect subnational government finance



Source: Authors' elaboration

The impact on subnational government assets and liabilities

The effects on stocks are, on the assets owned by subnational governments and on their liabilities. Physical or financial assets and liabilities will likely be affected but this will depend on a variety of factors, such as the evolution of real estate prices, insurance reserves, pension funds, local company values, etc. For example, in the US, the crisis and the stock market collapse have exposed the fragility of public pension systems, exacerbating the solvency crisis of many pension systems and jeopardising the future retirement benefits of state and local public-sector workers. Moody's Investors Service estimates that, although markets still have the potential to bounce back, the stock market sell-off erased USD 1 trillion of value from public pension portfolios, or about 21% of the assets that pay for the retirement plans of state and local employees (The Washington Post, 2020[44]).

Local public companies are also particularly exposed to the crisis arising from COVID-19. Some categories have suffered from the cessation or slowdown of activity, particularly in the tourism, culture, leisure and transport sectors. Business failures and threats to capitalisation and equity will affect subnational governments as shareholders (FEPL, 2020[45]).

Subnational government budgets will be strongly affected

Subnational government finance will be strongly hit, with strong pressure on expenditure and reduced revenues, thus increasing deficits and debt. While the crisis has already put short-term pressure on health and social expenditures and on categories of revenue, it is in the medium term that the strongest impact is expected. National governments, associations of local governments, and individual entities have started to estimate the fiscal impact in the short and medium terms, in order to prepare and adjust budgets, and to design appropriate measures to support subnational finance (Box 0.1). As already underlined, these estimates are still tenuous and are regularly updated.

Box 0.1. First insights into COVID-19's fiscal impact on subnational government

- **In Austria,** the COVID-19 crisis is strongly affecting state and municipal budgets. A 7%-12% drop in state tax revenues is forecasted. Behind this is a postponement of tax payments, which will result in tax collection being delayed. At the same time, expected that all state governments will be equally impacted by the decrease as a result of Austria's fiscal equalisation system, which has a levelling effect across regions (S&P Global Ratings, 2020[46]). At the municipal level, it is estimated that the crisis can cost up to EUR 2 billion in 2020 because of additional spending needs. This corresponds to a 5%-11% loss in revenue compared to 2019 (Wiener Zeitung, 2020[47]). Contributing to this is an expected 10% decrease in the municipal share of federal taxes (sales tax, wage tax, corporate tax), and a 10% and 12% drop in municipal tax revenue (local and tourist tax, fees from services such as childcare, etc.).
- **In Canada,** municipalities could lose between CAD10 billion and CAD15 billion in revenue over the next six months, depending on the severity and duration of the pandemic-related shutdown, according to the Federation of Canadian Municipalities.
- **In Finland,** in April 2020, the Ministry of Finance estimated the cost and lost revenue effects of COVID-19 to municipalities to be around EUR 1.6 – 2 billion for 2020 i.e. around 4% of total municipal revenues (Ministry of Finance of Finland, 2020[48]).
- **In France**, estimates from May 2020 indicate that lost revenue among subnational governments could reach EUR 7.5 billion in 2020 (The French Government, 2020[49]). This is split into a loss of EUR 3.2 billion for the municipalities and their groupings, EUR 3.4 billion for the *départements* and EUR 0.9 billion for the regions. Municipalities would feel the financial shock mainly in 2020 due to decreased tax revenues and user charges (e.g. from car parks), and increased social assistance spending. For regions, the main shortfall would come from the levy on corporate added-value tax (CVAE), part of the "territorial economic contribution" that is paid with a year lag. Regional governments could also lose part of their revenue coming from the VAT (15% of their revenue in 2018), though this would be limited thanks to a guarantee mechanism. These preliminary estimates could be revised up or down depending on how the fiscal situation evolves. It is possible that deterioration in revenue will be counterbalanced by some improvements from a rebound in certain economic sectors. There are other estimates, developed by various associations of subnational government indicating a potential loss of EUR 5 billion between 2020 and 2022 for municipalities and their groupings, with losses of EUR 4.5 billion in 2020 alone.
- **In Germany**, many state governments will see a sharp deterioration in their budgetary performance in 2020, given falling revenues and rising expenditure. Behind this are packages adopted by the regions to support local economies and the wish to maintain, and even increase, public investment. It is expected that most states will revert to debt financing to cover their budget deficits, increasing their borrowing needs (S&P Global Ratings, 2020[46]). Data published by the Federal Ministry of Finance in May indicated a loss of tax revenue about 11% for the Lander and 15% for the municipalities compared to estimates made in November 2019. The local level is especially affected by a 25% drop in local business tax receipts, a tax that represents 44% of municipal tax revenues.
- **In Italy**, the Association of Italian Municipalities (ANCI) developed three scenarios for the loss of municipal revenues due to COVID-19. A *low risk scenario* with a loss of revenue among municipalities of about EUR 3.7 billion (down 9% compared to 2019). This is based on a relatively rapid exit from the emergency beginning in May 2020, where the largest losses would be concentrated on the sectors directly exposed to the crisis, with other sectors recovering relatively quickly in 2020 or by 2021. A *medium risk* scenario, with an estimated municipal

revenue loss of about EUR 5.6 billion (a decrease of 14% from 2019). Finally, a *high risk* scenario estimating a loss of EUR 8 billion (a drop of almost 21% over 2019). In this scenario, COVID-19 triggers a major and long running national and international economic crisis that causes recovery difficulties for all economic sectors (ANCI, 2020[50]). Regional governments also face financial difficulties. Most of their expenditure is concentrated on health (85% on average), which will increase. To this is added a drop in receipts from the regional tax on productive output (IRAP), the regional surtax on the personal income tax and the regional tax on vehicles.

- **In the Netherlands**, the national government and subnational governments agreed on the need for compensation of additional costs and the loss of income resulting from the COVID-19 crisis. A special working group of experts from the ministries and umbrella organisations of local governments, including VNG, was established to discuss the amount of the compensation and create the list of information and data needed. The result of the work will be integrated in the work of the Administrative Consultation on Financial Relations (BOFv).
- **In Spain,** as of April 2020 the economic impact of the crisis will put pressure on Spanish regional and local government finances and could lead to downgrades (Fitch Ratings, 2020[51]). Autonomous Communities will be more affected than municipalities because a larger share of their revenue (e.g. shares of VAT and PIT) is exposed to the economic cycle – 65%-70% of their operating revenue is directly linked to regional GDP growth, and they are facing a significant increase in spending.
- **In Sweden**, despite the country's more open approach to managing the spread of COVID-19, economic activity has dropped significantly given a dependence on exports. In addition, domestic demand has decreased as many inhabitants entered voluntary confinement. Regional and municipal tax revenue (PIT) will sharply decline (SALAR, 2020[52]). Budgetary pressure also comes from lower fee-generated revenue (e.g. public transport, parking, and cultural fees) and higher healthcare expenditure, especially at the regional level. Municipalities will also see costs rise, in particular social welfare costs due to rising unemployment rates (after unemployment benefits funded by the central government come to an end, people can apply for a monthly allowance from the municipality). The result is increased pressure on the creditworthiness of Swedish local governments (S&P Global Ratings, 2020[53])
- **In Switzerland,** individual cantons and cities may see noticeable differences in COVID-19's impact on their revenue and expenditures, depending on their economic structure and the resilience of their tax base. Cantons and municipalities tax revenue could drop by an average 6%-8% year on year in 2020 if the country's GDP contracts by 6.5%, as currently forecast. The drop will continue in 2021 as Switzerland's tax collection is spread out over several years. Cantons' health expenditure have significantly increased as they pay 55% of the invoiced cost of in-patient health care treatment for their residents, and are in charge of hospitals and implementing public health measures. Cantons have also started to support local economies. The crisis will generate additional borrowing needs by around 20%. However, most Swiss subnational government had balanced budgets before the crisis (S&P Global Ratings, 2020[54]).
- In the **United Kingdom**, local government finance is facing a difficult future English Local Authority funding is expected to see a shortfall of up to GPB 10 billion due to reduced income and rising costs associated with COVID-19, according to Local Government Association. The total projected financial pressure in the year 2020-21 includes cost pressures (e.g. from social care), income loss – council tax and business rates account 60% of projected income losses and the losses from fees, charges and commercial income account for 40%, and liquidity issues. Local authorities are spending more on caring for the elderly and disabled people while revenue is falling, and are also responsible for essential services, housing rough sleepers, supporting vulnerable populations, assisting public health and supporting businesses. By law they must

run a balanced budget and would have to cut services if they were close to running out of money (Financial Times, 2020[55])

- **In the United States**, preliminary data from 46 states indicates a total state tax decline of 49% in April 2020 compared to a year earlier. Personal income taxes declined 63%, sales taxes dropped 15.8% and corporate income taxes fell 63% (Urban Institute, 2020[56]). Cities, towns and villages can expect to face a USD 360 billion budget shortfall from 2020 through 2022, as two-thirds of city revenues nationwide are vulnerable to immediate losses due to local economic decline. City budget shortfalls are prevalent regardless of city size, but vary significantly by state. These losses could lead to significant cuts in critical public safety services, parks and recreation, and pay and jobs cuts. This could also affect infrastructure investment (National League of Cities, 2020[57]).

The impact on subnational government expenditure

This crisis is calling on regions and cities to increase their expenditure in many areas. The impact of this, however, will vary according to their spending responsibilities. In many countries, subnational governments are responsible for critical aspects of health care systems, including emergency services and hospitals. In 2018, health expenditure accounted for 18% of subnational expenditure in the OECD, on weighted average. Additionally, subnational governments have key expenditure responsibilities in social protection, which is particularly affected by the COVID-19 crisis, including social assistance and social benefits (14% of subnational expenditure). Beyond health and social responsibilities, subnational governments are involved in key areas impacted by the crisis, including education (the first spending item at 24%), public administration (15%), economic development and transport (13%), public order and safety (7%), utilities (waste, water, etc.), etc. In the context of the crisis, subnational governments are confronted with a number of complex and costly tasks. They must first manage the full or partial closure of certain services and facilities and then the reopening, ensure the continuity of essential public services, adapt services either physically (public transport, collection of waste, cleaning of public spaces) or virtually (tele-health consultations, remote education arrangement, local tax payments, access to government information, etc.) and enable officials and employees to work remotely. Finally, in many countries, subnational governments are involved in support policies for SMES and the self-employed as well as infrastructure investment. Although some expenditure items are temporarily reduced (intermediate consumption, for example petrol) or deferred in time, most subnational spending items tend to increase, in the short-term (emergency expenditure) but also in the medium-term in response to exit strategies and recovery programmes.

The impact on health expenditure will be significant

In a number of OECD countries, states, regions, and municipalities carry responsibility for public health services and hospital spending. Subnational governments account for about 24.5% of total public health expenditure in the OECD[2] (Figure 0.4) and 12% of subnational government expenditure[3]. However, the degree of decentralisation in the health sector varies markedly. The OECD developed the typology to indicate the level of decentralisation in the health sector in OECD countries (Box 0.2) based on the combination of three subnational expenditure spending ratios: *i)* as a share of total public health expenditure (Figure 0.4); *ii)* as a share of total subnational expenditure; *iii)* as a share of GDP.

[2] 24.5% refers to unweighted average for OECD countries. When taking weighted averages (by population), subnational governments represent 31.8% of total non-consolidated public health expenditure and 38% of consolidated public health expenditure.

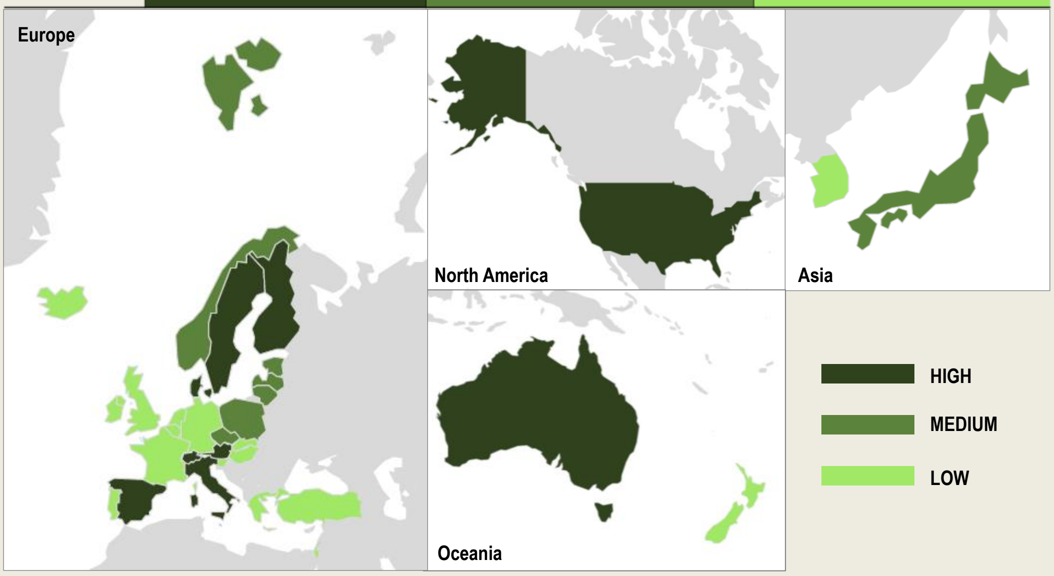
[3] 12% refers to unweighted average for OECD countries. When taking weighted averages (by population), health expenditure accounts for 18% of subnational expenditure.

Box 0.2. Decentralisation in the health sector in OECD countries

Three groups of countries with high, medium and low levels of decentralisation in health provision are identified (Figure 0.9). Most federal countries (except Belgium and Germany) and some unitary countries (Italy and three Nordic countries) have highly decentralised health care sectors. At the opposite end, 15 unitary countries, plus Belgium and Germany, are in the group where health care is mainly managed by central/federal or social security funds. This interpretation can be nuanced, as health expenditure in unitary countries can be a delegated expenditure made on behalf of the central government, with little or no choice as to how expenses are allocated. In federal countries however, state governments can still have shared decision-making responsibilities with the federal government (OECD, 2019[58]; Beazley et al., 2019[59]). The public part of health expenditure may also be funded by social insurance schemes, and not directly by the central or federal government. In Belgium, Luxembourg, Germany and France, social insurance accounted between 85-95% of public expenditure in 2017. It is also important to recognise that while health care provision is usually a public sector responsibility, the private sector often plays a large role in service production, side-by-side with public sector producers.

Figure 0.9. The level of decentralisation in health care in the OECD countries

	High	Medium	Low
Share of subnational government health spending	> 40% of total public health spending > 20% of total subnational government spending > 4% of GDP	15% - 40% of total public health spending 10% - 20% of total subnational government spending Subnational government health spending 0.5% - 4% of GDP	< 15% of total public health spending < 10% of subnational government spending < 0.5% of GDP
Countries	**Federal & quasi-federal**: Switzerland*, Spain, Australia, Austria, United States **Unitary:** Sweden, Italy, Denmark, Finland	**Unitary:** Poland, Norway, Latvia**, Lithuania, Estonia, Japan, Czech Republic	**Federal:** Belgium Germany **Unitary:** Korea, Slovenia***, Netherlands, Portugal, Slovak Republic, Hungary United Kingdom, France, Turkey, Luxembourg, Iceland, Israel, Greece, Ireland, New Zealand



Note: No data for Canada, Chile and Mexico; * Switzerland: subnational government health expenditure accounts for less than 20% of subnational government expenditure and 4% of GDP; ** Latvia: subnational government expenditure is 8% of subnational government expenditure; *** Slovenia: subnational government expenditure is around 1% of GDP and 12.4% of subnational government expenditure.
Source: OECD based on (OECD, Forthcoming[60])

Regional and local governments have differentiated responsibilities in health services. Therefore, this crisis will have differentiated impact within the subnational government sector. In most federal countries, health care is a major responsibility of state governments, which are responsible for secondary care, hospitals and specialised medical services. In unitary countries where health care is almost exclusively a regional-level responsibility, the role of regional governments may be also significant (e.g. Denmark, Italy and Sweden). The role of municipalities in health care generally concentrates on primary care centres and prevention. However, in some countries, municipalities or inter-municipal cooperation bodies may have wide responsibilities in healthcare services and infrastructure.

While it is too early to present fiscal data, this health crisis has led to significant increases in subnational government health expenditure. This is linked to spending to acquire healthcare equipment and consumables (masks, ventilators, tests, protective equipment, etc.), cover staff costs (employment of temporary medical staff, overtime payments, bonuses), pay for additional tasks such as the cleaning and disinfection, construction and conversion of temporary emergency facilities, medical transport, etc. Local governments now have to participate in the distribution of masks as well as in the testing and contact-tracing programmes in partnership with regional and national governments.

The impact on social expenditure is significant and will be long-lasting

The COVID-19 crisis is placing significant pressure on social protection spending given its impact on population groups that have diverse but also frequently complex needs. These include elderly and dependant people, those with chronic or long-term illnesses, the poor and low-income families, the homeless, uninsured households, informal workers, migrants, youth, students and children at risk, people with disabilities, isolated people, and women and/or children at risk of domestic violence and indigenous population.

Among OECD countries, social protection represents 14% of total public social expenditure (Figure 0.4), though this is much higher in countries where subnational governments have significant social protection responsibilities (e.g. Austria, Belgium, Germany, Japan, the Nordic countries, and the United Kingdom). There are large disparities in social protection spending among OECD countries. For example, social protection expenditure accounts for 56% of subnational expenditure around 35% in Ireland and United Kingdom but less than 10% in 10 OECD countries. This indicates that subnational governments are not mobilised in the same way for social services, despite the fact that local governments are often the first resort for citizens in need. Even if social protection is out of a subnational government's scope of responsibility, it often has to respond to social emergencies.

During the emergency, subnational governments have undertaken proactive initiatives to provide social/community support to vulnerable populations (OECD, 2020[61]). In the longer term, social expenditure will certainly increase further, as more welfare benefits will be included due to the rise in unemployment and the number of aid seekers. Unemployment payments, guaranteed minimum revenue, family support, housing subsidies, emergency aid, ageing, etc. will add to the pressure on subnational government social expenditure.

The impact on economic affairs expenditure

Economic affairs[4] represents 13.6% of subnational spending in the OECD on average. Subnational governments in the OECD account for approximately 34% of total public spending in this area (Figure 0.4), although in some countries it is more than 50% (e.g. Australia Belgium, Japan, and Spain), and in the US it has reached 69%. Some state and regional governments, as well as local governments took early action to support their local economies, focusing mainly on SMEs, the self-employed, and informal workers, as

[4] Economic affairs are mainly composed of transport but also including commercial and labour affairs, economic interventions, agriculture, energy, mining, manufacturing, construction, etc.

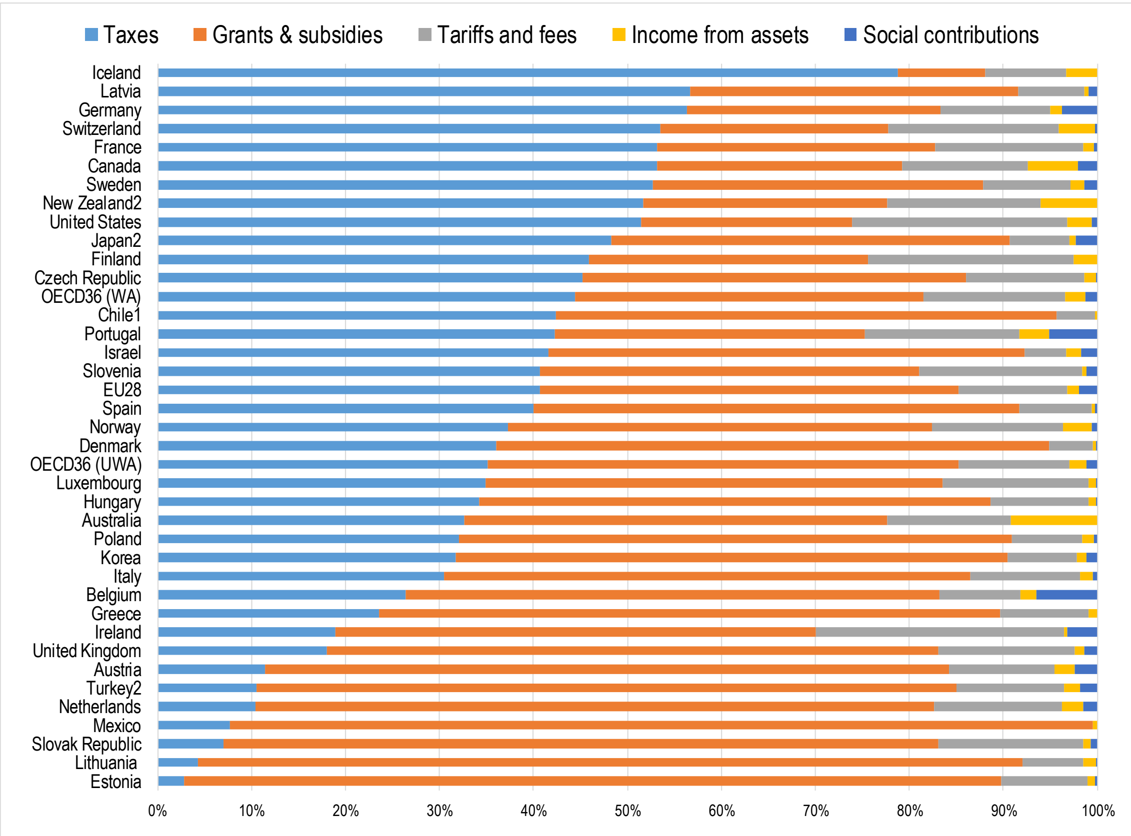
well as on sectors that were highly affected, such as tourism, trade, restaurants, etc. (see Part 0). In the longer term, as major public investors, subnational governments may be further mobilised to participate in stimulus packages targeting public investment, in order to compensate for a decline in private investment.

The impact on subnational government revenues

The COVID-19 crisis will likely generate a large drop in subnational government revenue. This would arise from drops in tax revenue, user charges and fees and income from physical and financial assets. The impact on subnational governance finance, however, will depend on the mix of these revenue sources. In countries where subnational governments are largely funded by central governments transfers (e.g. Estonia, Lithuania, Mexico, the Slovak Republic), the negative impact may be small, especially if the central government decides to maintain their level, or even increase them in order to help subnational governments cope with the increased costs resulting from the crisis[5]. In countries where subnational government revenue comes mainly from taxes, user charges, fees and income from assets, the impact may be larger (Figure 0.10), although this depends on their degree of sensitivity to economic fluctuations and policy decisions.

Figure 0.10. Sources of subnational government revenues vary across countries

Breakdown of subnational government revenues by category (% of total revenue, 2018)



Note: 1. Australia and Chile: estimates from IMF Government Finance Statistics; 2. 2017 data
Source: (OECD, 2020[62])

[5] This can be difficult however, if central government grants are financed by national tax receipts, which themselves would have declined or which are indexed to GDP growth.

The impact on tax revenues

The COVID-19 pandemic is expected to result in a strong drop in both shared and own-source tax revenues. Declining economic activity, employment and consumption arising from COVID-19, and particularly containment measures, will automatically reduce receipts from personal income tax (PIT), corporate income tax (CIT) and value added tax (VAT). In addition, measures such as tax breaks, exemptions, deferrals and a drop in rates that were decided within the framework of recovery packages by national and subnational governments as counter-cyclical tax measures, could amplify the mechanical decline in tax receipts. Many regional governments and municipalities have adopted tax relief measures to support firms and households. A majority of these include a number of tax measures that will result in decreased tax receipts for subnational government budgets. Increased delinquencies could also contribute to tax revenue decline. As subnational government revenues are often based on the previous year's activity (e.g. income taxes), most will see the situation worsen in 2021 and even 2022, regardless of the degree of national-level recovery.

Beyond shared or own-source national taxes – many other subnational taxes may be affected by the economic decline as well. Among these are:

- Taxes on business. Examples include the municipal business tax in Germany (*Gewerbesteuer,* 44% of municipal tax revenue*)* and Austria (*Kommunalsteuer, 68% of municipal tax revenue*), the municipal trade tax in Luxembourg (*impôt commercial communal,* 91% of municipal tax revenue) and the "territorial economic contribution" in France, comprising a real estate tax (*contribution foncière des entreprises or CFE*) and a tax on business value-added (*contribution sur la valeur ajoutée des entreprises* or *CVAE*).
- Taxes on economic activities, such as the regional tax on productive output (IRAP) in Italy, the local income tax in Korea and Japan, and Japan's resident tax levied on individual and business income.
- Taxes linked to real estate activity, e.g. real estate transaction taxes, building permits and rights, etc.
- Taxes related to household and business consumption, e.g. sales tax, motor fuel taxes, taxes on energy products, taxes on cars, taxes on leisure, tourist tax, advertising tax, gambling tax, etc.
- Tax proceeds from commodity sectors.

The recurrent property taxes on land and building should be less affected as they are a less volatile source of revenue. However, if the property tax is calculated on the basis of the market value of property, there may be a risk of decline, but the reduction in property values will be reflected in budgets later (2021 or 2022). In addition, there is likely to be a drop in business-property tax revenues as a result of business bankruptcies. A drop in revenues could also come from exemptions and write-offs for some categories of tax payers in financial distress, as well as from increased delinquencies. Subnational governments will need to cope with property tax-payment deferrals. Potential delays that extend through a new fiscal year could pressure budgets and stress liquidity in countries where the property tax is the main source of municipal tax revenue (e.g. Australia, Canada, Estonia, Ireland, Israel, Lithuania, the Netherlands, the US and the UK) (OECD, Forthcoming[63]).

The impact on user charges and fees

Subnational governments may also suffer from a large decrease in user charges and fees resulting from the closure of public facilities (e.g. cultural, recreational, educational and sport venues like swimming pools, golfs, etc.), and reduced demand for local public services, such as public transport (Box 0.1), school meals, car parks, tolls, kindergarten fees, administrative fees, etc. Drops in such revenue could be compounded by a rise in delinquent or unpaid fees (e.g. garbage collection, sewage, water provision, etc.).For example, in the US, the public transport sector has experienced dramatic revenue drops, while also seeing significantly increased costs as a result of COVID-19. According to a study prepared for the American Association of Public Transport, US transit agencies are facing an overall funding shortfall of USD 48.8 billion between Q2 2020 and the end of 2021. Nationally, transit ridership and fare revenues were down in April 2020 April 2020 from April 2019 by 73% and 86%, respectively (APTA/EBP, 2020[64]).

The impact on assets-based revenue

Income from physical and financial assets could be also affected. This can include drops in rental revenues, lost dividends from local public companies, less revenues from sales of land, and lower royalty revenues resulting from the downturn (e.g. decreased prices for raw material, and lower production). Subnational governments dependent on revenue from oil producers may also experience a substantial revenue decline (e.g. in Australia, Canada, Mexico, Norway, and Russia) (S&P Global Ratings, 2020[65]).

The impact on subnational government budget balance and debt

A strong decrease in revenues, combined with a continuous increase in expenditure (e.g. in social spending and investment) could result in a scissor effect, leading to subnational government deficits, as was the case in 2007-2008 (OECD, 2020[66]; OECD, 2013[67]). This situation could increase subnational government debt, while a crisis in debt capital markets could affect the current subnational debt stock. For example, in Norway, the coronavirus outbreak has led to turmoil in the capital markets, and some municipalities face difficulty refinancing their loans. The Government of Norway proposed to Norway's Parliament to grant the Norwegian financial agency for Local Governments *Kommunalbanken* (KBN) an additional NOK 750 million of equity capital "to help the markets to function as well as possible and to prevent municipalities' refinancing of short-maturity securities from contributing to further stress in the markets". This capital increase would enable KBN to lend up to an extra NOK 25 billion to the local government sector (KBN, 2020[68]).

Short-term borrowing to bridge delays in revenue and cover a lack of liquidity has already significantly increased in some countries. Many governments have facilitated the access to short-term borrowing and credit lines, including specific COVID-19 credit lines. Long-term borrowing is also expected to significantly increase, in particular as a result of subnational government activity recovery programmes and public investment stimulus plans. In addition, several governments have relaxed regulatory constraints on long-term borrowing and eased access to long-term borrowing, notably on capital markets (e.g. in China).

Some estimates expect subnational borrowing to grow in 2020 and decline a bit in 2021, with annual borrowing increasing 10% on average to reach about USD 2.1 trillion worldwide. A significant increase in subnational debt is expected in Australia, Canada, China Germany, and Japan because subnational governments, particularly regions and large cities, will likely apply a countercyclical fiscal policy to support local economies, maintain employment, and increase (or at least sustain) investment in infrastructure (S&P Global Ratings, 2020[69]). In China, local government debt could reach a record of nearly CNY 3 trillion for the first five months of 2020, compared to CNY 1.9 trillion in 2019 (SCMP, 2020[70]). The recovery policies will spur annual average regional and local government borrowings by 6%-9% in Germany and Japan and by 20% in Canada in 2020-2021 (S&P Global Ratings, 2020[69]). The increased borrowing will lift global outstanding debt of local and regional governments to a new record high of about USD14 trillion by the end of 2021. In this framework, a substantial increase in bond issuance is expected, especially in China and developed markets, with the exception of the U.S. Global issuance could reach USD 1.7 trillion on average in 2020-2021 (S&P Global Ratings, 2020[69]).

Subnational government borrowing needs will depend on the depth and longevity of the recession, the availability of additional transfers from the central government, and the appetite of subnational governments to pursue a counter-cyclical financial policy. It will also depend on the fiscal capacity of subnational government to access new borrowing. Many regions and municipalities are already weakened by lower fiscal performance and creditworthiness. According to Fitch Ratings, up to 70% of the 300 local and regional governments the agency rates could be affected by weakening credit profiles due to the medium-to-long-term impact on their own fiscal performance (without a change in sovereign credit risk). The capacity to increase borrowing will also depend on the economic situation of lenders in a context of growing turbulence in the banking system and capital markets.

Asymmetric and time-delayed effects

Asymmetric effects are observed at different scales: between countries, between levels of government within country and between individual entities. Between countries, the effects largely differ to depending on their multi-level governance framework, and particularly the importance of the economic and social role of subnational governments. In countries where the level of decentralisation is high, the impact on subnational government expenditure will be higher, particularly in spending areas most affected by the crisis (i.e. health, social protection, education, utility services, economic development, etc.),

The same applies for revenues. In a number of countries, the fiscal situation of subnational governments was relatively good before the COVID-crisis (e.g. the Czech Republic Denmark, and Switzerland) – they were in good fiscal health and had sufficient reserves and liquidity to face the crisis. In Switzerland most cantons and municipalities had balanced budgets before the crisis and are robust enough to absorb the higher 2020 deficits (S&P Global Ratings, 2020[54]).

In multi-tiered countries, there are also an asymmetric impact between levels of governments. Depending on their spending responsibilities and revenue structure, the regional level may be more affected than the local level, and vice-versa. In countries with three subnational government levels, the intermediate government level may be also affected depending on its responsibilities and resources (e.g. *départements* in France) (Box 0.3 below).There may be effects that are delayed over time depending on the level of government. For example, the immediate impact may be stronger for municipalities than for regions, but it may be greater in the medium term for regions than for municipalities. Again, these staggered effects depends on the structure of their expenses and their revenues. For example, in many countries it is estimated municipalities will feel the financial shock mostly in 2020, as the loss of revenue mainly comes from the decrease in tariffs and user charges and/or local taxes, but it may be temporary (tourist tax) or delayed (deferrals). Municipalities could be spared in the future compared to regions, whose revenues depend more on taxes sensitive to economic activity, consumption or personal income. The fiscal shock on many regions could be delayed to 2021, and even 2022.

Finally, the impact may be differentiated at an individual level between regions or between local governments in the same country. There are different reasons for this, such as geographic localisation (e.g. located in an area particularly hit by the health or socio-economic crisis, in urban or more rural areas, in large metropolitan areas or smaller cities, isolated or close to borders of highly affected countries, etc.), its socio-demographic profile (importance of elderly or vulnerable groups, etc.) and its economic activities (tourism, manufacturing, mining, etc.). All these characteristics have implications for the nature of subnational expenditure and revenues, and then on the degree of fiscal exposure to the crisis.

Some market sectors that are currently experiencing the shock will be able to count on carry-over effects for the rest of the year, or a possible rebound over time. In other sectors, for which there is no possible carry-over, the lockdown results in deadweight losses. Some substitution effects are taking place at the moment (e-commerce, home delivery, online cultural products, etc.) but they will not compensate for non-recoverable losses.

In the end, subnational governments will be more or less vulnerable to the crisis depending on their economic profile, the resilience of their local economies and the resilience of their tax base. For example, touristic regions and municipalities, be they urban or rural, are particularly affected by domestic and international travel restrictions, the closure of hotels, exhibition and congress centres, tourist sites (museums, natural parks, leisure establishments, etc.), restaurants and cafes, festivals and other cultural facilities. Additionally, since the deconfinement, the impact of hygiene and social distancing measures on touristic activities and attendance also have an incidence. Coastal regions and ski resorts in Austria, France, Italy, and Switzerland, as well as urban tourist destinations suffer from travel disruptions, closure of facilities and reduction in tourist attendance (Box 0.3 below). Port cities are particularly hit by the crisis, not only because of declining cruise activities, but also because of the strong slowdown in port activities as a whole (maritime transport, fishery, shipyards, etc.), despite the fact they kept terminals open to boats and ensured a minimum level of continuous activity. By contrast, regions and cities where non-market activities are significant as well as those depending on food industry have suffered less.

The state of the local government fiscal health prior to the crisis also play a role on the differentiated degree of resilience to the crisis. Some subnational governments may have a low level of indebtedness and important cash reserve. In France, for example, the good financial health of large cities at the end of the 2019 fiscal year allows them to have, in the immediate future, sufficient cash to meet the commitment of exceptional expenses. On the other hand, the coming months could reveal difficulties for some due to the increase in expenses and lower revenue (France-Urbaine and INET-CNFPT, 2020[71]). In the US, the level of preparedness for a recession is mixed, with certain states possibly lacking sufficient reserves to absorb the fiscal stress beyond the immediate short term. Some states are most exposed to pressure derived from exogenous shocks given their comparatively weaker credit metrics, including lower reserve levels, cyclical revenue streams, and elevated fixed costs e.g. pensions, debt service, other postemployment benefits (Standard&Poors, 2020[72]).

Finally, the existence of strong and efficient equalisation mechanisms, horizontal or vertical, may mitigate the differentiated impact among subnational governments. For example, according to S&P, individual cantons and cities may see noticeable differences, depending on their economic structure and the resilience of their tax base to the economic shock but the Swiss national fiscal equalisation scheme will have difficulties to level differences within the year, as it is far less extensive than the German or Austrian schemes. The Swiss scheme employs a look-back period of four to six years to calculate relative equalisation entitlements. In Germany for example, Germany's system of interstate revenue equalisation transfers will ultimately spread the revenue shortfalls across all the states (S&P Global Ratings, 2020[54]).

Box 0.3. The differentiated impact of COVID-19 among subnational governments

- **In France**, a recent study shows that the impact of COVID-19 on municipal revenue will be very uneven. While for the 69% of municipalities, the loss of operating revenues will be less than 1%, for 5% of municipalities, it will exceed 3%, and even 10% for 58 municipalities. Municipalities located in the Ile-de-France region and in coastal areas will be among the most negatively affected (Partenaires Finances locales, 2020[73]). It is estimated that nearly 4 000 touristic municipalities are classified as "at risk" because of the sensitivity of their resources to the product of certain revenues such as tourist tax or products from casinos, horse racing and other seasonal activities (Sénat,, 2020[74]). In France, the tourist tax will likely drop by 40% in 2020. Overseas territories are also considered at risk. Subnational governments in the five outermost regions (Mayotte, La Réunion, Martinique, Guadeloupe, Guyane) are particularly affected because their revenues are particularly sensitive to economic fluctuations *(* e.g. a local VAT on imports, tourist tax, etc.) and they have high social expenditures (AfD, 2020[75]). Similarly, some departments will suffer more than others from rising social spending. Finally, French Metropolitan cities would suffer from the strong decrease of one of their main source of revenues, a contribution paid by companies to finance public transport, called *Versement Mobilité*, which will decline by 20% in 2020.
- **In Italy**, several Italian municipalities that receive substantial financial resources from tourism (such as Rimini, Florence, Venice, Rome, Palermo and Naples) have warned the government that they might be at risk of default if not subsidized and allowed to re-open activities and beaches for the summer season.
- **In the US**, there are several risks factors which explain why state and local governments are affected differently. The first is whether they have concentrated economic activities, particularly in leisure, tourism, energy, and trade. States most dependent on tourism are likely see credit pressures due to revenue losses, spikes in unemployment, and reduced economic activity, and may face a significant lag during the recovery. For example, Nevada and Hawaii are considered to be the most severely affected states based on tourism's share of their economies (S&P Global Ratings, 2020[76]). Another risk factor is the level of liquidity and the possibility to access alternative sources to address short-term cash needs (debt service reserves, lines of credit, and other liquidity facilities). The importance of volatile sources of revenues in budget is another factor putting immediate pressures on subnational governments. Finally, the level of preparedness for a recession is another risk factor. A number of US states lack sufficient reserves to absorb the fiscal stress beyond the immediate short term, although most states, following the global recession of 2008, prioritized building up rainy days funds for a potential downturn. Average state reserves grew by 170% to about 13% of budgeted expenditures between 2009 and 2019 (National Association of State Budget Officers, 2019[77]).

Managing the territorial impact of the crisis and the recovery

A combination of national and subnational measures are needed for an effective response to the COVID-19 public health and economic crisis. Leadership and coordination by national government is critical in this crisis context. Subnational governments – regions and cities – have also been undertaking a wide range of actions to manage its public health and economic impact (OECD, 2020[61]). Effective coordination mechanisms among levels of government are essential. "Strong coordination between all actors in charge of the response at central and regional levels is the basis of an effective response" (World Health Organisation, February 2020 (WHO, 2020[78]). The OECD has identified nine categories of measures undertaken by national and subnational governments that help ensure effective coordination and support regions and cities in managing the crisis:

1. Reinforcing vertical coordination among national and subnational governments
2. Supporting cross-jurisdiction cooperation
3. Managing exit strategies from containment: testing, social distancing
4. Strengthening data collection and digital governance at local and regional levels
5. Managing the impact on local finance
6. Supporting vulnerable populations by all levels of government
7. Introducing more flexibility in administrative procedures at the subnational level
8. Supporting SMEs and the self-employed
9. Promoting public investment as part of crisis exit and recovery

Vertical coordination among the national and subnational governments

Vertical coordination between the national and subnational governments is the “first step of an effective response”, as stated by the World Health Organisation (WHO) at the pandemic’s outset. While international co-operation is essential for tackling this global challenge, domestic coordination among levels of government is equally vital, and even more so when it extends to addressing socio-economic issues and long-term recovery. It is also necessary in order to design and implement policy response that can address the asymmetric impact of the crisis.

Effective vertical coordination is required in all countries, be they federal, unitary, centralised or decentralised. Non-coordinated action among levels of government can generate collective risks, such as “passing the buck”, and conflicting responses. In places where subnational government operate with high degrees of autonomy, policy responses are more likely to be fragmented. In countries where bottom-up coordination and communication is weak, there is a greater possibility of operating with one-size-fit-all measures that may not address local needs. These problems can be avoided or curbed through effective vertical coordination.

Associations of regional and local governments are playing an important role in supporting vertical coordination. On the one hand, they act as interlocutors between national and subnational governments On the other hand, they continue to coordinate efforts, identify solutions, and support the implementation of emergency measures. Regular dialogue between the national government and these associations can be particularly valuable to address crisis-generated social and economic damage throughout a country.

Country Examples

- The **Australian Government** introduced a National Cabinet to address health and economic issues related to managing the COVID-19 crisis and recovery, bringing together the Prime Minister and the First Ministers of each Australian State and Territory. The National Cabinet is advised by the Australian Health Protection Principal Committee, a parallel group composed of all state and territory Chief Health Officers, and chaired by the national Australian Chief Medical Officer. In May, the National Cabinet released a three-step exit strategy, which provides a pathway for jurisdictions to move towards COVID safe communities in a way that best suits local specificities. States and territories are able to move between the steps on the pathway at different times, in line with their current public health situation and local conditions, and make decisions as to when each step will be implemented locally (Prime Minister of Australia, 2020[79]).

- **Canada** has developed a “whole-of-government action” based on seven guiding principles including collaboration. This principle calls on all levels of government and stakeholders to work in partnership to generate an effective and coherent response. These principles build on lessons learned from past events, particularly the 2003SARS outbreak, which led to dedicated legislation, plans, infrastructure, and resources to help ensure that the country would be well prepared to detect and respond to a future pandemic outbreak (Canada, 2020[80]).
- **The Chilean government** established the Social Committee for COVID-19 (*Mesa social por COVID-19*) formed by representatives of municipal associations (mayors), government authorities, academics and professionals from the health sector. The Committee meets twice a week to help strengthen the Action Plan COVID-19 (Government of Chile, 2020[81]). This Committee has also been replicated at the regional level ((Government of Chile, 2020[82]).
- **In the Czech Republic**, the Association of Local Self-Governments and the Governors of the Liberec, Pardubice, Plzeň, Zlín and South Moravian Regions have proposed several measures that can help municipalities, cities and regions (Association of Local Authorities of Czech Republic, 2020[83]).
- In **Korea,** the government has strengthened the “whole-of-government approach” in the fight against COVID-19. The Prime Minister chairs the Central Crisis Management Committee, on which are represented all relevant central government ministries, as well as Korea’s seventeen provinces and major cities (Government of Korea, 2020[84]).
- **Norway** established a working group with members from central government ministries and the Norwegian Association of Local and Regional Authorities (KS) to consider the impact of COVID-19 on local government revenues and expenditure, and will submit a final report by 1 April, 2021 (Council of Europe, 2020[85]).
- **In Portugal** the Government established a contact line for municipalities to answer questions from other municipalities. The contact channel is operated by the General Directorate of Local Authorities (DGAL) of the Ministry of State Modernization and Public Administration. The DGAL published guidelines for municipalities, making these available on the Autárquicoa Portal. It has also requested that municipalities, metropolitan areas and inter-municipal bodies prepare contingency plans in line with the guidelines issues by the DGAL.
- In **Spain,** the Conference of Presidents is a multi-lateral cooperation body between the Government of the Nation and the respective Governments of the Autonomous Communities. It has become the operative instrument for multi-level dialogue and facilitates communicating containment measures, and coordinating resources based on territorial needs.
- In **Turkey**, development agencies at the regional level are implementing the "Covid-19 Struggle and Resilience Financial Support Program” (resourced with approximately EUR 30 million). They will support projects that prioritise: (i) containing and mitigating the spread of the virus; (ii) emergency preparedness and public health responses; (iii) reducing the impact the epidemic on the country and regional economy. Agencies will also identify the social and economic impact of the epidemic in the provinces and will provide strategies for areas where intervention is required.

Recommendations

- Introduce, activate or reorient existing multi-level coordination bodies in order to minimise the risk of a fragmented crisis response. Use such bodies to refine strategies, develop solutions, and agree on decisions with profound economic, social, and societal implications.
- Mobilise them to coordinate and communicate response, exit and recovery strategies throughout government and across a territory. Technical bodies that can help transform strategic thinking into operational plans should also be considered and consulted.
- Clarify roles and responsibilities among different levels of government to optimise crisis response, exit and recovery strategies, as well as resource deployment.
- Establish coherent guidelines for each level of government to follow, while also ensuring sufficient flexibility for adjustment to situations 'on the ground'.
- Work with national associations of regions and/or municipalities to strengthen vertical coordination in a crisis context – for example to disseminate information, identify and share solutions to pressing problems, to support the implementation of emergency measures and agree on fiscal support packages. Encourage knowledge sharing among members

Supporting cross-jurisdiction cooperation

Horizontal cooperation across jurisdictions – be they countries, regions, or local governments – is equally important, notably in decentralised and federal countries, which have more differentiated approaches across territories. Externalities linked to the virus are so high, that no single jurisdiction, or country, can manage these on its own. Coordination across regions is essential to avoid disjointed or contradictory responses, which in the end pose a collective risk to a country's population. For example, in federal systems, there may be limited incentive for cross-jurisdiction cooperation (e.g. sharing equipment, skilled personnel, etc.) if supporting a neighbour jeopardises one's own ability to adequately respond to a crisis situation. Cooperation is an imperative – and not an option. The role of national governments is essential in minimising coordination failures and ensuring a coherent approach, even in federal countries.

Cooperation across jurisdictions is essential to limit the risks of second wave of the virus. Information about new cases and clusters need to be communicated extremely quickly to avoid propagation – across states and regions, and especially among municipalities belonging to the same urban functional area. Such cooperation is also fundamental to supporting recovery efforts, including by avoiding a fragmented approach to public investment recovery strategies. Such cooperation extends across-borders, too. A lack of cross-border cooperation can create difficulties for cross-borders workers due to borders closures and other restrictions on movement.

Country examples

Many countries, regions, cities and associations of subnational governments have put in place specific measures to support horizontal and cross-border cooperation. A few examples are highlighted below.

Cooperation across municipalities

- In **Denmark,** municipalities have joined forces to purchase protective equipment for their personnel. With the Aarhus Municipality taking the lead, the Municipal Protective Equipment Purchasing Unit collaborative (*Kommunalt Værnemiddel Indkøb*) was created for joint procurement of protective equipment on behalf of Denmark's 98 municipalities (Aarhus Kommune, 2020[86]).

- In **Israel,** local authorities share knowledge via the Ministry of the Interior, the Union of Local Authorities and the National Initiative 265 for Development and Knowledge-sharing to Advance the Digitization of Local Authorities. This website was developed in collaboration with the Ministry of the Interior. Additional forums devoted to inter-local authority topics operate on an informal basis for exchanges of information and joint projects. This includes the advisory group of strategic planning and work plan managers in local authorities, which holds frequent consultations (Tel Aviv-Yafo Municipality, 2020[87]).
- In **Latvia,** eight municipalities have established strong common working relations during the ongoing pandemic in order to better deal not only with COVID-19 but also its aftermath. Thanks to their joint efforts and by sharing supplies among each other, South Kurzeme's municipalities managed to provide free protective equipment to seniors in the region (Stoyanov, A., 2020[88]).
- In **Sweden,** the four largest municipalities have joined forces with a guarantee for a credit of half a billion, which is issued by Kommuninvest to SKL Commentus. The credit will be used for the purchase of protective equipment for all Swedish municipalities and the equipment will be distributed based on the needs compiled by the County Administrative Board in their coordination assignments.

Cooperation across regions

- In **Belgium**, Federal authorities and Federated entities agreed on more intensive coordination in the overall distribution of personal protective equipment to the care sector, for example, by sharing information on reliable suppliers, stock levels, orders, deliveries, etc. They also created a solidarity stock, available to all Federated entities to meet urgent and acute needs in their regions.
- In **Switzerland**, the Conference of Cantonal Governments (KDK) is helps coordinate activities related to the COVID-19 crisis, with the Federal Council and also among cantons. In particular, the KDK is coordinating specialised conferences with all 26 cantons in order to meet regularly and jointly discuss topics related to the crisis (Conference of Cantonal Governments (KDK), 2020[89]).
- In the **United States**, there have been cross-region coordination initiatives among states. For example, the governors of New York, New Jersey, Connecticut established a common set of guidelines on social distancing and limits on recreation, which Pennsylvania subsequently joined as well (New York State, 2020[90]).

Cross-border cooperation

- Cross-border transfers of COVID-19 patients have been made possible in the context of pre-existing cooperation agreements among **France** (Grand-Est), **Germany** (Rhineland-Palatinate and Baden-Württemberg), **Switzerland** and **Luxembourg**.
- In **Germany**, the minister-president of Rhineland-Palatinate created a cross-border task force with Dutch and Belgian regions to coordinate actions against the novel coronavirus. In France, both the central government and the Grand-Est region are involved in this cooperation.

Recommendations

- Strengthen cooperation across municipalities and regions to help minimise disjointed responses during a crisis and minimise competition for resources.
- Facilitating inter-municipal cooperation can support recovery strategies by ensuring coherent safety/mitigation guidelines, pooling resources, and strengthening investment opportunities through joint procurement or joint borrowing.
- Cross-border cooperation should be actively pursued, and supported at all levels of government, in order to promote a coherent response recovery approach across a broad territory (e.g. border closure and reopening, containment measures, exit strategies, migrant workers.

Managing the exit strategies from containment: testing, social distancing

Testing is an essential component of exit strategies from containment. Since the pandemic's early stages, the WHO is recommending massive testing to fight the coronavirus (WHO, 2020[91]). Frequent virus testing enables identifying and isolating people who are infectious before the symptoms develop and prevent the risk of second waves. To reduce the risk of new "2nd wave" outbreaks of the coronavirus, the OECD highlighted that 70%-90% of all people an infected person comes into contact with need to be traced, tested and isolated if infected' (OECD, 2020[92]). This requires a massive increase in testing, but the challenges and costs of doing this pale in comparison to consequences of future lockdowns.

To limit spread of the virus and restore economic activity, a number of countries propose to radically increase testing as a means to better target social distancing. Also, the use of protective equipment to prevent the transmission of the virus has been considerably increased. Many subnational and national governments are recommending the use of masks in public transport, shops, and other commercial or public spaces.

Many countries have adopted gradual approaches to deconfinement and several countries have opted for differentiated territorial strategies, with stricter measures in the most affected regions (e.g. Colombia, France, and Spain). In federal countries, policies are defined at the state level and thus are differentiated by definition.

Social distancing is at the heart of deconfinement. National health authorities and the WHO set out detailed recommendations to limit contagion. Among these are the need to ensure minimum distances between people. Advice on physical distancing varies and ranges from one to two metres, depending on local and national contexts. This guidance affects public transport, schools, and urban mobility both during the transition phase in which countries have to live with the virus, before a treatment or vaccination is found. One of the biggest challenges for local governments is to organise the return to school under the best possible conditions, respecting social distancing rules.

Subnational governments play a leading role in implementing the "track, isolate, test and treat" exit strategy. In more decentralised contexts, while central governments will need to ensure financial resources and coordination, the actual policy delivery will be the responsibility of regional and local governments. In countries with more centralised health service delivery, local and regional governments will likely contribute to organising testing and isolation measures. In either context – decentralised or centralised – it is important to leave room for local initiatives and experimentation. Doing so contributes to managing the pandemic's asymmetric impact, which and which often requires quick local-level reactivity at a local level, for example if a cluster starts in a municipality.

Country Examples

- In **Colombia,** the president announced a further extension of the nationwide lockdown for two weeks (from 5 May 2020), but municipalities without confirmed COVID-19 cases were able to start re-opening their economic sectors.
- In **China**, on 17 February, the State Council published the guidance that subnational governments should adopt a differentiated territorial approach to organise the recovery plans (except for Hubei Province, the most affected province and Beijing, the capital). The Provincial governments should identify municipalities and counties in high, medium and low risk, and update them continuously, and adopt measures accordingly. In practice, many provinces have categorised their counties (municipalities and districts) into different levels (four or five in many cases), according to the number of confirmed cases, new cases, cluster of cases, and other indicators.
- In **France**, on 11 May 2020, the government announced a progressive exit from a very strict lockdown subject to conditions of decreased coronavirus infections. The deconfinement was designed taking a differentiated territorial approach, classifying *département* as green or red regions, depending on if the virus is under control. Inter-departmental travel to and from red zones was limited to imperative professional or personal reasons for the first three weeks. A second phase of deconfinement started on 2June.
- In **Germany**, coronavirus testing increased considerably since the beginning of the crisis, and the country can now carry out half a million tests per week. It will be able to increase testing to 200 000 tests per day. The dense network of laboratories across Germany helped organise the testing relatively quickly and on a large scale. Exit measures are recommended at Federal level but implemented with somewhat varying schedule in the different *Länder*.
- In **Italy**, testing all 3 300 residents of the town of Vò-Euganeo facilitated taking containment measures that eventually stopped all new infections. Vò-Euganeo was one the first centres of Italy's coronavirus outbreak, and the location of Italy's first virus-related death on 22 February. Testing all residents regardless of whether they were exhibiting symptoms resulted in effective quarantining the infected and their contacts once infection was confirmed. This helped the health authorities build a full picture of the pandemic situation and completely stop the spread of the illness in the town. Testing occurred in two rounds. The first round was carried out on the town's entire population in late February, finding 3% of the population infected. Half of the carriers were asymptomatic. All of those infected were isolated. The second round was carried out 10 days later, with results indicating that the infection rate had dropped to 0.3%. Asymptomatic individuals identified in the second round were quarantined. Based on Vò-Euganeo's experience, the Veneto region extended the use of tests (RFI, 2020[93]), and its approach has successfully controlled the pandemic. Its approach included:
  - *Extensive testing*: People with symptoms and people who were asymptomatic were tested whenever possible.
  - *Proactive tracing*: If somebody tested positive, everybody they live with was tested or, if tests unavailable, they were required to self-quarantine.
  - *Emphasis on home diagnosis and care*: Health care providers went to the homes of people suspected of being ill with COVID-10 and collected samples so they could be tested, keeping them from being exposed or exposing others by visiting a hospital or medical office.
  - *Monitoring medical personnel and other vulnerable workers*: doctors, nurses, caregivers at nursing homes, and grocery store cashiers and pharmacists were monitored closely for possible infection.
- In **Japan**, local governments are in charge of implementing the testing strategy through local institutions, and local outpatient and testing centres. These are responsible for testing, deploying medical workers to Outpatient Services for Returnees and Contact Persons, and providing drive-

through and walk-through medical care facilities in large tents and prefabricated buildings (Prime Minister of Japan and His Cabinet, 2020[94]; Government of Japan, 2020[95]).

- In **Korea**, specific Subnational Centres for Pandemic Countermeasures were established in local governments to implement containment measures and help coordinate local measures with central authorities. Local governments play a large role in the Korean massive testing strategy for combating the coronavirus, including setting up the roadside testing facilities (Chung and Soh, 2020[96]; Business Insider, 2020[97]). Multiple municipalities, led by Goyang, have set up "drive-thru" COVID-19 testing pods where medical staff in protective clothing take samples from people in automobiles.
- In **Spain**, the deconfinement strategy is gradual and asymmetric across Autonomous Communities, and coordinated along with the regional authorities.
- In the **United Kingdom**, the government is providing a funding package of GBP 300 million for local authorities to local authority to develop tailored outbreak control plans, working with local NHS and other stakeholders. Plans will focus on identifying and containing potential outbreaks in places such as workplaces, housing complexes, care homes and schools. As part of this initiative, local authorities will also need to ensure testing capacity is effectively deployed to high-risk locations. Data on the virus's spread will be shared with local authorities through the Joint Biosecurity Centre to inform local outbreak planning, so teams understand how the virus is moving, working with national government where necessary to access the testing and tracing capabilities of the new service (UK Government, 2020[98]).

Recommendations

- When relevant, consider adopting of a place based or territorially sensitive approach to exit-strategy implementation, introducing flexibility in the rules according to the severity or spread of the virus in the region.
- Encourage local initiatives and experimentation to better match exit-strategy implementation with local or regional characteristics and populations, thereby managing the asymmetric impact of the pandemic.
- Clearly and regularly communicate the exit strategy to citizens, establishing easily understood and explicit guidelines for behaviour, and creating platforms for questions, answers and exchange.

Strengthening data collection and digital governance at the regional and local levels

The COVID-19 crisis has accelerated the digitalisation of public administration and public services delivery in regions, cities, and rural areas. At the same time, digitalisation also poses significant challenges for regional and local governments, and the capacity to deal with digitalisation challenges varies widely. The current crisis may widen these disparities, as many subnational governments were not necessarily prepared to go digital. In more remote and rural regions, digitalisation is also likely to be particularly challenging if adequate IT infrastructure is lacking.

Regional and local governments are increasingly mobilising digital tools to track and stop the spread of the coronavirus. A more expanded use of digital tools for tracking and information purposes in the pandemic scenario has served a twofold objective: *(i)* to inform decision-makers, adopt adequate measures and contain the pandemic, and, at the same time, *(ii)* to communicate with citizens transparently and by this means strengthen trust -a key element for the population to comply with containment measures.

Digital tools have been crucial for regions and cities to better manage their immediate response to the crisis. Some new applications helped reduce the spread of COVID-19, and supported the gradual lifting of confinement measures by informing citizens if they were in proximity of people infected by the virus, and if so, encouraging them to inform health authorities and to request support. Data tracking, as well as accurate and timely reporting, are essential components of crisis management, and can help prevent – or at least minimise – additional waves.

The use of these tools has also raised challenging questions regarding data protection and confidentiality. While acknowledging the benefits that tracking apps may bring to crisis management, they also affect the privacy of information. While in many countries the legal framework does not permit this type of data use, in others the use has been easier to implement. In order to minimise the risks regarding privacy and data protection, the European Commission, for example, has developed guidelines and a toolbox for developing COVID-19 related apps aiming to guarantee sufficient personal data protection.[6]

Making use of digital tools for data monitoring and reporting is also proving essential to keep citizens well informed and improve the interaction between citizens and governments. Many jurisdictions have developed specific web sites to disseminate information on the crisis' development, communicating daily, for example, the number of cases and new measures adopted. Even when there is no dedicated website, most cities and regions around the world provide information about the pandemic situation on their own website, and provide links to their Ministry of Health's website, their country's national COVID-19 platform, or to the WHO website. The realisation of the potential benefits of digitalisation in this matter depends crucially on the relevance, quality and user-friendliness of the information being generated by the digital systems and made available to the public. To ensure a good and efficient use, it is important to involve key stakeholders (CSOs and other groupings of users of public services) early in the process of designing these systems.

E-governance and digital services

While there was a growing tendency of governments adopting e-democracy tools (e-government, e-governance, e-deliberation, e-participation and e-voting), the pandemic has accelerated it. Regional and local governments, which were often reluctant to adopt such measures, were forced by the circumstance to overcome this in order to ensure the continuity of their work. Proof of this is that many regional and local councils, for example, have moved to permit on-line debating and voting (de Mello and Ter-Minassian, 2020[99]).

At the same time, confinement measures have accelerated the digitalisation of services, broadening the range of services provided on-line, including e-education and e-health. Trends towards the digitalisation of services were increasing even before the COVID-19 crisis. Across OECD countries, access to government services through digital portals has tripled since 2006 (de Mello and Ter-Minassian, 2020[99]). Prior to the crisis, the results of a survey on the use of digital information systems by local governments suggested that, on average, the degree of digitalisation was larger for local services in spatial planning, construction, tourism and culture and sports, and smaller for social services. At the same time, the survey suggested that the level of digitalisation in health services was relatively high in larger cities in northern Europe, but rather low in other regions.

- **E-health services:** in a context in which social distancing is a critical containment and prevention factor, e-health services offer important benefits, and their use has increased significantly since March 2020. This is especially true of e-prescriptions and telemedicine. In the US, some preliminary research shows that as the number of COVID-19 cases increases, so does the population's interest in telehealth. Local and regional governments can encourage such

[6] On 13 May 2020, EU Members States, with the support of the European Commission, adopted interoperability guidelines for approved contact tracing mobile applications in the EU.

developments, especially in countries where health care is more decentralised. While e-health may be also a way to deal with territorial inequalities in access to health, support from the central level is crucial to ensure that the distribution of e-health is balanced throughout the territory by supporting the development of institutional and technical capacities. Some barriers to wider use, like access to broadband, will be difficult to tackle in the short-term, highlighting the need to strengthen health care provision in rural and low-resource settings (OECD, 2020[100]).

- **Digitalisation of education**: with more than 1.5 billion children outside of school (over 60% of the world's student population) according to UNESCO, the COVID-19 crisis led to a massive shift towards e-education and online courses (UNESCO, 2020[101]). In a number of countries local governments have broad responsibilities for delivering education policy. This puts them in the lead with respect to the digitalisation process, including in the current crisis context. Before the crisis hit, some regions and cities were spearheading the digital transition of education, particularly in Europe's northern and western cities. Northern European regions, for example, provide a very wide range of digital services with online applications for admission, online monitoring of progress, and online learning materials (de Mello and Ter-Minassian, 2020[99]). Now with schools being closed, cities are increasingly promoting the use of digital tools to continue classes. The challenge for local governments is twofold, as on the one hand they need to ensure online classes, and on the other they need to ensure equal access for all – a striking challenge especially in more disadvantages areas. Some cities (e.g. Fuenlabrada, Gdansk the Hague, and Madrid) are working to ensure equal opportunities for all pupils by providing low-income families with digital devices for their children to follow online school courses from home.

The pandemic has revealed the digital divides within countries and has, in some cases, accelerated digital inclusion responses. In OECD countries, access to, and use of, the internet varies significantly within countries. Regional differences in the percentage of households with broadband access are strongly pronounced both in countries with a high ICT penetration, such as France, Israel, the United States and New Zealand, and countries with low average ICT access such as Mexico or Turkey (OECD, 2018[102]). In the US, for example, nearly 25% of 15 years old with disadvantaged backgrounds have no access to a computer. In the poorest regions of Italy, 42% of families have no access to a computer/tablet at home and 20% of 6-7 year-old children are in that same situation. This inequality gap risk being accentuated as some municipalities do not have the capacities to follow the digital transition in the short and medium term. To reduce this risk, local initiatives need to be accompanied by nation-wide initiatives to tackle the digital divide (de Mello and Ter-Minassian, 2020[99]).

Country examples

Using digital tools to track data and contain the crisis

- In **France**, the Ministry of Health is leading the *Programme Répertoire opérationnel des ressources* (ROR) to develop an automatic-updated data repository for health resources (such as the availability of beds in each hospital). The ROR is managed in a decentralised manner, so each region has an ROR solution, but these solutions are interoperable so that the exchange across regions is ensured. During the COVID-19 pandemic, this programme is further tailored to identify and map out care units dedicated to coronavirus cases and normal health care resources to ensure a normal provision of health care (Ministry of Health, 2020[103])
- In **Italy,** several regions developed different digital solutions for tracking and containing infection based on the analysis of movements and gatherings generated by anonymous data. For example, Lazio activated a portal for reporting gatherings called "Unique Alert System". The Lazio Region also launched Lazio DrCovid, an app that provides secure bidirectional text-audio communications via smartphone between the citizen and their doctor. In some cases, it is also accompanied by diagnostic kits for home monitoring. Liguria, Lombardy, Sardinia and Umbria have started

analysing phone records and interactions. Citizen health status is monitored in regions like Lombardy, which created the “LOM Alert” app. Piedmont has designed "COVID-19 Piedmont Region Platform" for the Regional Crisis Management Unit to track and monitor all the activities concerning patients with COVID-19. Puglia and Tuscany also have regional web platforms that support assistance, care and monitoring of patients from a distance.

- **Korea** has developed and operated the COVID-19 Smart Management System to support epidemiological investigation. This system is based on the country’s smart city data hub technologies for collecting and processing a large volume of urban data. Korea has implemented this system for a wide range of statistics analysis to backtrack the movements of infected persons, identify transmission routes, or locate an infection source in a large-scale outbreak. The location data of the infected persons before they were diagnosed is collected from mobile base stations, credit card transactions, etc. within the permitted range under the Infectious Disease Control and Prevention Act. With full consideration of privacy, information deemed necessary is provided anonymously to the public so that people themselves can check whether they have crossed paths with the infected persons, and get tested if necessary.
- In **Norway,** the government launched a mobile application called Smittestop, to help te health authorities limit the transmission of the coronavirus. Using the data provided by the application, the Norwegian Institute of Public Health can analyse movement patterns in society and develop effective infection control measures.

Digitalisation as a means to better inform citizens

- In **Estonia,** Järva Vald is using their community engagement app to info citizens on national and local level actions and guidelines to prevent and stop the spreading of the coronavirus. The engagement app publishes targeted question cards, feedback, calendar events, social media content and notifications. City officials can also detect how many users have seen the shared info and when (Open Government Parnership, 2020[104]).
- In **Korea**, an interactive and up-to-date webpage was created, mapping out COVID 19-cases within the country, as well as the places that patients reported having visited. Authorities identified high-priority cases and back-tracked the routes of infected persons thanks to artificial intelligence and data driven measures via location data collected from mobile base stations, credit card transactions and data-mining of CCTV footage, then published extremely detailed lists of their whereabouts. Massive testing has also been the major strategy for combating the coronavirus (Government of Korea, 2020[84]).

Moving towards e-governance and digital services

- In **Canada**, the province of Ontario, developed its own website where businesses can directly indicate their ability to furnish emergency products (e.g. ventilators, masks, etc.), submit innovative solutions to fight COVID-19 by supporting virtual mental health services, provide financial advice for small businesses, or submit a proposal for ideas, other products or services that could help Ontarians. Canada has also introduced legislation that permits municipalities to fully conduct Council, local board and committee meetings electronically in local and province-wide emergency situations, empowering the municipalities to respond quickly when in-person meetings cannot be held.
- In **Germany**, the city of Bamberg established an online platform with exercises and working materials for students. These serve a dual function, as they also relate to Bamberg’s cultural heritage. Dusseldorf is also turning to the internet and telephone for education support, as well as having developed a hotline for the elderly and other high risk populations to get help and advice ((Eurocities, 2020[105]).

- In **Italy**, Bologna's Institution for Education and Schools (IES) has been offering online educational resources to families with children aged 0-6, to help and keep them entertained, educated and exercised without leaving the house. The municipality of Palermo, through its innovation office has created a "digital toolbox" that provides the tools, procedures and information necessary to work online. It includes essential information for municipal staff to work remotely at home. Some of the information included in the toolbox includes instructions for the management applications to work remotely at home, tutorials for using digital signature, to manage video meetings, to draft and share documents with colleagues on Google Drive, among others (Eurocities, 2020[106]).
- In **Netherlands**, the law on digital decision making within municipality council meetings allows municipal councils to take legally binding decisions through a digital meeting.
- In **Spain**, legislative adjustments were made to permit representative and governing bodies of local entities to hold remote sessions by electronic or telematic means.

Addressing digitalisation challenges: bridging the digital divide

- In **Italy,** the city of Milan has used dashboards to understand where citizens were located on the city map and how they could connect them to private sector offering services. Based in this data, and in partnership with a telecommunications company, the city was able to provide free internet access to vulnerable families connected to the internet (UCLG, 2020[107]).
- In the **United States**, several States have adopted measures to bridge the digital divide. The NYC Education Department is making 300 000 internet-enabled iPads available to the highest-need students via an online survey or hotline; The City of Los Angeles is partnering with the California Emerging Technology Fund and EveryoneOn to provide options for low-cost internet, access to computers, and digital literacy services to its residents through its Get Connected program, as well as device and digital training resources; The City of Louisville has created a free internet for students page outlining free internet offers to families with students by ISPs operating in the area. The City of San Antonio has announced a plan to invest over USD 27 million to address the digital divide in the city (NDIA, 2020[108]).

Recommendations

- Collect and share information and data among all levels of government in a timely, transparent, and regular fashion.
- Support data and information dissemination across jurisdictions to help manage the inter-jurisdiction disparities and uncertainties generated by a crisis and promote knowledge-sharing and good practice exchange.
- Strengthen the quality of micro-level data within and between regions to improve understanding of the crisis and its impact.
- Take advantage of the insights that digital tools and big data offer to track and stop the spread of the coronavirus, but give equal consideration to matters of data privacy and data protection.
- Use digital opportunities (e.g. e-health, e-education) to help ensure continued service delivery, being sensitive to territorial, economic, and social disparities in access. Encourage good practice exchange in this area among local authorities, and frequent users (e.g. medical professionals, teachers, students, etc.).

- Introduce measures to overcome the digital divide in crisis recovery strategies plans and investment plan and strengthen the support from the central level for the digitalisation processes especially for Smaller and poorer urban, and especially remote, rural communities.
- Create incentives for subnational government cooperation to build digitalisation opportunities across jurisdictions, for example through financing possibilities.
- Encourage the development of pilot projects on digitalisation at the local level to test, experiment and encourage innovation by local governments.

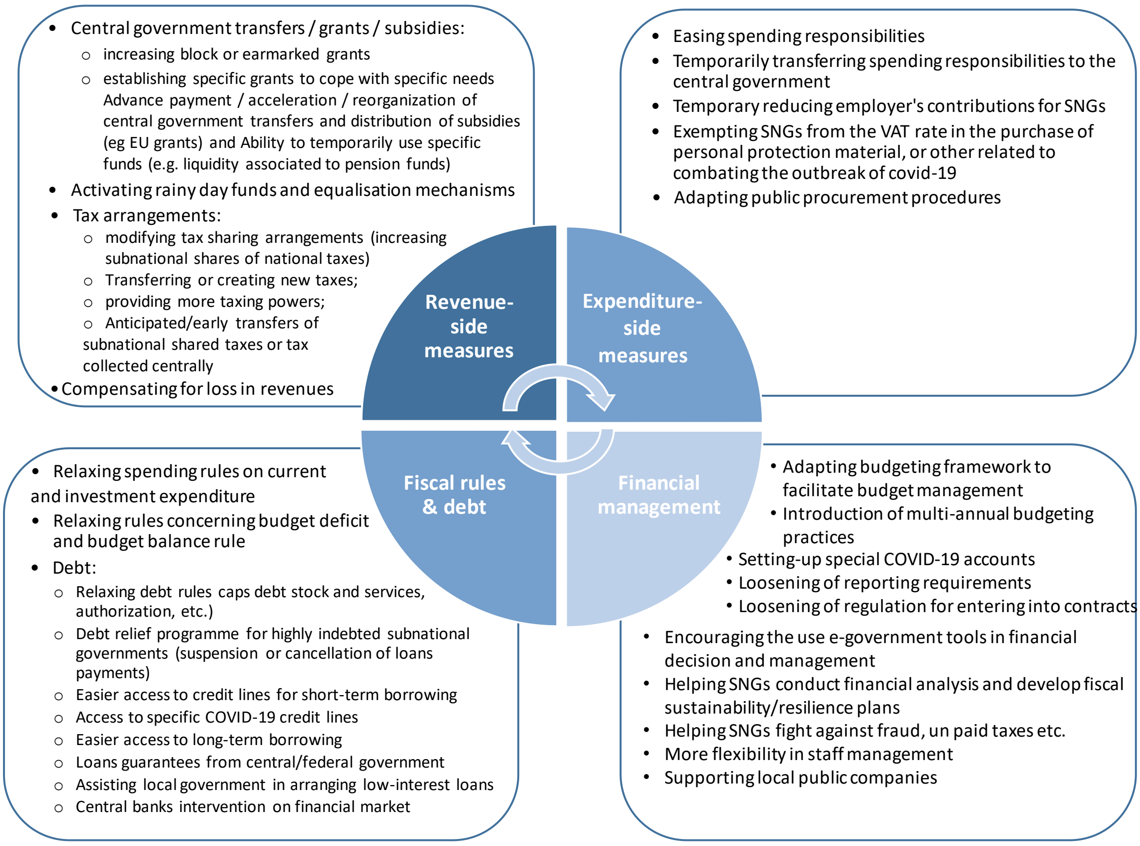
Managing the impact of the crisis on local finance

While the expenditure effects of COVID-19 on subnational governments have been considerable, especially in countries with decentralised service provision, the revenue side is affected even more. Without sufficient compensation for the extra spending and the revenue losses caused by COVID-19, many subnational governments could be forced to implement sharp cuts on operating and capital spending. This could endanger the efforts for a coordinated response for the recovery, and weaken the equity of service availability and quality across subnational governments. Cuts have already been announced in the area of public employment and public investment.

Many central/federal governments have already announced considerable fiscal measures to help subnational governments cope with the fiscal shocks. State governments in federal countries have also announced measures to support local governments. Two-thirds of OECD countries have adopted measures in support of subnational government finance.

The measures implemented in countries so far can be classified into four categories (Figure 0.11). They include both revenue-side measures (e.g. tax arrangements, increases in central government transfers, activation of rainy-day funds, compensation schemes, etc.) and expenditure-side measures (e.g. easing spending responsibilities of subnational governments, VAT exemptions, public procurement, etc.). They also include measures to relax fiscal rules related to spending and budget deficits, and to facilitate the use of debt for both short and long term needs. Finally, they include diverse measures related to financial management, such as limiting administrative burden by easing current regulations and promoting new practices. This covers a large scope of measures, from budget management, accounting, and contract management to supporting the use of ICT in financial management, the preparation of fiscal resilience plans and changes in public employment management.

Figure 0.11. Four main categories of fiscal instruments to support subnational finance



Source: Authors" elaboration

These measures can be further divided according to the time span of the effects. For example, grants to subnational governments affect relatively quickly to compensate losses in tax revenues and increased expenditures. Transferring or creating new taxes or providing more taxing powers to subnational governments are effective in medium and long term, but not always adequate to respond to immediate needs. Also transferring service responsibilities from subnational governments to central governments is likely to affect slower than transferring additional resources to subnational governments to secure service provision. Some measures are also meant to be temporary, others can implemented in a more permanent way.

Increases in central/federal or state government transfers are likely to be insufficient to fully offset decreased revenues from taxes, user charges and tariffs, and property income. Furthermore, in the longer term, central government transfers will probably be cut to rebalance public budgets to restore fiscal stabilty, for example through future austerity measures. Hence, while in the short term the support from higher levels of government may help fill the fiscal gap created by the crisis, subnational governments need to prepare for the recovery phase after the crisis, and possible consolidation plans.

Since the crisis is likely to have negative effects in medium and long term to subnational government finances, also reforms that ensure the stability, the operational capacity and the resilience of subnational finance are important. Such long term measures should be planned and implemented carefully.

Support to subnational government finance can also be indirect, by supporting related entities, such as local public companies (e.g. public transport agencies, energy companies and other utility companies.). In Latvia for example, municipal capital companies, whose turnover has decreased by 50% due to the

COVID-19 crisis, may receive a state budget loan to increase the company's share capital in order to finance its maintenance costs. In the US, the CARES Act includes USD 25 billion for transit agencies to compensate for part of the revenue gap. In Germany, the federal government will take over the costs of housing benefit for welfare recipients from the municipalities (EUR 4 billion) and support local public transport networks (EUR 2.5 billion) (BNP Paribas, 2020[109]).

The methods used to prepare these measures vary from country to country, depending on existing inter-governmental fiscal relations, and the culture and practices of dialogue and negotiation between the central and subnational governments. In countries where fiscal coordination is already well developed and effective, support measures have been developed and discussed between the different ministries in charge and representatives of subnational governments. In several countries, the discussions about urgent support measures, compensation schemes and other financial measures have been discussed and agreed with the national associations of subnational governments. This may result in formal agreements or more informal deals.

Country examples

- **In Australia,** the Australian Government, States and Territories signed a cost sharing arrangement at the start of the crisis to cover the public health costs incurred by States and Territories in treating COVID-19. On 29 May 2020, a new 2020-2025 health reform agreement was signed by the Commonwealth and the states and territories that includes a guarantee to all states and territories that no jurisdiction is left worse off as a result of the COVID-19 pandemic (Federal Ministry of Health, 2020[110]). In addition, the Australian Government, in co-operation with the state jurisdictions and local government, is further examining and discussing methods of identifying the pandemic's impact at the small area level (sub-state regions, local governments) and developing targeted recovery and reconstruction assistance that might be required in the medium and longer term.
- **In Belgium,** regional governments have announced support measures for local finance. In Wallonia, municipalities are now allowed to increase their budget deficit, and encouraged to use their reserves or borrowing to boost local economic recovery (La Libre Belgique, 2020[111]). In Flanders, the Flemish Government adopted several measures to support municipalities, for example: a grant of EUR 15 million for poverty reduction as a result of the COVID19 pandemic; an Emergency Fund of EUR 87 million to support local authorities in the culture, youth and sport sectors; and a fund to stimulate sustainable mobility (local improvements for walking and cycling). Flexibility has been allowed for the local budgets (subject to monitoring coronavirus impact) (Flemish Government, 2020[112]).
- **In Brazil,** on 24 March 2020, the federal government announced a package of measures for states and municipalities amounting to BRR 85.5 billion to face the impact of the COVID-19 pandemic.. On April 1, the Ministry of Economy relaxed the rules for entering into contracts with states and municipalities and loosens rules around processes for payment of these contracts. On April 13, a new package of measures for states and municipalities was adopted bringing total support up to BRL 127.3 billion. It includes additional combination of direct transfers, suspension of debts with the federal government for six months and suspension of payment of debts with public banks in 2020 (BNP Paribas, 2020[109]).
- **In Canada**, the Federal government announced a CAD 2.2 billion aid package to help cities and municipalities. The aid will come via an advance that cities receive through the Federal Gas Tax Fund. This is a fund that municipalities receive twice a year but the federal government is making the 2020/21 payment in full. Municipalities have been asking for CAD 10-15 billion to help them offset negative effects of COVID-19 layoffs, property tax, and other shortfalls like transit and road projects. The Federal government said that the Federal Gas Tax Fund advance is just the first step in helping the cities and that it is necessary to discuss with provincial governments to decide what happens next.

- **In Chile,** the central government transferred USD100 million to municipalities to partially compensate for the decrease in municipal revenues. Funds will distributed according to population and vulnerability rates. Mayors will be able to decide on the distribution and use of these funds.
- **In Colombia,** on 21 May 2020, the Colombian government announced a series of fiscal measures, including: more flexibility in the use of several sources of income to finance extraordinary operating expenditure (which are normally earmarked); the possibility to use resources from the National Pension Fund of Territorial Entities (Fonpet); the possibility to contract short-term borrowing (credit lines) which will not be counted in indebtedness ratios; a relaxation of debt rules.
- **In the Czech Republic,** a bill to mitigate the impact of the decline in municipal tax revenues of in 2020 was adopted on June 8. Each municipality should receive a bonus of CZK 1,200 per inhabitant, which mounts to total amount of almost CZK 13 billion (EUR 0.5 billion) (Government of the Czech Republic, 2020[113]).
- **In Denmark**, fiscal rules have been temporarily eased for municipalities, as municipalities are allowed to exceed expenditure ceilings in case of coronavirus-related operating expenditures (Information, 2020[114]). To support investment, expenditure ceilings for investment are lifted.
- **In Estonia**, municipalities will receive a financial support package of EUR 100 million from the central government to compensate the loss of revenue, to cover extraordinary direct costs of the crisis borne by municipalities, and to finance additional public investment that can stimulate economic recovery.
- **In Finland**, the government decided in June 2020 to support municipalities and hospital districts with EUR 1.4 billion in the fourth supplementary budget of the state government. The compensation scheme for municipalities is based on formulas, which aim to take into account the extra costs and revenue losses experienced by municipalities. The formulas take into account the age structure of municipal population and share of tax revenues of all municipal revenues. A small part of aid is based on discretionary grant, which municipalities need to apply. There is also a small general grant with same per capita amount to all municipalities. In addition to direct support to municipalities, the government will compensate directly to hospital districts the extra care costs caused by coronavirus treatments. This will ease the burden of individual municipalities because hospital districts are joint municipal authorities (Ministry of Finance of Finland, 2020[48]).
- **In France,** an emergency plan of EUR 4.5 billion will take into account the fiscal situation of the different levels of government and within the context of particular category e.g. touristic municipalities. The emergency plan will focus first on municipalities (EUR 1.8 billion) and departments (EUR 2.7 billion), to help them meet increased social spending requirements. The emergency plan comprises three main components: i) subnational governments will have the possibility to record COVID-19 related operating expenditure in a special account and to amortise them over three years or even to finance them through borrowing; ii) the current Support Grant for Local Investment (*Dotation de soutien à l'investissement local* or DSIL) will receive an additional EUR 1 billion; iii) guaranteed resources in 2020 for municipalities, based on government compensation for the loss in tax revenues and a portion of user charges (e.g. car parks), calculated by comparing the revenue in 2020 to the average for 2017 to 2019. Measures in favour of the regions will be announced at the end of June 2020.
- **In Germany,** on 3 June the Federal Government decided on an overall EUR 130 billion fiscal stimulus package that includes EUR 25 billion in support for municipalities (The Federal Government, 2020[115]). This includes compensating revenue losses of municipal surcharge of local business tax in 2020 by EUR 8 billion. The government also decided on a permanent higher federal share in municipal welfare spending, additional capital grants for Kindergarten, hospitals, public transport, digitalisation and local health services. For the *Länder*, the Federal Government compensates declining revenues and provides additional grants to compensate crisis spending. This federal support comes on top of support provided by the *Länder* to the local governments. In

particular, the *Länder* have decided to loosen the fiscal rules applied to municipalities by suspending the balanced budget rule, suspending the duty for cutback measures and for spending freezes. In addition, regulation for short term credits has been eased.

- **In Korea**, the Korean government has implemented several financial packages to stimulate the economy, including measures to support local governments. The First Financial Stimulus Package of KRW 4 trillion included a policy support related to internal and local tax. The 2020 Supplementary Budget adopted in March 2020 amounted to KRW 11.7 trillion including support to most severely hit areas for Daegu City and North Kyeongsang Province. Additional support encompass the application of the prime rate on initial lending and backing local governments and municipalities that are propping up local SMEs through loans and guarantees (MOEF, 2020[116]; Government of Korea, 2020[84]).
- **In Luxembourg,** in a circular of May 2020, the Ministry of Interior indicated the possibility of activating several mechanisms to limit municipal budget deficits and offset and cope with spending needs, including the use of rainy days funds and borrowing. .
- **In Mexico,** the Stabilisation Fund for Federal Entities (*Fondo de Estabilization de Ingresos de las Etidades Federativas* (FEIEF) is a rainy day fund managed by the federal government which provides additional revenues to federated entities when grants from the CG are reduced in times of fiscal stress. Its resources come from oil revenues and federal contributions, which are declining. In addition, resources will only partially mitigate the (Fitch Ratings, 2020[117]). However, the government is considering additional measures to ease the financial pressure on state and municipal governments, including federal transfers and modifying some regulations to allow greater access to financing on capital market.
- In the **Netherlands**, the government announced an emergency envelope of more than half a billion euros to be allocated to municipalities.
- In **New Zealand**, the government announced significant new funding to help local authorities create emergency walking and cycling infrastructure (OECD-ITF, 2020[118])
- **In Norway**, municipalities have been compensated for the effects of the COVID-19 outbreak with a total of NOK 6.5 billion. This includes a compensation scheme of NOK 1 billion for pre- and after-school care and day care. Compensation to county authorities amounts to NOK 1.5 billion, related to loss of revenue in public transport (Government of Norway, 2020[119]). As of April 30, the Norwegian Association of Local and Regional Authorities (KS) estimated the extra expenditure and revenue loss in 2020 amount at NOK 12.5–20 billion for the municipalities and NOK 5.5–6.8 billion for the county municipalities (KS, 2020[120]).
- In **Portugal**, municipal expenditures incurred to combat the COVID-19 crisis will fall outside the debt limits provided for in the Local Finance Law. The relaxation of budgetary balance rules and spending rules were also approved. Furthermore, the authorisation of short term loans has been simplified and recourse to medium long term borrowing has been facilitated (no prior authorisation needed from the municipal assemblies). In addition, local authorities can request anticipated/early transfers of their portion of state taxes. Support to municipal treasuries also includes the possibility of using accumulated fiscal year balances of past years.
- **In the Slovak Republic,** the Lex Korona Package announced on March 31, provides support measures to cities, municipalities and higher territorial units (regions) in order to help them finance extraordinary expenses and fill the loss of tax revenues. Until the end of 2021, local governments will be able to use funds from reserve funds, capital income and loans for their current expenditure. In addition, several budgetary rules have been softened, including the possibility receive advances from public funds, relaxation of fiscal discipline rules, including possibility of incurring budget deficit (Slovak Republic Ministry of Finance, 2020[121]).

- **In Slovenia,** municipalities will have eligible costs arising from the tackling of the epidemic be reimbursed from the national budget (Prime Minister of the Republic of Slovenia, 2020[122]).
- **In Spain,** the Royal Decree-Law 8/2020 of March 17 on extraordinary urgent measures to face the economic and social impact of COVID-19 includes a measure to support local finance. Local governments are allowed to use their surplus to finance expenses corresponding to social services. An Extraordinary Social Fund was also created. At the regional level, the "shock plan" presented by the government on 17 March includes several measures to provide the Autonomous Communities (ACs) with more resources to combat the coronavirus and mitigate the emergency's economic effects.
- In the **United Kingdom**, additional resources for devolved administrations are allocated to the three devolved nations to cover health expenditure, local government support, and public transport expenditure. The global envelop of almost GBP 7 billion of funding is broken down into GBP 3.5 billion for the Scottish Government, GBP 2.1 billion for the Welsh Government and GBP 1.2 billion for the Northern Ireland Executive. The devolved administrations decide how to respond to COVID-19 in their areas (COE, 2020[123]).
- In the **United States**, in the framework of the Coronavirus Aid, Relief, and Economic Security (CARES) package of USD 2 trillion, USD 150 billion in grants were set aside to help state and local governments cover costs directly related to the coronavirus. In addition, the Families First Coronavirus Response Act, raised the share of Medicaid allocated to States by 6.2 percentage points. Furthermore, to help state and local governments manage cash flow stresses caused by the coronavirus pandemic, the Federal Reserve established a Municipal Liquidity Facility that will offer up to USD 500 billion in lending to states and municipalities (Federal Reserve, 2020[124]).

Recommendations

- Foster multi-level and multi-stakeholder dialogue, including with national associations of subnational governments and other consultative bodies, on the crisis's fiscal impact on subnational budgets, using shared evidence and data, and forward looking perspective.
- Help subnational governments reduce the gap between decreasing revenues and increasing expenditures resulting from the COVID-19 crisis to avoid underfunded and unfunded mandates and possible sharp cuts in subnational spending, and help subnational governments participate in recovery plans:
  - Develop special grant schemes by central/federal governments, and States in federal countries to help close fiscal gaps.
  - Explore fiscal tools and measures, including tax arrangements, easing fiscal rules and access to external financing (debt), and introduce more flexible, modern and innovative financial management tools. Some measures should remain temporary while others could be more permanent.
  - Focus on reviewing subnational financial management and strengthening expenditure and revenue effectiveness, as a means to contribute to restoring fiscal stability over the medium and long terms.
  - Undertake a subnational government finance review to ensure sufficient autonomy, flexibility and reactivity to adapt to spending needs and revenue shortfalls especially in times of crisis, as well as strengthen financial management effectiveness.
- Consider the differentiated impact of the crisis in national-level support to subnational governments:

- Evaluate the degree of asymmetry and differentiate aid schemes to align with the asymmetric impact of COVID-19.
  - Distribute fiscal support to subnational governments in a transparent manner.
  - Consider giving greater weight to subnational governments with higher shares of elderly, children and poor, in order to account for the higher costs of service delivery during the COVID-19 emergency.
  - Review and strengthen existing equalisation mechanisms to smooth the impact of crisis and reduce regional and local disparities and promote greater social inclusion.
- Ensure that COVID-19 assistance packages support subnational government services past 2020 and promote multi-year approaches.
  - Design support packages that can be implemented and adjusted over several years to account for time-delayed effects.
  - Assess the effectiveness of support measures.
  - Promote multi-year planning and budgeting at subnational levels to enable fiscal systems to adapt to changes in revenues and evolving spending needs.
  - Establish stabilisation or rainy day funds, or encourage subnational governments to do so individually.
- Improve the collection, dissemination and exchange of reliable and transparent fiscal data on subnational government finance (financial flows, assets and liabilities).

Supporting vulnerable populations at all levels of government

Vulnerable populations are doubly affected by the crisis. First, because they are often more at risk with from a health standpoint. Second, because they are particularly hard hit by the economic crisis. During the emergency, subnational governments have undertaken proactive initiatives to provide social/community support to vulnerable populations (OECD, 2020[61]) through food/nutrition programmes particularly for children and elderly, meal delivery, special care for the elderly and disabled people, emergency shelters and housing, vouchers, installation of sanitary facilities, etc. In some countries, local governments have worked with central government authorities, as well as with NGOs and community volunteers. There is a specific focus on indigenous populations in some countries. Given the conditions in which these communities live, the threat of COVID-19 is aggravated due to factors ranging from poor health conditions and overcrowding, to the lack of access to adequate sanitation facilities. Indigenous populations are often also the most vulnerable in terms of economic consequences (Lustig and Tommasi, 2020[125]).

Country Examples

- **In Australia,** State and Territory governments have announced fiscal stimulus packages amounting to AUD 11.5 billion (0.6 percent of GDP), which include cash payments to vulnerable households (IMF, 2020[126]).
- **In Canada,** while the federal government has doubled the Reaching Home Program that provides funding for the homeless, provinces and municipalities are also establishing emergency funding through family and community support services. Indigenous Services Canada (ISC) is working closely with the Public Health Agency of Canada, other departments, and provincial and territorial counterparts to protect the health and safety of First Nations and Inuit communities to support them in responding to public health threats, including the novel coronavirus.
- **In Greece,** the Ministry of Interior Initiative, in cooperation with the Central Union of Municipalities of Greece and with the support of the Ministry of Digital Governance, launched #CitySolidarityGR

to assist vulnerable citizens by helping them access supplies and services offered organisations that expressed interest in contributing to the effort.

- In **Hungary**, the central government launched a call for proposals for the 2020 Local Government Best Practices Program, under the theme: “Rehabilitation and Reconstruction to Mitigate the Damage Caused by the Epidemic - Proven Municipal Innovations”. Municipalities can apply until 2 July 2020. Good practices should relate to social inclusion, effective local methods of combating poverty and elderly care for example (National Association of Municipalities, 2020[127]).
- **In Iceland,** the central government and local authorities are establishing a contingency fund that will provide the scope for the necessary actions to address the effects of COVID-19 on social services and on specific services for vulnerable groups (SAMBAD, 2020[128]).
- **In Ireland,** on 2 April 2020 the government launched ‘The Community Call’, a major initiative linking local and national government with the community and voluntary sectors. The Community Call will be overseen and managed locally by Local Authorities, led by the county Chief Executives. The forum involves an extensive list of state and voluntary organisations, and initially focuses on the elderly and vulnerable groups (Government of Ireland, 2020[129]).
- **In Italy**, on March 2020, the Government passed a EUR 25 billion package of economic measures to help Italian businesses and families. This package includes an envelope of EUR 4.3 billion for the municipalities allocated through the Municipal Solidarity Fund in the form of an instalment of the ordinary annual transfers to the municipalities. EUR 400 million were allocated to the 8 000 municipalities for food emergency to provide food/shopping vouchers for people in need.
- In **Korea**, the government plans to consider medical service accessibility a critical element in the National Minimum Standards for Living Infrastructure, scheduled to be introduced in 2020, so that medical services will not be neglected in lagging regions. These Standards, part of a central and regional governments support for vulnerable groups, are designed to ensure that all people across the nation have easy access to infrastructure that is essential to their daily lives.
- **In the Netherlands**, various social initiatives were launched to inform people from vulnerable groups about how they can protect themselves against coronavirus, bringing together volunteers, helplines for older people, a coronavirus helpline for older people from migrant backgrounds, and platforms set up by local organisations and churches, and those who need it. Examples of initiatives include linking volunteers to lonely elderly people, helping vulnerable people with grocery shopping, online readers of the ‘Voorleesexpress’ (a social initiative that ensures that children with a language delay receive extra attention) so that they can continue to support the language development of families.
- **In Portugal,** to make accessing emergency assistance easier, Portugal simplified the allocation of support to vulnerable populations.
- **In Spain,** local governments are allowed to allocate up to EUR 300 million from the 2019 budget surplus to finance expenses corresponding to social services, such as proximity home services, home telecare, homeless people assistance, purchase of individual protection equipment (masks etc.), or to guarantee income for families. An Extraordinary Social Fund was created for an amount of 300 million euros to be transferred to the Autonomous Communities and Local Entities for social projects and labour contracts. Projects include concerted plan in social services, home care or telecare, guarantee of water and energy supply to vulnerable consumers and moratorium on mortgage debt for the purchase of a permanent home when the debtor is economically vulnerable, among others.
- **In the United States,** the CARES Act includes USD 4 billion for Emergency Solutions Grants to help local governments and homeless providers to take action to reduce the risk of spread of COVID-19 in the homeless community and those at risk of homelessness, as well as to respond quickly where the problem presents itself most severely. There is an additional USD 65 million for

the Housing Opportunities for Persons With AIDS program that provides support for a particularly vulnerable population; a USD 5 billion in supplemental funds for the Community Development Block Grant (CDBG) to fill the gaps not covered by other sources, with a particular focus on serving low- and moderate- income households and an additional USD 200 million allocated to Indian Housing Block Grant (IHBG) for tribes and USD 100 million for Indian CDBG (ICDBG) imminent threat funding that can be targeted to tribes with the greatest need.

Recommendations

- Provide additional grants to subnational governments to finance expenses corresponding to increased social service needs and the support of vulnerable populations in the crisis.
- Establish temporary formula-based grants to compensate subnational government support given to vulnerable groups during COVID-19. If necessary, such grants could be complemented with discretionary grants.
- Clearly and regularly communicate the support available to vulnerable populations and how to access it, and simplify its allocation.
- Facilitate horizontal cooperation among municipalities to address increases and shifting profiles among vulnerable populations

Introducing more flexibility at the subnational level in administrative procedures

Several countries have eased regulatory measures on procurement and land use for emergency actions, have introduced more flexibility in administrative procedures, and relaxed certain restrictions. Rigid regulations can prevent action when it is most urgently needed, for example with respect to procurement or land governance (e.g. flexibility relating to land leases, allowing for a delay in transferring fees, or meeting other contractual obligations). In some countries, subnational governments have no ability to issue orders or make decisions during a crisis. This leaves them dependent on the national government's provision and reaction, and they may resort to diverse channels, including the media, to call for measures and support from the national decision-makers. In highly decentralised countries, the approaches may vary substantially across jurisdictions, sometimes leading to contradictory measures.

As political and administrative organisations, subnational governments are also adopting new ways to work, meet, manage staff and regulate. Many regional and local governments have been granted exceptional authority and under certain conditions, to organise virtual deliberative and executive councils meetings to take urgent decisions and adopt emergency measures. As employers, subnational governments must identify how to best protect their staff, including social and health staff who may come in direct contact with the virus. They also have to facilitate teleworking among their staff, to encourage the continuity of local public services.

As regards support to businesses due to the COVID-19, tax cuts can in fact have the advantage of being administratively lighter than direct business aid. The use of direct business aid requires prior analysis and monitoring of companies applying for it in order to prevent abuses. This slows down the process and requires administrative resources. In contrast, tax reductions can be relatively easily administered and carried out. Tax cuts are also generally associated with a lower risk of abuse than direct business aid. On the other hand, both business subsidies and tax cuts can benefit companies or investments that would not need support (Asplund et al., 2020[130]).

Country examples

- **In Chile**, SUBDERE has established a technical coordination table with the different Municipal Associations to co-ordinate the implementation of preventive measures, such as ensuring more flexible and simpler administrative procedures for citizens.
- **In China,** so far over 60 cities changed regulations governing land, most are related to land leases and allow for a delay in transferring fees or meeting other contractual obligations. Another aspect concerns prepayments, where the share has been reduced.
- **In Korea,** each department and local government is instructed to use an active administrative system. For example, the Ministry of Health and Welfare uses the 'Active Administrative Support Committee' to provide a temporary allowance for purchasing special equipment required for screening clinics. The Public Procurement Service also uses the system to proceed the contract for supply of masks and payment immediately after delivery of goods (post-receipt of receipts).
- **In Portugal,** approval of tax benefits for municipalities have been simplified by eliminating the need for the regulation's approval by the municipal assembly by combining this with the conditions of exemption of other taxes and revenues.
- **In Slovenia,** the government highlighted the key role of municipalities in addressing the pandemic. Municipalities, which are at the front line of policy making and implementation will see their eligible costs arising from the tackling of the epidemic be reimbursed from the national budget. The public procurement measures have been eased, until 15 November 2020, to allow municipalities to make independent decisions on public procurement and increase limit values decisions (Republic of Slovenia, 2020[131]),
- In the **United Kingdom**, the government is introducing practical measures to give councils greater flexibility and allow them to further focus their resources on the response to COVID-19, for example relaxing restrictions on supermarket deliveries; postponing local, mayoral and Police and Crime Commissioner elections until May next year; and considering advancing legislation to remove the requirement for annual council meetings to take place in person (UK Government, 2020[132]). In addition, Councils will be able to use their discretion on deadlines for Freedom of Information requests.

Recommendations

- Ease administrative burden on services that ensure the continuity of core local services and are most effective in helping vulnerable groups (e.g. normative and fiscal regulations that hamper services for vulnerable groups). Ensure that measures simplify and speed up administrative processes during the crisis and recovery period.
- Adapt public procurement systems to provide adequate responses in the case of emergency and force majeure (e.g. direct wards, extension of current contracts) but this should be limited in time. The OECD recommends procurement systems that promote value for money and integrity, as well as wider objectives such as greening public infrastructure, innovation, SME development and social inclusion, in particular of vulnerable. Build transparency throughout the procurement cycle and clear accountability and control mechanisms.
- Promote inter-regional or inter-municipal collaboration in procurement especially in emergency situations (e.g. purchasing alliances, networks, framework agreements, central purchasing bodies). Promote the use of e-government tools and digital innovation to simplify, harmonise and accelerate procurement practices at subnational level.

Support to SMEs and the self-employed by all levels of government

Across the OECD, small and medium-sized enterprises (SMEs) account for 99% of all businesses and between 50% and 60% of value added. SMEs are particularly vulnerable during the crisis (OECD, 2020[2]). The restrictions put in place to tackle the epidemic directly and indirectly affect local businesses. Some businesses, such as restaurants and cafes, have been closed due to confinement measures, while other small and medium sized businesses have been able to continue but with considerably reduced demand. Some have had to lay off or even dismiss their personnel. Unless local businesses are able to restart soon in large scale, the crisis will mean reduced tax revenues for subnational governments in the short and medium terms. To help avoid bankruptcies among local business, central and subnational governments have supported SMEs and tried to ensure their liquidity during the worst of the COVID-19 crisis.

In addition to SMEs, the self-employed represent a considerable share of total employment in a number of OECD countries. Amounting to slightly less than 15% on average, self-employment is particularly prevalent in Greece, Italy, and Turkey where it exceeds 20% (OECD, 2020[2]). The self-employed are often less protected by unemployment benefits compared with standard workers. That is why many national and subnational governments have created special support packages for the self-employed (OECD, 2020[133]). In some countries, COVID-19 support for the self-employed has been delegated to subnational governments because they are best informed about local conditions and needs. Since the support to the self-employed is comparable to social welfare to families and individuals, for which subnational governments are responsible in normal times, subnational governments have the necessary organisation in place to carry out these support measures.

The responses by governments offer a preliminary indication of the size of the impact the crisis has on SMEs. For example, the United States passed a USD 2 trillion relief package for individuals and businesses.[7] Given the role that subnational governments play in supporting SMEs, it is vital that national and subnational governments coordinate the policy responses to avoid duplication and loss of transparency in public measures. Local governments are very aware of local needs and priorities and are well positioned to support their local businesses. Subnational governments may be urged to take strong recovery actions in regional and local economic development to support businesses.

Support ranges form from deferring tax and fees collection, easing regulations and permits required from businesses, and simplifying public procurement, to temporarily lowering rents, advancing payments to service providers, and providing loans, guarantees and subsidies to artisans, retailers and small businesses. These initiatives have already generated higher costs for subnational governments, and are expected to increase in the medium term.

Country examples

- In **Colombia**, the city of Antioquia has created special credit lines for the highly affected SMEs and informal workers in order to grant them immediate liquidity.
- In **Finland**, central government agencies are responsible for providing cash support and other financial aid such as loan guarantees to SMEs. Municipalities are responsible for delivering support to the self-employed who can apply for support from the municipalities where they are located. The lump sum aid amounts to EUR 2 000 per self-employed. The purpose of the aid is to ensure that the company can continue to operate profitably after the crisis caused by the coronavirus. Additionally, municipalities will be compensated by the central government for the support they pay to the self-employed. Municipalities can apply for a state grant from the Ministry of Employment and the Economy to finance the support. The government has allocated a total of EUR 250 million for this purpose. The Ministry allocates funding to municipalities using a formula. Many

[7] Not all of it targeted SMEs or individuals, however.

municipalities also try to help their local SMEs and self-employed by deferring fee collection, easing regulations and permits required from businesses, temporarily lowering rents and advancing payments to service providers. For example, the City of Helsinki decided to suspend the rents of commercial and other business premises leased from the City up to three months.

- In **France**, joint action was taken between national and regional governments to manage the crisis as part of the new Economic Council *Etats-Régions* established in December 2019. This included regional task forces that incorporate development banks (BPI) in order to accelerate support measures for businesses. In addition, regional governments unlocked EUR 250 million (in addition to EUR 750 million allocated by the State) to participate in the support fund for artisans, retailers and small businesses.
- In **Italy** simplification measures were introduced by 14 regions to streamline administrative and regulatory procedures for SMEs. These include deferring the application deadlines for public funding programmes and for reporting on investment plans subject to public incentives, and simplifying public procurement (OECD Trento Centre for Local development, 2020[134]).
- In **Sweden**, support for SMEs and the self-employed (e.g. cash aid, loans and guarantees, and deferred tax payments) is the responsibility of central government agencies and ministries (Government of Sweden, 2020[135]). Government agencies also provide free business advice to all companies. The regions and municipalities focus on giving "indirect" support to SMEs in their areas. Some regions have launched special aid services for SMEs, for example expert support for restructuring the day-to-day business or preparing new business models (Region of Skane, 2020[136]).Municipalities have, for example, deferred SME payments of fees and invoices for municipal services, introduced free parking, and eased permissions and regulations. Some municipalities have also advanced payments to their suppliers.

Recommendations

- Central/federal governments are well positioned to ensure "equal treatment of equals", i.e. ensuring that similar SMEs in different parts of the country are treated in the same way.
- Subnational governments are best informed of local circumstances and well-positioned to support their local businesses. Consider cash support for local entrepreneurs and workers in the short-term, and turn to other forms of economic support in the medium- and long-terms, such as favourable pricing of land and buildings, increased municipal grants, eased loan and guarantee arrangements, lower interest rates and equity financing.
- Consider public service provision to local businesses and households at a price below the market price could be considered.
- Provide indirect support to SMEs and the self-employed by advancing payments to suppliers, temporarily lowering or delaying fee collection, easing permits and regulations, etc., depending on local specificities.

Public investment can contribute to crisis exit and recovery

Many national and subnational governments have reacted quickly to address the economic and fiscal consequences of the crisis and countries are spending significantly more than in 2008-2009. A number of countries are already announcing recovery strategies with a focus on public investment to help the economic recovery in the short- and medium-terms. Public investment by regions and cities represent almost 60% of public investment on average in the OECD. The level of public and private investment in the OECD prior the COVID-19 crisis was still below the 2008 pre-crisis levels. The quality of infrastructure has deteriorated in some countries and current deficiencies in infrastructure can hamper the productivity, socio-economic opportunities and resilience of regions. A main risk in the current context is a further decline of subnational public investment, which would act as a pro-cyclical effect impeding the recovery. In several countries, the risk is high, given the contraction of self-financing capacities and increasing deficits. It is also important to avoid large investment stimulus followed by very strong fiscal consolidation, a sequence seen in 2008-2010 that undermined public investment for almost a decade.

Without adequate support, it is clear that public investment will be used as an adjustment variable, in particular at the local level, like in the post-2010 fiscal consolidation. A survey of 200 municipalities conducted by KfW Research published in May 2020 indicated that half of surveyed German municipalities already postponed their investment, and one-third expect investment to decrease this year (KFW, 2019[137]).

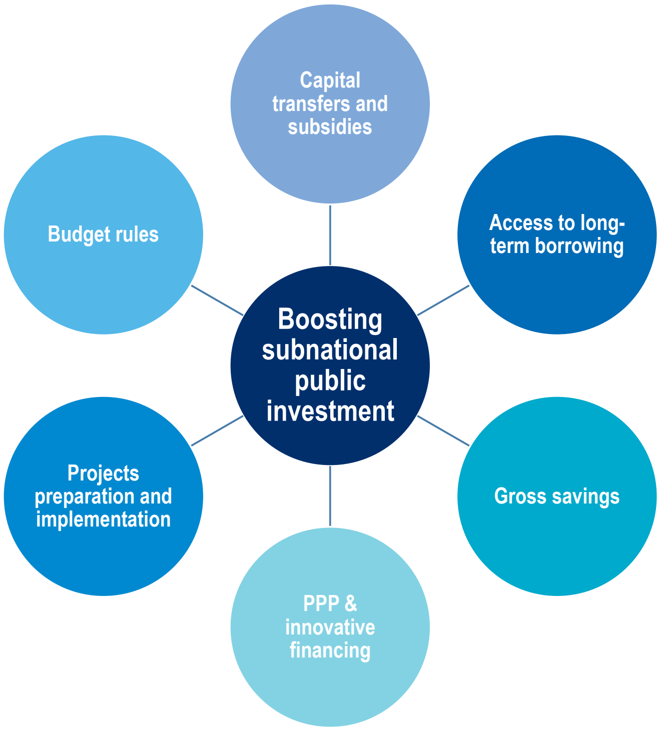
Experience from the 2008 financial crisis indicates that investment recovery strategies need to be well targeted to a few priority areas, and that the way public investment strategies are managed largely determines their outcomes, as highlighted by the *OECD Recommendation on Effective Public Investment across Levels of Government* (OECD, 2014[138]). A space-blind investment strategy will not address the territorial challenges posed by the crisis. In this respect, intermediary levels of government, such as regions, have an essential role to play, as they have the proper scale to allow for strategic investment projects. During the implementation of investment recovery packages in 2008-2009, a major challenge came from the fact that investment was fragmented by municipality, thus limiting the potential for large projects with an impact on territorial development.

The demand for infrastructure was already high before the COVID-19 crisis, not only for new construction but also for operating and maintaining existing stock. The OECD estimates that USD 95 trillion in public and private investment will be needed in energy, transport, water and telecommunications infrastructure, globally, between 2016 and 2030. Cities and regions have important needs for maintenance and new investment in renewable energy, low-carbon buildings, energy efficiency, waste and pollution management systems, and clean public transport. Developed countries will have to invest heavily in infrastructure, in particular to maintain, upgrade or replace existing (and often obsolete) infrastructure. US infrastructure, for example, is in need of investment, according to the American Society of Civil Engineers, which estimates that the US needs to spend some USD 4.5 trillion by 2025 to repair the country's roads, bridges, dams and other infrastructure, such as schools and airports. Similar issues are evident in Europe. In Germany, for example, the KfW – Germany’s state investment bank – calculated that local municipalities need to spend at least EUR 138 billion to bridge the backlog of urgent infrastructural investments.

Recovery investment strategies need to be aligned with ambitious policies to tackle climate change and environmental damage (OECD Coronavirus Platform). Technologically advanced, sustainable and resilient infrastructure can pave the way for an inclusive post-COVID economic recovery (WEF, 2020[139]). It is also essential to look beyond physical infrastructure investment, and consider investment needs in skills development, innovation and R&D. It is particularly important to ensure that investments from stimulus packages do not impose large stranded asset costs on the economy in coming decades, for instance because they bet on declining technologies or place projects in high-risk flood zones (World Bank, 2020[140]).

Country examples show that different instruments are being activated to maintain, or even accelerate, public investment projects at the subnational level (Figure 0.12). In addition to improving self-financing capacity i.e. gross savings, these include various classical fiscal instruments: relaxing budget rules, increasing capital transfers and subsidies, easing the access to long-term projects on both credit and financial markets and supporting projects preparation and implementation. Other financing mechanisms may be activated in the future such as public-private partnerships schemes or equity financing.

Figure 0.12. Boosting public investment at subnational level



Source: Authors' elaboration

Country examples

- **In Austria,** a EUR 1 billion package was established to support municipal investment by increasing federal capital transfers from 25% to 50% of municipal investment. It can be used for projects that start between June 2020 and December 2021, as well as for projects initiated after May 2019 but which were suspended directly as a result of the COVID-19 crisis (Parliament of Austria, 2020[141]).
- **In China,** quotas for local government domestic bond issuance have been increased. In May 2020, the Ministry of Finance indicated that it would advance another CNY 1 trillion in the quota of local government special purpose bonds to fund infrastructure projects.
- **Denmark** lifted the expenditure ceilings for subnational government investment purposes. Regions and municipalities are encouraged to bring forward investment projects which were planned for 2021 or 2022. The government hopes this will result in at least EUR 500 million in extra investment. (Ministry of Finance, 2020[142])
- **In Estonia,** part of the EUR 100 million government financial support package helps municipalities finance additional public investment that can stimulate economic recovery.
- **In France**, as part of its emergency plan and recovery measures, the government will increase the current Support Grant for Local investment from EUR 0.6 billion to EUR 1.6 billion, placing particular emphasis on financing green and the health sector investments. The Association of French Regions proposes substituting "recovery contracts" for the "*contrats de plan Etat-Régions*" (Association des Régions de France, 2020[143])
- **In Germany,** at the beginning of June, the federal government adopted a "package for the future". It targets investment in digital and clean technologies, education and the health sector. Additional spending will focus on R&D projects, e-mobility, e-government, and mobile and broadband networks. With the new package, the government uses the recovery as an opportunity to boost

investment and address some of Germany's longer term challenges, such as digitalisation and climate change.

- **In Iceland**, the government and local municipalities are initiating a special investment programme within the framework of the economic response package to the COVID-19 crisis. The investment programme will focus on transport, public construction, and technology infrastructure. It also includes financial support for the tourism sector. Additional measures aim to facilitate municipal investment. These include a temporary VAT refund for work performed until end of 2020, special support for municipal sewage projects, and grants from the Local Government Equalisation Fund to finance construction projects to improve access for people with disabilities to municipal property, structures and outdoor areas. Municipalities are authorised to temporarily deviate from the budget balance and debt rules in order to have more leeway to investment (Parliament of Iceland, 2020[144]).
- **In Lithuania,** the government established an economic recovery package that includes EUR 1 billion to "boost the economy". The Economic and Financial Action Plan supports accelerating investment programmes, speeding up payments and increasing the intensity of funding.
- In **Poland**, the government will establish special fund to finance public investment in local roads, digitalisation, modernisation of schools, energy transformation, environment protection, reconstruction of public infrastructure. The fund consists of national resources, independent from EU support. However, the flexibility proposed by the EU in the use of cohesion funds could be also mobilised.
- In the **United States**, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) provides the U.S. Department of Commerce Economic Development Administration (EDA) with USD 1.5 billion for economic development assistance programs to help communities "prevent, prepare for, and respond to coronavirus." The EDA works directly state and local governmental entities, institutions of higher education, not for-profit entities, and federally recognised Tribes to catalyse locally developed strategies to build capacity for economic development based on local business conditions and needs. The EDA's recovery grants will support a wide variety of assistance including: Planning and Technical Assistance to EDA's Economic Development Districts (EDDs), Tribal Grantees, and University Centers, and others; Capitalization and Recapitalization of Revolving Loan Funds (RLFs), which provide access to capital for businesses; Innovation grants and construction of infrastructure and other economic development projects

A number of states and regional governments are also developing initiatives to support public investment in their area, and to support local governments' investment projects.

- In **Belgium**, the Flemish Minister for Mobility and Public Works, has announced €2.2 billion in mobility investments in 2020 in 924 different projects, in order to give a social and economic boost to the road and hydraulic engineering sector, but also to the entire economy, in the context of the recovery. The priorities are road safety, waterways and rail systems, public transport (Hybrid buses, Trams, E-bus charging systems) and climate and noise measures, including switching from lighting to LED, installing functional plants and noise barriers, tree control, etc. (Intelligent Transport, 2020[145])
- In **Germany**, Bavaria, Baden-Wuerttemberg or Hesse, North-Rhine Westphalia Saxony-Anhalt Saxony have announced comprehensive support packages that include measures to support infrastructure investment
- I**n Italy,** the Lombardy region has introduced a three-year investment plan worth EUR 3 billion. EUR 400 million is earmarked for local authorities and EUR 2.6 billion targets support for the local economy (including EUR 400 million for strategic investments). Of the EUR 400 million for local authorities, Milan and surrounding areas will receive EUR 51 million for public works (roads and schools); the remainder can be spent by other communities on energy efficiency, renewable

energy, urban re-development and sustainable development, sustainable mobility, heritage, and hydro-geological works, for example. Separately, the region foresees using the “Lombardy Bond” to finance EUR 10 million for producing medical and personal protective equipment, and EUR 82 million in bonuses for health workers who have been involved in combating the epidemiological emergency (European Committee of the Regions, 2020[146]) (Varese News, 2020[147]) (First Online, 2020[148]).

Box 0.4. The European Union recovery package

The European Union (EU) has redirected funds to help member states tackle the COVID-19 crisis:

- EUR 37 billion from the EU budget available to support healthcare systems, SMEs and labour markets through the Coronavirus Response Investment Initiative;
- up to EUR 28 billion in structural funds from 2014-2020 national envelopes not yet allocated to projects are eligible for crisis response;
- up to EUR 800 million from the EU Solidarity Fund, directed at the countries hardest hit, by extending the scope of the fund to public health crises.

The EU also adopted measures to ensure additional flexibility in the use of structural funds. Through the Coronavirus Response Investment Initiative Plus Member States can transfer money between different funds to meet their needs. Resources can be redirected to the most affected regions, thanks to a suspension of the conditions on which regions are entitled to funding. Finally, Member States can request up to 100% financing from the EU budget between 1 July 2020 and 30 June 2021 for programmes dealing with the pandemic’s impact.

The EU has enabled maximum flexibility in the application of EU rules on:

- state aid measures to support businesses and workers
- public finances and fiscal policies, e.g. to accommodate exceptional spending

On 27 May, the EU announced it will propose a new fiscal stimulus package of as much as EUR 750 billion. Of the total amount, it is expected that EUR 500 billion would be distributed as grants to member states, and EUR 250 billion would be available in loans. To fund the package, the EU proposes borrowing up to EUR 750 billion on financial markets.

Source: (European Council, 2020[149])

Recommendations

- Use investment to enhance the capacity of regions and cities to recover from the crisis and strengthen their resilience, and avoid using public investment as an adjustment variable.
- Minimise fragmentation in the allocation of funds, and ensure allocation criteria are guided by strategic regional priorities.
- Consider relaxing fiscal rules to create sufficient fiscal space for public investment at all levels of government.
- Consider introducing a resilience-building criteria for the allocation of public investment funding for all levels of government.
- Invest in quality infrastructure to align the short-term emergency responses with long term-economic, social and environmental objectives as well as international obligations (e.g. the Paris Agreement, the SDGs, etc.).
- Ensure quality infrastructure investment associated with COVID-19 recovery contributes to a low carbon economy.
- Help target public investment strategies to green and inclusive priorities by introducing conditionalities.
- Balance infrastructure investment with public investment in skills development, innovation, R&D, etc., as part of public investment strategies.
- Encourage regional and local authorities to invest in digital infrastructure (3G, 4G, WIFI networks, etc.) with an eye on full territorial coverage, and ensure adequate weight is given to regional digital inclusion in support of public investment choices.

Looking ahead: Ongoing debates and questions

Navigating the emergency's wake

The COVID-19 pandemic has called on governments to act in a state of emergency, and emergencies, fortunately, eventually pass. The question then is: how does government manage what comes in the emergency's wake, including the uncertainty? In the short term, this means considering how to "exit" the emergency measures erected to address the crisis. In the medium and longer-terms, it implies mitigating the negative effects of emergency measures, for example the economic impact of confinement/containment. It also means taking stock and drawing on the insights afforded and applicable to future policy action, for example in social and health services, or climate matters.

Most governments in the OECD have been operating in "emergency mode" since the first quarter of 2020, and this has thrown the significance multi-level governance into relief – highlighting centralised versus decentralised approaches to crisis management, the necessary balance between planning and implementation, the need for effective leadership balanced with effective coordination, consultation, and a collaborative approach among government and non-government actors. It is underscoring the role that trust in public institutions plays in crisis management, and the power of effective communication with stakeholders and citizens. It is also leading governments to take an even closer look at regional development as a tool for addressing territorial disparities. COVID-19's asymmetric impact on communities, regions and countries is inspiring broader discussion on the how to increase resilience and how to be better prepared for future health, economic, social or climate-related shocks.

COVID-19: what insights for the future of multi-level governance?

The COVID-19 crisis highlights the importance of effective multi-level governance in managing the mutual dependence characterising the relationship between different levels of government – regardless if a government is operating in crisis mode or "business-as-usual". It is bringing to the fore the debate surrounding centralisation versus decentralisation, underscoring the fundamental need for a coordinated response to emergency situations and their aftermath, and accentuating the risks associated with uncoordinated and/or heavily bureaucratic approaches to crisis management. Coordination is just as necessary across and among levels of government as it is between government and non-government actors, including citizens. Successfully managing the pandemic's asymmetric impact can rest with asymmetric responses, emphasising the potential advantages of experimentation and a place-based/place-sensitive approach to exit and recovery strategies. Success also depends on a strong partnership between national and subnational governments. Contributing factors to such a partnership include effective central-level leadership, particularly for setting strategy and guidelines to support coherent responses and minimise competition among jurisdictions, coupled with subnational governments that are capacitated to act in a manner coherent with meeting the immediate priorities of their territories and constituencies. This crisis may result in countries re-evaluating their multi-level governance systems in an effort to make them more "fit for purpose", more flexible, and with a reconsidered balance between centralised and decentralised territorial management.

What is more successful, a centralised or decentralised approach?

COVID-19 is revealing that the centralisation versus decentralisation debate currently taking place in many countries is a deceptive one. There are advantages and disadvantages to both. For instance, a centralised approach to managing aspects of the public health emergency can support a rapid and uniform response across a country, overriding potential inequalities, be they in resource capacity or in the treatment of individuals (e.g. quarantining those who traveling from a specific state, region or province). This was evident in the early days of the pandemic in France, when the government transferred patients from hospitals in the most affected regions, such as Grand-Est to those less affected in the South. It can also facilitate quick information and knowledge sharing, which is essential in times of crisis (Silberzahn, P., 2020[150]). On the other hand, a decentralised system can support greater flexibility and experimentation in the face of uncertainty, making room for "bottom-up", innovative approaches (Silberzahn, P., 2020[150]) that can be applied elsewhere, if successful and appropriately adapted. In the COVID-19 crisis, the multi-pronged "Veneto approach" to controlling the virus originated in a single Italian town, Vò-Euganeo, extended to entire Vento region and eventually was adopted, in part or in full, by other Italian regions. Additionally, decentralised approaches create space for regional and local governments to react and respond quickly. The decentralised networks of German laboratories have also been instrumental in realising the proactive testing strategy put in place by the country.

Furthermore, COVID-19 is reinforcing centralisation/decentralisation as a means to achieve objectives and not an end-state. A good illustration is the fact that some governments are temporarily recentralising while others are temporarily decentralising in order to manage the crisis. Many countries have adopted state-of-emergency laws, giving central or federal governments the right to take over some subnational responsibilities. By contrast, some countries have decided to decentralise some additional powers to subnational governments, at least temporarily. For example, Switzerland has temporarily recentralised health management in response to the crisis, while the UK is temporarily decentralising it.

Successful short, medium and long term responses to the coronavirus-induced crisis depend less on a country's degree of decentralisation and more on the coordination mechanisms it applies, as well as on the ability of government actors to align priorities, implement joint responses, support one another, and foster information sharing, including with citizens. The crisis is also accentuating the importance of a clear assignment and understanding of responsibilities among levels of government, and of ensuring properly funded mandates at the subnational level – not only to meet the immediate needs that arise, but also to ensure future capacity to do so.

Emergency or crisis situations, especially at their outset, demand rapid response capacity to prevent escalation and control damage. The ability to adapt to uncertainty and change, and to course correct as needed, becomes central to successful crisis management. Because an emergency's immediate impact is felt locally, regional and local governments need room to act quickly, effectively and responsibly – regardless of whether they operate in centralised or decentralised contexts. Such capacity, however, can frequently depend on having sufficient flexibility and discretion to mobilise resources, for example, or to make and enact decisions that can help mitigate or prevent further crisis-induced damage. It can also mean temporarily or permanently reducing burden and red-tape surrounding administrative procedures, making it easier for subnational governments to fulfil responsibilities and take decisions, and for eligible businesses and citizens to apply for and receive emergency support.

Finally, as this paper argues, COVID-19 has an asymmetric territorial impact – among and within countries, regions, and municipalities. Managing the crisis requires a degree of flexibility to allow for differentiated territorial responses– from first response to exit plans to long-term recovery strategies – adopting a place-based approach, and one that is adapted to the preparedness and needs of specific localities. This differentiated territorial approach is as apparent and relevant in federal or highly decentralised countries as it is in unitary or highly centralised ones. For example, to manage the exit of the containment period, both Germany and France have adopted territorially differentiated approaches. While in the former, the Federal government is recommending appropriate measures implementation will be undertaken with a somewhat varying schedule by the different *Länder.* In France, the national government announced a progressive exit from containment measures with a differentiated approach based on whether or not a *département* has the virus under control.

The debate is unlikely to be resolved by choosing one side or the other. As the OECD has argued with respect to COVID-19 – and decentralisation in general – it is not the degree of centralisation or decentralisation that matters (OECD, 2019[151]) for an effective crisis response. Rather, what matters is inter-governmental coordination and the interaction of proactive measures undertaken at and by all levels of government. The crisis is revealing that extreme centralisation and extreme decentralisation both exhibit significant weaknesses. The most effective responses are coming from systems characterised by flexibility, where there is room to act "on the ground" combined with effective leadership at the national level. This can also mean striking the right balance between centralised and decentralised approaches, applying the valuable aspects of each to effectively manage a crisis situation.

How can effective coordination minimise the risk of crisis management failures?

A coordinated response by all levels of government, in both federal and unitary systems, can minimise crisis-management failures. Many countries with past experience in crisis management seem better prepared to tackle the COVID-19 crisis in terms of coordination. The main risk of non-coordinated action in a crisis is to "pass the buck" to other levels of government, which can result in a disjoined response and generate collective risk. For example, in federal systems, there may be limited incentive for cross-jurisdiction cooperation (e.g. sharing equipment, skilled personnel, etc.) if supporting a neighbour jeopardises one's own ability to adequately respond to a crisis situation. Horizontal coordination is essential to minimise coordination failures and avoid disjointed responses that can lead to collective risk. Countries are approaching this in a variety of ways and at different levels of government.

Many critical aspects of crisis response – such as containment measures, health care, social services, economic development and public investment – are shared among levels of government, reinforcing the need for effective vertical coordination. Federal and unitary countries alike have been introducing or mobilising vertical coordination mechanisms to ensure a coherent crisis response. Multi-level coordination bodies are commonly being used for this purpose, for instance the National Cabinet in Australia, the

COVID-19 Social Roundtable (*Mesa Social COVID-19)* in Chile, and the Conference of Presidents in Spain. The more decentralised the country, the greater the need to mobilise coordination platforms to minimise the risk of a fragmented policy response. National associations of subnational governments are also playing a role to ensure vertical coordination efforts – disseminating information, identifying and sharing solutions, and supporting the implementation of emergency measures by their members. Effective crisis response highlights that robust vertical and coordination mechanisms are more important than ever.

Why build partnerships for crisis management and beyond?

No single government, or level of government, can meet the demands of crisis management alone. The COVID-19 crisis, given its scope and magnitude, is challenging all levels of government to be reinforce a partnership based approach – with each other, with the private and third sectors, and with citizens. Doing so can lead to better implementation of response measures. If priorities are mutually identified and agreed upon, and initiatives are designed with sufficient information exchanged between the developers and implementers, then the likelihood of an effective support programme will be greater. While this certainly requires coordination, it also means a clear delineation, understanding and agreement of roles and responsibilities, and mutual respect, in the short, medium and long term.

Quickly mobilising necessary public, private and third sector actors can help governments respond to a crisis more effectively. Countries are applying this insight in various ways. Asian countries, for example Korea, are drawing on their experience with SARS. In Attica Greece, the regional government is working with the Medical Association of Athens to establish preventive measures against the coronavirus (European Committee of the Regions, 2020[152]). Crisis management plans used in Asia and in the Nordic countries, for example, can help rapidly mobilise diverse actors to meet crisis-induced challenges, such as those arising from this pandemic.

Clear, transparent, rapid, and accurate communication among all parties is fundamental on many levels. First, it helps government and emergency personnel respond in a targeted manner. New Zealand's COVID-19 Local Government Response Unit (New Zealand Government, 2020[153]) such activity. Second, it can promote knowledge sharing which then leads to the application of more effective solutions. Portugal's General Directorate of Local Authorities established a contact line to support information exchange and peer learning among municipalities. The Local Government Association in England provides communications templates to help City Councils share good practices and exchange information (Local Government Assocciation, 2020[154]). Third, and perhaps most importantly, it contributes to trust in the institutions and people leading the crisis management effort, which in turn can mitigate the crisis' negative impact. Effective crisis communications depends on the relationships across all levels of government and with the public and private sectors. It means communicating early, clearly, regularly and with a coherent message. Subnational governments need to know what they are facing and what is expected of them – their role must be clear. Citizens and businesses need to be reassured that the government has a strategy for each stage of the crisis Like subnational governments, they too need to know what is expected of them, and feel reassured that they are supported through a difficult period (Smith, N., 2020[155]). There is evidence that in the face of COVID-19 people expect government to lead in all areas relevant to the pandemic: containment, information dissemination, economic relief and support, helping people cope, and getting the country back to normal (Edelman, 2020[156]). The expectations of business, NGOs and media are consistently lower. There is also evidence that in some countries trust in government is increasing during this crisis. Where it is not, the gap is often filled by increased trust in local government (which tends to be higher even in non-emergency times). The same study indicates that while it can take many years to build trust, it can be rapidly lost (Edelman, 2020[156]). Thus, while this crisis may be generating record levels of trust, the challenge for government will be to maintain it. All levels of government may want to take stock, and evaluate trust-building actions adopted during the pandemic in order to consider the opportunities they offer, post-pandemic.

Federal versus unitary: are there significant differences in crisis management challenges and responses

Federal and unitary countries will have different multi-level governance structures and degrees of decentralisation. However, the COVID-19 crisis is highlighting some similarities in the challenges and responses. Each experience coordination challenges, each confront the need to quickly and efficiently collect and disseminate information and data, and each must communicate clearly, openly and regularly with other levels of government, as well as public and private stakeholders, including citizens. In both instances, also, ensuring central/subnational collaboration and building a trust-based partnership – including and perhaps especially during a crisis – can help each party carry out their tasks as efficiently as possible, and can contribute to building trust. There are, however, some challenges that seem a bit more acute in federal constructs – coordination across jurisdictions, for example – and others that are felt more strongly in unitary systems, such as ensuring sufficient room for subnational responses to address immediate and longer-term needs.

In federal systems, coordination across jurisdictions to ensure coherent responses to the crisis can be particularly thorny, and it is important that the federal government provide coherent guidelines or advice, while also encouraging cross-jurisdiction coordination efforts. To address this, mobilising existing, or creating new coordination platforms that bring together federal and/or state/regional/provincial/territory representatives are indispensable in order to develop strategies, identify solutions and agree on decisions with profound economic, social, and societal implications – as has been true of containment strategies for COVID-19 – and to coordinate their implementation.

In unitary countries, one of the most critical challenges is ensuring that regional and/or local governments have enough room to react to a crisis situation rapidly and in a manner that reflects the needs of their territory. Excessive administrative burden or regulatory red-tape can be constraints, and very rigid decision-making practices can be costly in terms of response time. Creating opportunities for subnational authorities to experiment, innovate and proactively adopt mitigation measures that are appropriate to their circumstances could generate the flexibility and adaptability necessary to manage a crisis. It can also support more effective responses by other jurisdictions, through knowledge exchange, while contributing to a more effective, overall national response.

Building more resilient regions to better withstand future shocks

COVID-19's asymmetric impact on individuals, communities, and regions gives a new urgency to a place-based approach to regional development and addressing territorial inequalities. It has also rekindled policy dialogue around resilient regions. This means first making ensuring that regions are able to absorb, recover (or bounce-back) from and/or adapt to the impact of economic, environmental, political and social shock or chronic pressure; and then that they are able to continue meeting the needs of citizens and businesses at least as well as – and ideally better – than before the crisis.

Post-COVID-19, building more resilient regions may require greater national and subnational-level investment in health care and other public services. Investment in broadband networks particularly to reach to underserved areas could help expand teleworking capacity which, in turn, may have a positive incidence on entrepreneurship, and the future of work. This could also contribute to strengthening urban-rural links. Greater resilience may also depend on an even stronger commitment to providing affordable and accessible quality basic services in all territories and for all people. The crisis is already prompting governments to use new policy levers, generate new ideas and embrace new possibilities for meeting the needs of citizens and businesses. This includes reinforcing or diversifying e-government services, e-education and e-learning, tele-medicine, etc. Using this moment as an opportunity to reinforce investment in the reorganisation of production methods that did not exist during previous crises (e.g. 3D-printing and production, the expansion of e-commence, digital technologies that support easier teleworking, etc.), could accelerate the reconstruction of productive processes, industries and regions, which were latent or growing only moderately. The COVID-19 crisis could introduce an exponential shift in the circular economy, the relocation of production, short circuits, logistical reorganisation, and the digitalisation of companies, for example (Assemblée des Communautés de France, 2020[157]). In addition, improved and expanded services and opportunities such as these can contribute to regional attractiveness in remote and rural areas, while also supporting the transition to a low carbon economy.

In the effort to respond effectively to COVID-19, it is also critical not to lose sight of longer term regional development objectives and other risks, such as climate risks. Building resilience can help. So can experimenting with new ways of working. For example, the city government of Barcelona has developed a multi-stakeholder strategic pact. Representatives from different political parties, NGOs, the private sector, academia, etc., have agreed to work with the government to develop and implement a strategy for addressing structural measures over the next two years. The city's budget will be pinned to the strategy that emphasises four needs arising from COVID-19: economic recovery, social solutions, rethinking the urban model, and enhancing the culture/education/knowledge sector (Barcelona City Council, 2020[158]). Significantly, the city has reaffirmed its commitment to its 2030 Agenda and considers it more relevant than ever – highlighting how medium and long term responses to COVID-19 can go hand-in-hand with existing strategic priorities for regional and local development and investment.

COVID-19 is challenging all types of government – national, regional and local, federal and unitary, decentralised and centralised – to urgently address territorial inequalities in an effort to boost resilience and be better prepared for future shocks, regardless of their nature. Rethinking regional development strategies to strike a better balance among productivity, inclusiveness and well-being is part of the equation. Another part is building on the opportunities arising from COVID-19, be they in digitalisation, innovation, or new ways of working with governance partners and citizens. Ultimately, it is calling on all levels of government to work together in a coordinated, coherent, and ideally collaborative, manner to design and delivery effective policy, for this crisis and beyond.

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Contact

Dorothée ALLAIN-DUPRÉ (✉ Dorothee.ALLAIN-DUPRE@oecd.org)

Media: Alexandra TAYLOR (✉ Alexandra.Taylor@oecd.org)